



Catalogue 2023

Heating, Plumbing and Ecoenergy – EN01



Catalogue

2023

European leader in providing comfort solutions for a sustainable indoor climate

We manufacture and distribute globally from **46** plants in **21** countries to customers from **100** countries.

Providing comfort is our promise to all our partners. It has to do with our dedication and ability to listen to and meet the needs of our employees, our customers and the end users.

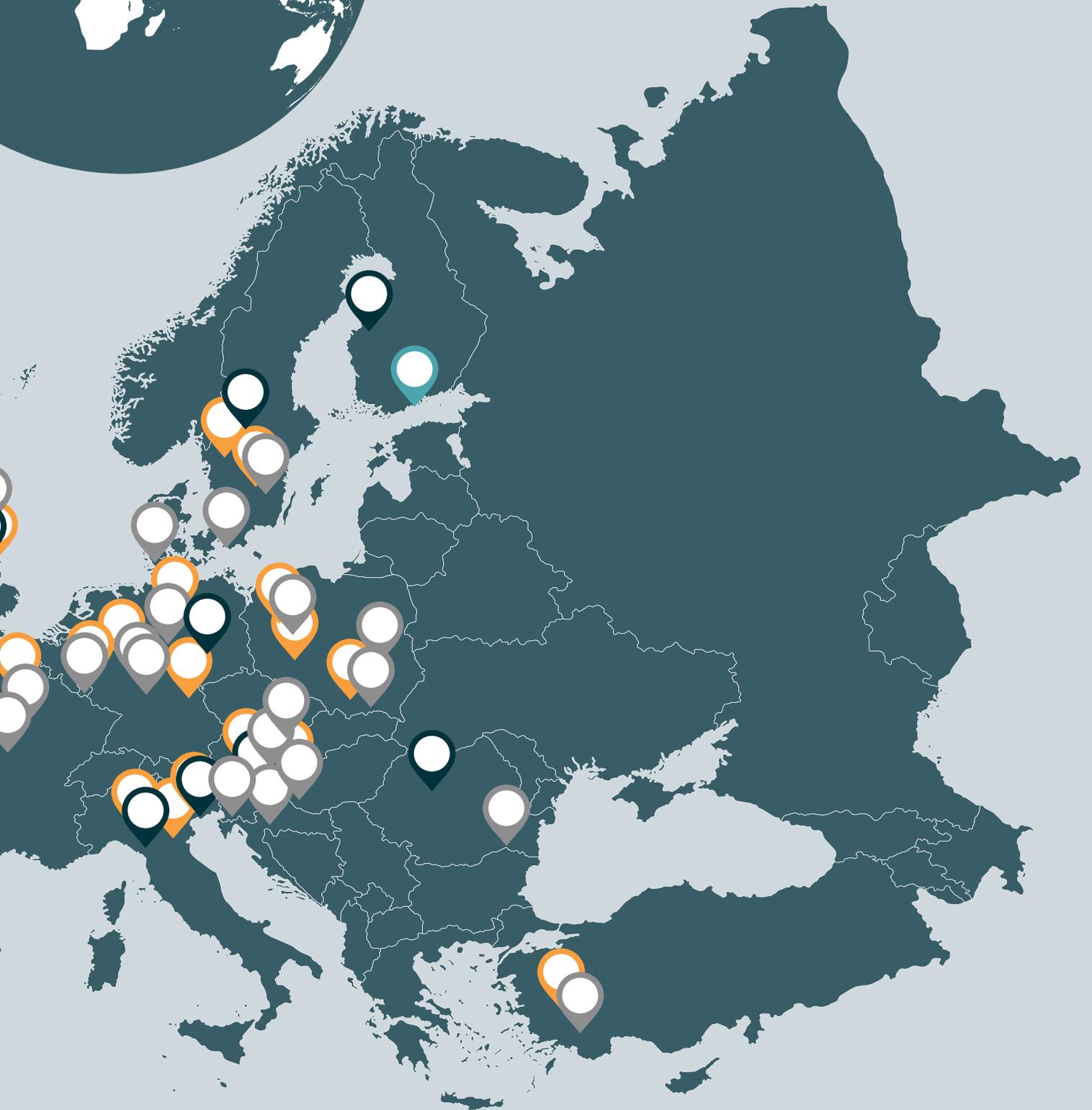
Purmo Group provides comfort by doing things in the smartest way, always in line with and ahead of its competitors.

We provide comfort:

- Allowing our people to grow, guaranteeing safety at all times;
- Designing stimulating products that are accessible to many;
- Always putting our customers at the centre;
- Keeping an eye on the future to ensure the sustainability of our business.

We are Purmo Group - Comfort delivered





Our promise

Comfort delivered

The indoors. The place where we spend so much time, where we learn, sleep, relax, share. This is where we live.

That is why a healthy and comfortable indoor climate is so important.

In a world facing unprecedented climate challenges, population growth and the need to make better use of resources, it is essential to guarantee sustainability.

Committed to innovation, our approach to system and solution allows us to provide di fornire un riscaldamento ottimale optimal heating at the highest levels of comfort and energy efficiency.

With our complete range and the knowledge of our experts, we can help you find exactly the right solution.

Therefore we work together today to create innovative solutions that will meet the indoor climate challenges of tomorrow.

We improve the indoor climate as we know it.

Let's create the great indoors.

Comfort

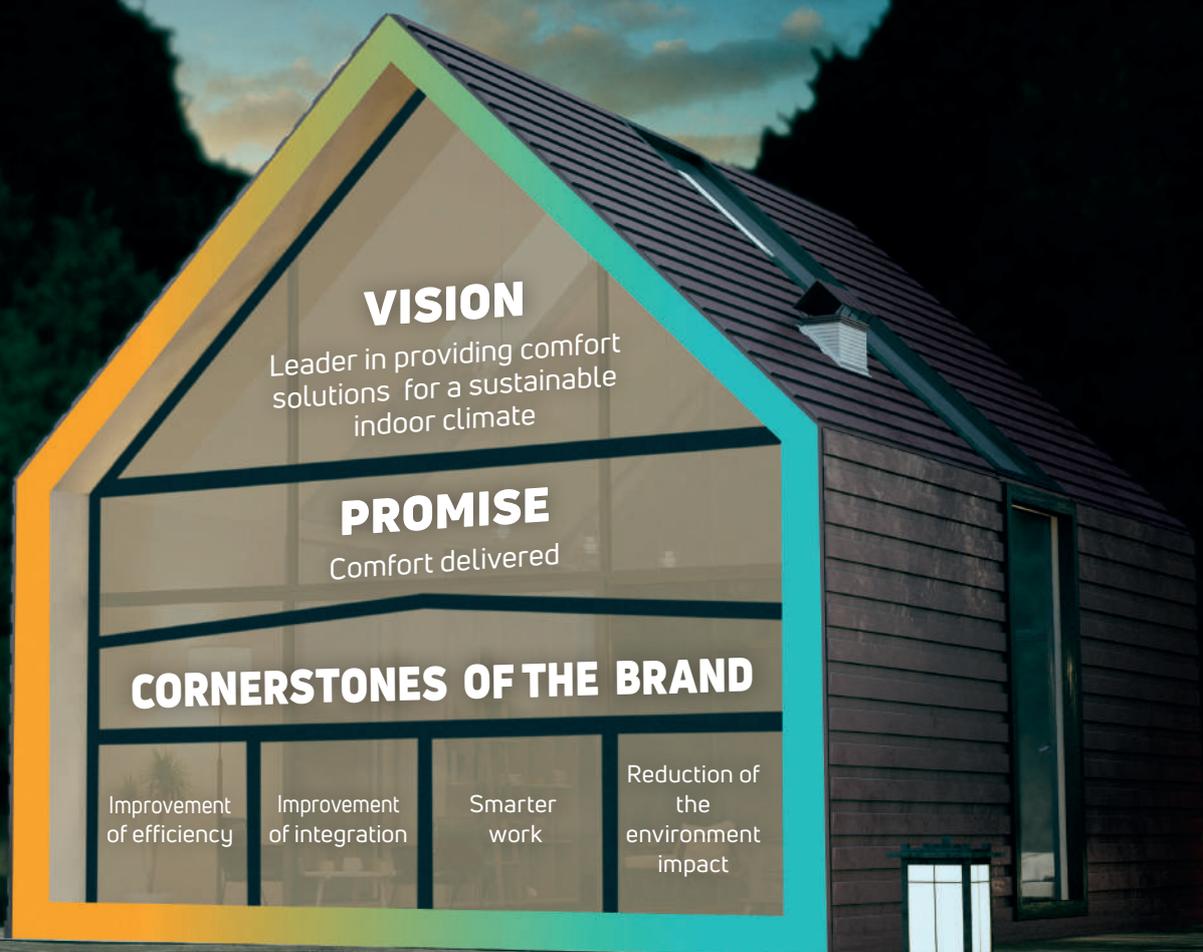


delivered by ...



Our home of commercial Brand

Our brand represents an overview of our vision and promise to our customers. The four cornerstones of the brand show our intention to achieve this goal and define the change we want to lead.



Improvement of efficiency

Optimisation of energy efficiency thanks to the precision of the system



Improvement of integration

We integrate solutions into innovative systems for better performance



Smarter work

We work together and we work in a smarter manner



Reduction of the environmental impact

We concentrate on the entire life cycle of the product and reduce its impact on our climate



Vanguard "Made in Italy"



The entire production of EMMETI Group takes place in Italy, on a total area of 54,000 square meters.

Plants in Brescia, an area of about 10,000 square meters, are made all the semi-finished products in brass and the hydraulic line, with the use of equipment and numerical control machines of the latest generation.

By factories located in the province of Pordenone, instead leaving all the products of the line heating.

In particular it is here that are installed production lines of the multilayer pipe, in a factory of 10,000 square meters, dedicated and newly built.

The cycle ends in storage warehouses, where it is taken care of even the phase of the logistics group



Products

Conformity certificates



Company Certification

COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =
= ISO 14001 =

1997: Certified Quality System according to ISO 9002:1994
2002: Certified Quality System according to ISO 9001:2000
2003: Environmental System according to ISO 14001:1996
2006: Environmental System according to ISO 14001:2004
2009: Certified Quality System according to ISO 9001:2008
2017: Environmental System according ISO 14001:2015
2017: Certified Quality System according to ISO 9001:2015

This standard requires continuous improvement in all executive processes, from product and system design right through to marketing and technical support.
For EMMETI, the principles expressed in this policy come before everything else.
For this reason research and development are of fundamental importance within the company.
The quality of EMMETI products is also recognised by various European standards institutes.

Products Conformity certificates



Europe/Germany



Europe/Italy



Europe/Italy



England UK



Germany



Poland



Europe/Italy



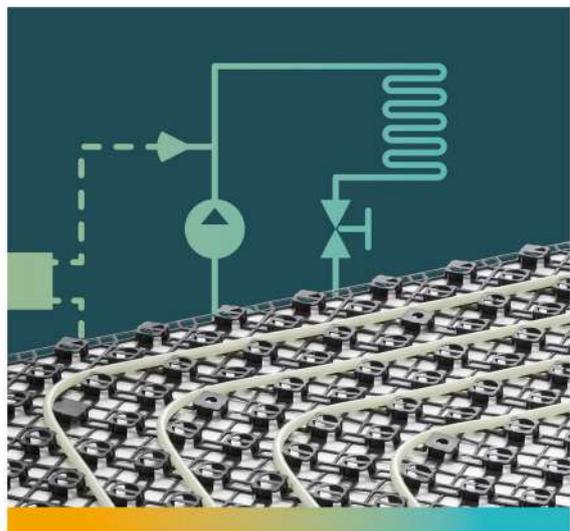
France



Europe/Italy

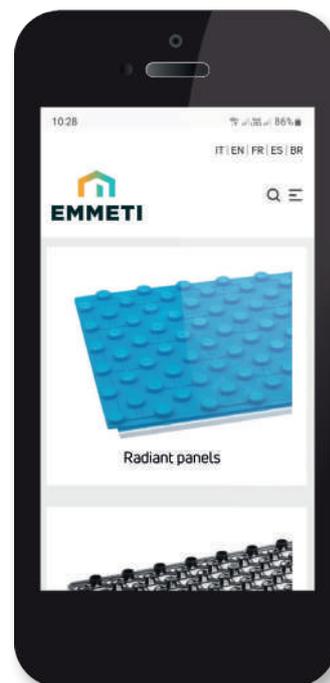
From **paper** to the **web...** with just a few **clicks!**

Emmeti presents the new 2023 interactive paper catalogue in line with the Purmo Group sustainability programme. A simple and complete catalog of contents that can be consulted directly from the new corporate website. Scan the QR code in the paper catalog... access the dedicated web page... select, download, share or view the digital document!



Emmeti Floor

and cooling systems



Radiant panels



Emmeti enters the world of **BIM!**

EMMETI, sensitive to the needs of thermotechnical studies and to the evolution of design methodologies, constantly develops BIM objects for its products and systems.

By using BIM "Building Information Modelling", the designer can avail him/herself of a series of advantages for his/her own professional development, such as:

- designing an integrated building-plant system in 3D in an accurate, fast and flexible manner;
- using elements that are accurately shaped like the real product;
- being able to offer the best system solutions in relation to architectural needs;
- predicting and preventing possible installation issues during the design phase (difficulty in installing electrical and plumbing systems, crossing walls and floors, etc.);
- creating a design accompanied by a significant amount of data, which will allow for specifications, metric calculations, etc. to be drawn up quickly;
- having available all the technical information required to plan an effective and efficient maintenance schedule.

Emmeti home

Solutions for indoor climate comfort



Sanitary distribution



Manifolds and motorized ball valves



Consumption measuring



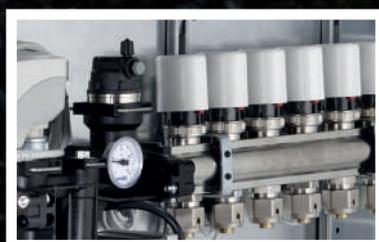
Floor/Wall/Ceiling cooling system



Control and regulation



Solar systems



Regulation groups



Gas systems

-
- 1** Gerpex, Alpert, Gaspex - Multilayer distribution systems for water and gas

 - 2** Floor heating and cooling systems

 - 3** Wall and ceiling heating and cooling systems

 - 4** Manifolds, boxes and Mixing groups

 - 5** Regulation and control

 - 6** Consumption measuring systems

 - 7** Connection and control of heating units

 - 8** Seals and screw fittings

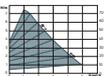
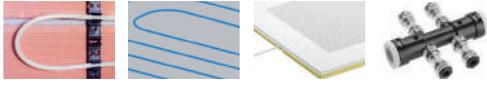
 - 9** Gas ball valves

 - 10** Tanks, solar panels and accessories for solar systems

 - 11** Heating unit components

 - 12** Spare parts and accessories

 - 13** Technical attachments
-





Gerpex, Alpert, Gaspex

Multilayer distribution systems for water and gas

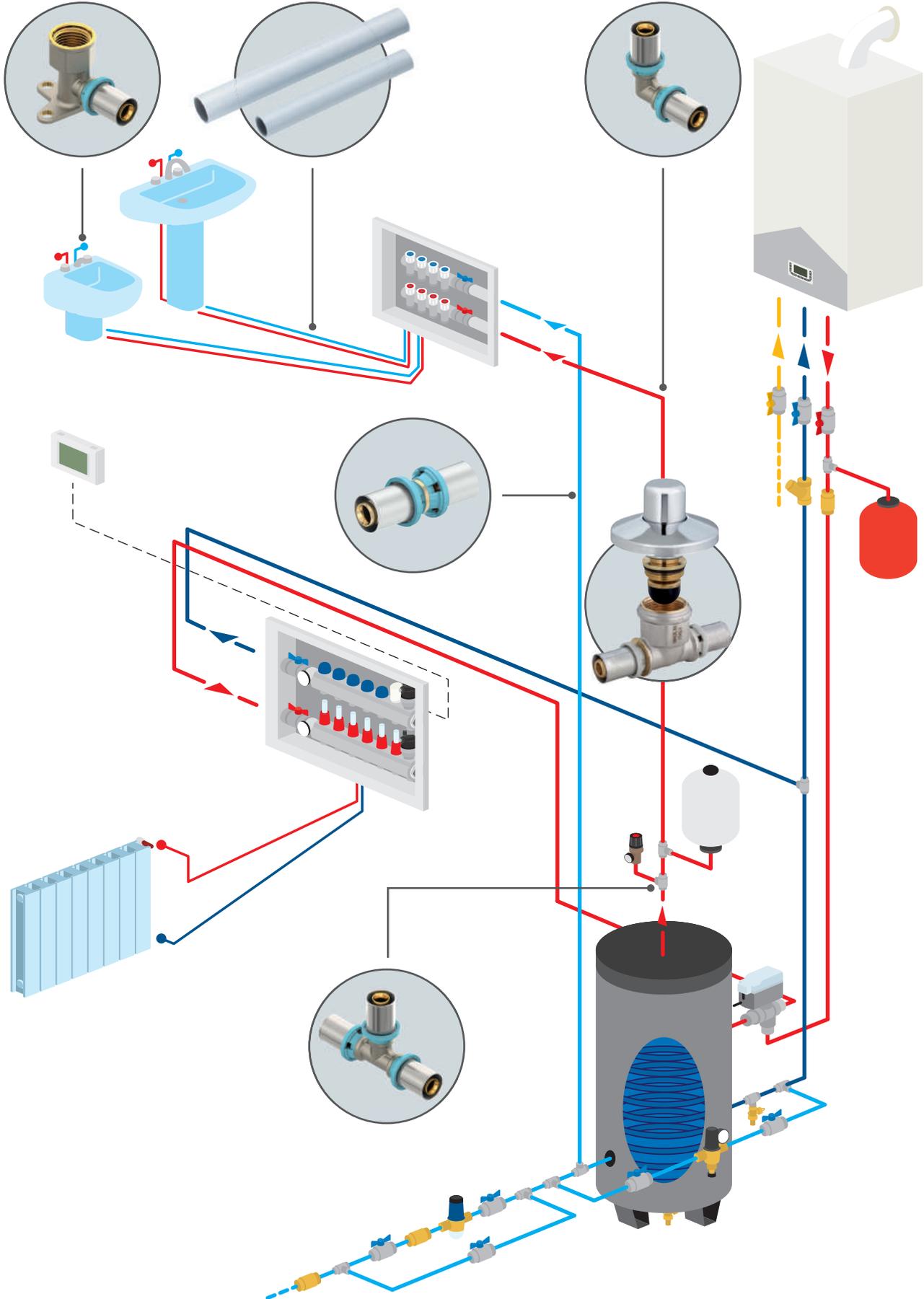


SCAN



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Example of installation



Multi-layer systems for water

Sanitary hot water distribution systems



Emmeti systems consisting of multilayer pipes and brass press fittings represent the modern and efficient solution for the construction of bathroom fixtures, heating and cooling systems.

Among the countless advantages, the following can be identified: high resistance to high temperatures and pressures, low thermal expansion (comparable to that of a copper pipe), low pressure drops, resistance to crushing and abrasion, oxygen impermeability (thanks to the presence of an aluminium layer inside the pipes), resistance to electrochemical corrosion (thanks to the presence of a special dielectric element inside the fittings) and, finally, its reduced weight and fast installation.

Basically, multilayer pipes combine the traditional processing and durability advantages of a plastic pipe, with the strength and dimensional stability to high temperatures and pressures that characterise a metal pipe

The Emmeti product range

The Emmeti product range is quite wide and diversified, and consists of 3 types of multilayer pipes and 2 types of brass press fittings.

Only the trade names of the products are mentioned here; for details on their construction characteristics, their differences and the complete range, refer to what is indicated on the following pages.

Multilayer pipes:

- pipes **Gerpex**;
- pipes **Gerpex RA**;
- pipes **Alpert**.

Brass press fittings:

- fittings **Gerpex**;
- fittings **Gerpex LBP**.

Emmeti multilayer water system certifications



Systems consisting of GERPEX PIPE and press fittings

- **kiwa**  : system certification (according to UNI EN ISO 21003) in combination with Gerpex fittings in sizes Dn 16, 20, 26, 32, 75.
- **WRAS**  : system certification in combination with Gerpex fittings size Dn 40, Dn 50, Dn 63, Dn 75.

Systems consisting of GERPEX RA PIPE and press fittings

- **kiwa**  : system certification (according to UNI EN ISO 21003) in combination with Gerpex and GerpexLBP fittings in sizes Dn 16, 20, 26, 32.
- **WRAS**  : system certification in combination with Gerpex and Gerpex LBP fittings in sizes Dn 16, 20, 26, 32.

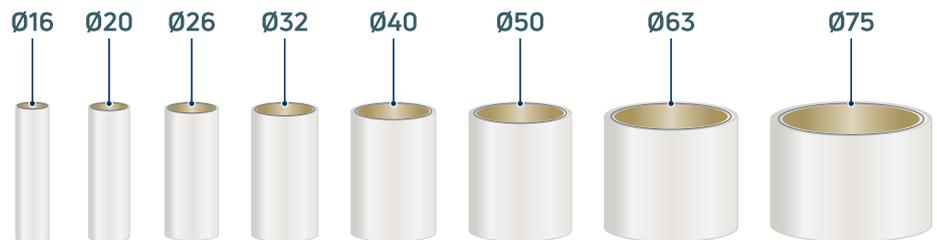
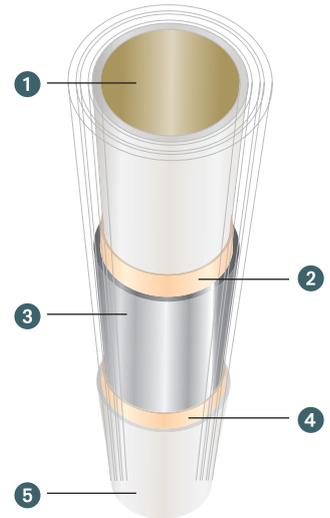
Systems consisting of ALPERT PIPE and press fittings

- **kiwa**  : system certification (according to UNI EN ISO 21003) in combination with Gerpex and Gerpex LBP fittings in sizes Dn 16, 20.
-  : system certification (according to UNI EN ISO 21003) in combination with Gerpex LBP fittings in sizes Dn 16, 20, 26, 32, and in combination with Gerpex fittings in sizes Dn 40, 50, 63.
-  : system certification (according to the Regulation W534) in combination with Gerpex and Gerpex LBP fittings in sizes Dn 16, 20.

All of the above systems comply with Italian Ministerial Decree 174/2004 (Suitability for contact with drinking water, for the distribution of water intended for human consumption).

Gerpex pipe

Multilayer composite pipe Gerpex



Construction

- 1 Cross-linked polyethylene inner pipe (PE-Xb).
- 2 Bonding layer connecting the inner pipe to the aluminium pipe.
- 3 Butt-welded aluminium pipe, thickness min 0,3 mm.
- 4 Bonding layer connecting the outer pipe to the aluminium pipe.
- 5 Cross-linked polyethylene outer pipe (PE-Xb).

Technical data Gerpex pipe

Classes of application (UNI ISO 21003 - see table "Classification of conditions of use" in the section "Technical attachments"): 2/10 bar, 5/10 bar

Maximum operating conditions for 50 years:

- Design temperature $T_D = 70\text{ °C}$

- Design pressure $p_D = 10\text{ bar}$

Maximum temperature for short periods: 95 °C

Coefficient of linear expansion: $0,026\text{ mm/m °C}$

Thermal conductivity: $0,45\text{ W/m °C}$

Minimum radius of bending: $5 \times \text{Ø pipe}$

Surface roughness of internal pipe: $7\text{ }\mu\text{m}$

Fire reaction class: E_L (EN 13501-1)

Technical data of insulating sheath

Material: Closed-cell expanded polyethylene, covered with a film in extruded LD-PE.

Thermal conductivity (at 40 °C): $\leq 0.040\text{ W/mK}$ (UNI EN ISO 8497).

Water vapor resistance factor μ : 5000

Fire reaction class: $B_L - s2, d0$ (EN 13501-1).

Thickness of covering: Compliant with attachment B- TAB 1 of Italian Presidential Decree 412/93 for pipes that run within structures that do not face onto the exterior, nor onto heated rooms.



See introductory page **Multilayer Water Systems** (page 23) for details.

Classification of service conditions (UNI EN ISO 21003-1) and regression curves: see section **Technical Attachments** page 442-443.

Multilayer composite pipe Gerpex



UNI EN ISO 21003

Gerpex bare pipe in coils

Dimension	Mts. pack	Code
16 x 2	100	28105000
20 x 2	200	28105002
20 x 2	100	28105004
26 x 3	50	28105006
32 x 3	50	28105008



UNI EN ISO 21003

Gerpex preinsulated pipe in coils

Dimension	Insulation thickness	Mts. pack	Code
16 x 2	6 mm	100	28105100
16 x 2	6 mm	50	28105116
20 x 2	6 mm	50	28105104
20 x 2	9 mm	50	28105106
26 x 3	9 mm	50	28102882
32 x 3	9 mm	25	28102576

16x2 (6 mm) - 20x2 (9 mm) - 26x3 (9 mm) - 32x3 (9 mm):

Type installations C (see Insulation, section Heating unit components)



UNI EN ISO 21003

Gerpex bare pipe in 4 mt bars

Dimension	Mts. pack	Code
16 x 2 (*)	96	28108000
20 x 2 (*)	96	28108004
26 x 3 (*)	40	28108006
32 x 3 (*)	28	28108008
40 x 3,5	20	28100096
50 x 4	20	28100098
63 x 4,5	12	28100100
75 x 5	12	28100070

(*) Packaged in rigid protective pipe



Galvanised steel isophonic pipe clamp collar

Dimension (mm)	Dimension (Inch)	Pcs. pack	Code
15-19	3/8"	10	01241500
21-23	1/2"	10	01241502
26-28	3/4"	10	01241504
32-35	1"	10	01241506
40-43	1 1/4"	5	01241508
48-56	1 1/2"	5	01241510
63-67	-	5	01241512
74-80	2 1/2"	5	01241514

20x1.5 mm metal plate, M8/10 nut

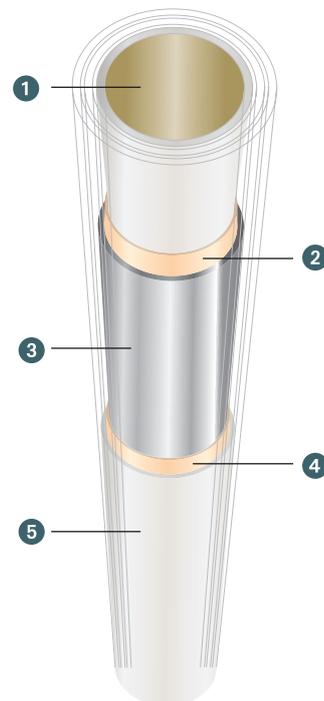
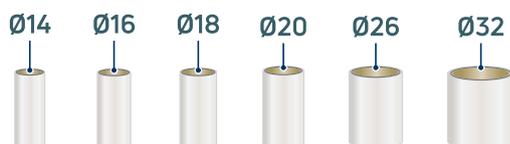


Joint screw with rawlplug

Dimension	Pcs. pack	Code
Ø 8 x 90	10	01241520
Ø 10 x 60 rawlplug		

Gerpex RA pipe

Multilayer composite pipe Gerpex RA



Construction

- 1 Cross-linked polyethylene inner pipe (PE-Xb).
- 2 Bonding layer connecting the inner pipe to the aluminium pipe.
- 3 Butt-welded aluminium pipe, thickness min 0,2 mm.
- 4 Bonding layer connecting the outer pipe to the aluminium pipe.
- 5 Cross-linked polyethylene outer pipe (PE-Xb).

Technical data Gerpex RA pipe

Classes of application (UNI ISO 21003 - see table "Classification of conditions of use" in the section "Technical attachments"): 2/10 bar, 5/10 bar

Maximum operating conditions for 50 years:

- Design temperature $T_D = 70^\circ\text{C}$
- Design pressure $p_D = 10$ bar

Maximum temperature for short periods: 95°C

Coefficient of linear expansion: $0,026$ mm/m $^\circ\text{C}$

Thermal conductivity: $0,45$ W/m $^\circ\text{C}$

Minimum radius of bending: $5 \times \varnothing$ pipe

Surface roughness of internal pipe: $7 \mu\text{m}$

Fire reaction class: E_L (EN 13501-1)

Technical data of insulating sheath

Material: Closed-cell expanded polyethylene, covered with a film in extruded LD-PE.

Thermal conductivity (at 40°C): $\leq 0,040$ W/mK (UNI EN ISO 8497).

Water vapor diffusion resistance factor μ : 5000

Fire reaction class: $B_L - s2, d0$ (EN 13501-1).

Thickness of covering (UNI 10376): Compliant with attachment B- TAB 1 of Italian Presidential Decree 412/93 for pipes that run within structures that do not face onto the exterior, nor onto heated rooms.



See introductory page **Multilayer Water Systems (page 23)** for details

Classification of service conditions (UNI EN ISO 21003-1) and regression curves: see section Technical Attachments page 442-443.

Multilayer composite pipe Gerpex RA



UNI EN ISO 21003

Gerpex RA bare pipe in coils

Dimension	Mts. pack	Code
14 x 2 (*)	100	28102314
16 x 2	100	28106000
16 x 2	200	28106010
16 x 2	500	28106050
18 x 2	100	28102318
20 x 2	100	28106004
20 x 2	200	28106002
26 x 3	50	28106006
32 x 3	50	28106008

(*) Items to be out of stock



UNI EN ISO 21003

Gerpex RA preinsulated pipe in coils

Dimension	Insulation thickness	Mts. pack	Code
14 x 2 (*)	6 mm	50	28102336
14 x 2 (*)	6 mm	100	28102334
16 x 2	6 mm	50	28106108
16 x 2	6 mm	100	28106100
18 x 2 (*)	6 mm	50	28102340
18 x 2	6 mm	100	28102338
20 x 2	6 mm	50	28106104
20 x 2	9 mm	50	28106106
26 x 3	9 mm	50	28102880
32 x 3	9 mm	25	28102872

16x2 (6 mm) - 20x2 (9 mm) - 26x3 (9 mm) - 32x3 (9 mm): **Type installations C**
(see Insulation, section Heating unit components)

(*) Items to be out of stock



UNI EN ISO 21003

Gerpex RA preinsulated pipe in coils

Dimension	Insulation thickness	Mts. pack	Code
16 x 2 red	6 mm	100	28106140
16 x 2 blue	6 mm	100	28106142
20 x 2 red	6 mm	50	28106144
20 x 2 blue	6 mm	50	28106146
26 x 3 red	9 mm	50	28102884
26 x 3 blue	9 mm	50	28102886
32 x 3 red	9 mm	50	28102892
32 x 3 blue	9 mm	50	28102894

16x2 (6 mm): **Type installations C** (see Insulation, section Heating unit components)



UNI EN ISO 21003

Gerpex RA preinsulated pipe in coils

Dimension	Insulation thickness	Mts. pack	Code
16 x 2	10 mm	50	28102540
20 x 2	13 mm	50	28102542
26 x 3	13 mm	25	28102870
32 x 3	13 mm	25	28102874

20x2 (13 mm) - 26x3 (13 mm) - 32x3 (13 mm): **Type installations C**

16x2 (10 mm): **Type installations B** (see Insulation, section Heating unit components)



UNI EN ISO 21003

Gerpex RA double (red + blue) preinsulated pipe

Dimension	Insulation thickness	Mts. pack	Code
16 x 2	6 mm	50	28102370
20 x 2	6 mm	50	28102372

Available on request: 40/50 days to order confirm.

Minimum lot: 10.000 meters

Multilayer composite pipe Gerpex RA



UNI EN ISO 21003

Gerpex RA bare pipe in 4 mt bars

Dimension	Mts. pack	Code
16 x 2	96	28108010
20 x 2	96	28108014
26 x 3	40	28108016
32 x 3	28	28108018

Packaged in rigid protective pipe



UNI EN ISO 21003

Gerpex RA pipe with red corrugated sheath in coils

Dimension	Mts. pack	Code
16 x 2	50	28102350
20 x 2	50	28102356
26 x 3	50	28102354

Available on request: 40/50 days to order confirm

Ø 16 = minimum lot 10.000 meters.

Ø 20 = minimum lot 5.000 meters.

Ø 26 = minimum lot 2.000 meters.



UNI EN ISO 21003

Gerpex RA pipe with blue corrugated sheath in coils

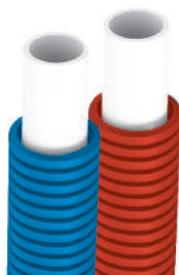
Dimension	Mts. pack	Code
16 x 2	50	28102360
20 x 2	50	28102366
26 x 3	50	28102364

Available on request: 40/50 days to order confirm

Ø 16 = minimum lot 10.000 meters.

Ø 20 = minimum lot 5.000 meters.

Ø 26 = minimum lot 2.000 meters.



UNI EN ISO 21003

Gerpex RA double (red + blue) with corrugated sheath

Dimension	Insulation thickness	Mts. pack	Code
16 x 2	6 mm	50	28102380
20 x 2	6 mm	50	28102382

Available on request: 40/50 days to order confirm.

Minimum lot: 10.000 meters



Galvanized steel isophonic pipe clamp collar

Dimension (mm)	Dimension (Inch)	Pcs. pack	Code
15-19	3/8"	10	01241500
21-23	1/2"	10	01241502
26-28	3/4"	10	01241504
32-35	1"	10	01241506
40-43	1"1/4	5	01241508
48-56	1"1/2	5	01241510
63-67	-	5	01241512
74-80	2"1/2	5	01241514

20x1.5 mm metal plate, M8/10 nut

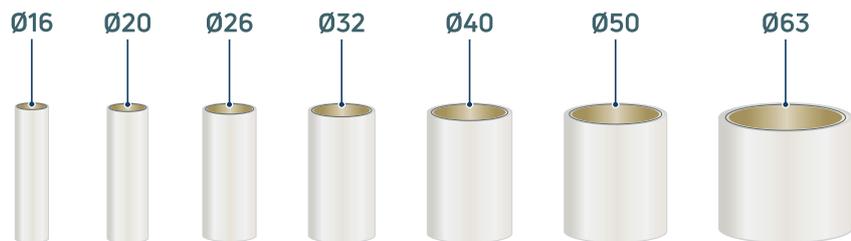
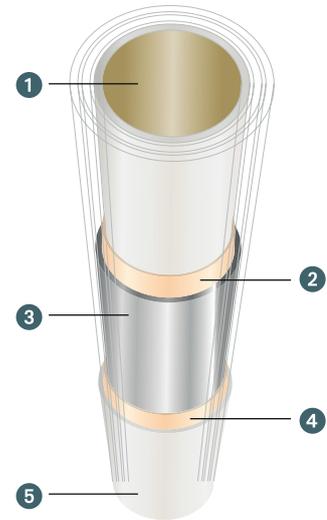


Joint screw with rawlplug

Dimension	Pcs. pack	Code
Ø 8 x 90	10	01241520

Ø 10 x 60 rawlplug

Multilayer composite pipe



Construction

- 1 Inner pipe PE-RT
- 2 Bonding layer connecting the inner pipe to the aluminium pipe
- 3 Horizontal-roller-position welding
- 4 Bonding layer connecting the outer pipe to the aluminium pipe
- 5 External pipe PE-RT

Technical data of pipe

Classes of application (UNI EN ISO 21003 - see section Technical Attachments "Classification of service conditions"): 2/10 bar, 5/10 bar
 Maximum operating conditions for 50 years:
 - project temperature $T_D = 70^\circ\text{C}$
 - project pressure $p_D = 10$ bar
 Maximum temperature for short periods: 95°C
 Coefficient of linear expansion: $0,026$ mm/m $^\circ\text{C}$
 Thermal conductivity: $0,45$ W/mK
 Minimum radius of bending: $5 \times \varnothing$ pipe
 Surface roughness of the inner tube: $7 \mu\text{m}$
 Fire reaction class: E_L (EN13501-1).

Technical data of insulating sheath

Material: Closed-cell expanded polyethylene, covered with a film in extruded LD-PE.
 Thermal conductivity (at 40°C): $\leq 0,040$ W/mK (UNI EN ISO 8497).
 Fire reaction class: $B_L - s2, d0$ (EN 13501-1).
 Water vapor diffusion resistance factor μ : 5000
 Thickness of covering (UNI 10376): Compliant with attachment B-TAB 1 of Italian Presidential Decree 412/93 for pipes that run within structures that do not face onto the exterior, nor onto heated rooms.



See introductory page **Multilayer Water Systems** (page 23) for details.

Classification of service conditions (UNI EN ISO 21003) and regression curves: see section Technical Attachments page 456.

Multilayer composite pipe



UNI EN ISO 21003

Alpert nude pipe in coils

Dimension	Mts. pack	Code
16 x 2	100	28107002
16 x 2	200	28107000
16 x 2	500	28107004
20 x 2	100	28107016
20 x 2	240	28107018
26 x 3 (*)	50 mt	28142006
32 x 3 (*)	50 mt	28142008
NEW 26 x 3	50 mt	28107006
NEW 32 x 3	50 mt	28107008

(*) Items to be out of stock



UNI EN ISO 21003

Alpert preinsulated pipe in coils

Dimension	Insulation thickness	Mts. pack	Code
16 x 2	6 mm	50	28107102
16 x 2	6 mm	100	28107100
20 x 2	6 mm	50	28107104
20 x 2	9 mm	50	28107106
26 x 3 (*)	9 mm	50 mt	28142026
32 x 3 (*)	9 mm	25 mt	28142028
NEW 26 x 3	9 mm	50 mt	28107208
NEW 32 x 3	9 mm	25 mt	28107210

16x2 (6 mm) - 20x2 (9 mm) - 26x3 (9 mm) - 32x3 (9 mm): **Type installations C**

(see Insulation, section Heating unit components)

(*) Items to be out of stock



UNI EN ISO 21003

Alpert nude bare pipe in 4 mt bars

Dimension	Mts. pack	Code
26 x 3 (*)	36 mt	28142016
32 x 3 (*)	28 mt	28142018
NEW 26 x 3	40 mt	28108036
NEW 32 x 3	28 mt	28108038
NEW 40 x 3,5	16 mt	28142020
50 x 4	20 mt	28142032
63 x 4,5	12 mt	28142034

Packed in a protective cardboard tube

(*) Items to be out of stock

Press fittings Gerpex LBP

Press fittings for water Gerpex LBP



Construction

- 1 Body in brass CW617N - DW (UNI EN 1264 and 12165);
Threads: UNI EN ISO 228-1, UNI EN 10226.
- 2 Nylon sleeve ring, dielectric
- 3 AISI 304 stainless steel sleeve
- 4 EPDM dual o-ring

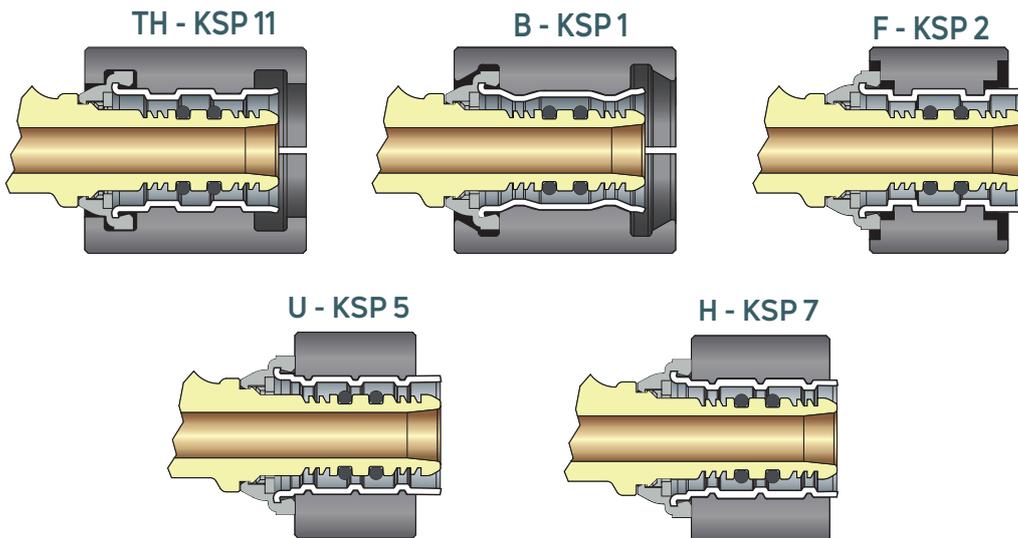
GERPEX LBP, the new press fitting for multilayer pipe by Emmeti, has been developed to guarantee a water loss, in case of non-pressing, and a quick and safe pipe-fitting junction, when pressed correctly with the specific equipment.

The special fitting profile and the use of the double o-ring guarantees a perfect and lasting hydraulic and mechanical seal, and compatibility with 5 different pressing profiles (TH, B, U, H, F). The LBP function (**Leak Before Pressed**) allows the operator to easily identify any unpressed fittings during the system leak test, thus avoiding possible damage.



See introductory page Multi-Layer Water Systems (page 23) for details.

Compatible pressing profiles



	16	20	26	32
TH	✓	✓	✓	✓
B	✓	✓	✓	✓
U	✓	✓	✓	✓
H	✓	✓	✓	✓
F	✓	✓	✓	✓

Press fittings for water Gerpex LBP



Female connecting elbow LBP

Dimension	Pcs. pack	Code
16 x 1/2"	10	28180088
20 x 1/2"	10	28180090
20 x 3/4"	10	28180092
26 x 3/4"	5	28180094
32 x 1"	5	28180096

Threads: Rp (UNI EN 10226-1)



Female elbow LBP with flange

Dimension	H mm	H mm	Pcs. pack	Code
16 x 1/2"	48		5	28180180
20 x 1/2"	48		5	28180182
20 x 3/4"	56		5	28180184
26 x 3/4"	56		5	28180186

Threads: Rp (UNI EN 10226-1)



Female elbow LBP H 52 with flange

Dimension	H mm	Pcs. pack	Code
16 x 1/2"	52	5	28181204
20 x 1/2"	52	5	28181206

Threads: Rp (UNI EN 10226-1)



Soundproofing shell for LBP female elbow H 52 mm with flange, including screw kit

Dimension	Pcs. pack	Code
Single model for H 52	1	28181230



Long Female elbow LBP with flange

Dimension	H mm	H mm	Pcs. pack	Code
16 x 1/2"	68		5	28180188
20 x 1/2"	68		5	28180190

Threads: Rp (UNI EN 10226-1)

Press fittings for water Gerpex LBP



Long Female elbow LBP H 78 mm with flange

Dimension	H mm	Pcs. pack	Code
16 x 1/2"	78	5	28181208
20 x 1/2"	78	5	28181210

Thread: Rp (UNI EN 10226-1)



Soundproofing shell for LBP female elbow H 78 mm with flange, including screw kit

Dimension	Pcs. pack	Code
Single model for H 78	1	28181232



Male connecting elbow LBP

Dimension	Pcs. pack	Code
16 x 1/2"	10	28180078
20 x 1/2"	10	28180080
20 x 3/4"	10	28180082
26 x 3/4"	5	28180084
26 x 1"	5	28180085
32 x 1"	5	28180086

Threads: Rp (UNI EN 10226-1)



Intermediate elbow LBP

Dimension	Pcs. pack	Code
16 x 16	10	28181070
20 x 20	10	28181072
26 x 26	5	28181074
32 x 32	5	28181076



Elbow LBP with female swivel nut, flat seal

Dimension	Pcs. pack	Code
16 x 1/2"	1	28180098
20 x 3/4"	1	28180100

Threads: G (UNI EN ISO 228-1)

Press fittings for water Gerpex LBP



Female double elbow LBP H 52 mm with flange

Dimension	H mm	Pcs. pack	Code
16 x 1/2"	52	1	28180210
20 x 1/2"	52	1	28180212

Threads: Rp (UNI EN 10226-1)



Soundproofing shell for LBP double female elbow H 52 mm with flange, including screw kit

Dimension	Pcs. pack	Code
Double model for H 52	1	28181240



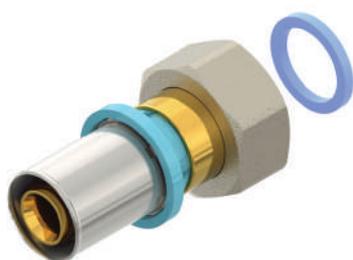
Straight LBP with female swivel nut, o-ring seal

Dimension	Pcs. pack	Code
Ø 16 - 24x19 O-R	10	28180062
Ø 20 - 24x19 O-R	10	28180064

Ø 16 - Eurocone 3/4" O-R 10 28180066

Ø 20 - Eurocone 3/4" O-R 10 28180068

Threads 3/4": G (UNI EN ISO 228-1)



Straight LBP with female swivel nut, flat seal

Dimension	Pcs. pack	Code
16 x 3/8"	1	28180046
16 x 1/2"	1	28180048
16 x 3/4"	1	28180050
20 x 1/2"	1	28180052
20 x 3/4"	1	28180054
26 x 3/4"	1	28180056
26 x 1"	1	28180058
32 x 1"	1	28180060

Threads: G (UNI EN ISO 228-1)



Intermediate Tee joint LBP

Dimension	Pcs. pack	Code
16 x 16 x 16	5	28181102
20 x 20 x 20	5	28181104
26 x 26 x 26	5	28181106
32 x 32 x 32	5	28181108

Press fittings for water Gerpex LBP



Intermediate Tee joint LBP with female branch

Dimension	Pcs. pack	Code
16 x 1/2" x 16	5	28180166
20 x 1/2" x 20	5	28180168
16 x 3/4" x 16	5	28180170
20 x 3/4" x 20	5	28180172
26 x 1/2" x 26	5	28180173
26 x 3/4" x 26	5	28180174
NEW 32 x 1/2" x 32	5	28180244
32 x 3/4" x 32	5	28180176
32 x 1" x 32	5	28180178

Threads: Rp (UNI EN 10226-1)



Intermediate Tee joint LBP with Male branch

Dimension	Pcs. pack	Code
16 x 1/2" x 16	5	28180158
20 x 1/2" x 20	5	28180160
20 x 3/4" x 20	5	28180162
26 x 3/4" x 26	5	28180164

Threads: R (UNI EN 10226-1)



Intermediate reducing Tee joint LBP

Dimension	Pcs. pack	Code
16 x 20 x 16	5	28181110
20 x 16 x 16	5	28181112
20 x 16 x 20	5	28181114
20 x 20 x 16	5	28181116
20 x 26 x 20	5	28181118
20 x 32 x 20	5	28181120
26 x 16 x 20	5	28181122
26 x 16 x 26	5	28181124
26 x 20 x 16	5	28181126
26 x 20 x 20	5	28181128
26 x 20 x 26	5	28181130
26 x 26 x 16	5	28181132
26 x 26 x 20	5	28181134
26 x 32 x 26	5	28181136
32 x 16 x 32	5	28181138
32 x 20 x 20	5	28181140
32 x 20 x 26	5	28181142
32 x 32 x 16	5	28181144
32 x 32 x 20	5	28181146
32 x 32 x 26	5	28181148
32 x 20 x 32	5	28181150
32 x 26 x 20	5	28181152
32 x 26 x 26	5	28181154
32 x 26 x 32	5	28181156



Straight intermediate union joint LBP

Dimension	Pcs. pack	Code
16 x 16	10	28181000
20 x 20	10	28181002
26 x 26	5	28181004
32 x 32	5	28181006

Press fittings for water Gerpex LBP



Straight intermediate reducing union joint LBP

Dimension	Pcs. pack	Code
20 x 16	10	28181008
26 x 16	5	28181010
26 x 20	5	28181012
32 x 16	5	28181014
32 x 20	5	28181016
32 x 26	5	28181018



Straight Male union joint LBP

Dimension	Pcs. pack	Code
16 x 1/2"	10	28180020
20 x 1/2"	10	28180022
20 x 3/4"	10	28180024
26 x 3/4"	5	28180026
26 x 1"	5	28180028
32 x 1"	5	28180030
32 x 1"1/4	1	28180032

Threads: R (UNI EN 10226-1)



Straight Male union joint LBP with o-ring

Dimension	Pcs. pack	Code
16 x 1/2"	10	28180214
20 x 1/2"	10	28180216

Threads: G (UNI EN ISO 228-1)



Plug LBP

Dimension	Pcs. pack	Code
16 x 2	10	28180218
20 x 2	10	28180220
26 x 3	5	28180222
32 x 3	5	28180224



Adapter LBP multi-layer / copper

Dimension	Pcs. pack	Code
16 x 15 mm	1	28180226
20 x 18 mm	1	28180228
20 x 22 mm	1	28180230
26 x 22 mm	1	28180232
32 x 28 mm	1	28180234

Compatibility with copper and bronze press fittings with V profile (KSP4)



Straight Female union joint LBP

Dimension	Pcs. pack	Code
16 x 1/2"	10	28180034
20 x 1/2"	10	28180036
20 x 3/4"	10	28180038
26 x 3/4"	5	28180040
26 x 1"	5	28180042
32 x 1"	5	28180044

Threads: Rp (UNI EN 10226-1)

Press fittings for water Gerpex LBP



Right-angle elbow with copper pipe, chromed

Dimension	Pcs. pack	Code
16 x DN 15 L 165	1	28181200

Not suitable for sanitary installations



Built-in galvanized bracket for flanged elbows

Dimension	Pcs. pack	Code
10 brackets kit	1	28104062

Takeoffs 80-100-153 mm

Takeoffs 153 mm for fixing flanged elbow in 4 point.



Built-in galvanized bracket for flanged elbows

Dimension	Pcs. pack	Code
	2	28101530

Takeoffs 80-100-153 mm



Galvanised bracket for flanged elbow

Dimension	Pcs. pack	Code
	1	28101531

Takeoff 153 mm



Offset female Tee joint LBP

Dimension	Pcs. pack	Code
16 x 1/2" x 16	5	28180192
20 x 1/2" x 20	5	28180194

Threads: Rp (UNI EN 10226-1)

Press fittings for water Gerpex LBP



Right terminal LBP

Dimension	Pcs. pack	Code
16 x 1/2"	5	28180196
20 x 1/2"	5	28180198

Threads: Rp (UNI EN 10226-1)



Left terminal LBP

Dimension	Pcs. pack	Code
16 x 1/2"	5	28180200
20 x 1/2"	5	28180202

Threads: Rp (UNI EN 10226-1)



Bracket for axially offset Tee

Dimension	Pcs. pack	Code
	2	28101532



Plug for circuit test with o-ring

Dimension	Pcs. pack	Code
1/2" blue	50	28090003
1/2" red	50	28090004
3/4" blue	50	28090006
3/4" red	50	28090008

Threads: G (UNI EN ISO 228-1)



Leakage test plug for multi-layer pipe

Dimension	Pcs. pack	Code
16 x 2	1	28101846
20 x 2	1	28101848

Complete with 1/2" F fitting for release valve (provided standard)

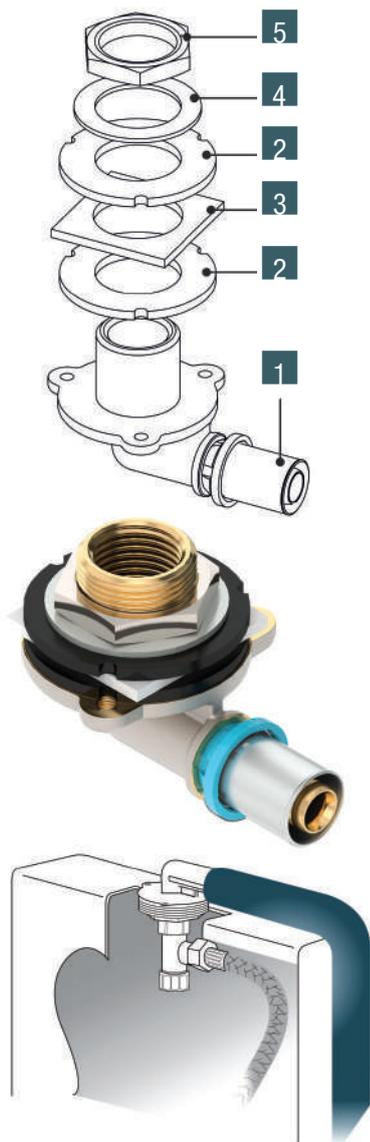


Built-in box for flanged elbows

Dimension	Pcs. pack	Code
	1	13010010

For installation of flanged elbows

Press fittings for water Gerpex LBP



Elbow fitting for flush-mounted toilet flush boxes

Operating temperature: 0 °C ÷ 95 °C

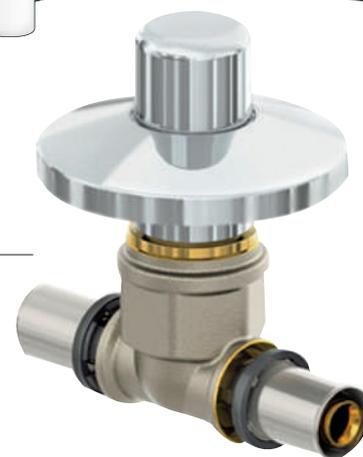
Operating pressure: 10 bar

Composition

- A** Male square fitting
- 2** NBR Seal
- 3** Polypropylene square plate (PP)
- 4** Galvanised steel washer (Fe P13 EU111)
- 5** Brass hex locknut Dimension 32 (EN 12164 CW617N)

Dimension	Pcs. pack	Code
16 x 1/2"	1	28181202

Valve for built-in application LBP



Construction

Body made of brass CW617N DW (UNI EN 12165)
Group screw brass CW617N - DW (UNI EN 12164)
Rosette-gaskets-flywheel, brushed and chrome-plated
Gasket and seal in EPDM

Technical data

Maximum operating temperature: 95 °C
Maximum operating pressure at 95 °C: 6 bar

Valve for built-in application Gerpex LBP



Body LBP

Dimension	Pcs. pack	Code
16 x 3/4"	1	28180204
20 x 3/4"	1	28180206
26 x 3/4"	1	28180208

Threads: Rp (UNI EN 10226-1)



Screw group 3/4" for built-in valve body

NEW

Dimension	Pcs. pack	Code
3/4"	10	28100988

Threads: RGp (UNI EN ISO 228-1)
Complete with screw protection cap.



Cap shutter 3/4" with handle

Dimension	Pcs. pack	Code
3/4"	10	28100982

Threads: G (UNI EN ISO 228-1)



Extended screw (+20 mm) brass 3/4"

NEW

Dimension	Pcs. pack	Code
3/4" for built-in valve body (*)	10	90008172
3/4" for cap shutter with handle	10	90008180

Threads: G (UNI EN ISO 228-1)
(*) Complete with screw protection cap.



Spherical asher seal

Dimension	Pcs. pack	Code
	10	90008011

Press fittings Gerpex for water

Press fittings for water Gerpex



Construction

- 1 Body in brass CW617N - DW (UNI EN 12164 and v12165).
Threads: UNI EN ISO 228-1, UNI EN 10226.
- 2 Nylon sleeve ring, dielectric
- 3 AISI 304 stainless steel sleeve
- 4 EPDM dual o-ring



See introductory page Multi-Layer Water Systems (page 23) for details



Female connecting elbow

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	10	28101330
18 x 1/2"	B (KSP1)	10	28101332
20 x 1/2"	B (KSP1) / TH (KSP11)	10	28101334
20 x 3/4"	B (KSP1) / TH (KSP11)	10	28101335
26 x 3/4"	B (KSP1) / TH (KSP11)	5	28101336
32 x 1"	B (KSP1) / TH (KSP11)	5	28101484

Threads: Rp (UNI EN 10226-1)



Female elbow with flange

Dimension	Profile	H mm	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	48	5	28101300
16 x 1/2"	B (KSP1) / TH (KSP11)	68	5	28116202
18 x 1/2"	B (KSP1)	52,5	10	28101302
20 x 1/2"	B (KSP1) / TH (KSP11)	48	5	28101304
20 x 1/2"	B (KSP1) / TH (KSP11)	68	5	28116206
20 x 3/4"	B (KSP1) / TH (KSP11)	56	5	28101696
26 x 3/4"	B (KSP1) / TH (KSP11)	56	5	28101698

Threads: Rp (UNI EN 10226-1)



Male connecting elbow

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	10	28101342
18 x 1/2"	B (KSP1)	10	28101344
20 x 1/2"	B (KSP1) / TH (KSP11)	10	28101346
20 x 3/4"	B (KSP1) / TH (KSP11)	10	28101347
26 x 3/4"	B (KSP1) / TH (KSP11)	5	28101348
32 x 1"	B (KSP1) / TH (KSP11)	5	28101482
40 x 1"1/4	TH (KSP11)	1	28115150
50 x 1"1/2	TH (KSP11)	1	28115160
63 x 2"	TH (KSP11)	1	28115170

Threads: R (UNI EN 10226-1)

Press fittings Gerpex for water



Intermediate elbow

Dimension	Profile	Pcs. pack	Code
16 x 16	B (KSP1) / TH (KSP11)	10	28101952
18 x 18	B (KSP1)	10	28101354
20 x 20	B (KSP1) / TH (KSP11)	10	28101956
26 x 26	B (KSP1) / TH (KSP11)	5	28101958
32 x 32	B (KSP1) / TH (KSP11)	5	28101980
40 x 40	TH (KSP11)	1	28115200
50 x 50	TH (KSP11)	1	28115210
63 x 63	TH (KSP11)	1	28115220
75 x 75	TH (KSP11) (1)	1	28115540

(1) 75x5 derivation also compatible with F profile (KSP2)



Intermediate elbow 45°

Dimension	Profile	Pcs. pack	Code
40 x 40	TH (KSP11)	1	28101720
50 x 50	TH (KSP11)	1	28101722
63 x 63	TH (KSP11)	1	28101724
75 x 75	TH (KSP11) (1)	1	28115542

(1) 75x5 derivation also compatible with F profile (KSP2)



Elbow with female swivel nut, flat seal

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	1	28102630
20 x 3/4"	B (KSP1) / TH (KSP11)	1	28102632

Threads: G (UNI EN ISO 228-1)



Straight with female swivel nut, O-ring seal

Dimension	Profile	Pcs. pack	Code
Ø 16 - 24x19	B (KSP1) / TH (KSP11)	10	28101650
Ø 20 - 24x19	B (KSP1) / TH (KSP11)	10	28101654
Ø 16 - Eurocone 3/4"	B (KSP1) / TH (KSP11)	10	28101656
Ø 20 - Eurocone 3/4"	B (KSP1) / TH (KSP11)	10	28101658

Threads 3/4": G (UNI EN ISO 228-1)



Straight with female swivel nut, flat seal

Dimension	Profile	Pcs. pack	Code
16 x 3/8"	B (KSP1) / TH (KSP11)	1	28101651
16 x 1/2"	B (KSP1) / TH (KSP11)	1	28102600
16 x 3/4"	B (KSP1) / TH (KSP11)	1	28102598
20 x 1/2"	B (KSP1) / TH (KSP11)	1	28102608
20 x 3/4"	B (KSP1) / TH (KSP11)	1	28102606
26 x 3/4"	B (KSP1) / TH (KSP11)	1	28102612
26 x 1"	B (KSP1) / TH (KSP11)	1	28102610
32 x 1"	B (KSP1) / TH (KSP11)	1	28102614
32 x 1"1/4	B (KSP1) / TH (KSP11)	1	28102620
40 x 1"1/2	TH (KSP11)	1	28102622
50 x 2"	TH (KSP11)	1	28102624
63 x 2"1/2	TH (KSP11)	1	28102626

Threads: G (UNI EN ISO 228-1)

Press fittings Gerpex for water



Intermediate Tee joint

Dimension	Profile	Pcs. pack	Code
16 x 16 x 16	B (KSP1) / TH (KSP11)	5	28101962
18 x 18 x 18	B (KSP1) / TH (KSP11)	5	28101364
20 x 20 x 20	B (KSP1) / TH (KSP11)	5	28101966
26 x 26 x 26	B (KSP1) / TH (KSP11)	5	28101968
32 x 32 x 32	B (KSP1) / TH (KSP11)	5	28111490
40 x 40 x 40	TH (KSP11)	1	28115250
50 x 50 x 50	TH (KSP11)	1	28115260
63 x 63 x 63	TH (KSP11)	1	28115270
75 x 75 x 75	TH (KSP11) (1)	1	28115544

(1) 75x5 derivation also compatible with F profile (KSP2)



Intermediate Tee joint with female branch

Dimension	Profile	Pcs. pack	Code
16 x 1/2" x 16	B (KSP1) / TH (KSP11)	5	28101400
16 x 3/4" x 16	B (KSP1) / TH (KSP11)	5	28101401
20 x 1/2" x 20	B (KSP1) / TH (KSP11)	5	28101404
20 x 3/4" x 20	B (KSP1) / TH (KSP11)	5	28101405
26 x 1/2" x 20	B (KSP1) / TH (KSP11)	5	28101700
26 x 1/2" x 26	B (KSP1) / TH (KSP11)	5	28101702
26 x 3/4" x 26	B (KSP1) / TH (KSP11)	5	28101408
32 x 3/4" x 32	B (KSP1) / TH (KSP11)	5	28101494
32 x 1" x 32	B (KSP1) / TH (KSP11)	5	28101496
40 x 3/4" x 40	TH (KSP11)	1	28115350
40 x 1" x 40	TH (KSP11)	1	28115360
40 x 1 1/4" x 40	TH (KSP11)	1	28115530
50 x 3/4" x 50	TH (KSP11)	1	28115370
50 x 1" x 50	TH (KSP11)	1	28115380
50 x 1 1/4" x 50	TH (KSP11)	1	28115532
63 x 1" x 63	TH (KSP11)	1	28115390
63 x 1 1/4" x 63	TH (KSP11)	1	28115400
75 x 1" x 75	TH (KSP11) (1)	1	28115550

(1) 75x5 derivation also compatible with F profile (KSP2)
Threads: Rp (UNI EN 10226-1)



Intermediate Tee joint with male branch

Dimension	Profile	Pcs. pack	Code
16 x 1/2" x 16	B (KSP1) / TH (KSP11)	5	28101410
20 x 1/2" x 20	B (KSP1) / TH (KSP11)	5	28101414
20 x 3/4" x 20	B (KSP1) / TH (KSP11)	5	28101415
26 x 3/4" x 26	B (KSP1) / TH (KSP11)	5	28101418

Threads: R (UNI EN 10226-1)

Press fittings Gerpex for water



Intermediate reducing Tee joint

Dimension	Profile	Pcs. pack	Code
16 x 20 x 16	B (KSP1) / TH (KSP11)	5	28101996
18 x 26 x 18 (*)	B (KSP1) (1)	5	28101369
20 x 16 x 16	B (KSP1) / TH (KSP11)	5	28101982
20 x 16 x 20	B (KSP1) / TH (KSP11)	5	28101972
20 x 20 x 16	B (KSP1) / TH (KSP11)	5	28101985
20 x 26 x 20	B (KSP1) / TH (KSP11)	5	28101998
20 x 32 x 20	B (KSP1) / TH (KSP11)	5	28111503
26 x 16 x 20	B (KSP1) / TH (KSP11)	5	28101986
26 x 16 x 26	B (KSP1) / TH (KSP11)	5	28101976
26 x 20 x 16	B (KSP1) / TH (KSP11)	5	28101988
26 x 20 x 20	B (KSP1) / TH (KSP11)	5	28101990
26 x 20 x 26	B (KSP1) / TH (KSP11)	5	28101979
26 x 26 x 16	B (KSP1) / TH (KSP11)	5	28101991
26 x 26 x 20	B (KSP1) / TH (KSP11)	5	28101992
26 x 32 x 26	B (KSP1) / TH (KSP11)	5	28111499
32 x 16 x 32	B (KSP1) / TH (KSP11)	5	28111497
32 x 20 x 20	B (KSP1) / TH (KSP11)	5	28111501
32 x 20 x 26	B (KSP1) / TH (KSP11)	5	28111508
32 x 20 x 32	B (KSP1) / TH (KSP11)	5	28111502
32 x 26 x 20	B (KSP1) / TH (KSP11)	5	28111495
32 x 26 x 26	B (KSP1) / TH (KSP11)	5	28111509
32 x 26 x 32	B (KSP1) / TH (KSP11)	5	28111506
32 x 32 x 16	B (KSP1) / TH (KSP11)	5	28111493
32 x 32 x 20	B (KSP1) / TH (KSP11)	5	28111504
32 x 32 x 26	B (KSP1) / TH (KSP11)	5	28111507
40 x 26 x 32	TH (KSP11) (2)/(3)	1	28115518
40 x 26 x 40	TH (KSP11) (2)	1	28115514
40 x 32 x 32	TH (KSP11) (3)	1	28115516
40 x 32 x 40	TH (KSP11) (3)	1	28115300
40 x 40 x 32	TH (KSP11) (3)	1	28115520
50 x 26 x 50	TH (KSP11) (2)	1	28115522
50 x 32 x 50	TH (KSP11) (3)	1	28115320
50 x 40 x 40	TH (KSP11)	1	28115524
50 x 40 x 50	TH (KSP11)	1	28115310
50 x 50 x 32	TH (KSP11) (3)	1	28115526
50 x 50 x 40	TH (KSP11)	1	28115528
63 x 50 x 63	TH (KSP11)	1	28115330
75 x 40 x 75	TH (KSP11) (4)	1	28115546
75 x 50 x 75	TH (KSP11) (4)	1	28115548

(1) Derivation 26x3: compatible with profile TH (KSP11)

(2) Derivation 26x3: compatible with profile B (KSP1)

(3) Derivation 32x3: compatible with profile B (KSP1)

(4) Derivation 75x5: compatible with profile F (KSP2)



Straight intermediate union joint

Dimension	Profile	Pcs. pack	Code
14 x 14 (*)	B (KSP1)	10	28101421
18 x 18	B (KSP1)	10	28101424
40 x 40	TH (KSP11)	1	28115050
50 x 50	TH (KSP11)	1	28115060
63 x 63	TH (KSP11)	1	28115070
75 x 75	TH (KSP11) (1)	1	28115554

(1) derivation 75x5 also compatible with F profile (KSP2)

(*) Item to be out of stock

Press fittings Gerpex for water



Straight intermediate union joint

Dimension	Profile	Pcs. pack	Code
16 x 16	B (KSP1) / TH (KSP11)	10	28101922
20 x 20	B (KSP1) / TH (KSP11)	10	28101926
26 x 26	B (KSP1) / TH (KSP11)	5	28101928
32 x 32	B (KSP1) / TH (KSP11)	5	28101910



Straight intermediate reducing union joint

Dimension	Profile	Pcs. pack	Code
20 x 16	B (KSP1) / TH (KSP11)	10	28101930
26 x 16	B (KSP1) / TH (KSP11)	5	28101934
26 x 20	B (KSP1) / TH (KSP11)	5	28101936
32 x 16	B (KSP1) / TH (KSP11)	5	28101912
32 x 20	B (KSP1) / TH (KSP11)	5	28101914
32 x 26	B (KSP1) / TH (KSP11)	5	28101916



Straight intermediate reducing union joint

Dimension	Profile	Pcs. pack	Code
40 x 26	TH (KSP11) ⁽¹⁾	1	28115500
40 x 32	TH (KSP11) ⁽²⁾	1	28115100
50 x 32	TH (KSP11) ⁽²⁾	1	28115502
50 x 40	TH (KSP11)	1	28115110
63 x 40	TH (KSP11)	1	28115120
63 x 50	TH (KSP11)	1	28115130
75 x 40	TH (KSP11) ⁽³⁾	1	28115556
75 x 50	TH (KSP11) ⁽³⁾	1	28115558
75 x 63	TH (KSP11) ⁽³⁾	1	28115560

⁽¹⁾ Derivation 26x3: compatible also with profile B (KSP1)

⁽²⁾ Derivation 32x3: compatible also with profile B (KSP1)

⁽³⁾ Derivation 75x5: compatible also with profile F (KSP2)



Straight Male union joint

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	10	28101440
18 x 1/2"	B (KSP1)	10	28101442
20 x 1/2"	B (KSP1) / TH (KSP11)	10	28101445
20 x 3/4"	B (KSP1) / TH (KSP11)	10	28101446
26 x 3/4"	B (KSP1) / TH (KSP11)	5	28101448
26 x 1"	B (KSP1) / TH (KSP11)	5	28101450
32 x 1"	B (KSP1) / TH (KSP11)	5	28101520
32 x 1 1/4"	B (KSP1) / TH (KSP11)	1	28115510
40 x 1"	TH (KSP11)	1	28115512
40 x 1 1/4"	TH (KSP11)	1	28115000
50 x 1 1/2"	TH (KSP11)	1	28115010
63 x 2"	TH (KSP11)	1	28115020
75 x 2 1/2"	TH (KSP11) ⁽¹⁾	1	28115552

⁽¹⁾ Derivation 75x5: also compatible with profile F (KSP2)

Threads: R (UNI EN 10226-1)



Straight Female union joint

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	10	28101454
18 x 1/2"	B (KSP1)	10	28101456
20 x 1/2"	B (KSP1) / TH (KSP11)	10	28101459
20 x 3/4"	B (KSP1) / TH (KSP11)	10	28101460
26 x 3/4"	B (KSP1) / TH (KSP11)	5	28101462
26 x 1"	B (KSP1) / TH (KSP11)	5	28101464
32 x 1"	B (KSP1) / TH (KSP11)	5	28101522

Threads: Rp (UNI EN 10226-1)

Press fittings Gerpex for water



Chromed copper pipe

Dimension	Pcs. pack	Code
Ø 15 x 1/2" M (L 175 mm)	5	28101686

Not suitable for sanitary installations
Threads: G (UNI EN ISO 228-1)



Female double elbow with flange

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	5	28101688
20 x 1/2"	B (KSP1) / TH (KSP11)	5	28101690

Threads: Rp (UNI EN 10226-1)



Elbow fitting with chromed copper pipe

Dimension	Profile	Pcs. pack	Code
16 x Ø 15 (L 165,5 mm)	B (KSP1) / TH (KSP11)	10	28101708

Not suitable for sanitary installations



Built-in galvanized bracket for flanged elbows

Dimension	Pcs. pack	Code
10 brackets kit	1	28104062

Takeoffs 80-100-153 mm
Takeoffs 153 mm for fixing flanged elbow in 4 point.



Built-in galvanized bracket for flanged elbows

Dimension	Pcs. pack	Code
	2	28101530

Takeoffs 80-100-153 mm



Galvanised bracket for flanged elbow

Size	Pcs. pack	Code
	1	28101531

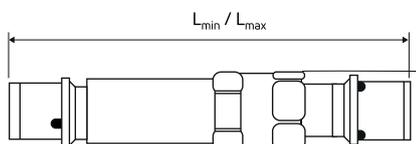
Takeoff 153 mm



Press fitting for multilayer pipe repairs Gerpex, Gerpex RA, Alpert

Telescopic press fitting, in CW617N brass and O-Ring in EPDM PEROX, for repairing damaged multilayer pipes.

Dimension	Profile	L _{min}	L _{max}	Pcs. pack	Code
16 x 16	TH (KSP11)	150 mm	203,5 mm	1	9985R001
20 x 20	TH (KSP11)	159 mm	219,5 mm	1	9985R002
26 x 26	TH (KSP11)	182 mm	245,5 mm	1	9985R003



Press fittings Gerpex for water



Offset female Tee joint

Dimension	Profile	Pcs. pack	Code
16 x 1/2" x 16	B (KSP1) / TH (KSP11)	5	28101620
20 x 1/2" x 20	B (KSP1) / TH (KSP11)	5	28101624

Threads: Rp (UNI EN 10226-1)



Right terminal

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	5	28101632
20 x 1/2"	B (KSP1) / TH (KSP11)	5	28101640

Threads: Rp (UNI EN 10226-1)



Left terminal

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	5	28101630
20 x 1/2"	B (KSP1) / TH (KSP11)	5	28101638

Threads: Rp (UNI EN 10226-1)



Bracket for axially offset Tee

Dimension	Pcs. pack	Code
	2	28101532



Plug for circuit test with o-ring

Dimension	Pcs. pack	Code
1/2" blue	50	28090003
1/2" red	50	28090004
3/4" blue	50	28090006
3/4" red	50	28090008

Threads: G (UNI EN ISO 228-1)



Leakage test plug for multi-layer pipe

Dimension	Pcs. pack	Code
16 x 2	1	28101846
20 x 2	1	28101848

Complete with 1/2" F fitting for release valve (provided standard)

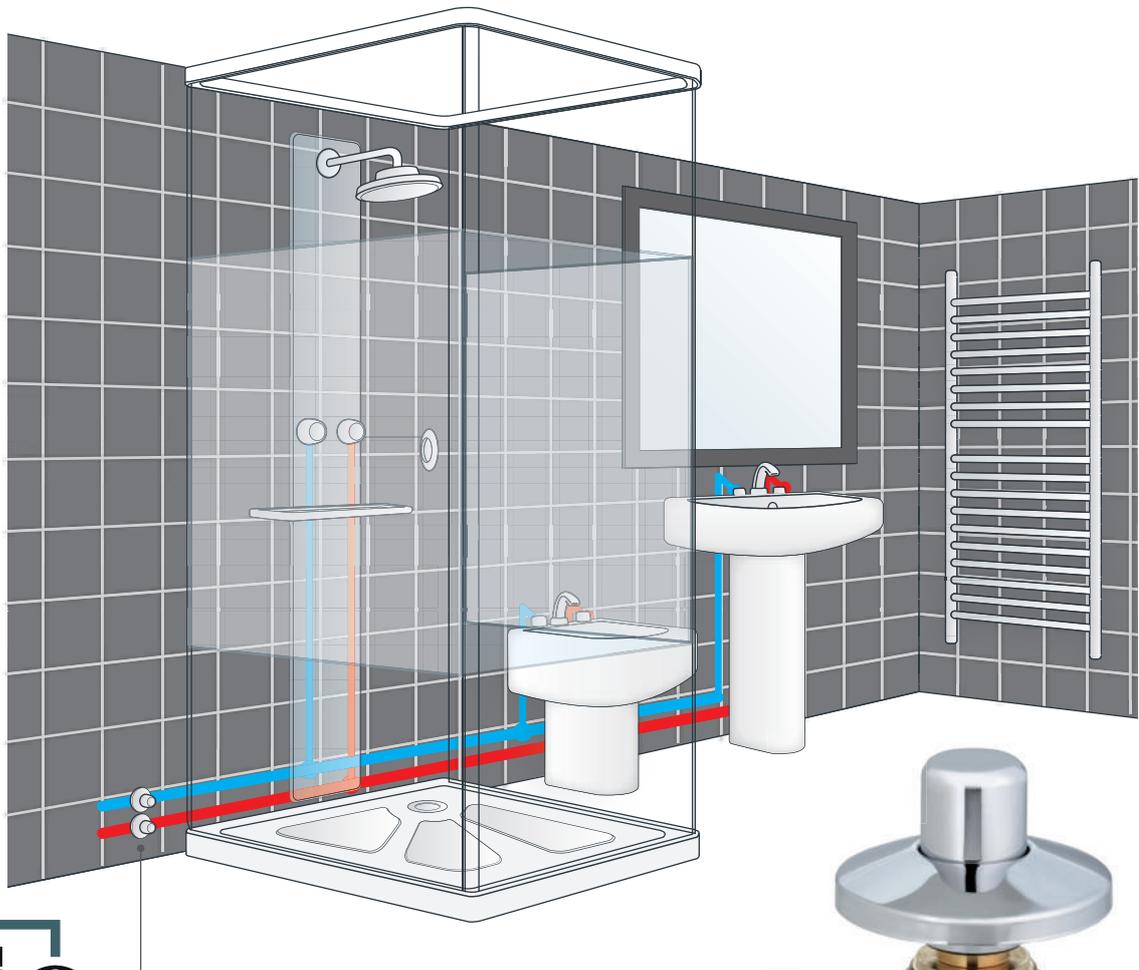


Built-in box for flanged elbows

Dimension	Pcs. pack	Code
	1	13010010

For installation of flanged elbows

Valve for built-in application Gerpex



Construction

Body made of brass CW617N - DW (UNI EN 12165)
 Group Screw made of brass CW617N - DW (UNI EN 12164)
 Rosette-gaskets-flywheel, chromed
 Gasket EPDM

Technical data

Max operating temperature: 95 °C
 Max allowable working pressure at 95 °C: 6 bar

PATENT PENDING



Body

Dimension	Profile	Pcs. pack	Code
16 x 3/4"	B (KSP1)	5	90008120
20 x 3/4"	B (KSP1)	5	90008140
26 x 3/4"	B (KSP1)	5	90008150

Threads: Rp (UNI EN 10226-1)

Gerpex valves



Screw group 3/4" for built-in valve body

NEW

Dimension	Pcs. pack	Code
3/4"	10	28100980

Threads: RGp (UNI EN ISO 228-1)
Complete with screw protection cap.



Cap shutter 3/4" with handle

Dimension	Pcs. pack	Code
3/4"	10	28100982

Threads: G (UNI EN ISO 228-1)



Extended screw (+20 mm) brass 3/4"

NEW

Dimension	Pcs. pack	Code
3/4" for built-in valve body (*)	10	90008172
3/4" for cap shutter with handle	10	90008180

Threads: G (UNI EN ISO 228-1)
(*) Complete with screw protection cap.

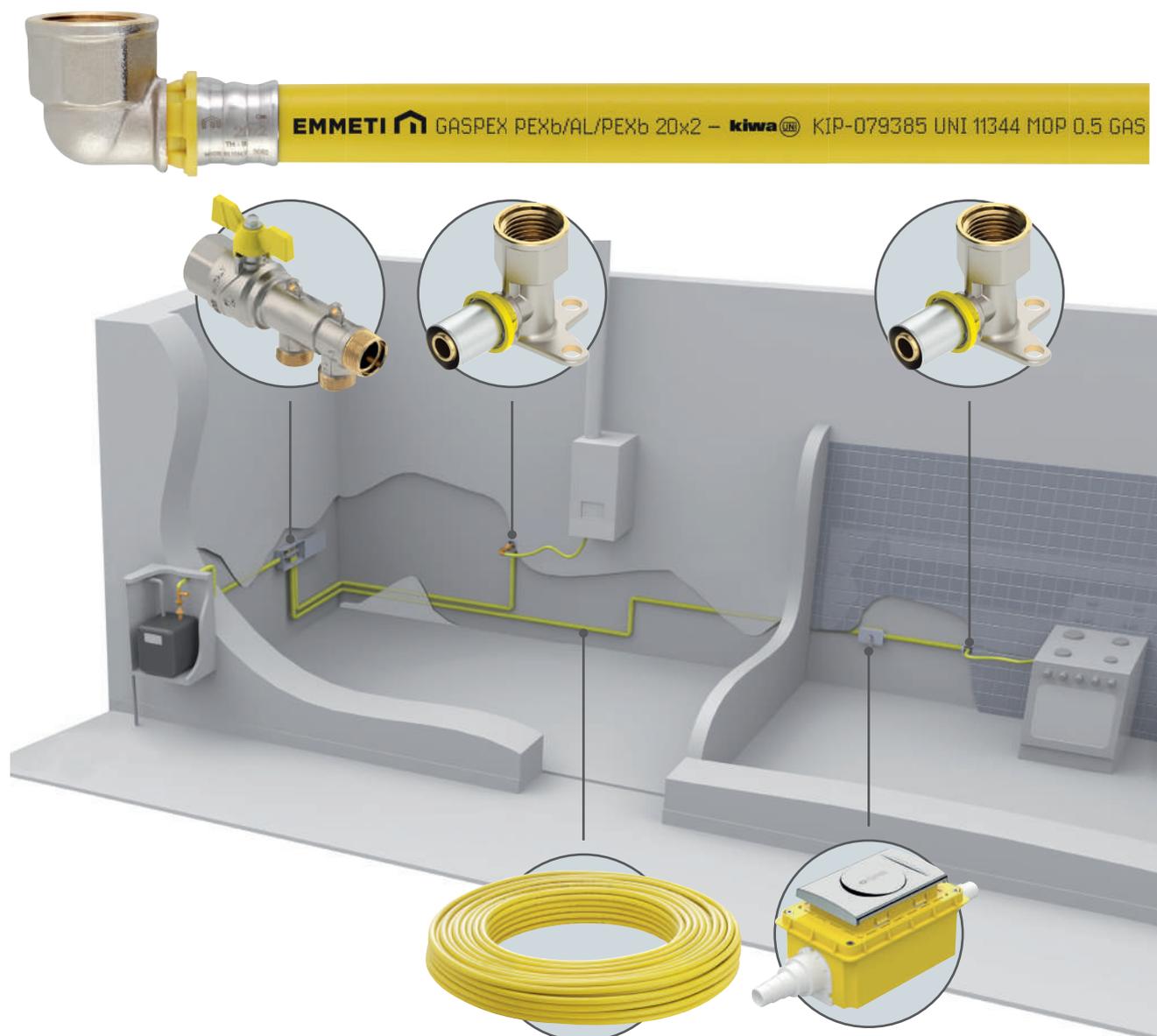


Spherical asher seal

Dimension	Pcs. pack	Code
	10	90008011

Gaspex

Multilayer pipe system for gas adduction plants



Field of application

Gaseous fuels supplied by distribution networks, cylinders and fixed GPL tanks, with maximum operating pressure of 0,5 bar and operating temperature from -20 °C to +70 °C

In appliance to:

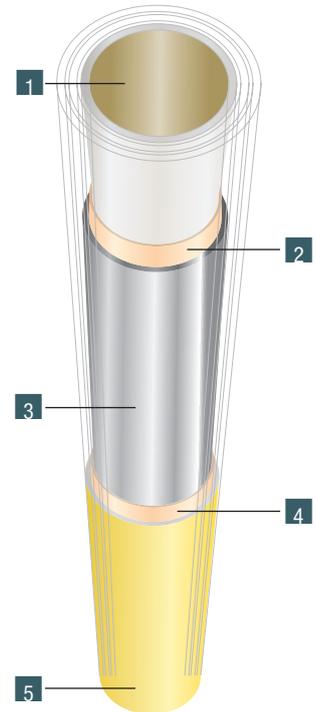
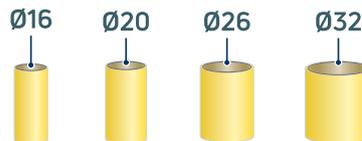
- > UNI 11344
- > ISO 17484
- > AS 4176.8

Suitability for use:

- > UNI 7129-1
- > UNI 11528
- > AS 5601.1

Gaspex pipe

Multilayer Gaspex pipe



Construction

- 1 Cross-linked polyethylene inner pipe (PE-Xb).
- 2 Bonding layer connecting the inner pipe to the aluminium pipe.
- 3 Butt-welded aluminium pipe, thickness min 0,2 mm.
- 4 Bonding layer connecting the outer pipe to the aluminium pipe.
- 5 High-density polyethylene inner pipe (PE-Xb), yellow colour.

Corrugated sheath technical data (ref. precoated pipe)

Material: Polypropylene PP

Technical data Gaspex pipe

Operating temperature: $-20\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$ (*)
Max operating pressure: 0,5 bar (*)
Coefficient of linear expansion: $0.026\text{ mm/m }^{\circ}\text{C}$
Thermal conductivity: $0.45\text{ W/m }^{\circ}\text{C}$
Minimum radius of bending: $5 \times \text{Ø pipe}$
Surface roughness of internal pipe: $7\text{ }\mu\text{m}$

(*) values referring to certification according to UNI 11344, for applications according to UNI 7129-1 and UNI 11528

Expandable corrugated sheath technical data

Material: Polypropylene PP
Self-extinguishing (CEI EN 60695-2-10):
1) Class 850 ($^{\circ}\text{C}$)
2) Mean extinguishing time 6,4 (seconds)
Self-extinguishing (UL 94): Class V2
Expanding capacity: approximately 3 times the original length

> **kiwa** : sizes Ø 16, Ø 20, Ø 26, Ø 32

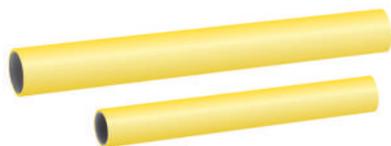
> **kQ** : sizes Ø 16, Ø 20, Ø 26, Ø 32

Multilayer Gaspex pipe



Gaspex bare pipe in roll

Dimension	Mts. pack	Code
16 x 2	100 m	28109200
20 x 2	100 m	28109204
26 x 3	50 m	28109206
32 x 3	50 m	28109208



Gaspex bare pipe in 4 mt bars

Dimension	Mts. pack	Code
26 x 3	40	28109226
32 x 3	28	28109228

Packaged in rigid protective pipe



Gaspex pipe with rolled corrugated sheath

Dimension	Ø internal sheath	Ø external sheath	Mts. pack	Code
16 x 2	31 mm	36 mm	50	28109260
20 x 2	31 mm	36 mm	50	28109264
26 x 3	40 mm	46 mm	25	28109266

Size of corrugated sheath appropriate to the requirements of UNI 7129-1: 2015



Expandable corrugated sheath

Dimension	Mts. pack	Code
20*	50	01220500
25*	25	01220502
30*	25	01220504
40*	25	01220506

(*) internal Ø (mm)

For installations in compliance with UNI 7129:2015, use:

- sheath Ø 30 for 16x2 and 20x2 pipe;
- sheath Ø 40 for 26x3 pipe.

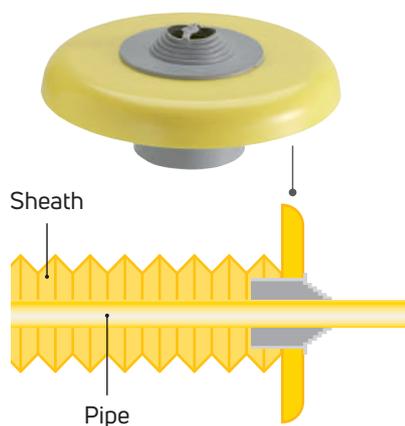


Expandable sheath terminal

Dimension	Pcs. pack	Code
20 (*)	10	01220508
25 (*)	10	01220510
30 (*)	10	01220512
40 (*) (**)	10	01220514

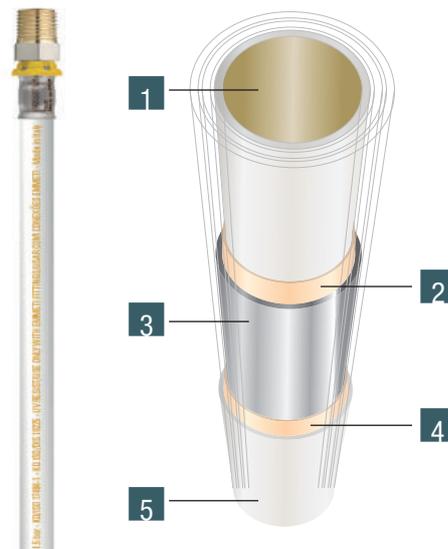
(*) internal Ø (mm)

(**) Item to be out of stock



Gaspex UV

Multi-layer Gaspex pipe UV protection



Construction

- 1 Cross-linked polyethylene inner pipe (PEX)
- 2 Bonding layer connecting the inner pipe to the aluminium pipe.
- 3 Butt-welded aluminium pipe, thickness min 0,2 mm.
- 4 Bonding layer connecting the outer pipe to the aluminium pipe.
- 5 External coating of polyethylene (PEX)

Technical data Gaspex UV protected pipe

Max operating pressure: 5 bar
 Operating temperature: -20 °C ÷ +60°C
 Coefficient of linear expansion: 0.026 mm/m °C
 Thermal conductivity: 0.45W/m°C
 Minimum radius of bending: 5 x Ø pipe
 Surface roughness of internal pipe: 7 µm

In appliance to:

- > ISO 17484-1
- > ISO 18225

Suitability for use:

verify the use according to local rules and parameters Kly.

> **kiwaQuality** : sizes Ø 16, Ø 20, Ø 26, Ø 32



GAS

Gaspex UV pipe in roll

Dimension	Mts. pack	Code
16 x 2	100	28109240
20 x 2	100	28109244
26 x 3	50	28109246
32 x 3	50	28109248

Gaspex UV protected pipe is a PE-Xb/AL/PE-Xb multilayer pipe approved according ISO 17484-1 (multilayer pipe systems for indoor gas installations with a maximum operating pressure up to and including 5 bar) and ISO 18225 (multilayer piping system for outdoor gas installations) with an UV protection of at least 3.5 GJ/m² (=83.65 Kly).

Material on request.
 Timings to be agreed.

Press fittings Gaspex

Press fittings for gas Gaspex



SCAN



Construction

- 1 Body in brass CW617N - DW (UNI EN 12164 and 12165); threads: UNI EN ISO 228-1, UNI EN 10226.
- 2 Nylon sleeve ring
- 3 AISI 304 stainless steel sleeve annealed
- 4 NBR dual o-ring (black, teflon coated, yellow, in conforming to EN 682 and EN 549)



Straight Female union joint

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	10	28125000
20 x 1/2"	B (KSP1) / TH (KSP11)	10	28125002
20 x 3/4"	B (KSP1) / TH (KSP11)	10	28125004
26 x 3/4"	B (KSP1) / TH (KSP11)	5	28125006
26 x 1"	B (KSP1) / TH (KSP11)	5	28125008
32 x 1"	B (KSP1) / TH (KSP11)	5	28125010

Threads: Rp (UNI EN 10226-1)



Straight Male union joint

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	10	28125020
20 x 1/2"	B (KSP1) / TH (KSP11)	10	28125022
20 x 3/4"	B (KSP1) / TH (KSP11)	10	28125024
26 x 3/4"	B (KSP1) / TH (KSP11)	5	28125026
26 x 1"	B (KSP1) / TH (KSP11)	5	28125028
32 x 1"	B (KSP1) / TH (KSP11)	5	28125030

Threads: R (UNI EN 10226-1)



Female elbow

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	10	28125040
20 x 1/2"	B (KSP1) / TH (KSP11)	10	28125042
20 x 3/4"	B (KSP1) / TH (KSP11)	10	28125044
26 x 3/4"	B (KSP1) / TH (KSP11)	5	28125046
32 x 1"	B (KSP1) / TH (KSP11)	5	28125048

Threads: Rp (UNI EN 10226-1)

Gaspex Press fittings



Male elbow

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	10	28125050
20 x 1/2"	B (KSP1) / TH (KSP11)	10	28125052
20 x 3/4"	B (KSP1) / TH (KSP11)	10	28125054
26 x 3/4"	B (KSP1) / TH (KSP11)	5	28125056
32 x 1"	B (KSP1) / TH (KSP11)	5	28125058

Threads: R (UNI EN 10226-1)



Intermediate Tee joint with female branching

Dimension	Profile	Pcs. pack	Code
16 x 1/2" x 16	B (KSP1) / TH (KSP11)	10	28125070
16 x 3/4" x 16	B (KSP1) / TH (KSP11)	10	28125072
20 x 1/2" x 20	B (KSP1) / TH (KSP11)	5	28125074
20 x 3/4" x 20	B (KSP1) / TH (KSP11)	5	28125076
26 x 3/4" x 26	B (KSP1) / TH (KSP11)	5	28125078
32 x 3/4" x 32	B (KSP1) / TH (KSP11)	5	28125080
32 x 1" x 32	B (KSP1) / TH (KSP11)	5	28125082

Threads: Rp (UNI EN 10226-1)



Female connecting elbow, flat seal in NBR

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	1	28125424
20 x 3/4"	B (KSP1) / TH (KSP11)	1	28125426

Threads: G (UNI EN ISO 228-1)



Straight intermediate union joint

Dimension	Profile	Pcs. pack	Code
16 x 16	B (KSP1) / TH (KSP11)	10	28125290
20 x 20	B (KSP1) / TH (KSP11)	10	28125292
26 x 26	B (KSP1) / TH (KSP11)	5	28125294
32 x 32	B (KSP1) / TH (KSP11)	5	28125296



Straight intermediate reducing union joint

Dimension	Profile	Pcs. pack	Code
20 x 16	B (KSP1) / TH (KSP11)	10	28125300
26 x 20	B (KSP1) / TH (KSP11)	5	28125304
32 x 26	B (KSP1) / TH (KSP11)	5	28125310



Intermediate elbow

Size	Profile	Pcs. pack	Code
16 x 16	B (KSP1) / TH (KSP11)	10	28125320
20 x 20	B (KSP1) / TH (KSP11)	10	28125322
26 x 26	B (KSP1) / TH (KSP11)	5	28125324
32 x 32	B (KSP1) / TH (KSP11)	5	28125326



Intermediate Tee joint

Size	Profile	Pcs. pack	Code
16 x 16 x 16	B (KSP1) / TH (KSP11)	10	28125330
20 x 20 x 20	B (KSP1) / TH (KSP11)	10	28125332
26 x 26 x 26	B (KSP1) / TH (KSP11)	5	28125334
32 x 32 x 32	B (KSP1) / TH (KSP11)	5	28125430



Intermediate reducing Tee joint

Size	Profile	Pcs. pack	Code
16 x 20 x 16	B (KSP1) / TH (KSP11)	5	28125336
20 x 16 x 16	B (KSP1) / TH (KSP11)	5	28125338
20 x 16 x 20	B (KSP1) / TH (KSP11)	5	28125340
20 x 20 x 16	B (KSP1) / TH (KSP11)	5	28125342
20 x 26 x 20	B (KSP1) / TH (KSP11)	5	28125344
20 x 32 x 20	B (KSP1) / TH (KSP11)	5	28125346
26 x 20 x 20	B (KSP1) / TH (KSP11)	5	28125354
26 x 20 x 26	B (KSP1) / TH (KSP11)	5	28125356
26 x 32 x 26	B (KSP1) / TH (KSP11)	5	28125362
32 x 20 x 20	B (KSP1) / TH (KSP11)	5	28125366
32 x 20 x 26	B (KSP1) / TH (KSP11)	5	28125368
32 x 20 x 32	B (KSP1) / TH (KSP11)	5	28125370
32 x 26 x 26	B (KSP1) / TH (KSP11)	5	28125374
32 x 26 x 32	B (KSP1) / TH (KSP11)	5	28125376



Straight with female swivel nut, flat seal in NBR

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	1	28125400
16 x 3/4"	B (KSP1) / TH (KSP11)	1	28125402
20 x 1/2"	B (KSP1) / TH (KSP11)	1	28125404
20 x 3/4"	B (KSP1) / TH (KSP11)	1	28125406
26 x 3/4"	B (KSP1) / TH (KSP11)	1	28125408
26 x 1"	B (KSP1) / TH (KSP11)	1	28125410
32 x 1"	B (KSP1) / TH (KSP11)	1	28125412

Threads: G (UNI EN ISO 228-1)



Straight with female swivel nut, o-ring fitting

Dimension	Profile	Pcs. pack	Code
Ø 16 - 24x19	B (KSP1) / TH (KSP11)	10	28125220
Ø 20 - 24x19	B (KSP1) / TH (KSP11)	10	28125222
16x2 - 3/4 EK	B (KSP1) / TH (KSP11)	10	28125240
20x2 - 3/4 EK	B (KSP1) / TH (KSP11)	10	28125242

Threads 3/4": G (UNI EN ISO 228-1)

Gaspex Press fittings



Female elbow, flanged elbow

Dimension	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1) / TH (KSP11)	5	28125060
20 x 1/2"	B (KSP1) / TH (KSP11)	5	28125062
20 x 3/4"	B (KSP1) / TH (KSP11)	5	28125064

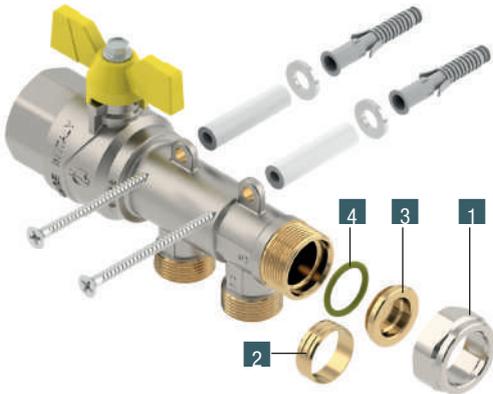
Threads: Rp (UNI EN 10226-1)



Built-in box for flanged elbows

Dimension	Pcs. pack	Code
	1	13010010

Built-in box for installation of Gaspex flanged elbows



Valve with manifold first inlet

Collector with integrated shut-off valve with 1" F inlet / two 24x 19M branches / one M28x1.5 branch, suited for creating joints inside the rooms, which can be exposed and have a shut-off, in compliance with UNI 7129.

The pack includes:

- Screws, plugs and spacers for wall-mounted installation.

- Nut M28x1.5 (1) that can be used with the brass ogive (2) supplied for connection to copper piping Ø22 mm, or with the blind adapter D22 (3) and relative o-ring in HNBR 18x2.5 (4) provided in order to seal the outlet if not used.

Note: fitting seals, see gas monobloc section

Dimension	Pcs. pack	Code
1" F	1	09812566

Lateral branches: 24x19 Male
Head branch: M28 x 1.5

Threads 1": Rp (UNI EN 10226-1)



UNI EN 331



Female cap 24x19 for gas

Dimension	Pcs. pack	Code
Female cap 24x19	20	01321460

Fitting to be used to plug the 24x19 male branches of the valve with first inlet manifold.



Straight with female swivel nut, o-ring fitting

Dimension	Profile	Pcs. pack	Code
Ø 26 - M 28 x 1,5	B (KSP1) / TH (KSP11)	2	28125250

Fitting accessory for derivation M28x1,5 alve with manifold first inlet



Built-in box for valve with gas manifold first inlet

Dimension	Pcs. pack	Code
264x164x110	1	13010000

Items inside the package:

- 4 adjustable extension cables for DN16 - DN18 - DN20 - DN26 - DN32 pipes
- 2 M4x50 screws with relative washers and nuts

Dimensions: see section Technical Attachments page 502

Tooling for Gerpex and Gaspex multilayer



SCAN



Manual pressing machine

360° rotating head - Telescopic arms, extensible 200 mm
Instrument weight: approximately 3 Kg - Instrument length: 560 - 760 mm
Thrust force: min. 32 kN - Press fittings: from DN 14 to DN 32

Dimension	Pcs. pack	Code
	1	28101840



Dies for manual pressing machine and insert holder for SPM19

Dimension	Profile	Pcs. pack	Code
16 x 2	TH (KSP11)	1	28100640
20 x 2	TH (KSP11)	1	28100642
26 x 3	TH (KSP11)	1	28100644
32 x 3	TH (KSP11)	1	28100646



230 V powered pressing machine SPM32 for Gerpex jaws from DN 14 to DN 75

Weight including accumulator: 4,3 Kg - 230 V adapter weight: 670 g - Dimensions LxHxS: 390x310x95 - Feed force: min. 32kN - Power supply: 230 V, 50 Hz - Max loading: 30 A - Adapter voltage output: 14,4 V - Pressing time: from 4 to 7 depending on DN
Operation temperature range(-20 °C ÷ 40 °C) 360° rotating head
Automatic piston retraction - USB connection for remote diagnosis
Optical malfunction report and working state indicator - Complete with metal case, 230 V adapter, USB cable, analysis software.

Model	Pcs. pack	Code
SPM32 230V (*)	1	28122020

(*) Item to be out of stock



14,4 V battery powered pressing machine SPM32 for Gerpex jaws from DN 14 to DN 75

Weight including accumulator: 4,1 Kg - Dimensions LxHxS: 390x310x95
Feed force: min. 32kN - Power supply: 14,4 V - Battery charger: 230 V, 50 Hz - Battery capacity : 2,6 Ah - Charging time: 45 min approx. - Pressing performance: approx. 235 (DN20) - Pressing time: from 4 to 7 depending on DN - Operation temperature range (-20 °C ÷ 40 °C) 360° rotating head - Automatic piston retraction - USB connection for remote diagnosis - Optical malfunction report and workin state indicator - Complete with metal case, battery 14,4 V, battery charger, USB cable, analysis software.

Model	Pcs. pack	Code
SPM32 with battery (*)	1	28122022

(*) Item to be out of stock



18 V battery powered electro-hydraulic pressing machine UAP332 for Gerpex jaws from DN 14 to DN 75 NEW

Weight including accumulator: 4,2Kg - Dimensions LxHxS: 359 x325x76
Feed force: 32kN - Power supply: 18 V - Battery charger: 230 V, 50 Hz
Battery capacity: 4,0 Ah - Charging time: 36 min approx.
Pressing performance: approx. 400 (DN20)
Operation temperature range: -10 °C ÷ 40 °C - 360° rotating head
Automatic piston retraction
LED optical malfunction report and working state indicator
Complete with plastic case, Lithium Ion battery (Li-Ion) 18 V and battery charger.

Model	Pcs. pack	Code
UAP332CFM	1	28122050

Tooling for Gerpex and Gaspex multilayer



Spare Battery 18 V for UAP332 pressing machine

NEW

Battery Lithium-Ion (Li-ion) - Weight: 400 g - Battery capacity: 4,0 Ah

Dimension	Pcs. pack	Code
4,0 Ah	1	28122052

Allows battery power to the SPM32 230 V pressing machine, replacing the 230 V adapter.



Battery charger 18V for UAP332 pressing machine

NEW

Dimension	Pcs. pack	Code
	1	28122054



Spare battery 14,4 V for SMP32 pressing machine

Battery Lithium-Ion (Li-ion) - Weight: 500 g - Battery power: 2,6 Ah

Dimension	Pcs. pack	Code
2,6 Ah	1	28122018

Allows battery power to the SPM32 230 V pressing machine, replacing the 230 V adapter.



Battery charger 14,4 V for SPM32 pressing machine

Dimension	Pcs. pack	Code
	1	28122016



230 V adapter for SPM32 pressing machine

Dimension	Pcs. pack	Code
	1	28122010

Permits power supply to the SPM32 pressing machine, directly at 230 V, replacing the 14,4 V battery



Case for jaws

Dimension	Pcs. pack	Code
	1	28122012

Suitable for jaws 16 - 40



Gerpex jaws

Dimension	Profile	Pcs. pack	Code
14 x 2	B (KSP1)	1	28100629
14 x 2 (*)	B (KSP1)	1	28100201
16 x 2	TH (KSP11)	1	28100630
18 x 2	B (KSP1)	1	28100631
20 x 2	TH (KSP11)	1	28100632
26 x 3	TH (KSP11)	1	28100634
32 x 3	TH (KSP11)	1	28100636
40 x 3,5	TH (KSP11)	1	28100650
50 x 4	TH (KSP11)	1	28100652
63 x 4,5	TH (KSP11)	1	28100654

(*) Item to be out of stock

Tooling for Gerpex and Gaspex multilayer



Gerpex jaws

Dimension	Profile	Pcs. pack	Code
75	TH (KSP11)	1	28100656



SPM19 battery pressing machine 18V for Gerpex jaw with dies from DN 16 to DN 32

Weight (battery included): 2,3 Kg – Dimensions LxHxS: 371x100x74 mm
 Feed force: min 19 kN – Power supply: 18 V DC – Battery power: 230 V, 50 Hz –
 Battery capacity: 2,0 Ah – Charging time: 30 minutes approx
 Pressing time: from 3 to 4 s (depending on the nominal width)
 Operation temperature range: -10 °C ÷ 40 °C
 Sound level: 75 dB(A) in 1 m distance
 Vibrations: < 2,5 m/s² (real value pondered by the acceleration)
 360° rotating head - Automatic piston retraction
 USB connection for remote diagnosis - Optical malfunction report and working state indicator - Complete with metal case, battery 18 V, battery charger, USB cable, analysis software.

Model	Pcs. pack	Code
SPM19	1	28101826



Gerpex jaw for SPM19 pressing machine

Dimension	Pcs. pack	Code
	1	28101828



Dies for jaw for manual pressing machine and insert holder for SPM19

Dimension	Profile	Pcs. pack	Code
16 x 2	TH (KSP11)	1	28100640
20 x 2	TH (KSP11)	1	28100642
26 x 3	TH (KSP11)	1	28100644
32 x 3	TH (KSP11)	1	28100646



Battery 18 V for SPM19 pressing machine

Battery Lithium-Ion (Li-ion)
 Weight: 430 g

Dimension	Pcs. pack	Code
2 Ah	1	28101821



Battery charger 18 V for SPM19 pressing machine

Dimension	Pcs. pack	Code
	1	28101824

Tooling for Gerpex and Gaspex multilayer



230 V adapter for SPM19 pressing machine

Dimension	Pcs. pack	Code
	1	28101822

Permits power supply to the SPM19 pressing machine, directly at 230 V, replacing the 18 V battery



Flarer and calibrator Ø 14 - Ø 16 - Ø 18 - Ø 20 - Ø 26

Dimension	Pcs. pack	Code
Ø 14	1	28100960
Ø 16	1	28100962
Ø 18	1	28100964
Ø 20	1	28100966
Ø 26	1	28100968



Flarer and calibrator Ø 16-20-26

Dimension	Pcs. pack	Code
Ø 16-20-26	1	28100959



Flarer and calibrator Ø 32

Dimension	Pcs. pack	Code
Ø 32	1	28100949



Flarer and calibrator Ø 40 - Ø 50

Dimension	Pcs. pack	Code
Ø 40	1	28100946
Ø 50	1	28100947



Flarer and calibrator Ø 63

Dimension	Pcs. pack	Code
Ø 63	1	28100972



Flarer and calibrator Ø 75

Dimension	Pcs. pack	Code
Ø 75	1	28100885

Tooling for Gerpex and Gaspex multilayer



Shear for multi-layer pipe

Dimension	Pcs. pack	Code
Ø 14 ÷ 26	1	28101808
Ø 26 ÷ 40	1	28101812
Spare blade for cutter Ø 14 ÷ 26	1	28101810
Spare blade for cutter Ø 26 ÷ 40	1	28101814



Gerpex shear

Dimension	Pcs. pack	Code
Ø 14 ÷ 32	1	28100942
Spare blade for cutter	1	28100943



Pipe cutter for Gerpex

Dimension	Pcs. pack	Code
Pipe cutter Ø 14 ÷ 32	1	28100944
Spare part wheel	1	28100948
Pipe cutter Ø 6 ÷ 75	1	28024081



Internal spring for bending pipe

Dimension	Pcs. pack	Code
Ø 16 L=500 mm	1	28100616
Ø 18 L=500 mm	1	28100618
Ø 20 L=500 mm	1	28100620
Ø 26 L=1000 mm	1	28100626



External spring for bending pipe

Dimension	Pcs. pack	Code
Ø 16 L=500 mm	1	28100716
Ø 20 L=500 mm	1	28100720



Hydraulic bending machine for Gerpex pipe

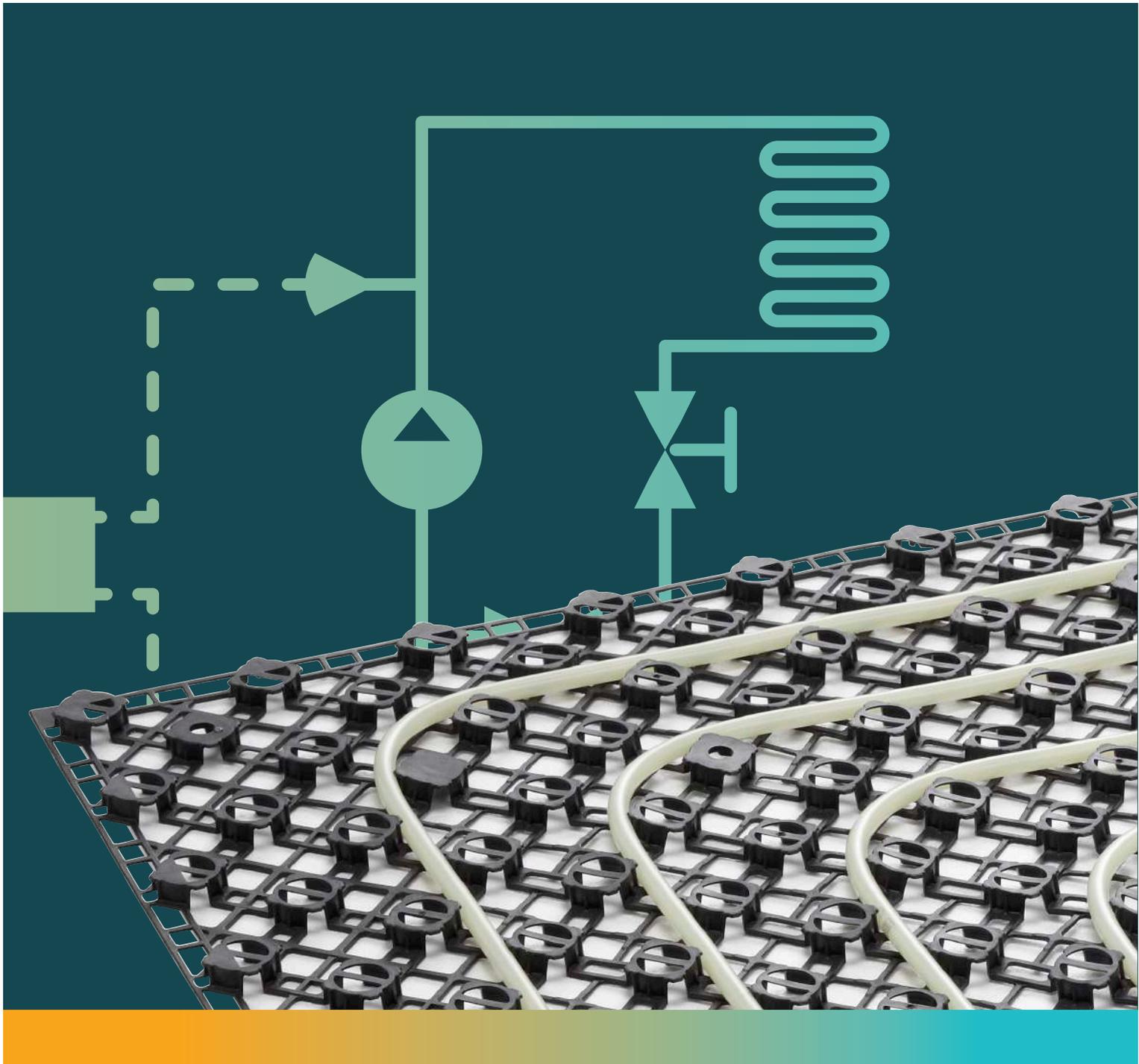
Dimension	Pcs. pack	Code
Ø 26 ÷ 32	1	28100920

Complete with case, shape Ø 26 and Ø 32



Forms and Shapes for bending machine

Dimension	Pcs. pack	Code
Form Ø 16	1	28104002
Form Ø 20	1	28104006
Shape 14÷16	1	28104010
Shape 18÷20	1	28104012



Emmeti Floor

Floor heating and cooling systems



SCAN

> Insulating panels



67

> Pipes



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> Accessories



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> Floor heating and cooling industrial system



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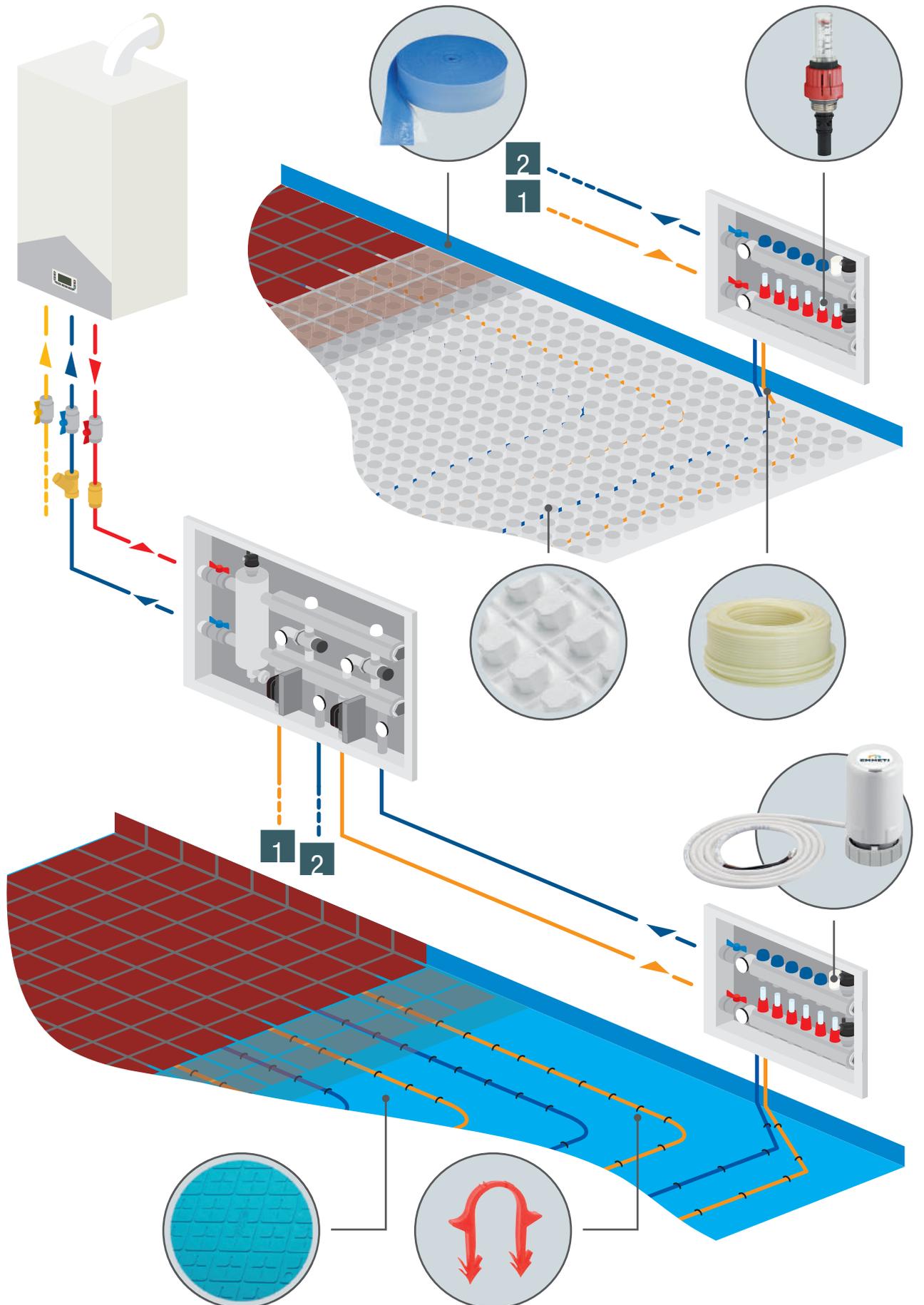
> Emmeti Clima Floor
Product for radiant heating system:



See "Catalogue Price List Air Conditioning"

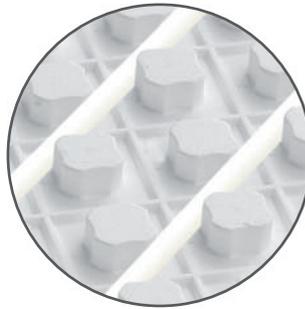
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Example of installation



Emmeti Floor

Floor heating and cooling system



The growing success which underfloor heating is obtaining on a world level is logical and well-deserved.

Modern calculation systems, proved constructional techniques, innovative materials and improved thermal insulation conditions in buildings, are the requirements which have made possible the unstoppable advance of this heating solution.

The distribution of heated air in the room is uniform, the heat radiated from the floor transmits energy to the walls, which disperse it, reducing the thermal load affecting the people occupying the room. The low temperature of the floor, around 23 °C, avoids the circulation and decomposition of dust in the rooms, a source of irritation to the respiratory tract and of the characteristic black smudges on the walls.

The Emmeti underfloor heating plant range offers special components for the simple and rapid creation of durable and reliable systems which provide excellent standards of comfort.

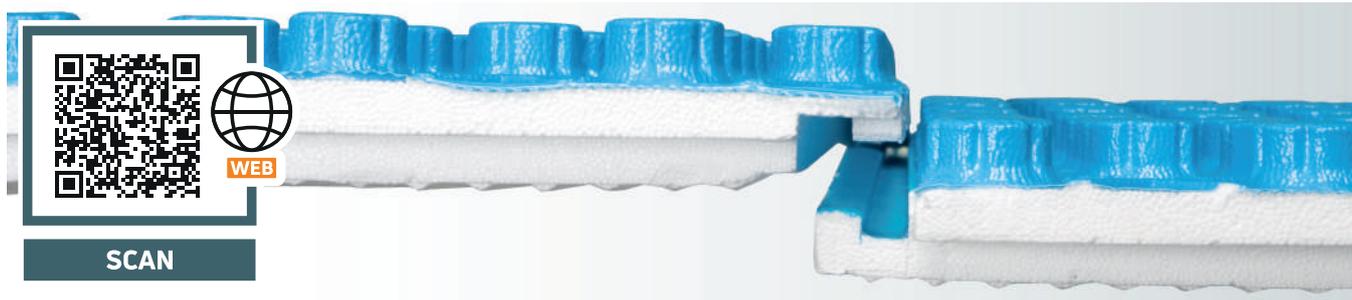
The high quality of the products, the technical characteristics of the materials used and the extreme flexibility of fittings, make it possible to install underfloor heating in any type of building for domestic, commercial, industrial or sporting use, in offices, places of worship and buildings of historical value.

The Emmeti Floor system is invisible and does not limit furnishing options in the rooms.

Dimensions: see section Technical Attachments from page 444

Floor system

Emmeti Floor - Insulating panels



Standard Floor insulating panel

Dimension	Density	Pack m ²	Code
1100 x 600 x 32 / H10 (**)	30 kg/m ³	14,52	28134044
1100 x 600 x 32 / H10	40 kg/m ³	14,52	28130079
1100 x 600 x 48 / H20 (*)	25 kg/m ³	7,92	28134042
1100 x 600 x 48 / H20 (**)	25 kg/m ³	9,24	28134043
1100 x 600 x 32 / H20	30 kg/m ³	9,24	28134068
1100 x 600 x 63 / H30	30 kg/m ³	6,6	28134050

Panel in expanded polystyrene (EPS) printed for thermal insulation, with surface bosses and cylindrical edges, clad in a rigid polystyrene film. Pipe spacing 5 cm.

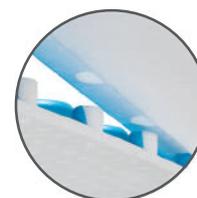
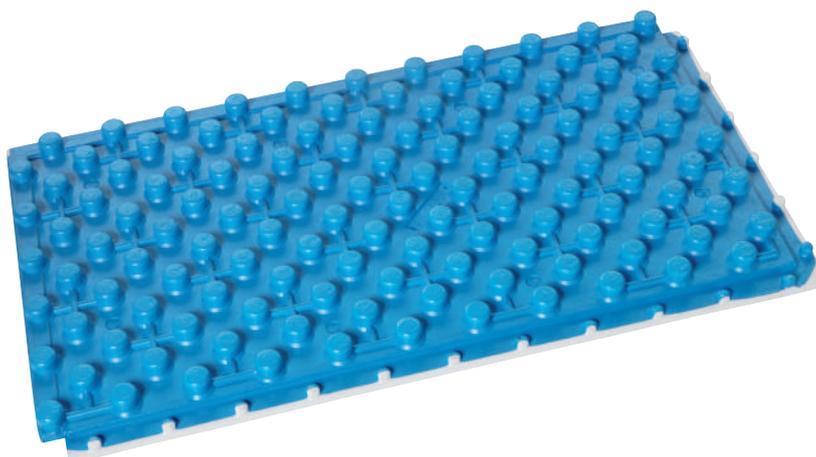
(*) Item to be out of stock

(**) Items on request: 20 days to order confirm



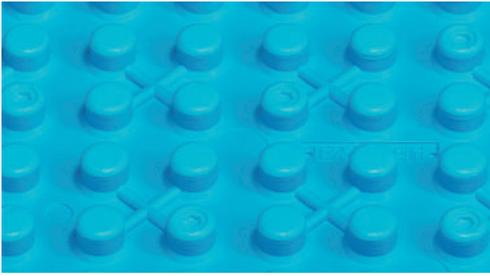
UNI EN 13163

Technical data	Norm	Model H10 (28134044)	Model H10 (28130079)	Model H20 (*) (28134042)	Model H20 (28134043)	Model H20 (28134068)	Model H30 (28134050)
Type	UNI EN 13163	EPS 200	EPS 250	EPS 150	EPS 150	EPS 200	EPS 200
Density	UNI EN 1602	30 kg/m ³	40 kg/m ³	25 kg/m ³	25 kg/m ³	30 kg/m ³	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa	≥ 250 kPa	≥ 150 kPa	≥ 150 kPa	≥ 200 kPa	≥ 200 kPa
Thermal conductivity λ_D (λ_{ins})	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK	0,032 W/mK	0,033 W/mK	0,033 W/mK	0,033 W/mK	0,033 W/mK
Thermal resistance $R_{\lambda,ins}$ (S_{ins}/λ_{ins})	UNI EN 1264-3: 2021	0,30 m ² K/W	0,30 m ² K/W	0,60 m ² K/W	0,60 m ² K/W	0,60 m ² K/W	0,90 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%	< 5%	< 5%	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	40 ÷ 100	40 ÷ 100	40 ÷ 100	40 ÷ 100	40 ÷ 100	40 ÷ 100
Slab thickness S_{ins}	UNI EN 1264-3	10 mm	10 mm	20 mm	20 mm	20 mm	30 mm
Total length		1135 mm	1135 mm	1135 mm	1135 mm	1135 mm	1135 mm
Total width		635 mm	635 mm	635 mm	635 mm	635 mm	635 mm
Total thickness		32 mm	32 mm	48 mm	48 mm	48 mm	63 mm
Coating film thickness		0,16 mm	0,16 mm	0,16 mm	0,16 mm	0,16 mm	0,16 mm
Pipe spacing		50 mm	50 mm	50 mm	50 mm	50 mm	50 mm
External \varnothing of installing pipes		16-17 mm	16-17 mm	16-17 mm	16-17 mm	16-17 mm	16-17 mm
Pack		14,52 m ²	14,52 m ²	7,92 m ²	9,24 m ²	9,24 m ²	6,6 m ²



H = 10/20/30 mm

Floor system



Standard Floor insulating panel

Dimension	Density	Pack m ²	Code
1100 x 600 x 68 / H40	30 kg/m ³	5,28	28134062
1100 x 600 x 78 / H50 (*)	30 kg/m ³	4,62	28130093
1100 x 600 x 88 / H60 (*)	30 kg/m ³	3,96	28134064

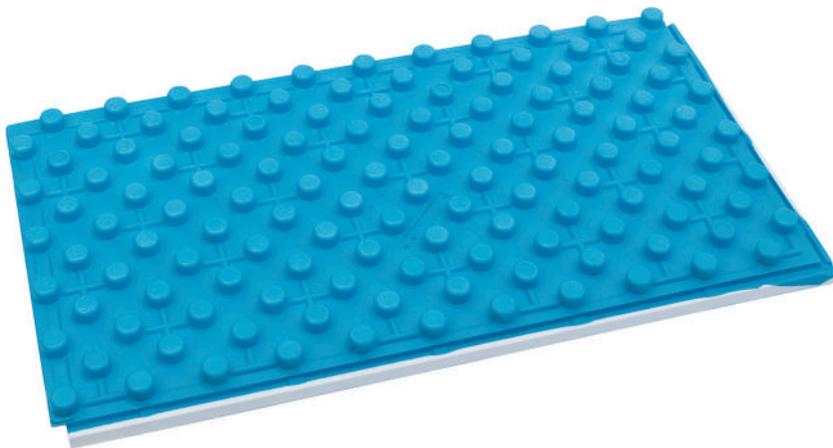
Panel in expanded polystyrene (EPS) printed for thermal insulation, with surface bosses and peripheral interlocking joints, clad in a rigid polystyrene film. Pipe spacing 5 cm.

(*) Available on request: 20 days to order confirm



UNI EN 13163

Technical data	Norm	Model H40	Model H50	Model H60
Type	UNI EN 13163	EPS 200	EPS 200	EPS 200
Density	UNI EN 1602	30 kg/m ³	30 kg/m ³	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa	≥ 200 kPa	≥ 200 kPa
Thermal conductivity λ_D (λ_{ins})	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK	0,033 W/mK	0,033 W/mK
Thermal resistance $R_{\lambda,ins}$ (S_{ins}/λ_{ins})	UNI EN 1264-3: 2021	1,40 m ² K/W	1,75 m ² K/W	2,05 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	40 ÷ 100	40 ÷ 100	40 ÷ 100
Slab thickness S_{ins}	UNI EN 1264-3	40 mm	50 mm	60 mm
Total length		1120 mm	1120 mm	1120 mm
Total width		620 mm	620 mm	620 mm
Total thickness		68 mm	78 mm	88 mm
Coating film thickness		0,16 mm	0,16 mm	0,16 mm
Pipe spacing		50 mm	50 mm	50 mm
External \varnothing of installing pipes		16-17 mm	16-17 mm	16-17 mm
Pack		5,28 m ²	4,62 m ²	3,96 m ²



H = 40/50/60 mm

Floor system



Standard Combi Floor insulating panel

Dimension	Density	Pack m ²	Code
1200 x 800 x 32 / H10	30 kg/m ³	18,24	28134075
1200 x 800 x 42 / H20	25 kg/m ³	13,44	28134077
1200 x 800 x 52 / H30	25 kg/m ³	9,6	28134079

Panel in expanded polystyrene (EPS) printed for thermal insulation, with surface bosses and cylindrical edges, coupled with thermoformed rigid polystyrene film. Pipe spacing 5 cm.



UNI EN 13163

Technical data	Norm	Model H10	Model H20	Model H30
Type	UNI EN 13163	EPS 200	EPS 150	EPS 150
Density	UNI EN 1602	30 kg/m ³	25 kg/m ³	25 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa	≥ 150 kPa	≥ 150 kPa
Thermal conductivity $\lambda_D (\lambda_{ins})$	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK	0,033 W/mK	0,033 W/mK
Thermal resistance $R_{\lambda,ins} (S_{ins} / \lambda_{ins})$	UNI EN 1264-3: 2021	0,45 m ² K/W	0,80 m ² K/W	1,10 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	40 ÷ 100	30 ÷ 70	30 ÷ 70
Slab thickness S_{ins}	UNI EN 1264-3	10 mm	20 mm	30 mm
Total length		1250 mm	1250 mm	1250 mm
Total width		850 mm	850 mm	850 mm
Total thickness		32 mm	42 mm	52 mm
Coating film thickness		0,65 mm	0,65 mm	0,65 mm
Pipe spacing		50 mm	50 mm	50 mm
External Ø of installing pipes		16-17 mm	16-17 mm	16-17 mm
Pack		18,24 m ²	13,44 m ²	9,60 m ²



Floor system



Insulating panel Standard Combi Floor with graphite

Dimension	Density	Pack m ²	Code
1200 x 800 x 32 / H10 (*)	30 kg/m ³	18,24	28134032
1200 x 800 x 45 / H23 (*)	25 kg/m ³	12,48	28134121
1200 x 800 x 60 / H38 (*)	25 kg/m ³	7,68	28134123
1200 x 800 x 67 / H45 (*)	25 kg/m ³	7,68	28134039
1200 x 800 x 82 / H60 (*)	25 kg/m ³	5,76	28134125

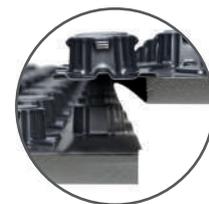
Panel in expanded polystyrene (EPS) printed, additived with graphite, for thermal insulation, with surface bosses and cylindrical edges, coupled with thermoformed rigid polystyrene film. Pipe spacing 5 cm.



UNI EN 13163

(*) Item on request: 30 days to order confirm

Technical data	Norm	Model H10	Model H23	Model H38	Model H45	Model H60
Type	UNI EN 13163	EPS 200	EPS 150	EPS 150	EPS 150	EPS 150
Density	UNI EN 1602	30 kg/m ³	25 kg/m ³	25 kg/m ³	25 kg/m ³	25 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa	≥ 150 kPa	≥ 150 kPa	≥ 150 kPa	≥ 150 kPa
Thermal conductivity λ_D (λ_{ins})	UNI EN 12667 (UNI EN 1264-3)	0,030 W/mK				
Thermal resistance $R_{\lambda,ins}$ (S_{ins}/λ_{ins})	UNI EN 1264-3: 2021	0,30 m ² K/W	0,75 m ² K/W	1,25 m ² K/W	1,50 m ² K/W	2,00 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E				
Water absorption	EN 12087	< 2%	< 2%	< 2%	< 2%	< 2%
Resistance factor diffusion to water vapor μ	UNI EN 12086	40 ÷ 100	40 ÷ 100	40 ÷ 100	40 ÷ 100	40 ÷ 100
Slab thickness S_{ins}	UNI EN 1264-3	10 mm	23 mm	38 mm	45 mm	60 mm
Total lenght		1250 mm				
Total width		850 mm				
Total thickness		32 mm	45 mm	60 mm	67 mm	82 mm
Coating film thickness		0,65 mm				
Pipe spacing		50 mm				
External Ø of installing pipes		16-17 mm				
Pack		18,24 m ²	12,48 m ²	7,68 m ²	7,68 m ²	5,76 m ²



Floor system



Classic Floor insulating panel without film

Dimension	Density	Pack m ²	Code
1200 x 750 x 50 / H20 (*)	25 kg/m ³	10,8	28130097
1200 x 750 x 50 / H20	25 kg/m ³	12,6	28134012

Panel in expanded polystyrene (EPS) printed for thermal insulation, with surface bosses and peripheral interlocking joints. Pipe spacing: 7,5 cm.

(*) Item to be out of stock

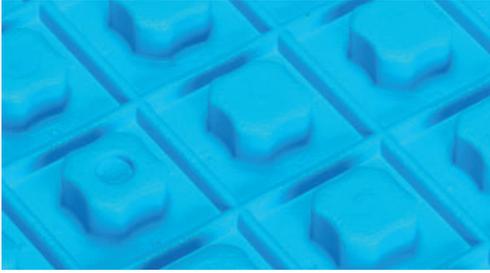


UNI EN 13163

Technical data	Norm	Model H20 (*)	Model H20
Type	UNI EN 13163	EPS 150	EPS 150
Density	UNI EN 1602	25 kg/m ³	25 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 150 kPa	≥ 150 kPa
Thermal conductivity λ_D (λ_{ins})	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK	0,033 W/mK
Thermal resistance $R_{\lambda,ins}$ (S_{ins} / λ_{ins})	UNI EN 1264-3: 2021	0,60 m ² K/W	0,60 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclasse E	Euroclasse E
Water absorption	EN 12087	< 5%	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	30 ÷ 70	30 ÷ 70
Slab thickness S_{ins}	UNI EN 1264-3	20 mm	20 mm
Total length		1220 mm	1220 mm
Total width		770 mm	770 mm
Total thickness		50 mm	50 mm
Pipe spacing		75 mm	75 mm
External \emptyset of installing pipes		16-17-20 mm	16-17-20 mm
Pack		10,8 m ²	12,6 m ²



Floor system



Insulating panel Classic Floor with coating film (polystyrene rigid film, thickness 0,16 mm)

Dimension	Density	Pack m ²	Code
1200 x 750 x 65 / H30 (*)	30 kg/m ³	9	28130099

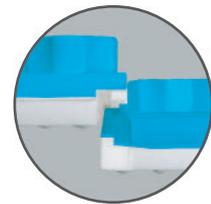
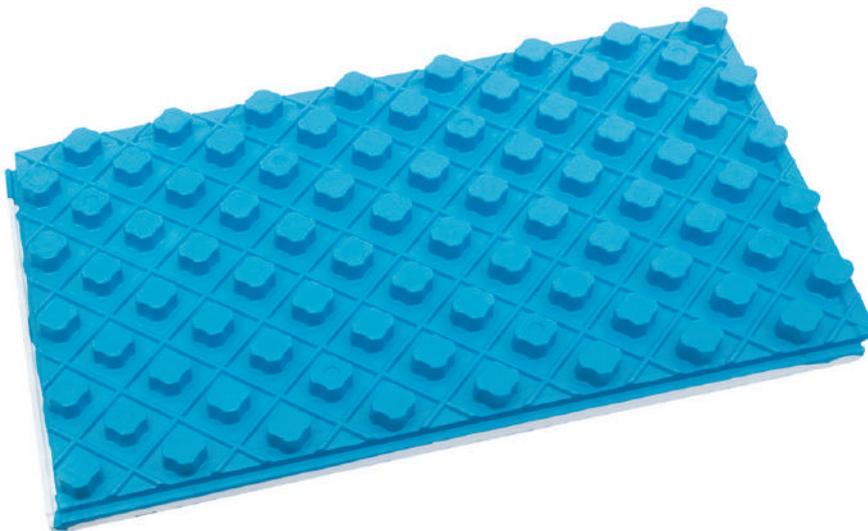
Panel in expanded polystyrene (EPS) printed for thermal insulation, with surface bosses and peripheral interlocking joints, coated with polystyrene rigid film. Pipe spacing: 7,5 cm.

(*) Available on request: 20 days to order confirm



UNI EN 13163

Technical data	Norm	Model H30
Type	UNI EN 13163	EPS 200
Density	UNI EN 1602	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa
Thermal conductivity λ_D (λ_{ins})	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK
Thermic resistance R_D	UNI EN 12667	1,15 m ² K/W
Thermal resistance $R_{\lambda,ins}$ (S_{ins}/λ_{ins})	UNI EN 1264-3: 2021	1,15 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Factor of resistance to diffusion of water vapor μ	UNI EN 12086	40 ± 100
Slab thickness S_{ins}	UNI EN 1264-3	30 mm
Total length		1220 mm
Total width		770 mm
Total thickness		65 mm
Film coating thickness		0,16 mm
Pipe spacing		75 mm
External \varnothing of installing pipes		16-17-20 mm
Pack		9 m ²



Floor system



Step Combi Floor phono-insulating panel

Dimension	Pack m ²	Code
1400 x 800 x 51 / H30-2	6,72	28134098

Panel in elasticized expanded polystyrene (EPS-T) printed for thermal and acoustic insulation (from footstep noise), with surface bosses and cylindrical edges, coupled with thermoformed rigid polystyrene film. Pipe spacing 5 cm.



UNI EN 13163

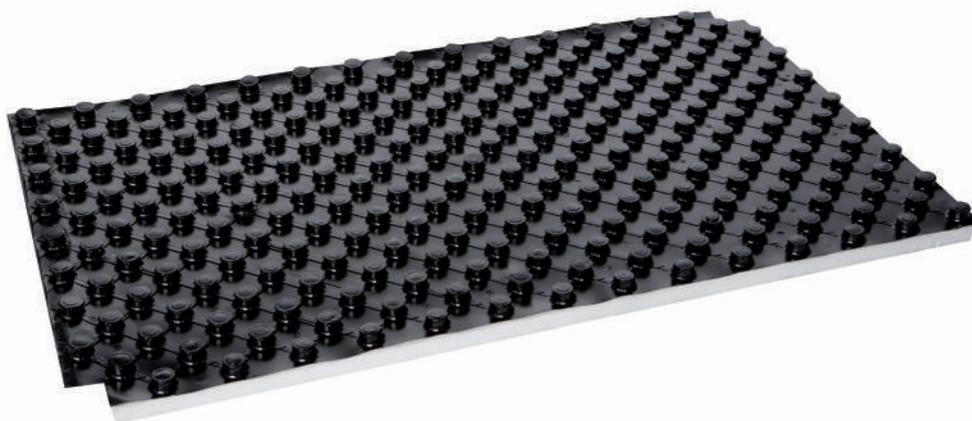
Technical data	Norm	Model H35
Type	UNI EN 13163	EPS-T
Dinamic stiffness	EN 29052-1 / UNI EN 13163	< 20 MN/m ³ /SD20
Compressibility	EN 12431 / UNI EN 13163	≤ 2 mm/CP2
ΔLw** (index of evaluation of attenuation of the level of sound pressure on the walkway)	UNI EN 12354-2	28 dB
Thermal conductivity λ _D (λ _{ins})	UNI EN 12667 (UNI EN 1264-3)	0,04 W/mK
Thermal resistance R _{λ,ins} (S _{ins} / λ _{ins})	UNI EN 1264-3: 2021	0,75 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Slab thickness S _{ins}	UNI EN 1264-3	30-2 mm
Total lenght		1450 mm
Total width		850 mm
Total thickness		51 mm
Coating film thickness		0,6 mm
Pipe spacing		50 mm
External Ø of installing pipes		16 - 17 mm
Pack		6,72 m ²

Reference to technical data table:

** forecast calculation for systems with "slab + resilient layer" system (floating flooring), valid for concrete and cement block floors, as per the simplified model set forth by standard EN 12354-2, table C1.

Conditions:

mass per unit of area of the slab: 100 kg/m² - dynamic rigidity of the resilient slab: 20 MN/m³



Floor system



Step Combi Floor phono-insulating panel with graphite

Dimension	Pack m ²	Code
1400 x 800 x 51 / H30-2	6,72	28134270

Panel in elasticized expanded polystyrene (EPS-T) printed, double density, added with graphite, for thermal and acoustic insulation (from footstep noise), with surface bosses and cylindrical edges, coupled with thermoformed rigid polystyrene film. Pipe spacing 5 cm.

Item on request: 20 days from order confirm.



UNI EN 13163

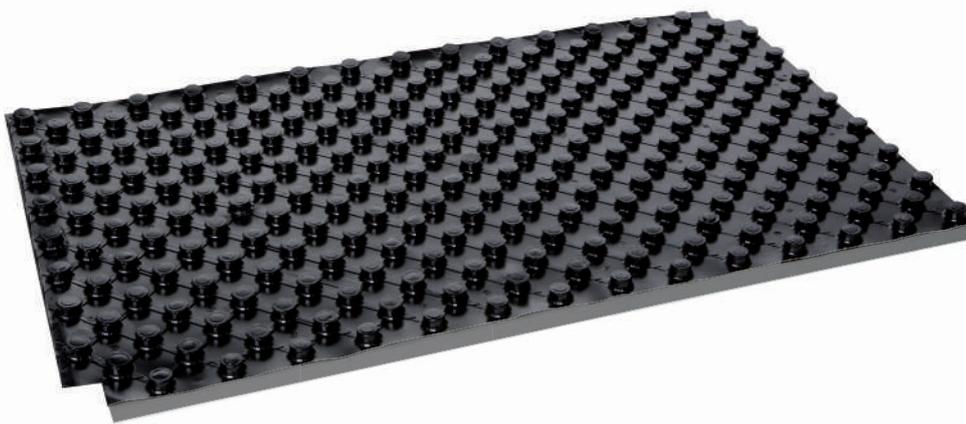
Technical data	Norm	Model H30
Type	UNI EN 13163	EPS-T
Dinamic stiffness	EN 29052-1 / UNI EN 13163	< 20 MN/m ³ /SD20
Compressibility	EN 12431 / UNI EN 13163	≤ 2 mm/CP2
ΔLw** (index of evaluation of attenuation of the level of sound pressure on the walkway)	UNI EN 12354-2	28 dB
Thermal conductivity λ _D (λ _{ins})	UNI EN 12667 (UNI EN 1264-3)	0,032 W/mK
Thermal resistance R _{λ,ins} (S _{ins} /λ _{ins})	UNI EN 1264-3: 2021	0,90 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Slab thickness S _{ins}	UNI EN 1264-3	30-2 mm
Total lenght		1450 mm
Total width		850 mm
Total thickness		51 mm
Coating film thickness		0,6 mm
Pipe spacing		50 mm
External Ø of installing pipes		16 - 17 mm
Pack		6,72 m ²

Reference to technical data table:

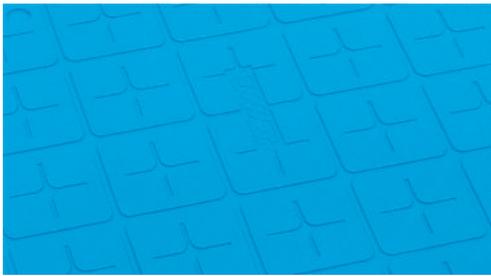
** forecast calculation for systems with "slab + resilient layer" system (floating flooring), valid for concrete and cement block floors, as per the simplified model set forth by standard EN 12354-2, table C1.

Conditions:

mass per unit of area of the slab: 100 kg/m² - dynamic rigidity of the resilient slab: 20 MN/m³



Floor system



Plan Floor insulating panel

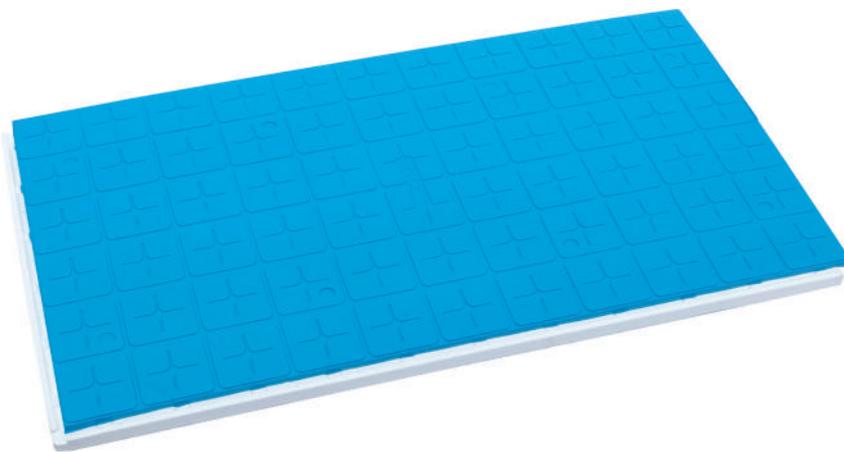
Dimension	Density	Pack m ²	Code
1100 x 600 x 30 / H30	30 kg/m ³	10,56	28130072

Smooth panel in expanded polystyrene (EPS) printed for thermal insulation, with surface impressions for the laying of pipes and peripheral interlocking joints. Covered with a rigid polystyrene film. Footprints pipe 5 cm.

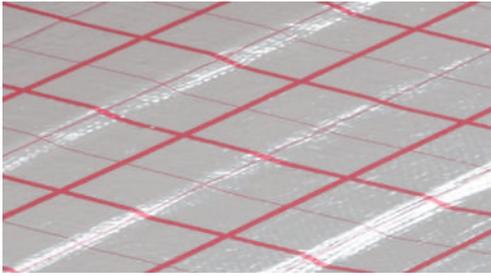


UNI EN 13163

Technical data	Norm	Model H30
Type	UNI EN 13163	EPS 200
Density	UNI EN 1602	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa
Thermal conductivity $\lambda_D (\lambda_{ins})$	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK
Thermal resistance $R_{\lambda,ins} (S_{ins} / \lambda_{ins})$	UNI EN 1264-3: 2021	0,90 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	40 ÷ 100
Slab thickness S_{ins}	UNI EN 1264-3	30 mm
Total length		1120 mm
Total width		620 mm
Total thickness		30 mm
Coating film thickness		0,16 mm
Pipe spacing		50 mm
Pack		10,56 m ²



Floor system



Roll Floor insulating panel

Dimension	Density	Pack m ²	Code
10000 x 1000 x 30 / H20 (*)	25 kg/m ³	10	28134256
10000 x 1000 x 30 / H30	25 kg/m ³	10	28134250
10000 x 1000 x 40 / H40 (*)	25 kg/m ³	10	28134252
10000 x 1000 x 50 / H50 (*)	25 kg/m ³	10	28134254
NEW 6000 x 1000 x 60 / H60 (*)	25 kg/m ³	6	28134258

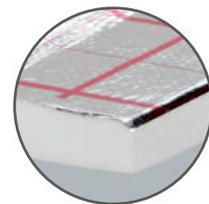
Panel smooth in roll, consisting of slats (dimensions: 100 x 1000 mm) made of expanded polystyrene (EPS) printed for thermal insulation, coupled to a film HDPE with red color aluminum track laying step 5 cm and self-adhesive edge.

(*) Available on request: 20 days from order confirmation



UNI EN 13163

Technical data	Norm	Model H20	Model H30	Model H40	Model H50	Model H60
Type	UNI EN 13163	EPS 150				
Density	UNI EN 1602	25 kg/m ³				
Compression resistance at 10% of crushing	UNI EN 826	≥ 150 kPa				
Thermal conductivity λ_D (λ_{ins})	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK				
Thermal resistance $R_{\lambda,ins}$ (S_{ins}/λ_{ins})	UNI EN 1264-3: 2021	0,60 m ² K/W	0,90 m ² K/W	1,20 m ² K/W	1,50 m ² K/W	1,85 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E				
Water absorption	EN 12087	< 5%	< 5%	< 5%	< 5%	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	30 ÷ 70	30 ÷ 70	30 ÷ 70	30 ÷ 70	30 ÷ 70
Slab thickness S_{ins}	UNI EN 1264-3	20 mm	30 mm	40 mm	50 mm	60 mm
Total length		10.000 mm	10.000 mm	10.000 mm	10.000 mm	6.000 mm
Total width		1.000 mm				
Total thickness		20 mm	30 mm	40 mm	50 mm	60 mm
Coating film thickness		0,16 mm				
Pipe spacing		50 mm				
Pack		10 m ²	10 m ²	10 m ²	10 m ²	6 m ²



Floor system



Insulating panel Thin Floor H5 with graphite with self-adhesive base

Dimension	Density	Pack m ²	Code
1200 x 600 x 19 / H5	40 kg/m ³	12,96	28134048

Panel in expanded polystyrene (EPS) printed, treated with graphite, for thermal insulation, with surface bosses (100 mm pitch, for pipe DN 12x2), edges Male-Female, self-adhesive base and up-per rigid polystyrene film.

Ideal for renovation projects, thanks to the low profile, in combination with the latest generation of fluid screeds, enables the construction of plants with thick (cladding excluded) minimum of 30 mm, without compromising the thermal insulation guaranteed by the layer in EPS.

Note:

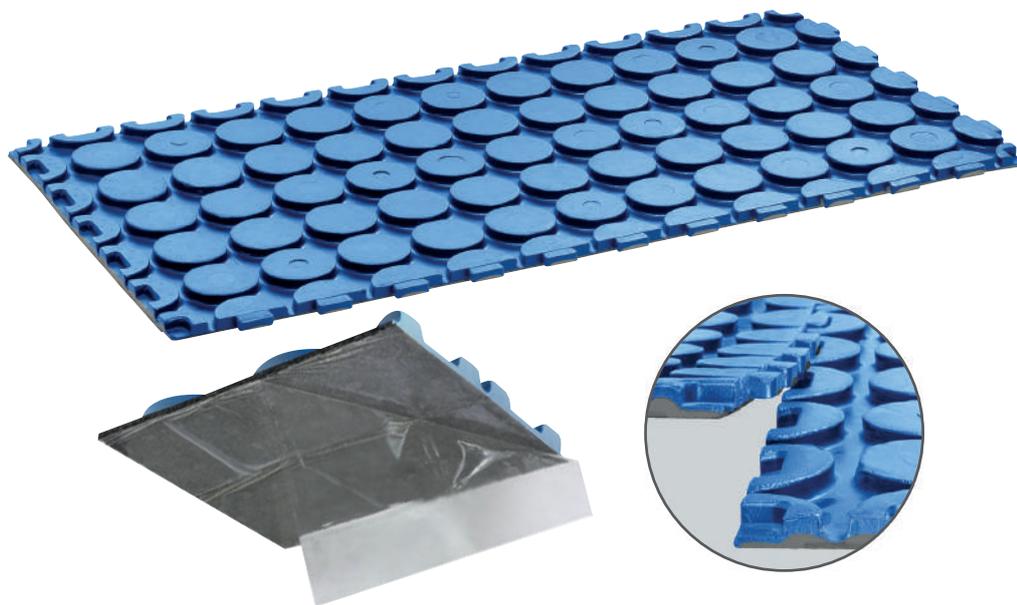
the actual Slab thickness S_{ins} and construction procedures to be defined by the manufacturer / supplier of the same according to his specifications, depending on the installation conditions (size and surface type of installation, type loft, etc.) and the type of slab chosen.

The choice of surface finish should take into account the type and used screed.



UNI EN 13163

Technical data	Norm	Model H5
Type	UNI EN 13163	EPS 250
Density	UNI EN 1602	40 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 250 kPa
Thermal conductivity λ _D (λ _{ins})	UNI EN 12667 (UNI EN 1264-3)	0,031 W/mK
Thermal resistance R _{λ,ins} (S _{ins} / λ _{ins})	UNI EN 1264-3: 2021	0,15 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	40 ÷ 100
Slab thickness S _{ins}	UNI EN 1264-3	5 mm
Total lenght		1215 mm
Total width		615 mm
Total thickness		19 mm
Coating film thickness		0,16 mm
Pipe spacing		100 mm
External Ø of installing pipes		12 mm
Pack		12,96 m ²



Floor system

Grid Floor System



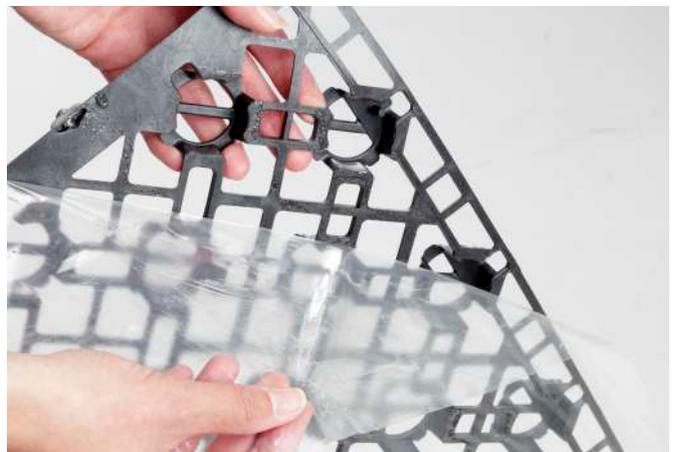
Grid Floor panel for DN12 pipe



Grid Floor panel for DN16-17 pipe



Detail of perimeter joints



Particular adhesive bottom film



SCAN

The new range of Grid Floor panels for the construction of radiant floor systems is characterized by the particular shape of the grid in recycled plastic material (polypropylene), which combines the simplicity of laying the pipes of the ashlar systems, with the advantages of flat systems. The pipes are firmly hooked to the panels and are completely in contact with the screed, which can completely fill the perforated bosses, improving the heat exchange of the system.

The range

- Grid floor panel for DN12 pipe with self-adhesive base, thickness 15mm;
- Grid floor panel for DN12 pipe coupled with EPS150 sheet, thickness 15 + 10 mm;
- Grid floor panel for DN16 / 17 pipe coupled with EPS150 sheet, thickness 22 + 10 mm;
- Grid floor panel for DN16 / 17 pipe coupled with EPS150 sheet, thickness 22 + 25 mm;
- Grid floor panel for DN16 / 17 pipe coupled with EPS150 sheet, thickness 22 + 42 mm.

Dimensions: see section Technical Attachments page 452-453

Advantages

Impact resistant bosses and shaped for optimal blocking of pipes. Heat exchange and homogeneous distribution of the surface temperature. Excellent compatibility with low thickness fluid screeds (levelling). Ideal for renovations, thanks to the reduced thickness of the panels. The model for DN12 pipe and 15 mm thickness with self-adhesive base, applied on existing floors, allows a covering thickness of only 5 mm using the special Knauf NE499 Super-levelling, for a total footprint of the panel + screed system of only 20 mm!

Floor system

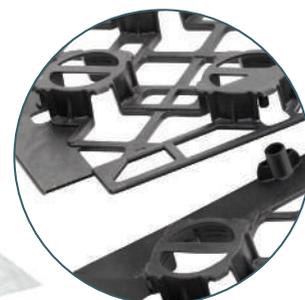
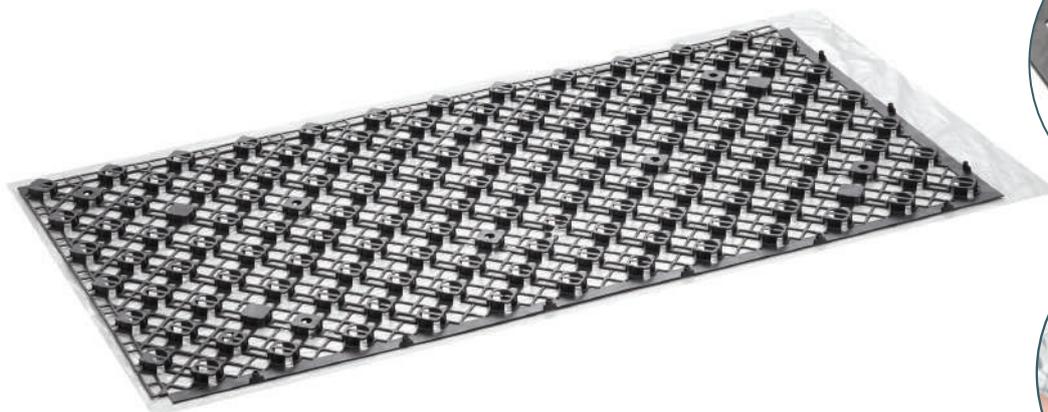


Grid Floor panel for DN12 pipe, with self-adhesive base

Dimensions	Pack m ²	Code
1200x600x15 / H0	15,84	28134168

Support panel in recycled plastic material (polypropylene) for the construction of radiant systems with reduced thickness, equipped with perimeter joints and self-adhesive base for gluing on existing flooring or substrate, previously treated with primer ("anchored" floor system). Allows the use of very low thickness fluid screeds (levelings) with a minimum thickness of 5 mm above the panel

Technical data	Model H0
Total length	1220 mm
Total width	620 mm
Total thickness	15 mm
Bosses thickness	15 mm
Pipe spacing	50 mm
External Ø of installing pipes	12 mm
Pack	15,84 m ²



Floor system



Grid Floor insulating panels for DN12 pipe

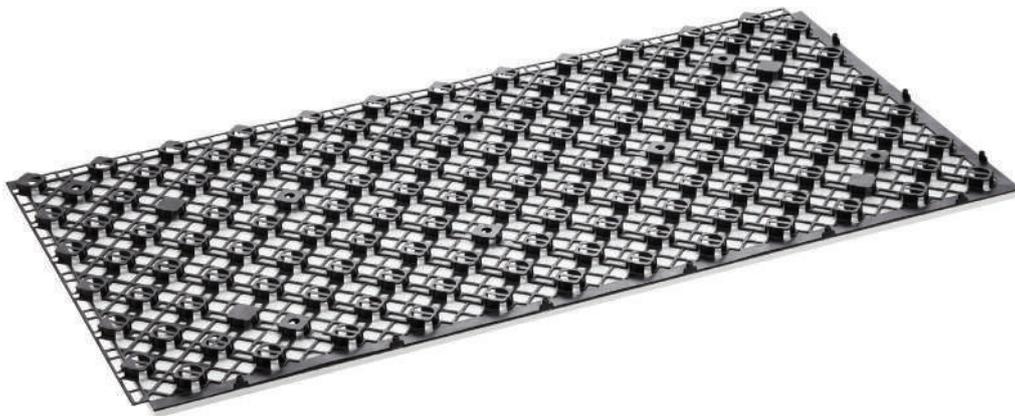
Dimensions	Density	Pack m ²	Code
1200x600x25 / H10	25 kg/m ³	7,20	28134166

Support panel in recycled plastic material (polypropylene) for the construction of radiant systems with reduced thickness, coupled with a flat insulation in Expanded Sintered Polystyrene (white EPS 150). Equipped with perimeter joints.



UNI EN 13163

Technical data	Norm	Model H10
Type	UNI EN 13163	EPS 150
Recycled material (%)		≥ 10 %
Density	UNI EN 1602	25 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 150 kPa
Thermal conductivity λ_D (λ_{ins})	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK
Thermic resistance $R_{\lambda,ins}$ (S_{ins}/λ_{ins})	UNI EN 1264-3:2021	0,30 m ² K/W
Class of reaction fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 3%
Factor of resistance to diffusion of water vapor μ	UNI EN 12086	30 ÷ 70
Slab thickness S_{ins}	UNI EN 1264-3	10 mm
Total length		1220 mm
Total width		620 mm
Total thickness		25 mm
Bosses thickness		15 mm
Pipe spacing		50 mm
External Ø of installing pipes		12 mm
Pack		7,20 m ²



Floor system



Grid Floor insulating panel for DN 16-17 pipe

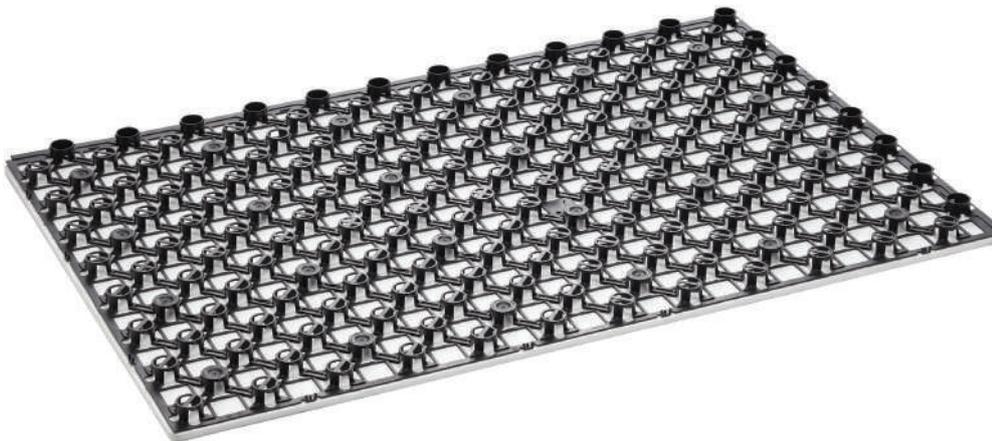
Dimensions	Density	Pack m ²	Code
1200x800x32 / H10	25 kg/m ³	7,68	28134160
1200x800x47 / H25	25 kg/m ³	8,64	28134162
1200x800x64 / H42	25 kg/m ³	5,76	28134164

Support panel in recycled plastic material (polypropylene) for the construction of radiant systems with reduced thickness, coupled with a flat insulation in Expanded Sintered Polystyrene (white EPS 150). Equipped with perimeter joints.



UNI EN 13163

Technical data	Norm	Model H10	Model H25	Model H42
Type	UNI EN 13163	EPS 150	EPS 150	EPS 150
Recycled material (%)		≥ 10 %	≥ 10 %	≥ 10 %
Density	UNI EN 1602	25 kg/m ³	25 kg/m ³	25 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 150 kPa	≥ 150 kPa	≥ 150 kPa
Thermal conductivity $\lambda_D (\lambda_{ins})$	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK	0,033 W/mK	0,033 W/mK
Thermic resistance $R_{\lambda,ins} (S_{ins} / \lambda_{ins})$	UNI EN 1264-3:2021	0,30 m ² K/W	0,75 m ² K/W	1,25 m ² K/W
Class of reaction fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 3%	< 3%	< 3%
Factor of resistance to diffusion of water vapor μ	UNI EN 12086	30 ÷ 70	30 ÷ 70	30 ÷ 70
Slab thickness S_{ins}	UNI EN 1264-3	10 mm	25 mm	42 mm
Total length		1220 mm	1220 mm	1220 mm
Total width		820 mm	820 mm	820 mm
Total thickness		32 mm	47 mm	64 mm
Bosses thickness		22 mm	22 mm	22 mm
Pipe spacing		50 mm	50 mm	50 mm
External Ø of installing pipes		16-17 mm	16-17 mm	16-17 mm
Pack		7,68 m ²	8,64 m ²	5,76 m ²

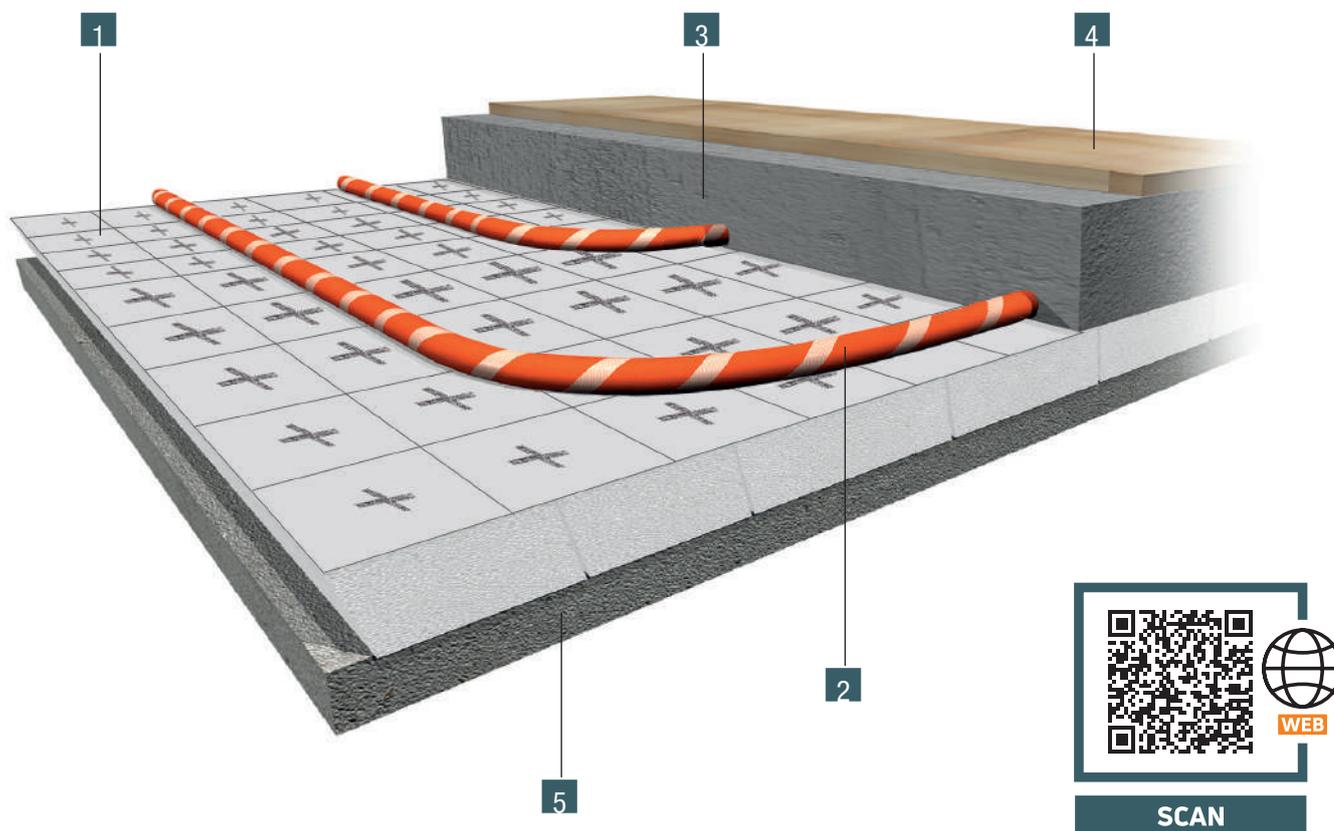


Floor system

Klettjet System

KLETTJET is the new system of smooth roll panels that uses tear-off technology for a simple and flexible laying of the pipes. It is composed of a range of EPS polystyrene panels, or expanded PE, equipped at the top with a film, with installation grid, on which the appropriate PE-Xc tube equipped with tape for tear-off fastening.

Flooring with the Klettjet system



Construction

- 1 EPS Klettjet insulating panel
- 2 PexPenta Klett pipe
- 3 Screed
- 4 Floor
- 5 Slab

Dimensions: see section **Technical Attachments** page 454

Floor system



EPS Klettjet insulating panel

Dimension	Density	Pack m ²	Code
10000 x 1000 x 20 / H20	25 kg/m ³	10	28134126
10000 x 1000 x 30 / H30	25 kg/m ³	10	28134128
10000 x 1000 x 20 / H41 (*)	25 kg/m ³	10	28134150

Smooth panel in roll, made up of slats (dimensions: 100 x 1000 mm) in expanded polystyrene (EPS) printed for thermal insulation, coupled with a white loop film with black trace of laying pitch 5 cm.

(*) Item available on request



UNI EN 13163

Technical data	Norm	Model H20	Model H30	Model H41
Type	UNI EN 13163	EPS 150	EPS 150	EPS 150
Density	UNI EN 1602	25 kg/m ³	25 kg/m ³	25 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 150 kPa	≥ 150 kPa	≥ 150 kPa
Thermal conductivity $\lambda_D (\lambda_{ins})$	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK	0,033 W/mK	0,033 W/mK
Thermal resistance $R_{\lambda,ins} (S_{ins} / \lambda_{ins})$	UNI EN 1264-3: 2021	0,60 m ² K/W	0,90 m ² K/W	1,25 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	40 ÷ 100	40 ÷ 100	30 ÷ 70
Slab thickness S_{ins}	UNI EN 1264-3	20 mm	30 mm	41 mm
Total length		10.000 mm	10.000 mm	10.000 mm
Total width		1.000 mm	1.000 mm	1.000 mm
Total thickness		20 mm	30 mm	41 mm
Pipe spacing		50 mm	50 mm	50 mm
Pack		10 m ²	10 m ²	10 m ²



Floor system



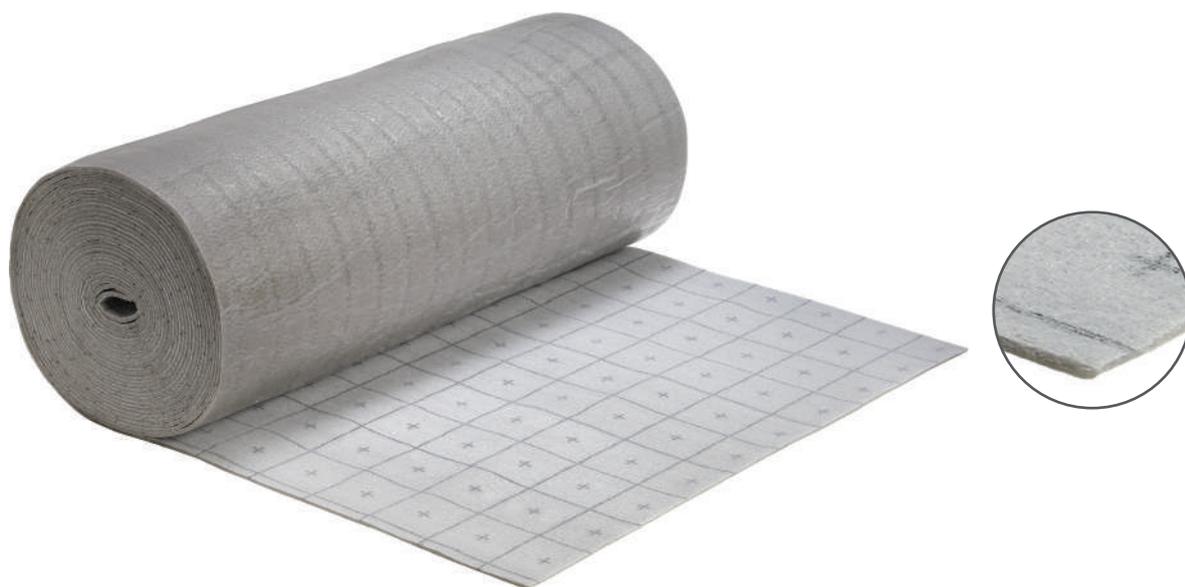
PE Klettjet R panel

Dimension	Pack m ²	Code
20000 x 1000 x 6 / H6	20	28134286

Panel smooth in roll made of closed-cell extruded polyethylene with self-adhesive base, for thermal and acoustic insulation (from footstep noise).

UNI EN 14313

Technical data	Norm	Model H6
Type	UNI EN 14313	Expanded PE
Dinamic stiffness	EN 29052-1	< 210 MN/m ³
Compressibility	EN 12431	≤ 2 mm/CP2
ΔLw^{**} (index of evaluation of attenuation of the level of sound pressure on the walkway)	UNI EN 12354-2	13dB
Thermal conductivity λ_D (λ_{ins})	EN 12939 (UNI EN 1264)	0,045 W/mK
Thermal resistance $R_{\lambda,ins}$ (S_{ins}/λ_{ins})	UNI EN 1264-3: 2021	0,1 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E
Maximum load	/	5.0 kPa
Slab thickness S_{ins}	UNI EN 1264-3	6 mm
Total lenght		20.000 mm
Total width		1.000 mm
Total thickness		6 mm
Pipe spacing		50 mm



Floor system



UNI EN ISO 21003-2

PexPenta Klett pipe

Classes of application / Operating pressures (bar):

Cl. 4 / 6 bar - Cl. 5 / 6 bar

Oxygen permeability (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.32 mg/(m²d) at 80 °C

Density: 940 kg/m³

Thermal conductivity: 0.41 W/(mK)

Degree of reticulation: ≥60%

Average coefficient of linear expansion: 0,15 mm/(m °C)

Minimum bending radius: 5 x external diameter

Internal roughness: 6 µm - Water capacity: 0.11 l/min

Application: heating systems

Dimension	Mts. pack	Code
16 x 2 mm	240	28141830
16 x 2 mm	600	28141832

5-layers pipe in high-density polyethylene, with electronic system crosslinking, complying with to standard UNI EN ISO 21003-2 and certified DIN CERTCO 3V365.

Accessories for Klettjet System



Monoblocco seal for PexPenta Klett pipe

Dimension	Thread	Pcs. pack	Code
16 x 2	24x19	20	28110118
16 x 2 (*)	3/4" Eurocone	10	28100792

(*) Item to be out of stock



Tape 50 mm for joining panels Klettjet

Dimension	Roll each pack	Code
50 mm x 100 mt	1	28134290



Unwinder for tape 50 mm for panels Klettjet

Dimension	Pcs. pack	Code
	1	28134294



PexPenta Klett tube support

Dimension	Pcs. pack	Code
	1	28134296



Pair of gloves for PexPenta Klett pipe

Dimensions	Pcs. pack	Code
	1 pair	28134299

Dry System - Emmeti Dry Alu Floor

The new **Emmeti Dry Alu Floor** system represents the ideal solution for installations that require minimum thicknesses, reduced weight on the floors and quick operational start-up of the system.

In fact, Emmeti Dry Alu Floor has been designed for installations with dry application, without screed, applicable above existing floors or completely flat sub-bases. The pipes are laid in coils.

Available in two different thicknesses (30 and 40 mm total) it's particularly suited for application in building renovations.

The system is composed of:

- A moulded expanded polystyrene panel (type EPS 200) for thermal insulation, with shaped surface with longitudinal and orthogonal chases (pitch 150 mm) for 17x2 pipe, coupled with an aluminium conductive foil (thickness 0.3 mm).
- A moulded expanded polystyrene panel (type EPS 200) for thermal insulation, with shaped surface with longitudinal, orthogonal and curved chases for 17x2 pipe, coupled with a rigid polystyrene film, for the realization of the head curves and the crossings corresponding to the doors and collectors.
- A polyethylene separation sheet
- Two galvanized steel plates (with and without adhesive side), for the realization of the dual upper layer for thermal conduction and distribution of the load.

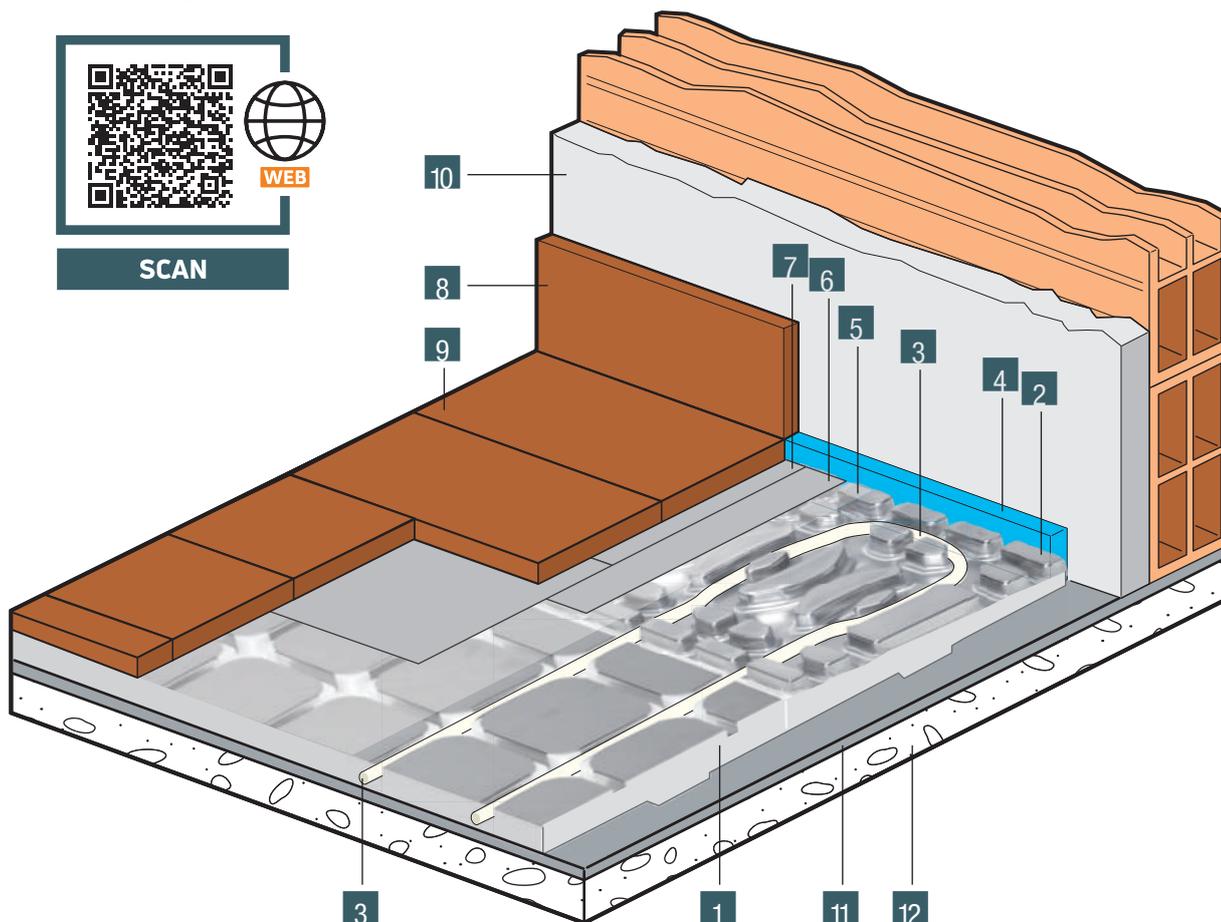
Flooring

In the case of **parquet**, it is recommended that the type underlayment with joints, laid without glue.

For the adhesion of floor coverings of **ceramic or stone** type, it is necessary to use specialized adhesives for metal surfaces (typically a polyurethane glues), providing the joints of at least 4/5 mm and grouting with suitable fillers elastic. It should the tiles are of no larger than 40 cm per side.

Dimensions: see section **Technical Attachments** page 455.

Ceramic or stone type Floors

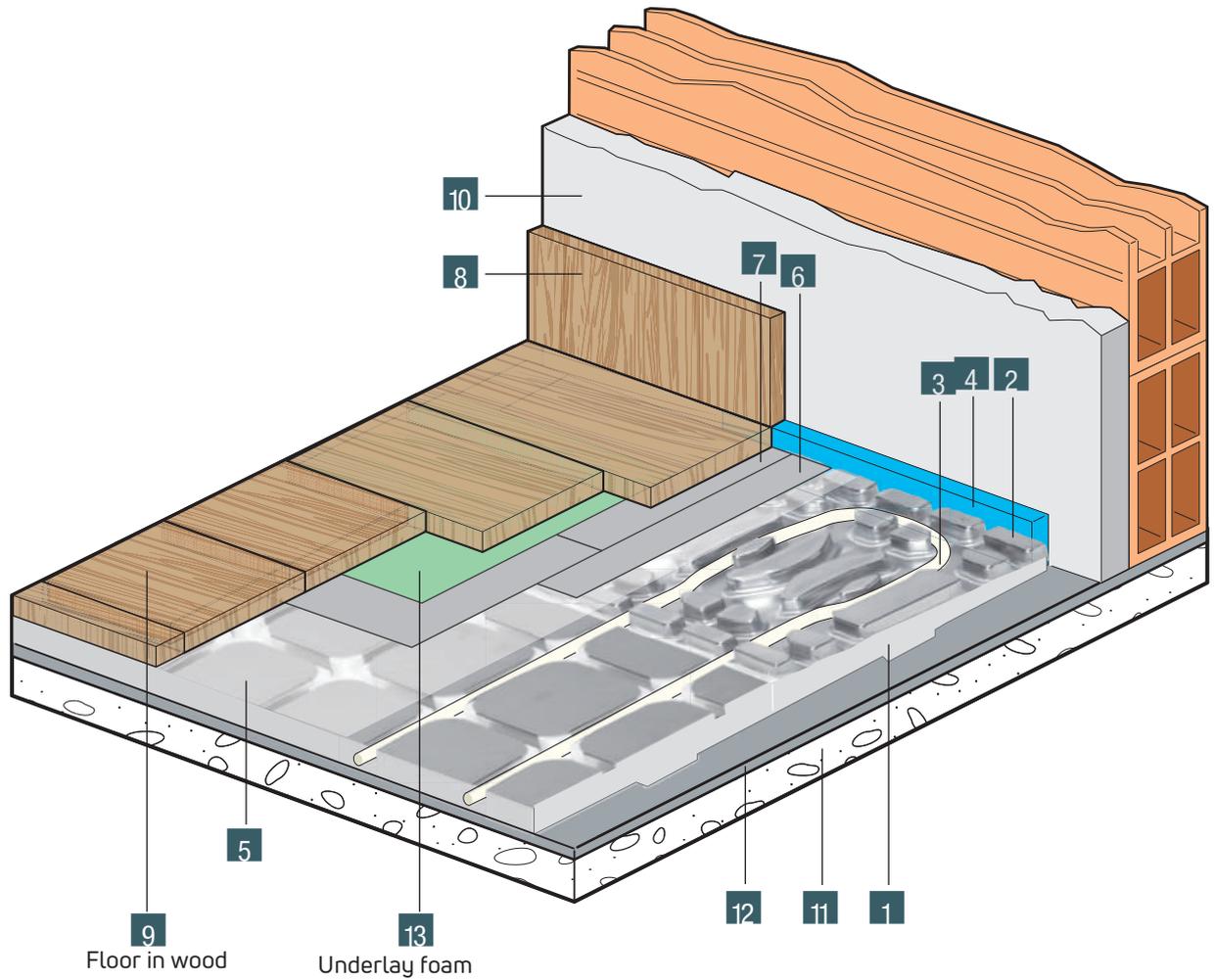


Construction

- | | |
|--|---|
| <ul style="list-style-type: none"> 1 Dry Alu Floor panel with aluminium foil 2 Dry Alu Floor head panel 3 Emmeti pipe PE-Xa 17x2 4 Perimeter insulation strip 5 Polyethylene separation sheet 6 Galvanized steel plate (first layer) | <ul style="list-style-type: none"> 7 Galvanized steel plate with adhesive (second layer) glued to the first 8 Skirting 9 Floor 10 Plaster 11 Self-levelling layer 12 Slab |
|--|---|

Floor system

Flooring with floating parquet



Construction

- 1 Dry Alu Floor panel with aluminium foil
- 2 Dry Alu Floor head panel
- 3 Emmeti pipe PE-Xa 17x2
- 4 Perimeter insulation strip
- 5 Polyethylene separation sheet
- 6 Galvanized steel plate (first layer)
- 7 Galvanized steel plate with adhesive (second layer) glued to the first
- 8 Skirting
- 9 Floor in wood
- 10 Plaster
- 11 Self-levelling layer
- 12 Slab
- 13 Underlay foam

Floor system



Dry Alu Floor insulating panel

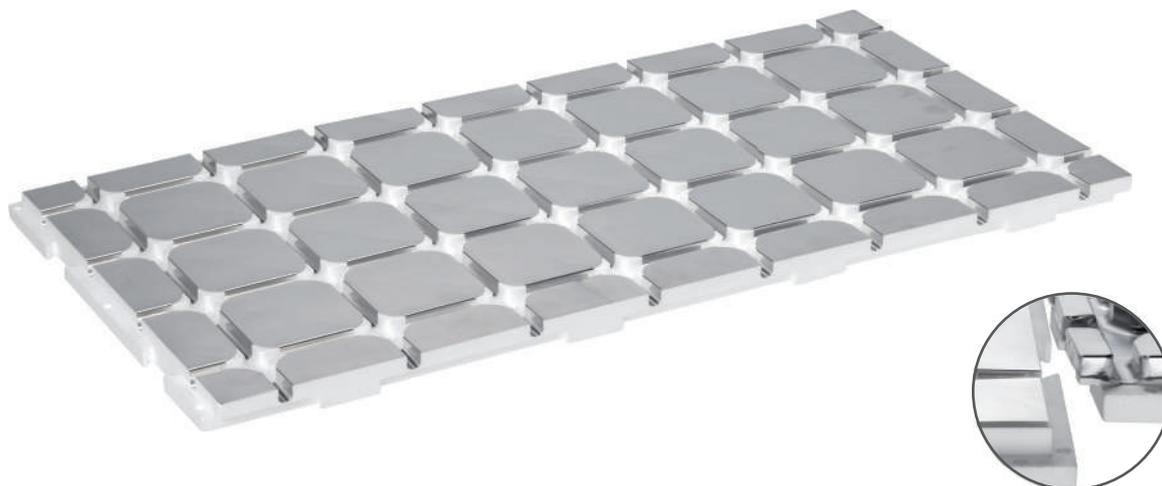
Dimension	Pack m ²	Code
1200 x 600 x 28 / H10	11,52	28134100

Panel in polystyrene type EPS 200, complies with EN 13163, with dovetail joints on four sides and upper aluminum foil. Pipe of laying 150 mm. Suitable for serpentine circuits.



UNI EN 13163

Technical data	Norm	Model H10 (panel)
Type	UNI EN 13163	EPS 200
Density	UNI EN 1602	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa
Thermal conductivity λ_D (λ_{ins})	EN 12939 (UNI EN 1264-3)	0,033 W/mK
Thermal resistance $R_{\lambda,ins}$ (S_{ins}/λ_{ins})	UNI EN 1264-3: 2021	0,65 m ² K/W
Class of reaction of fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	40 ÷ 100
Slab thickness S_{ins}	UNI EN 1264-3	21,4 mm
Total length		1215 mm
Total width		615 mm
Total thickness		28 mm
Sheet thickness Al		0,3 mm
Pipe spacing		150 mm
External \varnothing of installing pipes		17 mm
Pack		11,52 m ²



Floor system



Head Dry Alu Floor insulating panel

Dimension	Pack m ²	Code
600 x 300 x 28 / H10	5,76	28134104

Panel in polystyrene type EPS 200, complies with EN 13163, with dovetail joints on 4 sides and top film in rigid PS. Suitable for the creation of the head curves of the serpentine circuits, with pitch 150 mm.



UNI EN 13163

Technical data	Norm	Model H10 (headl)
Type	UNI EN 13163	EPS 200
Density	UNI EN 1602	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa
Thermal conductivity λ_D (λ_{ins})	EN 12939 (UNI EN 1264-3)	0,033 W/mK
Thermal resistance $R_{\lambda,ins}$ (S_{ins}/λ_{ins})	UNI EN 1264-3: 2021	0,55 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	40 ÷ 100
Slab thickness S_{ins}		18,1 mm
Total length		615 mm
Total width		315 mm
Total thickness		28 mm
Coating film thickness		0,16 mm
Pipe spacing		150 mm
External Ø of installing pipes		17 mm
Pack		5,76 m ²



Galvanized steel plate, thickness 1 mm

Dimension	Pack m ²	Code
600 x 600 x 1 (*)	3,6	28134109
600 x 300 x 1 (*)	3,6	28134113
600 x 600 x 1 (**)	3,6	28134111
600 x 300 x 1 (**)	3,6	28134115

Note: for the installation of the finished floor, use glues type bicomponent epoxy-polyurethane-specific substrates heated metallic, the choice of which it is always the layer, depending on the type of flooring. Excluded are floating floors, which do not require bonding.
(*) Without adhesive side - (**) With adhesive side

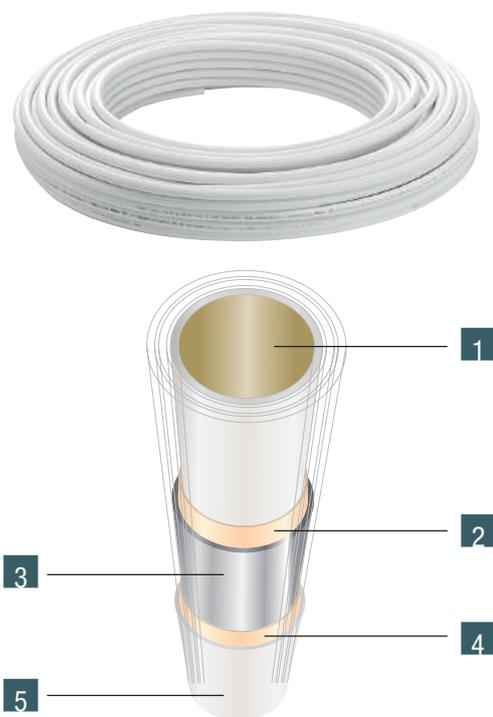
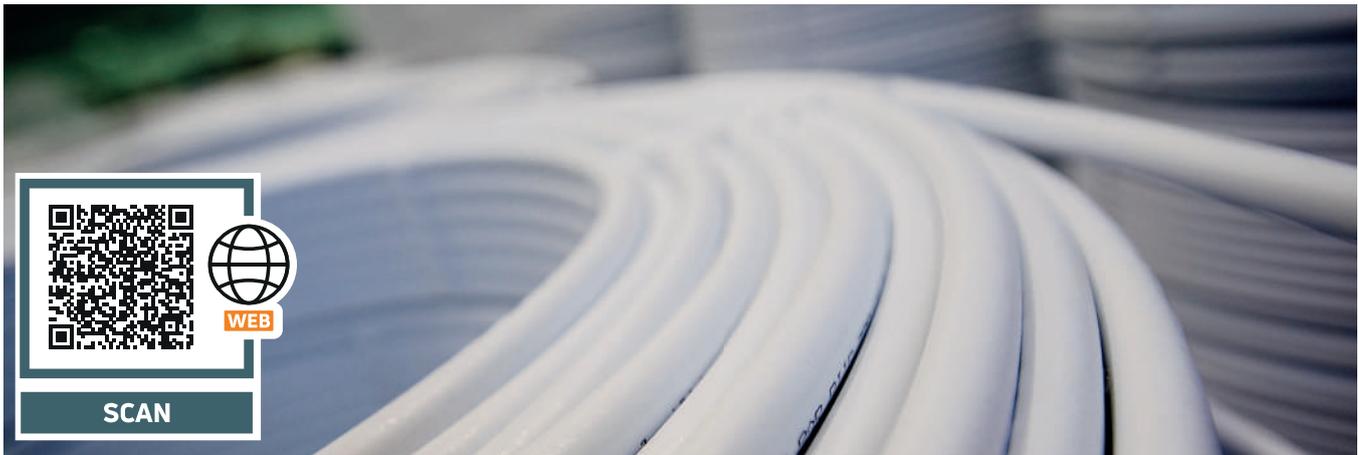


Insulating perimeter strip

Dimension	Mts. pack	Code
5 x 100 mm	50	28130492

In closed-cell expanded polyethylene, with adhesive band for fixing to a wall.

Pipes for Emmeti Floor



Emmeti Alpert pipe

Classes of application (UNI ISO 21003 - see section Technical Attachments): 2/10 bar, 5/10 bar;

Maximum operating conditions for 50 years:

- Design temperature: $T_D = 70\text{ }^\circ\text{C}$
- Design pressure $p_D = 10\text{ bar}$

Maximum temperature for short periods: $95\text{ }^\circ\text{C}$

Coefficient of linear expansion: $0,026\text{ mm/m }^\circ\text{C}$ - Thermal conductivity: $0,45\text{ W/m K}$

Oxygen permeability (DIN 4726): $0\text{ mg/(m}^2\text{d)}$ - Minimum radius of bending: $5 \times D\text{ pipe}$

Surface roughness of the inner tube: $7\text{ }\mu\text{m}$ - Class of reaction to fire: $E_L\text{ (EN 13501-1)}$

Construction

- 1 Inner pipe PE-RT
- 2 Bonding layer connecting the inner pipe to the aluminium pipe
- 3 Horizontal-roller-position welding
- 4 Bonding layer connecting the outer pipe to the aluminium pipe
- 5 External pipe PE-RT

Dimension	Mts. pack	Code
16 x 2	100	28107002
16 x 2	200	28107000
16 x 2	500	28107004

Multi-layer pipe for thermosanitary system, in appliance to UNI EN ISO 21003 and made from composite material using a technologically advanced processing during which PE-RT (polyethylene of raised temperature resistance) pipe is coupled with a 0.2 mm thick aluminium core, soldered at the head and externally coated with another layer of PE-RT.

Classification of service conditions (UNI ISO 21003) and regression curves Alpert pipe ($\varnothing 16 \times 2$): see section Technical Attachments page 456.



UNI EN ISO 21003



SKZ

Das Kunststoff-Zentrum

UNI EN ISO 15875-2

PE-Xc pipe with EVOH oxygen barrier 5 layers

Classes of application / Operating pressures (bar): size 12x2: Cl. 4/10 bar - Cl. 5/10 bar;
 Oxygen permeability (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 940 kg/m³ - Thermal conductivity: 0.41 W/mK - Degree of reticulation: ≥60%
 Average coefficient of linear expansion: 0.15 mm/(m °C)
 Minimum bending radius: 5 x D pipe - Internal roughness: 7 μm
 Water capacity: 0.05 l/m (12x2)
 Application: heating systems

Dimension	Mts. pack	Code
12 x 2 mm (*)	240	28141802

5-layers pipe in high-density polyethylene, with electronic system crosslinking, complying with to standard UNI EN ISO 15875-2 provided with an oxygen barrier in conformity with standard DIN 4726 and certified SKZ HR 3.2.

(*) Item to be out of stock

Classification of service conditions: see section Technical Attachments page 459



SKZ

Das Kunststoff-Zentrum

UNI EN ISO 21003-2

PE-Xc PENTA pipe with 5-layer EVOH oxygen barrier

NEW

Application classes / Operating pressures (bar):
 - size 12x2: Cl. 4/10 bar - 5/10 bar;
 - size 16x2: Cl. 4/10 bar - Cl. 5/8 bar
 - size 17x2: Cl. 4/8 bar - 5/8 bar
 Permeability to oxygen (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 940kg/m³
 Thermal conductivity: 0.41 W/(mK) - Degree of reticulation: ≥ 60%
 Coefficient of linear expansion: 0.15 mm/(m °C)
 Minimum bending radius: 5 x external diameter pipe / Internal roughness: 7 μm
 Water capacity: 0.05 l/m (12x2); 0.133 l/m (17x2)
 Application: heating systems (not suitable for sanitary systems)

Dimension	Mts. pack	Code
12 x 2 mm	240	28141852
16 x 2 mm (*)	200	28141860
16 x 2 mm (*)	240	28141862
16 x 2 mm (*)	600	28141864
17 x 2 mm	240	28141854
17 x 2 mm	600	28141856

5-layer pipe in high density polyethylene, cross-linked with an electronic system, compliant with the UNI EN ISO 21003-2 standard, equipped with an oxygen barrier in compliance with the DIN 4726 standard and SKZ HR 3.2 certified.

(*) Items available on request: 30 days to order confirm and for minimum lots.

Regression curves PE-Xc PENTA pipe: see technical attachments page 457.

Application classes PE-Xc PENTA pipe (UNI EN ISO 21003-2): see section Technical Attachments page 459.



UNI EN ISO 15875-2

PE-Xa pipe with EVOH oxygen barrier 3 layers

Classes of application / Operating pressures (bar): Cl. 4/6 bar - Cl. 5/6 bar
 Oxygen permeability (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 950 kg/m³ - Degree of reticulation: ≥70%
 Softening temperature: 135 °C - Breaking load: 18 MPa
 Thermal conductivity: 0.41 W/mK
 Average coefficient of linear expansion: 0.14 mm/m °C
 Minimum bending radius: 5 x D pipe - Internal roughness: 7 μm
 Water capacity: 0,133 l/m
 Application: heating systems (not suitable for plumbing systems)

Dimension	Mts. pack	Code
17 x 2 mm (*)	240	28130674
17 x 2 mm (*)	600	28130676

Pipe in high-density polyethylene, with peroxide crosslinking, certified according to standards UNI EN ISO 15875/2 and provided with an oxygen barrier in conformity with standard DIN 4726.

(*) Items to be out of stock

Regression curves PE-Xa pipe: see technical attachments page 458.

Application classes PE-Xa pipe (UNI EN ISO 21003-2): see section Technical Attachments page 459.



NEW

PE-Xa pipe with 5 layer EVOH oxygen barrier

Application classes / Operating pressures (bar): Cl. 4/10 bar - Cl. 5/8 bars
 Permeability to oxygen (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 950kg/m³
 Degree of crosslinking: ≥70%
 Thermal conductivity: 0.41 W/mK
 Average linear expansion coefficient: 0.14 mm/m °C
 Minimum bending radius: 5 x D tube
 Internal roughness: 7 µm
 Water content: 0.133 l/m
 Application: heating systems (not suitable for sanitary systems)

SKZ
 Das Kunststoff-Zentrum

UNI EN ISO 15875-2

Dimension	Mts. pack	Code
17 x 2 mm	240	28134470
17 x 2 mm	600	28134472

5-layer pipe in high density polyethylene, cross-linked with peroxides, compliant with the UNI EN ISO 15875/2 standard and equipped with an oxygen barrier in compliance with the DIN 4726 standard and SKZ HR 3.2 certified.

Regression curves PE-Xa pipe: see technical attachments page 458.

Application classes PE-Xa pipe (UNI EN ISO 21003-2): see section Technical Attachments page 459.



NEW

PE-RT 5 layers pipe with EVOH oxygen barrier

Classes of application / Operating pressure (bar):
 size 16x2: Cl.4/8 bar - Cl. 5/6 bar
 size 20x2: Cl.4/6 bar - Cl. 5/4bar
 Oxygen permeability (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 950 kg/m³ - Thermal conductivity: 0,4 W/mK
 Average coefficient of linear expansion: 0.18 mm/m °C
 Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm
 Water capacity: 0.11 l/m (16x2); 0.201 l/m (20x2)
 Application: heating systems (not suitable for plumbing systems)

UNI EN ISO 22391-2

Dimension	Mts. pack	Code
16 x 2 red (*)	400	28130810
20 x 2 red (*)	300	28130812
16 x 2 blue (*)	400	28130814
20 x 2 blue (*)	300	28130816

Pipe in PERT Type II complying with ISO 22391-2 and provided with an oxygen barrier in conformity with standard DIN 4726.

(*) Items available on request: 30 days to order confirm and for minimum lots.

Regression curves PE-RT pipe: see technical attachments page 458.

Application classes PE-RT pipe (UNI EN ISO 21003-2): see section Technical Attachments page 459.

Accessories Emmeti Floor and Emmeti Dry Alu Floor



CE
EN 934-2

Fluidishing additive

Dimension	l/pack	Code
	10	28130402
	25	28130404

It reduces considerably the mixing water required, significantly accelerates the mechanical strength of the concrete and raises its thermal conductivity. Comforms with standard UNI 10765. Ratio: 0,7 ÷ 1,2 liters for 100 kg cement.



Protective for heating high or low temperature systems / air conditioning systems

Anti-corrosive protective for all metals (steel-copper-aluminium), antiscaling and biocide for heating systems high or low temperature and/or air conditioning systems, with antiscaling protectors (max 25 °F)

Technical data

Appearance: light yellow liquid - straw-coloured - pH: 7±0,5 - Density (20 °C): 1,025±0,01 kg/l - Dispensing 5% (5 kg every 100 liter of water)

Kg/pack	Pcs. pack	Code
5	1	02706396



Regenerating liquid for new or old low-temperature heating systems

Suitable for removing biomasses and metal oxides inside low temperature heating systems, even with heating installations. It contains specific biodispersant bioacids to thoroughly remove any bacterial deposits and metal oxides. It is recommended for cleaning old systems before or during the installation of a new boiler. Non-acid and non-corrosive for metals and plastic material. The product does not alter pH levels. Suitable for all heating systems, including systems with aluminium parts.

Technical data

Appearance: Clear colourless liquid-yellow - pH: 5.5±0.5 - Density (20 °C): 1.035 kg/l - Dosage 5% (5 kg every 100 litres of water)

Kg/pack	Pcs. pack	Code
5	1	02706304



System loading station

Delivery capacity: 5,2 - 50 litres/min - Static pressure H: 5 - 52 m. c. H₂O - Power supply: 230 V - 50 Hz - Current = 2,6 A - Electric power absorbed: 500 W max - Spin speed: 2900 rpm - Protection: IP44 - Tank volume: 50 litres

Dimension	Pcs. pack	Code
50 litres	1	02706862

Fitted with two connection pipes L = 3 m



Insulating perimeter strip

Dimension	Mts. pack	Code
5 x 150 mm	60	28130480
7 x 150 mm	60	28130482

In closed-cell expanded polyethylene, with adhesive surface for fixing to a wall and moveable polyethylene strip on the panel side, to seal possible interstices.



Profile for plastic expansion connection

Dimension	Mts. pack	Code
2000 x 35 x 20 mm (LxHxW)	50	28130032

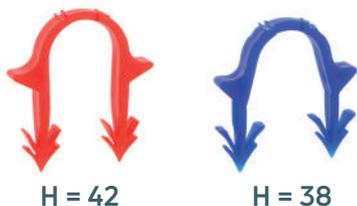
With adhesive back and housing for insulating strip thickness 7-8 mm



Insulating strip for plastic expansion connection

Dimension	Mts. pack	Code
7 x 150 mm	60	28130486

In closed-cell expanded polyethylene, for profile for plastic expansion connection (cod. 28130032)



Pipe-fixing clip for Tacker

Dimension	Height	Pcs. pack	Code
Ø pipes 16-20 mm	H=42	300	28134454
Ø pipes 16-17 mm (*)	H=38	300	28134460

In plastic material, for fixing pipes to the Plan Floor and Roll Floor panels.
(*) For plan panels H=20 mm.



Reinforced pipe-fixing clip for taker

Dimension	Height	Pcs. pack	Code
Ø pipes 16-20 mm	H = 42	240	28130744



Clip-fixing tacker

Dimension	Pcs. pack	Code
	1	28130042

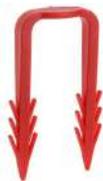
It allows fixing of pipes to the Plan Floor panes from upright position without efforts.



Straddle clip

Dimension	Pcs. pack	Code
88 x 28 x 14 mm (L x H x W)	100	28134452

In plastic material, for applying to the bosses of panels to hold pipes down at critical points. Not suitable for panels with rigid thermoformed film (type Combi). Article available when code 28130022 is exhausted.



Manual pipe-fixing clip

Dimension	Pcs. pack	Code
34 x 49 x 4 mm (L x H x W)	100	28134456

In plastic material, for fixing pipes at critical points. Article available when code 28130024 is exhausted.



Support bends

Dimension	Pcs. pack	Code
∅ pipes 16 ÷ 18 mm	10	28134450

In PA66, reinforced with glass fibre. They support pipes at the base of manifolds.



Tool for fixing wire clips

Dimension	Pcs. pack	Code
	1	28130768

To be used with clip code 28130766. Item to be out of stock.



Tool for fixing wire clips

Dimension	Pcs. pack	Code
	1	28134462

To be used with clips code 28134458 and 28130766. Article available when code 28130768 is exhausted.



3 mm wire mesh clip

Dimension	Pcs. pack	Code
Ø pipes 16 ÷ 17 mm (*)	1700	28130766

To be used with metallic wire code 28141000.
Medium consumption: 35 pcs/m²

(*) Item to be out of stock



3 mm wire mesh clip

Dimension	Pipe	Pcs. pack	Code
Net Ø wire 3 mm	Ø 16 ÷ 17 mm	1.000	28134458

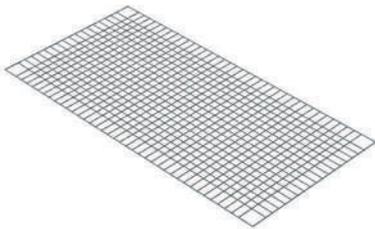
To be used with metallic wire code 28141000.
Medium consumption: 35 pcs/m²



Grille clip

Dimension	Pipe	Pcs. pack	Code
Grille Ø wire 3	Ø 16 ÷ 17 mm	200	28130720

To be used with wire netting code 28141000

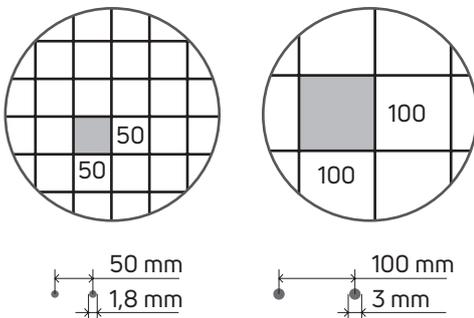


Wire netting (sheets)

Dimension	m ² pack	Code
1 x 2 m Ø wire 1,8 mm	40	28130074
1 x 2 m Ø wire 3 mm	30	28141000

Electrowelded mesh in galvanized steel:

- Ø 1.8 mm wire with 50x50 mm mesh, pack of 20 sheets.
- Ø 3 mm wire with 100x100 mm mesh, suitable for use with the appropriate 3-wire mesh clips code 28130720, pack of 15 sheets.



Guide for pipe anchoring Ø 16-17

Dimension	Pcs. pack	Code
1000 x 28 x 40 mm (LxHxW)	80	28130756

Modular guide for pipe anchoring Ø 16-17. Minimum passage 5 cm

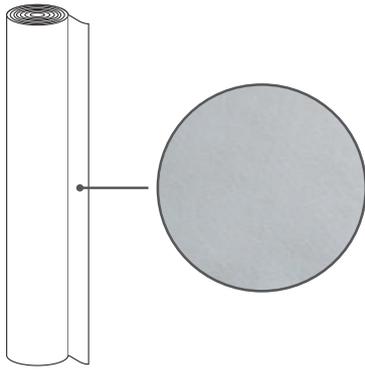


Guide for pipe anchoring Ø 17-20-25

Dimension	Pcs. pack	Code
1000 x 40 x 50 mm (LxHxW)	50	28130725
1000 x 40 x 50 mm (LxHxW) (*)	50	28130740

Modular guide for pipe anchoring Ø 17-20-25. Minimum passage 10 cm.
(*) with adhesive base

Floor system



Cloth-non cloth felt

Dimension	m ² pack	Code
2x25 m	50	28130048

In polypropylene. Thickenss 4 mm. Density: 500 gr/m²



Polymetric fibres for screeds

Synthetic macro fibres obtained through extrusion of synthetic polypropylene polymers with a "corrugated" profile optimised to increase the adhesion to the cement matrix of the conglomerate. They are used to reinforce "moist soil" concrete by increasing its ductility and toughness and countering shrinkage. Suitable to create heated screeds. Recommended dosage: 1kg/m³.

Dimension	Pcs. pack	Code
1.5 kg bag	2	28130754



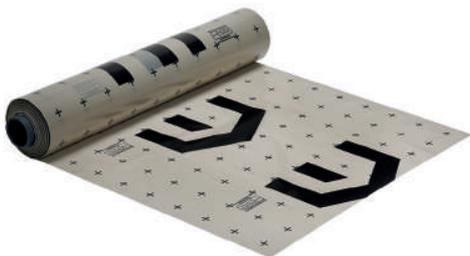
EN 14889-2



Fixing clip

Dimension	Pcs. pack	Code
Ø 50 x L 70	50	28130037

For Ø 10 mm hole



Roofing sheet in regenerated polyethylene with grid (in roll)

NEW

Dimension	Pack m ²	Pcs. pack	Code
2 x 50 m	100	1	28141020

Single-fold sheet 2 x 1 m wide, 50 m roll, in regenerated amber colored polyethylene with 100 mm pitch grid, sheet thickness 0.2 mm. Made with 100% recycled polyethylene. Sd (vapor transmission): ≥ 100 m.



Roll dispenser

Completely dismantlable, for rolls up to 600 mts long.
Dimension of rolls: minimum Ø 35 cm, maximum Ø 100 cm, maximum h 50 cm

Dimension	Pcs. pack	Code
	1	28130041



Emmeti adhesive tape

NEW

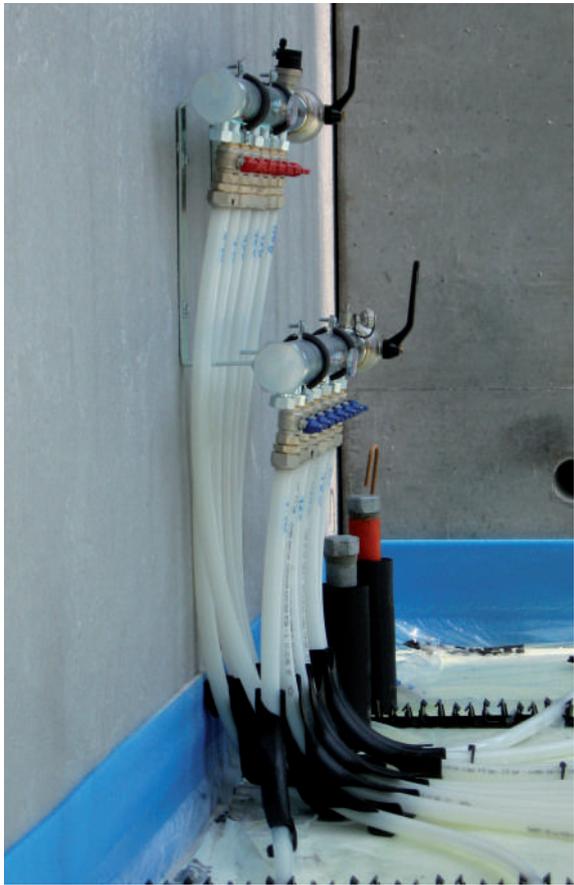
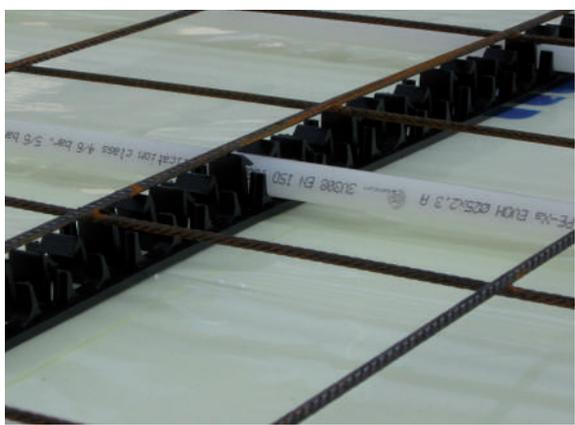
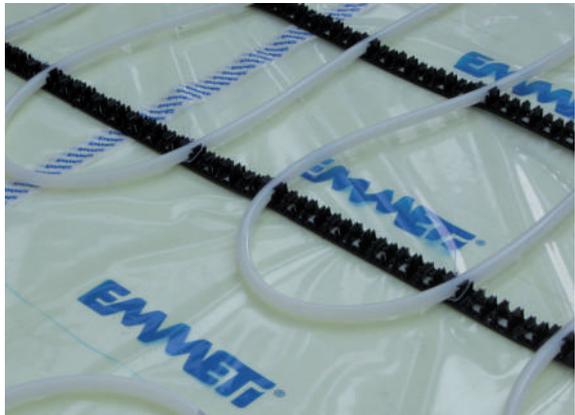
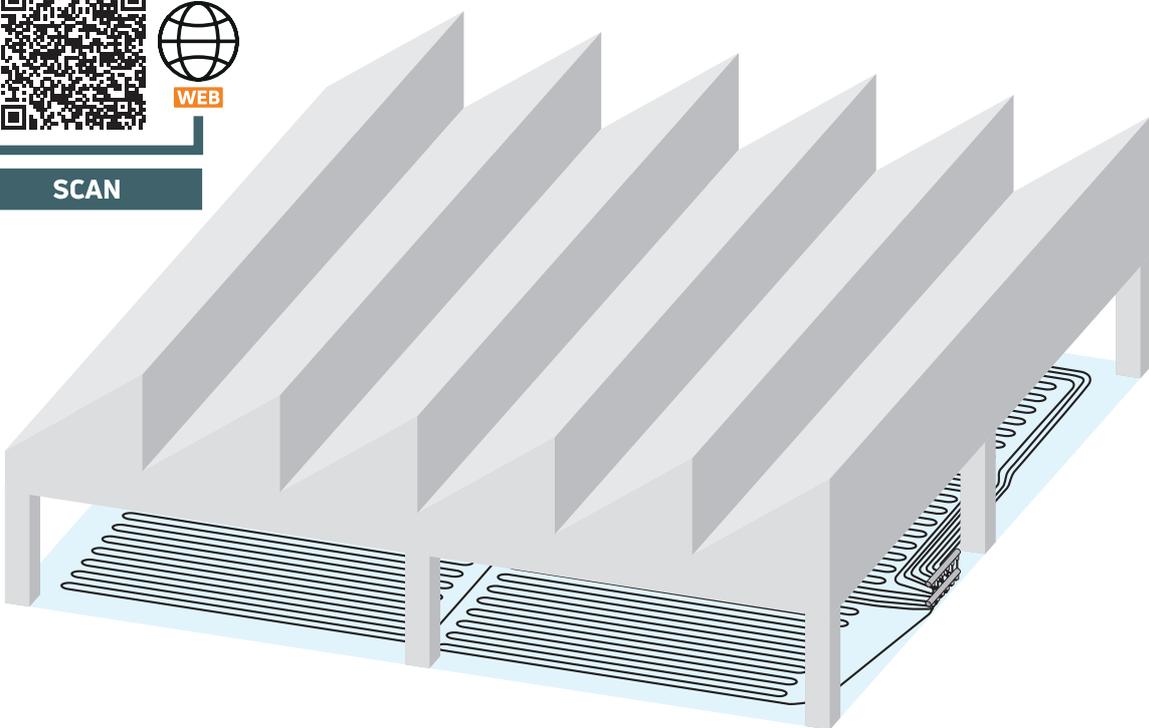
Dimension	Pcs. pack	Code
75 mm x 132 m	1	90200040

Emmeti Industrial Floor

Floor heating and cooling industrial system



SCAN



Emmeti Industrial Floor



XPS 500 insulating panel in extruded polystyrene

Dimension	Slab pack	Pack m ²	Code
1250 x 600 x 50 (*)	8	6	28134140
1250 x 600 x 60 (*)	7	5,25	28134142
1250 x 600 x 80 (*)	5	3,75	28134144

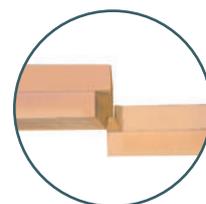
Insulating sheets in single-layer extruded polystyrene foam (XPS) with smooth surface and 4-sided rebated profiles.

(*) Availability on request: 8 weeks from order confirmation.



UNI EN 13164

Technical data	Norm	Model H50	Model H60	Model H80
Type	UNI EN 13164	XPS500	XPS500	XPS500
Compression resistance at 10% of crushing	UNI EN 826	≥ 500 kPa	≥ 500 kPa	≥ 500 kPa
Solicitation with crushing max 2% after 50 years	UNI EN 1606	180 kPa	180 kPa	180 kPa
Thermal conductivity	EN 12667	0,033 W/mK	0,033 W/mK	0,035 W/mK
Thermic resistance R _D	EN 12667	1,50 m ² K/W	1,80 m ² K/W	2,25 m ² K/W
Class to reaction to fire	UNI EN 13501-1	Euroclass E	Euroclass E	Euroclass E
Long-term water absorption by diffusion	UNI EN 12088	≤ 3%	≤ 2%	≤ 2%
Resistance factor diffusion of water vapor μ	UNI EN 12086	150	150	150
Dimensional stability at conditioning temperature and humidity (70°C; 90%)	UNI EN 1604	< 5%	< 5%	< 5%
Deformation under load to compression and conditioning temperature (40 kPa, 70 °C)	UNI EN 1605	≤ 5%	≤ 5%	≤ 5%
Tensile strength perpendicular to the faces	UNI EN 1607	TR200 kPa	TR200 kPa	TR200 kPa
Resistance to freezing - thawing	UNI EN 12091	FTCD1 Vol%	FTCD1 Vol%	FTCD1 Vol%
Calculation thickness S _{ins}	UNI EN 1264-3	50 mm	60 mm	80 mm
Length	UNI EN 822	1250 (±8) mm	1250 (±8) mm	1250 (±8) mm
Width	UNI EN 822	600 (±8) mm	600 (±8) mm	600 (±8) mm
Thickness	UNI EN 823	50 (±3) mm	60 (±3) mm	80 (±3) mm
Pack		6 m ²	5,25 m ²	3,75 m ²





XPS 300 SL insulating panel in extruded polystyrene

Dimension	Slabs pack	Pack m ²	Code
1250 x 600 x 30 (*)	14	10,5	28134131
1250 x 600 x 40 (*)	10	7,5	28134133

Insulating panels made of single-layer extruded polystyrene foam (XPS) with a smooth surface and battentati profiles on 4 sides.

(*) Available on request: 30 days from order confirmation

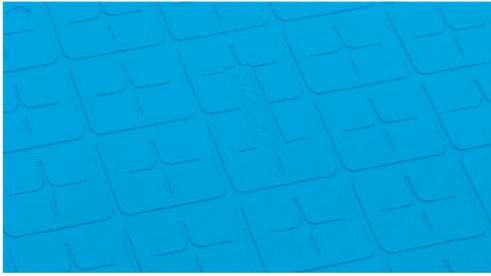


UNI EN 13164

Technical data	Norm	Model H 30	Model H40
Type	UNI EN 13164	XPS300	XPS300
Compression resistance at 10% of crushing	UNI EN 826	≥ 300 kPa	≥ 300 kPa
Solicitation with crushing max 2% after 50 years	UNI EN 1606	130 kPa	130 kPa
Thermal conductivity	EN 12667	0,030 W/mK	0,030 W/mK
Thermic resistance R _D	EN 12667	1,00 m ² K/W	1,35 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E
Water absorption	UNI EN 12088	≤ 3%	≤ 3%
Resistance factor diffusion of water vapor μ	UNI EN 12086	150	150
Dimensional stability at conditioning temperature and humidity (70°C; 90%)	UNI EN 1604	≤ 5%	≤ 5%
Deformation under load to compression and conditioning temperature (40 kPa, 70 °C)	UNI EN 1605	≤ 5%	≤ 5%
Calculation thickness S _{ins}	UNI EN 1264-3	30 mm	40 mm
Total lenght		1250 mm	1250 mm
Total width		600 mm	600 mm
Total thickness		30 mm	40 mm
Pack		10,5 m ²	7,5 m ²



Emmeti Industrial Floor



Plan Floor insulating panel

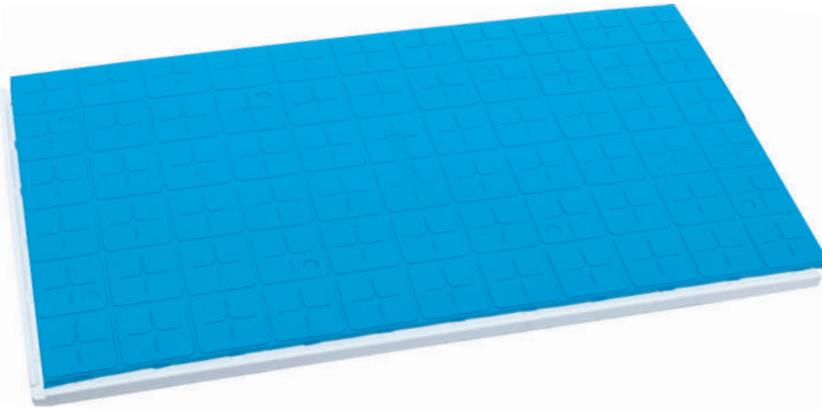
Dimension	Density	Pack m ²	Code
1100 x 600 x 30 / H30	30 kg/m ³	10,56	28130072

Smooth panel in expanded polystyrene (EPS) printed for thermal insulation, with surface impressions for the laying of pipes and peripheral interlocking joints. Covered with a rigid polystyrene film. Footprints pipe 5 cm.

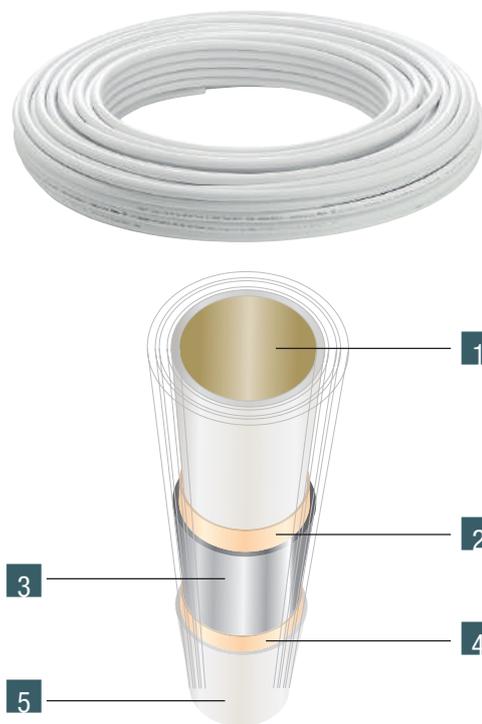


UNI EN 13163

Technical data	Norm	Model H30
Type	UNI EN 13163	EPS 200
Density	UNI EN 1602	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa
Thermal conductivity $\lambda_D (\lambda_{ins})$	UNI EN 12667 (UNI EN 1264-3)	0,033 W/mK
Thermal resistance $R_{\lambda,ins} (S_{ins} / \lambda_{ins})$	UNI EN 1264-3: 2021	0,90 m ² K/W
Class to reaction to fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Resistance factor diffusion of water vapor μ	UNI EN 12086	40 ÷ 100
Slab thickness S_{ins}	UNI EN 1264-3	30 mm
Total length		1120 mm
Total width		620 mm
Total thickness		30 mm
Coating film thickness		0,16 mm
Pipe spacing		50 mm
Pack		10,56 m ²



Pipes for Emmeti Industrial Floor



Emmeti Alpert pipe

Classes of application (UNI ISO 21003 - see section Technical Attachments): 2/10 bar, 5/10 bar; maximum operating conditions for 50 years:
 - Design temperature: $T_D = 70\text{ }^\circ\text{C}$; - Design pressure $p_D = 10\text{ bar}$
 Maximum temperature for short periods: $95\text{ }^\circ\text{C}$ - Coefficient of linear expansion: $0,026\text{ mm/m }^\circ\text{C}$ - Thermal conductivity: $0,45\text{ W/m K}$ - Oxygen permeability (DIN 4726): $0\text{ mg/(m}^2\text{d)}$ - Minimum radius of bending: $5 \times D\text{ pipe}$ - Surface roughness of the inner tube: $7\text{ }\mu\text{m}$
 Class of reaction to fire: E_L (EN 13501-1)

Construction

- ① Inner pipe PE-RT
- ② Bonding layer connecting the inner pipe to the aluminium pipe
- ③ Horizontal-roller-position welding
- ④ Bonding layer connecting the outer pipe to the aluminium pipe
- ⑤ External pipe PE-RT

Dimension	Mts. pack	Code
20 x 2 mm	100	28107016
20 x 2 mm	240	28107018

Multi-layer pipe for thermosanitary system, in appliance to UNI EN ISO 21003 and made from composite material using a technologically advanced processing during which PE-RT (polyethylene of raised temperature resistance) pipe is coupled with a 0.25 mm thick aluminium core, soldered at the head and externally coated with another layer of PE-RT.

Classification of service conditions and regression curves:
 see section Technical Attachments page 456



UNI EN ISO 21003



PE-Xc pipe with EVOH oxygen barrier 5 layers

Classes of application / Operating pressures (bar): CL. 4/8 bar - CL. 5/6 bar
 Oxygen permeability (DIN 4726): $< 0,1\text{ mg/(m}^2\text{d)}$ at $40\text{ }^\circ\text{C}$; $< 0,34\text{ mg/(m}^2\text{d)}$ at $80\text{ }^\circ\text{C}$
 Density: 940 kg/m^3 - Degree of reticulation: $\geq 60\%$ - Elasticity module: $600\text{-}800\text{ MPa}$
 Ultimate elongation: $400\text{-}600\%$ - Thermal conductivity: $0,41\text{ W/(mK)}$
 Average coefficient of linear expansion: $0,15\text{ mm/(m }^\circ\text{C)}$ - Minimum bending radius: $5 \times D\text{ pipe}$ - Internal roughness: $7\text{ }\mu\text{m}$ - Water capacity size $0,201\text{ l/m}$
 Application: heating systems

Dimension	Mts. pack	Code
20 x 2 mm (*)	500	28141808

5-layers pipe in high-density polyethylene, with electronic system crosslinking, certified according to standards UNI EN ISO 15875/2 and provided with an oxygen barrier in conformity with standard DIN 4726 and certified SKZ HR 3.2.

(*) Item to be out of stock

Classification of service conditions and regression curves:
 see section Technical Attachment page 459



UNI EN ISO 15875-2



SKZ

Das Kunststoff-Zentrum

UNI EN ISO 21003-2

PE-Xc PENTA pipe with 5-layer EVOH oxygen barrier

NEW

Application classes / Operating pressures (bar): Cl. 4/8 bar - Cl. 5/6 bars
 Permeability to oxygen (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 940kg/m³
 Thermal conductivity: 0.41 W/(mK) - Degree of cross-linking: ≥ 60%
 Coefficient of linear expansion: 0.15 mm/(m °C)
 Minimum bend radius: 5 x outer diameter
 Internal roughness: 7 µm - Water content: 0.201 l/m
 Application: heating systems

Dimension	Mts. pack	Code
20 x 2 mm	500	28141858

5-layer high-density polyethylene pipe, electronically cross-linked, manufactured according to the UNI EN ISO 21003-2 standard, equipped with an oxygen barrier in compliance with the DIN 4726 standard and SKZ HR 3.2 certified.

Regression curves PE-Xc pipe: see section Technical Attachments page 457

Application classes PE-X pipe (UNI EN ISO 21003-2):
 see section Technical Attachments page 459.



UNI EN ISO 15875-2

PE-Xa pipe with EVOH oxygen barrier

Classes of application / Operating pressures (bar): Cl. 4/6 bar - Cl. 5/6 bar
 Oxygen permeability (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 950 kg/m³ - Degree of reticulation: ≥70% - Softening temperature: 135 °C
 Breaking load: 18 MPa - Thermal conductivity: 0.41 W/mK - Average coefficient of linear expansion: 0.14 mm/m °C - Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm
 Water capacity: l/m 0,201 (20x2) - Water capacity: l/m 0,327 (25x2,3)
 Application: heating systems

Dimension	Mts. pack	Code
20 x 2 mm (*)	500	28130684
25 x 2,3 mm	500	28130686

Pipe in high-density polyethylene, with peroxide crosslinking, certified according to standards UNI EN ISO 15875/2 and provided with an oxygen barrier in conformity with standard DIN 4726. (*) Item to be out of stock

Regression curves PE-Xa pipe: see section Technical Attachments page 459

Application classes PE-Xa pipe (UNI EN ISO 21003-2):
 see section Technical Attachments page 458.



SKZ

Das Kunststoff-Zentrum

UNI EN ISO 15875-2

PE-Xa pipe with 5 layer EVOH oxygen barrier

NEW

Application classes / Operating pressures (bar): Cl. 4/8 bar - Cl. 5/6 bars
 Permeability to oxygen (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 950 kg/m³ - Degree of cross-linking: ≥70%
 Thermal conductivity: 0.41 W/mK
 Average linear expansion coefficient: 0.14 mm/m °C
 Minimum bending radius: 5 x D tube - Internal roughness: 7 µm
 Water content: 0.201 l/m (20x2)
 Water content: 0.327 l/m (25x2.3)
 Application: heating systems

Dimension	Mts. pack	Code
20 x 2 mm	240	28134474

Tubo a 5 strati in polietilene alta densità, reticolato con perossidi, certificato conforme alla norma UNI EN ISO 15875-2 e dotato di barriera ossigeno in conformità alla norma DIN 4726 and SKZ HR 3.2 certified.

Regression curves PE-Xa pipe: see section Technical Attachments page 459

Application classes PE-Xa pipe (UNI EN ISO 21003-2):
 see section Technical Attachments page 458.

Accessories for Emmeti Industrial Floor



Insulating perimeter strip

Dimension	Mt. pack	Code
10 x 250 mm	50	28130484

In close-cell expanded polyethylene, with adhesive surface for fixing to a wall and moveable polyethylene strip on the panel side, to seal possible interstices



Reinforced pipe-fixing clip for taker

Dimension	Height	Pcs. pack	Code
Ø pipes 16-20 mm	H = 42	240	28130744



Manual pipe-fixing clip

Dimension	Pcs. pack	Code
34 x 49 x 4 mm (L x H x W)	100	28134456

In plastic material, for fixing pipes at critical points.



Straddle clip

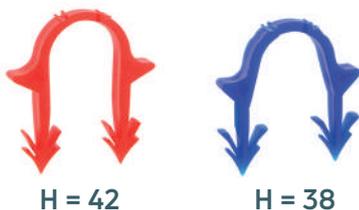
Dimension	Pcs. pack	Code
88 x 28 x 14 mm (L x H x W)	100	28134452

In plastic material, for applying to the bosses of panels to hold pipes down at critical points. Not suitable for panels with rigid thermoformed film (type Combi).



Grille clip

Dimension	Pipe	Pcs. pack	Code
Grille Ø 6	Ø 20 mm	100	28130028
Grille Ø 6	Ø 25 mm	100	28130746



H = 42

H = 38

Pipe-fixing clip for Tacker

Dimension	Height	Pcs. pack	Code
Ø pipes 16-20 mm ⁽¹⁾	H=42	300	28134454
Ø pipes 16-17 mm ^{(*) (2)}	H=38	300	28134460

In plastic material, for fixing pipes to the Plan Floor and Roll Floor panels.
(*) For plan panels H=20 mm.



Guide for pipe anchoring Ø 17-20-25

Dimension	Pcs. pack	Code
1000 x 40 x 50 mm (LxHxW)	50	28130725
1000 x 40 x 50 mm (LxHxW) ^(*)	50	28130740

Modular guide for pipe anchoring Ø 17-20-25. Minimum passage 10 cm.
(*) with adhesive base



Roofing sheet in regenerated polyethylene with grid (in roll)

NEW

Dimension	Pcs. m ²	Pcs. pack	Code
2 x 50 m	100	1	28141020

Single-fold sheet 2 x 1 m wide, 50 m roll, in regenerated amber colored polyethylene with 100 mm pitch grid, sheet thickness 0.2 mm. Made with 100% recycled polyethylene. Sd (vapor transmission): ≥ 100 m.



Emmeti adhesive tape

NEW

Dimension	Pcs. pack	Code
75 mm x 132 m	1	90200040



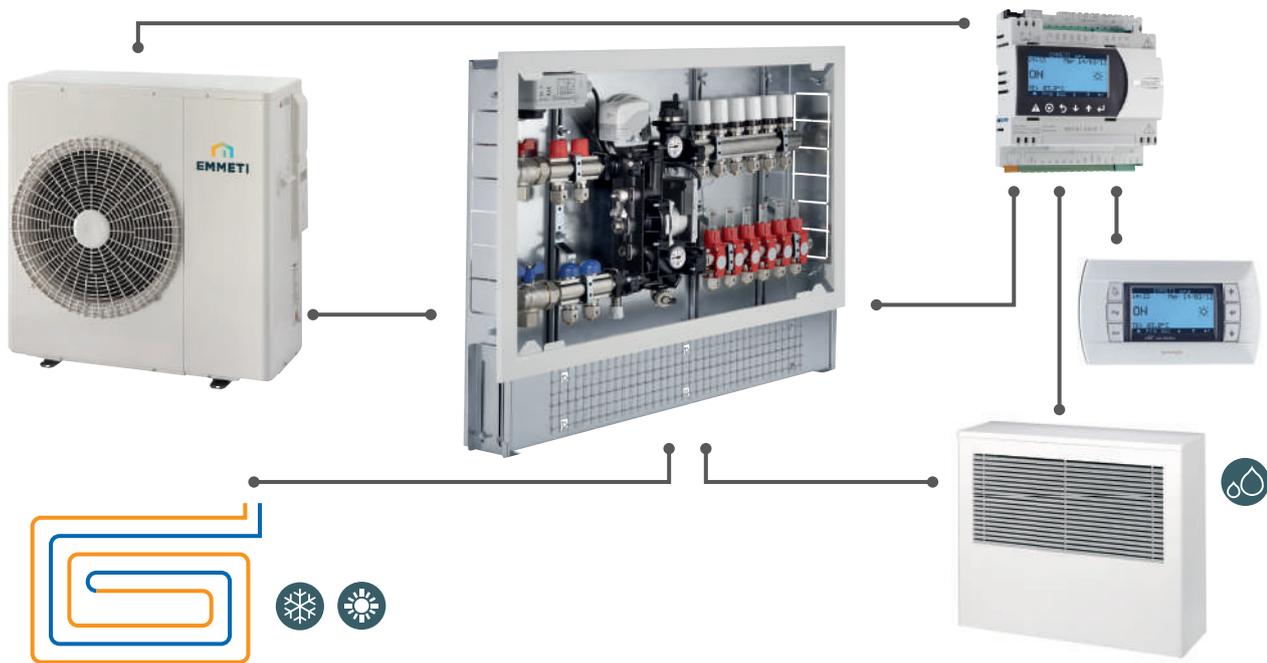
Support bends

Dimension	Pcs. pack	Code
Ø pipes 25 mm	10	28130748
Ø pipes 20 mm	10	28130027

In synthetic material, reinforced with glass fibre. They hold the PE-X pipes at the base of the Topway headers

Emmeti Clima Floor

Floor heating and cooling



Benefits

Emmeti Clima Floor is the safest and most comfortable solution for using your floors to provide winter heating and summer cooling. Thermal energy, heating or cooling, will always be perfectly distributed around your rooms, with no more annoying draughts, noisy fans, or dust deposits. Your heating and cooling system will also be totally invisible.

With Emmeti Clima Floor, low incoming water temperature during the winter months actually boosts the efficiency of the condensing boilers, leading to significant savings in fuel consumption.

During the summer, water temperature is regulated by electronic controllers to maintain a constant value of 15 °C to 20 °C. This drastically reduces the power needed by the chillers, which can therefore be a lot smaller than those required for conventional fan convector systems.

Emmeti proposes also the new inverter heat pump MIRAI SMI, equipped with the innovative controller SMART MT. By the SMART MT controller it is possible to manage all the promoters related to the plant management algorithms, and it is also possible to control temperature and humidity of the main room in the house.

Characteristics

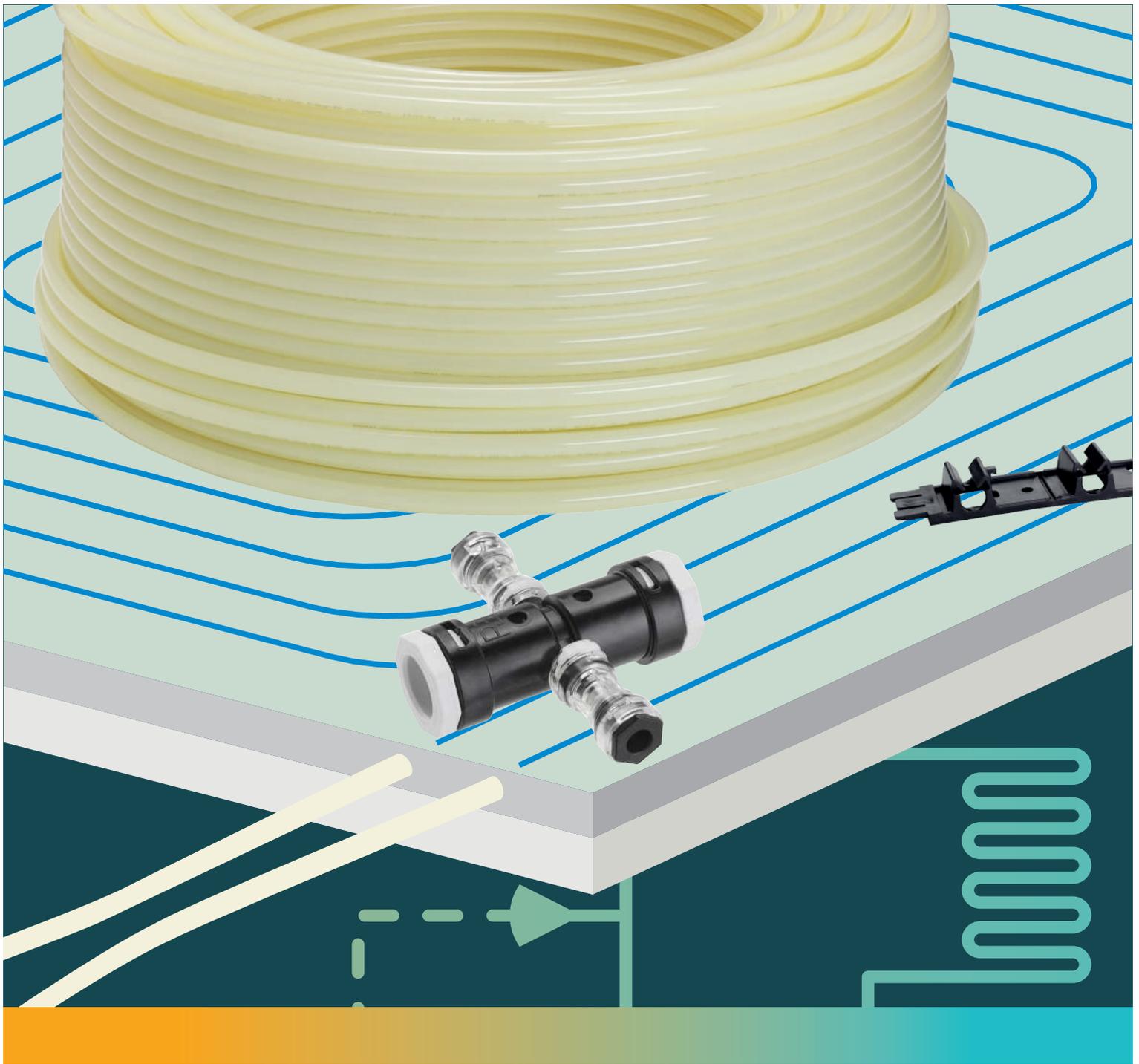
The complete range of dedicated heating components in the Emmeti Floor System is complemented by a range of special cooling components.

In summer (cooling) mode, the system is managed by an electronic controller that maintains constant temperature and humidity levels in all rooms served by the system.

Room temperature is controlled by continuously adjusting the temperature of the heat transfer water by means of an electronic mixer valve. Relative humidity is monitored by dedicated sensors and, if airborne humidity begins to approach dew point, dehumidifiers are switched on to reduce it.

Dehumidifiers Dumpy Floor for Emmeti Clima Floor

SEE "AIR CONDITIONING CATALOGUE PRICE LIST"



Emmeti wall and ceiling

Wall and ceiling heating and cooling systems



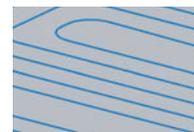
SCAN

> Emmeti Wall
Under plaster system



111

> Emmeti Plasterboard
Plasterboard heating and cooling system



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> Emmeti Ray Module
Metal modules heating and cooling system



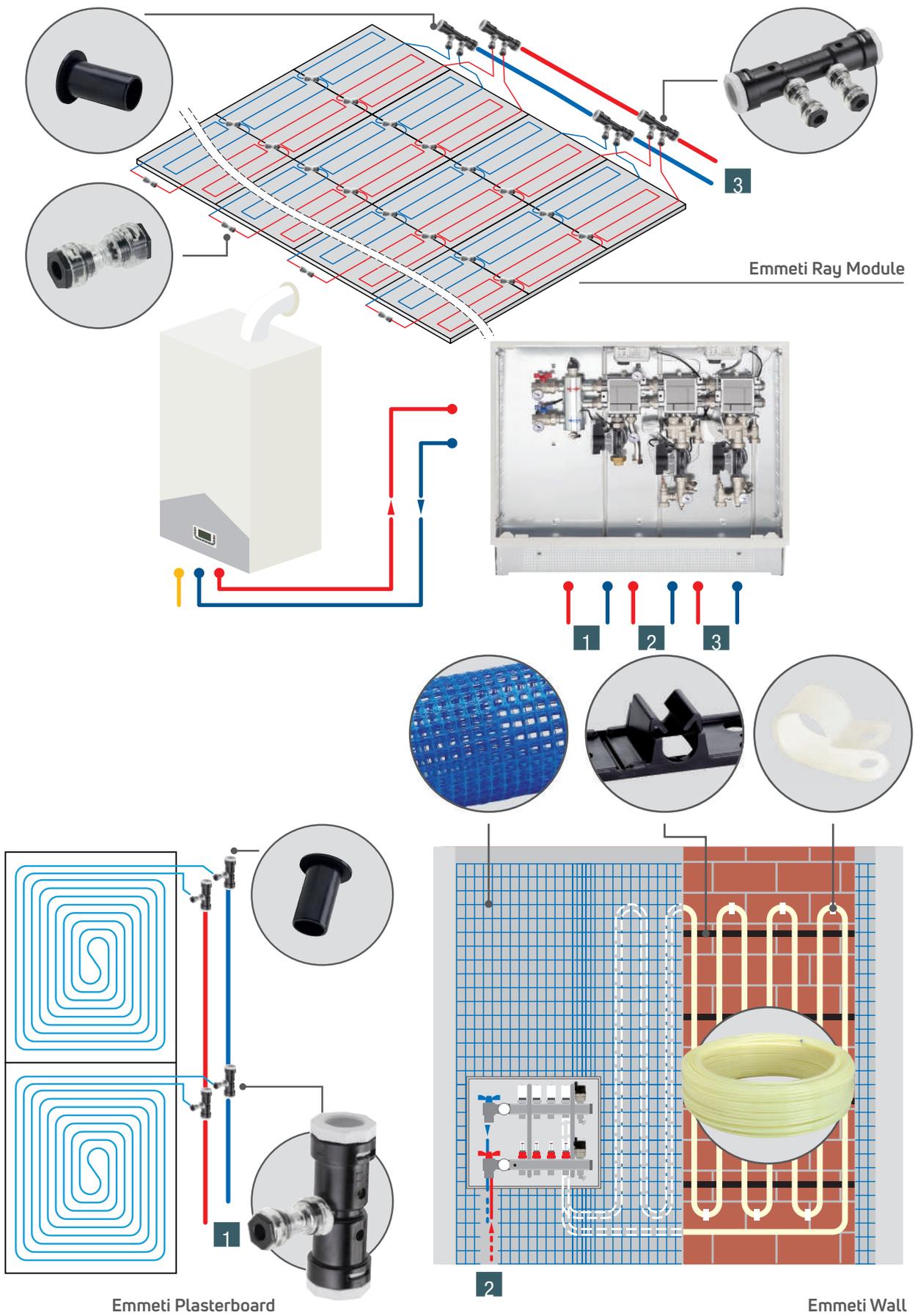
121

> Connectors and
distributors



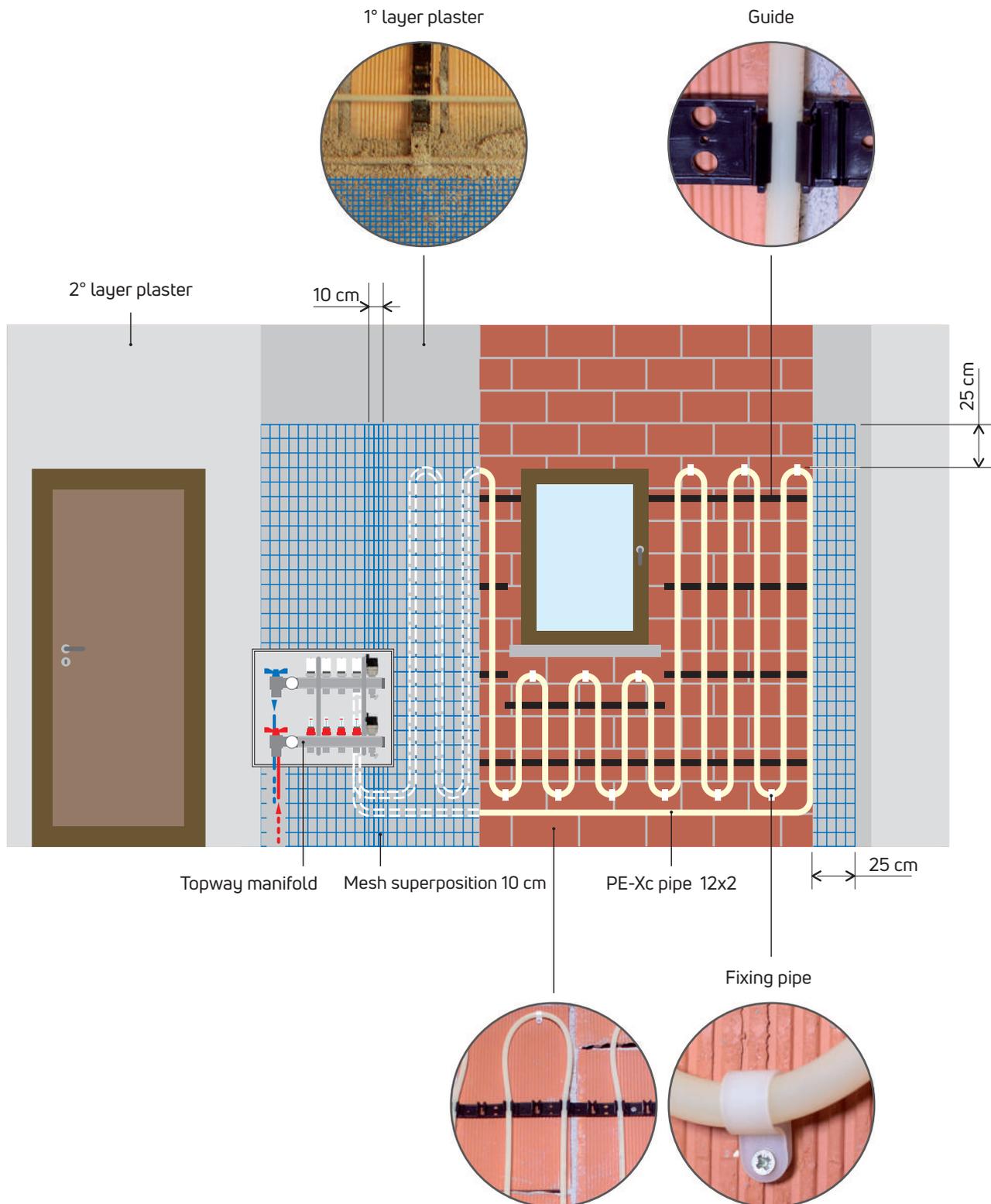
124

Example of installation



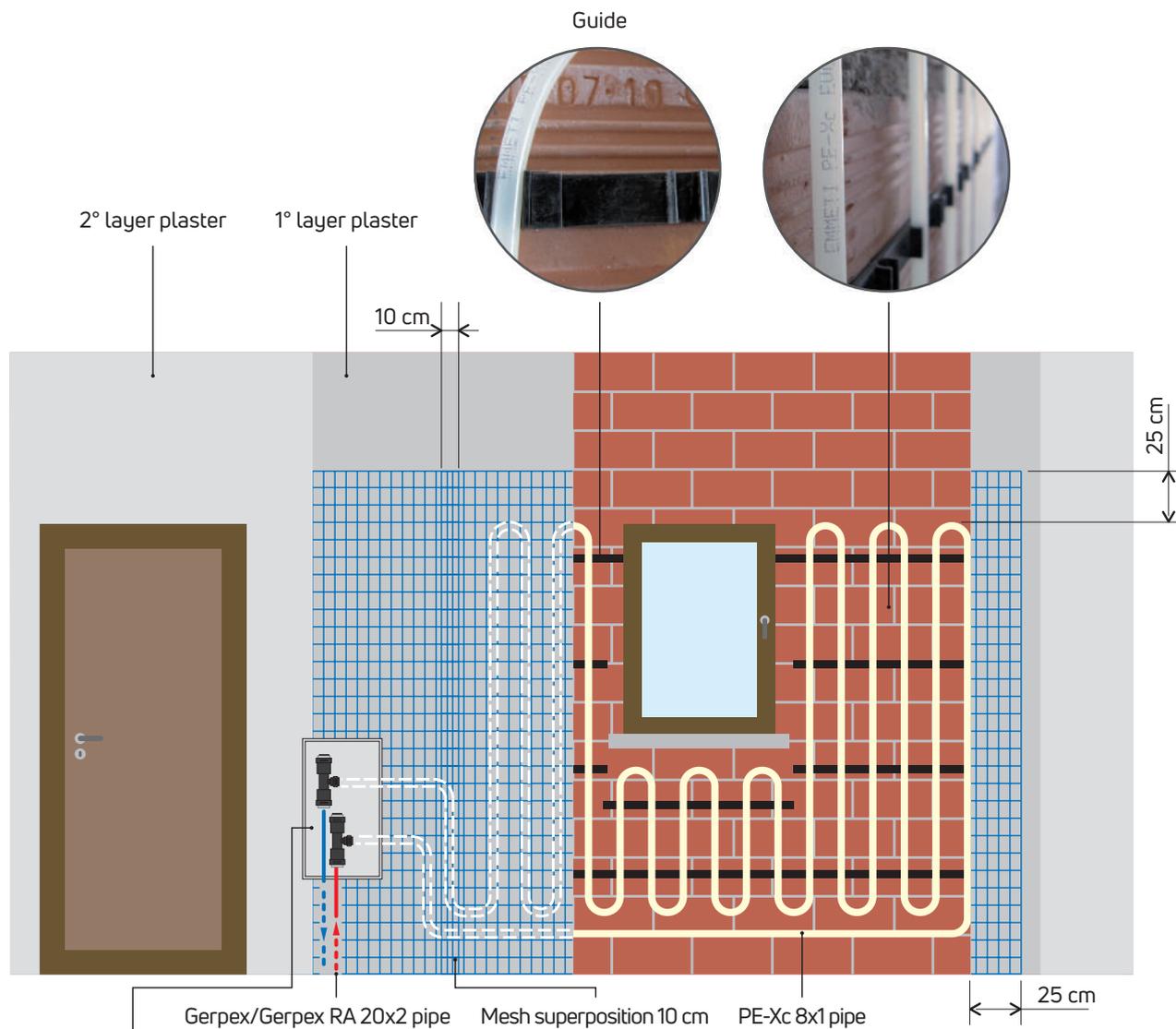
Emmeti Wall

Under plaster system Emmeti Wall - System 12



Emmeti Wall

Under plaster system Emmeti Wall - System 8



1-way distributor

Under plaster system



UNI EN ISO 15875-2

PE-Xc pipe with EVOH oxygen barrier 5 layers

Classes of application / Operating pressures (bar): Cl. 4/4 bar - Cl. 5/4 bar
 Oxygen permeability (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 930 kg/m³
 Thermal conductivity: 0.4 W/mK - Degree of reticulation: ≥60%
 Average coefficient of linear expansion: 0.15 mm/(m °C)
 Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm
 Water capacity: 0.028 l/m
 Application: heating systems

Dimension	Mts. pack	Code
8 x 1 mm	100	28141800

5-layer pipe in medium density polyethylene, cross-linked by an electronic system, in accordance with DIN 4724, equipped with oxygen barrier in compliance with DIN 4726 and certified SKZ HR 3.13.

Application classes PE-Xc (DIN 4724) see section Technical Attachments



SKZ

Das Kunststoff-Zentrum

UNI EN ISO 15875-2

PE-Xc pipe with EVOH oxygen barrier 5 layers

Classes of application / Operating pressures (bar): Cl. 4/10 bar - Cl. 5/10 bar
 Oxygen permeability (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 940 kg/m³
 Thermal conductivity: 0.41 W/mK - Degree of reticulation: ≥60%
 Average coefficient of linear expansion: 0.15 mm/(m °C)
 Minimum bending radius: 5 x D pipe
 Internal roughness: 7 µm
 Water capacity: 0.05 l/m
 Application: heating systems

Dimension	Mts. pack	Code
12 x 2 mm (*)	240	28141802

5-layers pipe in high-density polyethylene, with electronic system crosslinking, complying with to standard UNI EN ISO 15875-2 provided with an oxygen barrier in conformity with standard DIN 4726 and certified SKZ HR 3.2.

(*) Item to be out of stock

Application classes PE-X (UNI EN ISO 15785-1): see section Technical Attachments



SKZ

Das Kunststoff-Zentrum

UNI EN ISO 21003-2

PE-Xc PENTA pipe with 5-layer EVOH oxygen barrier

NEW

Application classes / Operating pressures (bar): Cl. 4/10 bar - 5/10 bar (m²d) at 80 °C
 Density: 940kg/m³
 Thermal conductivity: 0.41W/(mK)
 Degree of crosslinking: ≥60%
 Coefficient of linear expansion: 0.15 mm/(m °C)
 Minimum bend radius: 5 x outside diameter
 Internal roughness: 7 µm
 Water content: 0.05 l/m
 Application: heating systems

Dimension	Mts. pack	Code
12 x 2 mm	240	28141852

5-layer pipe in high density polyethylene, cross-linked with an electronic system, compliant with the UNI EN ISO 21003-2 standard, equipped with an oxygen barrier in compliance with the DIN 4726 standard and SKZ HR 3.2 certified.

PE-Xc pipe application classes (UNI EN ISO 21003-1): see section Technical Attachments

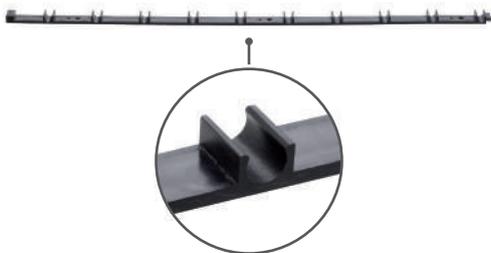


Guide for pipe anchoring Ø 12 mm

Dimension	Pcs. pack	Code
900 x 20 x 35 mm (LxHxW)	30	28130724

Modular guide for pipe anchoring Ø 12 mm, with minimum step 60 mm

Under plaster system



Guide for pipe anchoring Ø 8 mm

Dimension	Pcs. pack	Code
500 x 9 x 15 mm (LxHxW)	150	28130752

Modular guide for pipe anchoring Ø 8 mm, with minimum step 50 mm



Fixing pipe for pipe Ø 12 mm

Dimension	Pcs. pack	Code
For pipe Ø 12 mm	50	28130723



Roll of mesh in fibreglass for plaster

Dimension	Pack m ²	Code
50 x 1 mm	50	28130726



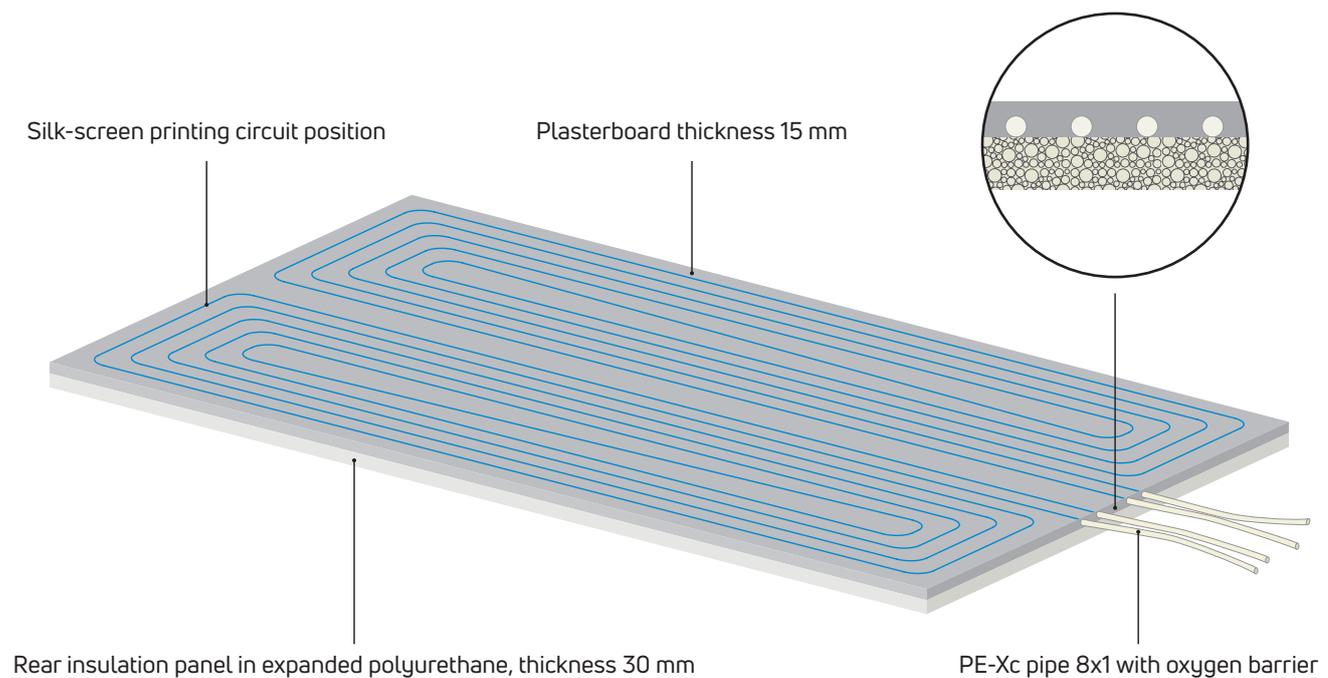
Shear for plastic pipe

Dimension	Pcs. pack	Code
Ø 8÷25	1	28130760
Spare blade for cutter	1	28130761

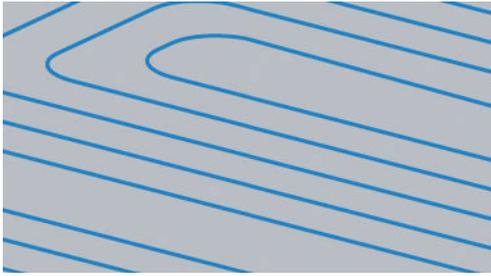
Shears to cut thin-wall rigid plastic pipes without chippings.

Emmeti Plasterboard

Plasterboard heating and cooling system



Plasterboard system



Prefabricated radiant panels in plasterboard type A and EPS

Dimension	Nr. internal circuits	m ² /panel	Active area m ²	Code
2000 x 1200 x 45 mm	2	2,40	2,145	28134341
1000 x 1200 x 45 mm	1	1,20	1,0725	28134343
500 x 1200 x 45 mm	1	0,60	0,5175	28134353
2000 x 600 x 45 mm	1	1,20	1,0725	28134345

Prefabricated radiant panel consisting of 1 or 2 circuits spiral pipe PE-Xc DN 8x1 with oxygen barrier according to DIN 4726, embedded in a plasterboard type A, thickness 15 mm, coupled to an insulating panel in EPS 250 thick 30 mm.
Fire reaction class: B-s1, d0 (EN 13501-1).



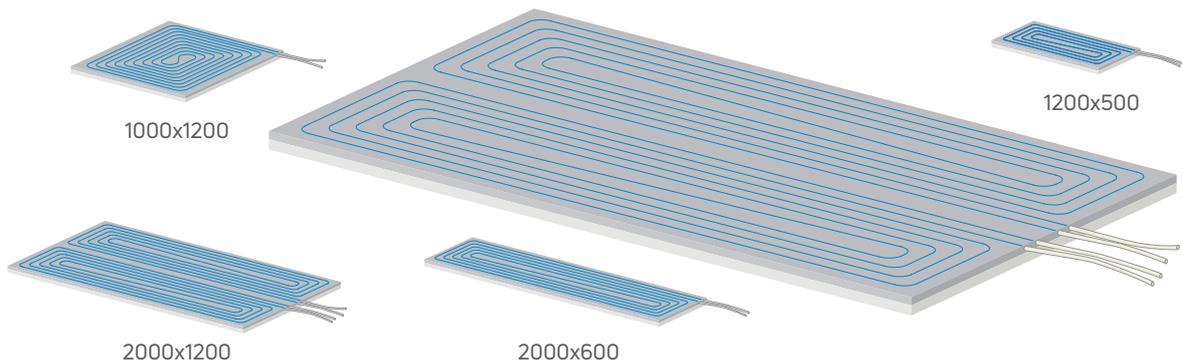
UNI EN 13163 / EN 520

Plasterboard technical data	Norm	U.M.	Referring
Type	EN 520 - 3.2	-	Type A
Thickness	EN 520 - 5.4	mm	15 ± 0,5
Out of squareness	EN 520 - 5.5	mm/m	≤ 2,5
Weight		Kg/m ²	12,90
Class of reaction to fire	EN 13501-1	-	A2-s1, d0 (B)
Flexural breaking load	EN 520 - 5.7	N	Long. 650 - Transv. 250
Surface hardness	EN 1520 - 5.12	mm	-
Thermal conductivity λ	EN 12524	W/mK	0,21
Resistance factor upon diffusion of steam μ	EN 12524	-	Dry range: 10 - Wet range: 4

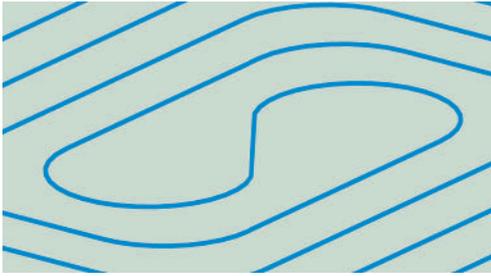
Edges	Longitudinal	Head
2000 x 1200	2 thinned	2 straight
1000 x 1200	2 thinned	2 straight
500 x 1200	2 straight	2 thinned
2000 x 600	1 thinned - 1 straight	2 straight

EPS technical data	Norm	U.M.	Referring
Type	EN 13163	-	EPS 250
Compression resistance	EN 826	KPa	≥250
Thermal conductivity λ	EN 12939	W/m K	0,032
Water absorption due to partial immersion	EN 12087	%	WL(T)3 ≤ 3,0
Fire classification	EN 13501-1	Euroclass	E

Pipe technical data	Norm	U.M.	Referring
Type	DIN 4724		PE-Xc
Size		mm	8 x 1
Oxygen permeability	DIN 4726	mg/(m ² d)	≤ 0,32 (40 °C)
Thermal conductivity λ	DIN 52612	W/mK	0,4
Average linear expansion coefficient		mm/m °C	0,15
Degree of reticulation	UNI EN 579	%	≥ 60
Minimum radius of curvature		mm	5 x D pipe
Medium surface roughness		μ	7
Length of individual circuit		m	19,31 (panel 2000x1200 and 2000x600) - 20,17 (panel 1000x1200) 9,31 (panel 500x1200)
Circuit/passage length		cm	Spiral/5
Water capacity		l/m	0,028



Plasterboard system



Prefabricated radiant panels in plasterboard type H2 and EPS

Dimension	Nr. internal circuits	m ² /panel	Active area m ²	Code
1000 x 1200 x 45 mm	1	1,20	1,0725	28134349

Prefabricated radiant panel consisting of 1 or 2 circuits spiral pipe PE-Xc DN 8x1 with oxygen barrier according to DIN 4726, embedded in a plasterboard H2 type (reduced deaerated water), 15 mm thick, coupled with a insulation panel EPS 250 30 mm thick.
Fire reaction class: B-s1, d0 (EN 13501-1).



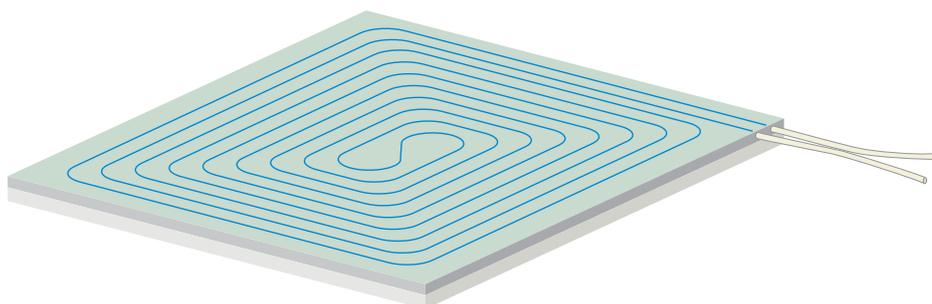
UNI EN 13163 / EN 520

Plasterboard technical data	Norm	U.M.	Referring
Type	EN 520 - 3.2	-	Type H2
Thickness	EN 520 - 5.4	mm	15 ± 0,5
Out of squareness	EN 520 - 5.5	mm/m	≤ 2,5
Weight		Kg/m ²	12,9
Class of reaction to fire	EN 13501-1	-	A2-s1, d0 (B)
Flexural breaking load	EN 520 - 5.7	N	Long. 650 - Transv. 250
Surface hardness	EN 1520 - 5.12	mm	-
Thermal conductivity λ	EN 12524	W/mK	0,21
Resistance factor upon diffusion of steam μ	EN 12524	-	Dry range: 10 - Wet range: 4
Surface water absorption	EN 520-5.9.1	g/m ²	< 180
Total water absorption	EN 520-5.9.2	%	≤ 10

Edges	Longitudinal	Head
1000 x 1200	2 thinned	2 straight

EPS technical data	Norm	U.M.	Referring
Type	EN 13163	-	EPS 250
Compression resistance	EN 826	KPa	≥ 250
Thermal conductivity λ	EN 12939	W/m K	0,036
Water absorption due to partial immersion	EN 12087	%	WL(T)3 ≤ 3,0
Fire classification	EN 13501-1	Euroclass	E

Pipe technical data	Norm	U.M.	Referring
Type	DIN 4724		PE-Xc
Size		mm	8 x 1
Oxygen permeability	DIN 4726	mg/(m ² d)	≤ 0,32 (40 °C)
Thermal conductivity λ	DIN 52612	W/m K	0,4
Average linear expansion coefficient		mm/m °C	0,15
Degree of reticulation	UNI EN 579	%	≥ 60
Minimur radius of curvature		mm	5 x D pipe
Medium surface roughness		μ	7
Lenght of individual circuit		m	21,5
Circuit/passage lenght		cm	Spiral/5
Water content		l/m	0,028



Plasterboard system



Prefabricated buffering panel in plasterboard type H2 and EPS

Dimension	m ² /panel	Code
2000 x 1200 x 45 mm	2,40	28134350

Prefabricated panels composed of slab in normal plasterboard, type H2, 15 mm thickness, coupled with plate EPS 250, 30 mm thickness.
Fire reaction class: B-s1, d0 (EN 13501-1).

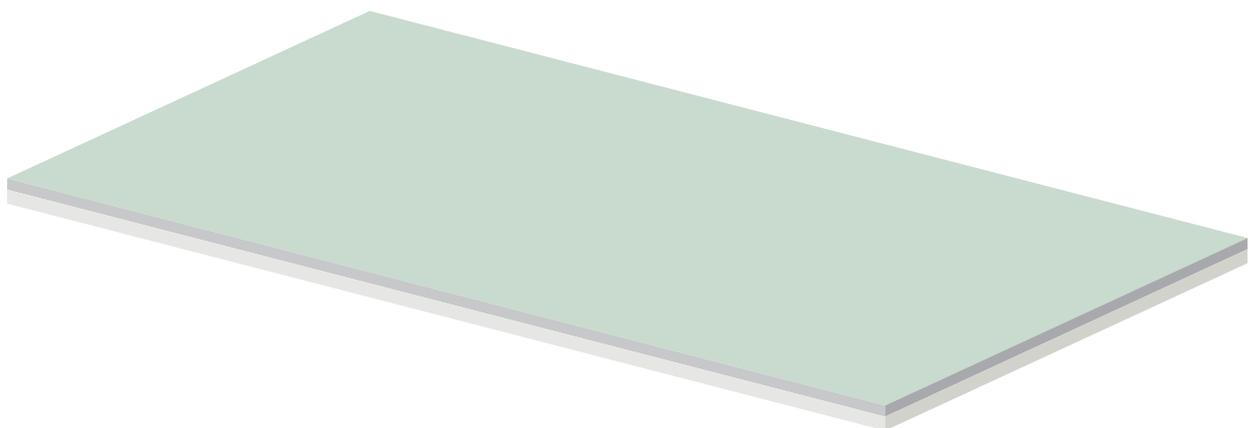


UNI EN 13163 / EN 520

Plasterboard technical data	Norm	U.M.	Referring
Type	EN 520 - 3.2	-	Type H2
Thickness	EN 520 - 5.4	mm	15 ± 0,5
Out of squareness	EN 520 - 5.5	mm/m	≤ 2,5
Weight		Kg/m ²	12,9
Class of reaction to fire	EN 13501-1	-	A2-s1, d0 (B)
Flexural breaking load	EN 520 - 5.7	N	Long. 650 - Transv. 250
Surface hardness	EN 520 - 5.12	mm	-
Thermal conductivity λ	EN 12524	W/mK	0,21
Resistance factor upon diffusion of steam μ	EN 12524	-	Dry range: 10 - Wet range: 4
Surface water absorption	EN 520-5.9.1	g/m ²	< 180
Total water absorption	EN 520-5.9.2	%	≤ 10

Edges	Longitudinal	Head
2000 x 1200	2 thinned	2 straight

EPS technical data	Norm	U.M.	Referring
Type	EN 13163	-	EPS 250
Compression resistance	EN 826	KPa	≥250
Thermal conductivity λ	EN 12939	W/m K	0,032
Water absorption due to partial immersion	EN 12087	%	WL(T)3 ≤ 3,0
Fire classification	EN 13501-1	Euroclass	E



Plasterboard system



Prefabricated buffering panel in plasterboard type A and EPS

Dimension	m ² /panel	Code
2000 x 1200 x 45 mm	2,40	28134346

Prefabricated panels composed of slab in normal plasterboard, Type A, 15 mm thickness, coupled with plate EPS 250, 30 mm thickness.

Fire reaction class: B-s1, d0 (EN 13501-1).

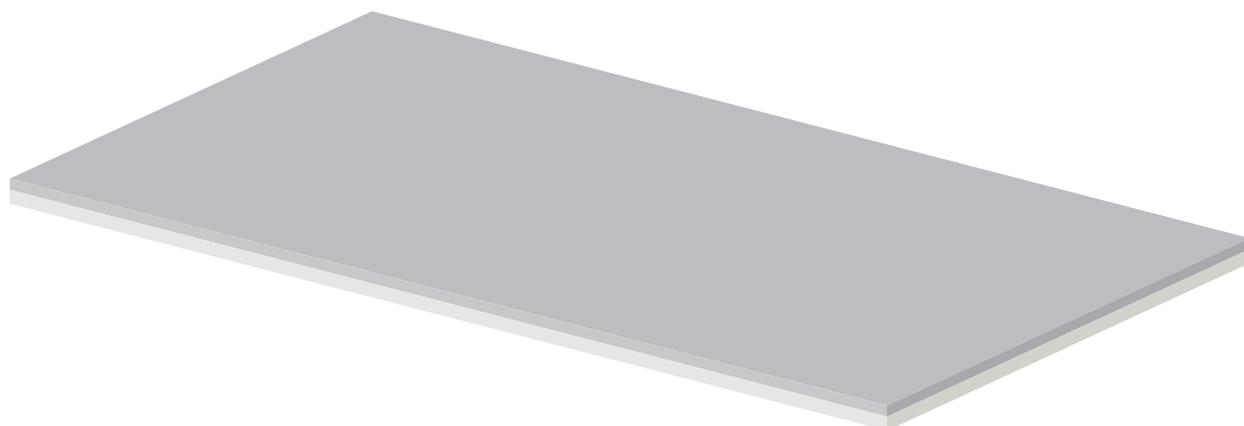


UNI EN 13163 / EN 520

Plasterboard technical data	Norm	U.M.	Referring
Type	EN 520 - 3.2	-	Type A
Thickness	EN 520 - 5.4	mm	15 ± 0,5
Out of squareness	EN 520 - 5.5	mm/m	≤ 2,5
Weight		Kg/m ²	12,9
Class to reaction of fire	EN 13501-1	-	A2-s1, d0 (B)
Flexural breaking load	EN 520 - 5.7	N	Long. 650 - Transv. 250
Surface hardness	EN 520 - 5.12	mm	-
Thermal conductivity λ	EN 12524	W/mK	0,21
Resistance factor upon diffusion of steam μ	EN 12524	-	Dry range: 10 - Wet range: 4

Edges	Longitudinal	Head
2000 x 1200	2 thinned	2 straight

EPS technical data	Norm	U.M.	Referring
Type	EN 13163	-	EPS 250
Compression resistance	EN 826	KPa	≥250
Thermal conductivity λ	EN 12939	W/m K	0,032
Water absorption due to partial immersion	EN 12087	%	WL(T)3 ≤ 3,0
Fire classification	EN 13501-1	Euroclass	E



Plasterboard system



SKZ

Das Kunststoff-Zentrum

UNI EN ISO 15875-2

PE-Xc pipe with EVOH oxygen barrier 5 layers

Classes of application / Operating pressures (bar): Cl. 4/4 bar - Cl. 5/4 bar
 Oxygen permeability (DIN 4726): < 0.1 mg/(m²d) at 40 °C; < 0.34 mg/(m²d) at 80 °C
 Density: 930 kg/m³
 Thermal conductivity: 0.4 W/mK
 Degree of reticulation: ≥60%
 Average coefficient of linear expansion: 0.15 mm/(m °C)
 Minimum bending radius: 5 x D pipe
 Internal roughness: 7 µm
 Water capacity: 0.028 l/m
 Application: heating systems

Dimension	Mts. pack	Code
8 x 1 mm	100	28141800

5-layer pipe in medium density polyethylene, cross-linked by an electronic system, in accordance with DIN 4724, equipped with oxygen barrier in compliance with DIN 4726 and certified SKZ HR 3.13.

Application classes PE-Xc pipe (UNI EN ISO 15875-1):
 see section Technical Attachments page 459



Insulating pipe in roll in elastomer foam

Maximum operation temperature: +105 °C
 Thermal conductivity: (at 0 °C) 0,033 W/mK, (at 40 °C) 0,040 W/mK
 Permeability: µ= 3000 W/m °C
 Fire reaction class: B₁ - s₃ - d₀

Dimension	Thickness	Mts. pack	Code
Ø 8	6 mm	80	02967902



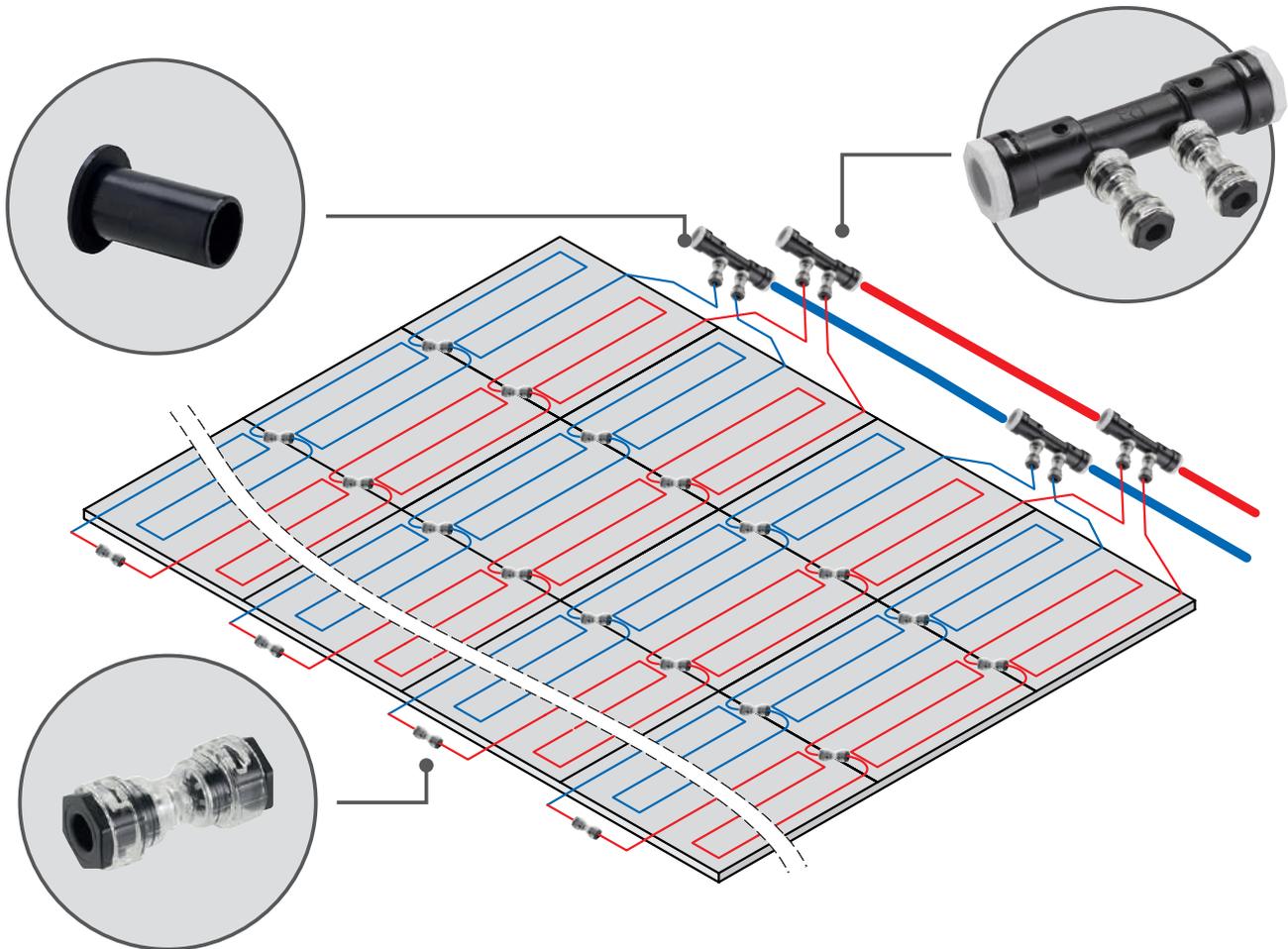
Shear for plastic pipe

Dimension	Pcs. pack	Code
Ø 8÷25	1	28130760
Spare blade for cutter	1	28130761

Shears to cut thin-wall rigid plastic pipes without chippings.

Emmeti Ray Module

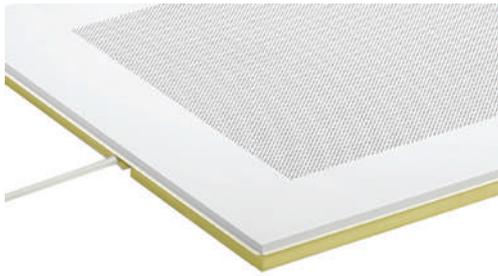
Metal modules heating and cooling system



Ray Module is the new radiant ceiling climate control system intended for buildings for tertiary and commercial use and for use in hospitals, schools and exhibitions where there is a suspended false ceiling accessible for inspection. The reduced thermal needs of new buildings allows to obtain the high thermohygrometric comfort level produced by cold radiant ceilings also for heating purposes. With the radiant ceiling, the air treatment system will be designed for reduced capacities with clear benefits in terms of overall dimensions of the conduits, sensation of well-being in the rooms and energy savings.

Ray Module consists of two circuits made with a PE-Xc 8x1 pipe with oxygen barrier combined with an aluminium thin sheet glued to the coating panel, to be installed on a 24 mm T-shaped suspended structure. The upper part of the exchanger is insulated by means of a 30 mm thick EPS slab. The panels are connected with push-fit fittings up to max. 6 elements for each series.

Metal modules system



Perforated metal radiant square panel

Size	Nr. internal circuits	m ² /square panel	Code
600x600 white lower	2	0,36	28134384

600x600 mm metal square panel used for radiant false ceilings accessible for inspection and consisting of standard 600x600 mm square panels installed on T-shaped exposed structures with a 24 mm base. It consists of a white 5/10 thick aluminium radiant surface, with a lower 8 mm 90° profile, coupled to a felt in TNT VILEDON and equipped with an **insulating layer of 30 mm stone wool (*)**, with 2 circuits inside PE-Xc 8x1 pipe with oxygen barrier.

Class of reaction fire: B-s2, d0 (EN 13501-1)

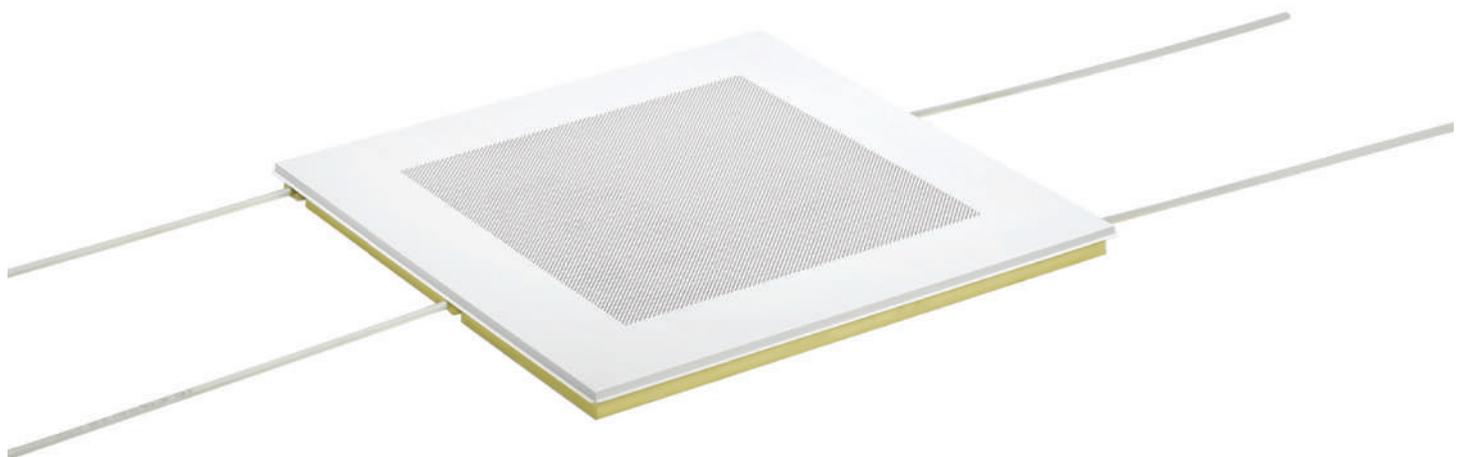
Drilling: 25% area; hole diameter 2 mm; smooth side panel: 100 mm

Article on request: 40 days from order confirmation.

METAL RADIANT SQUARE PANEL technical data	Norm	Referring
Reaction to fire	EN 13964:2007, 4.4.2.2	A2 s1 d0
Flexural strength	EN 13964:2007, 4.6.2	Class 1
Sound absorption	EN 13964:2007, 4.7.2	Class C

ROCK WOOL technical data	Norm	U.M.	Referring
Nominal density	EN 1602	kg/m ³	80
Thermal conductivity λ	EN 12667	W/mK	0.035
Water absorption	EN 1609	kg/m ²	WS ≥ 1
Fire classification	EN 13501-1	Euroclass	A1

PIPE technical data	Norm	U.M.	Referring
Type	DIN 4724		PE-Xc
Dimension		mm	8x1
Oxygen permeability	DIN 4726	mg/(m ² d)	≤ 0,32 (40 °C)
Thermal conductivity λ	DIN 52612	W/mK	0.4
Average linear expansion coefficient		mm/m °C	0.15
Degree of reticulation	UNI EN 579	%	≥ 60
Minimum radius of curvature		mm	5 x D pipe
Average surface roughness		μ	7
Length of individual circuit		m	1.7 (2.2 includes free ends)
Circuit/passage length		cm	Serpentine 10
Water capacity		l/m	0.028



Metal modules system



Perforated metal passive square panel

Size	Nr. internal circuits	m ² /square panel	Code
600x600 white lower	-	0,36	28134386

600x600 mm metal square panel used for radiant false ceilings accessible for inspection and consisting of standard 600x600 mm square panels installed on T-shaped exposed structures with a 24 mm base. It consists of a white 5/10 thick aluminium radiant surface, with a lower 8 mm 90° profile, coupled to a felt in TNT VILEDON and equipped with an **insulating layer of 30 mm stone wool (*)**.

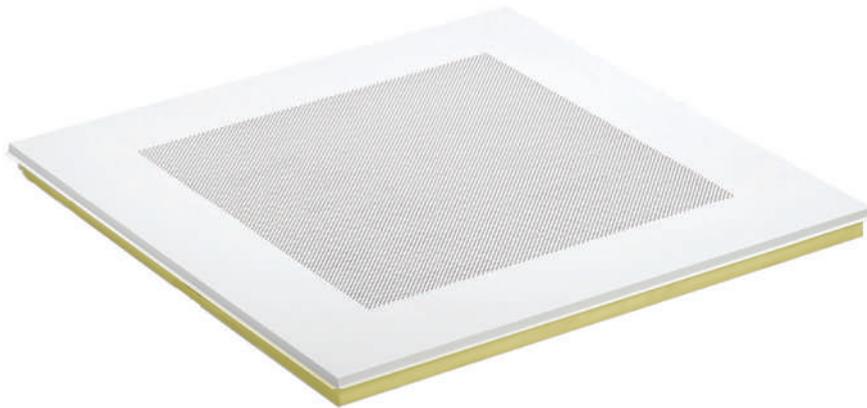
Class of reaction fire: B-s2, d0 (EN 13501-1)

Drilling: 25% area; hole diameter 2 mm; smooth side panel: 100 mm

Article on request: 40 days from order confirmation.

METAL RADIANT SQUARE PANEL technical data	Norm	Referring
Reaction to fire	EN 13964:2007, 4.4.2.2	A2 s1 d0
Flexural strength	EN 13964:2007, 4.6.2	Class 1
Sound absorption	EN 13964:2007, 4.7.2	Class C

ROCK WOOL technical data	Norm	U.M.	Referring
Nominal density	EN 1602	kg/m ³	80
Thermal conductivity λ	EN 12667	W/mK	0.035
Water absorption	EN 1609	kg/m ²	WS ≥ 1
Fire classification	EN 13501-1	Euroclass	A1



Connectors and distributors

Connectors and distributors for multilayer pipe Gerpex RA 20x2 and pipe PE-Xc 8x1

Description

Push-fit connection fittings equipped with a double hydraulic sealing O-ring (inside PEX/AL/PEX 20x2 pipe, outside PE-Xc 8x1 pipe) and pipe-guide adaptor.

The mechanical seal is ensured by a stainless steel ring fitted with teeth that grip the external wall of the pipes, placed behind the O-rings to prevent possible damage to the surface of the pipes. If necessary, the pipe can be disconnected from the fitting using the patented bayonet system.

The 20x2 multilayer pipe will always be correctly inserted thanks to the small circular openings on the body, while the 8x1 pipe is helped by the transparent material terminals in this size are made of.

Technical data

Body: in 6.6 nylon reinforced with glass fibre

O-ring: in EPDM

Serrated hose-clamp: in stainless steel

Maximum temperature: 60 °C

Minimum temperature: 2 °C

Maximum pressure at 60 °C: 2 bar

Maximum pressure at 20 °C: 5 bar



Straight connector

Dimension	Pcs. pack	Code
20x20	2	28134300
8x8	10	28134400



Kit 2 straight fittings intercepted

Dimension	Pcs. pack	Code
8x8	1	28134328

Suitable to intercept a circuit without draining the system



Tee connector

Dimension	Pcs. pack	Code
20x20x20	2	28134304



1-way distributor

Dimension	Pcs. pack	Code
20x8x20	2	28134410

Connectors and distributors for multilayer pipe



2-ways distributor

Dimension	Pcs. pack	Code
20x8x8x20	2	28134412



1-way opposed distributor

Dimension	Pcs. pack	Code
20x8x8x20	2	28134414



2-ways opposed distributor

Dimension	Pcs. pack	Code
20x8x8x8x20	2	28134416



Plug

Dimension	Pcs. pack	Code
20	20	28134314
8	20	28134316

Suitable for plugging unused holes of fittings and distributors of a matching size



Pipe drilling

Dimension	Pcs. pack	Code
8/20	1	28134329

Suitable to mark on the pipes 20x2 and 8x1 the correct insertion depth when used with fittings and distributors with black 8x1 terminal. Also provided in the manual supplied with the system, with each shipment.



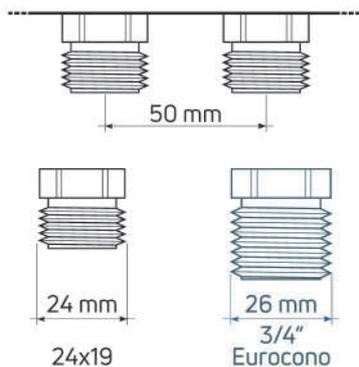
Pair of Insulating shells for fittings and distributors

Dimension	Pcs. pack	Code
For straight connector 20x20	1	28135020
For Tee connector	1	28135022
For 1-way distributor	1	28135024
For 2-ways distributor	1	28135026
For 1-way opposed distributor	1	28135028
For 2-way opposed distributor	1	28135030

In closed cell polyethylene foam, edges with double-sided tape.
Can be used with previous fittings codes 28134300, 28134304, 28134306, 28134308, 28134310 and 28134312 from the 2017 and preceding Heating and Plumbing and Solar Energy catalogues.

Connectors and distributors for multilayer pipe

Topway Compact - distribution manifold



Kit distribution manifold nickel-plated, with 24x19 and 3/4" Eurocone takeoffs (flow and return) and flow meters

Complete with:

Built-in flow meters (0÷4 l/min)

Valves with manual adjustment predisposed for electrothermal heads

Note: nr. 2 Progress ball valves size 1" with red and blue lever, with or without pipe union for thermometer and thermometer, are supplied optionally.

For installation in metal cabinet, for 80 mm brick thickness, insert the collars of the brackets on B-B references.

Size	Ways	Thread	Pcs. pack	Code
1"	2+2	24x19	1	01297280
1"	3+3	24x19	1	01297282
1"	4+4	24x19	1	01297284
1"	5+5	24x19	1	01297286
1"	6+6	24x19	1	01297288
1"	7+7	24x19	1	01297290
1"	8+8	24x19	1	01297292
1"	9+9	24x19	1	01297294
1"	10+10	24x19	1	01297296
1"	11+11	24x19	1	01297298
1"	12+12	24x19	1	01297300
1" (*)	2+2	3/4" Eurocone	1	01297610
1" (*)	3+3	3/4" Eurocone	1	01297612
1" (*)	4+4	3/4" Eurocone	1	01297614
1" (*)	5+5	3/4" Eurocone	1	01297616
1" (*)	6+6	3/4" Eurocone	1	01297618
1" (*)	7+7	3/4" Eurocone	1	01297620
1" (*)	8+8	3/4" Eurocone	1	01297622
1" (*)	9+9	3/4" Eurocone	1	01297624
1" (*)	10+10	3/4" Eurocone	1	01297626
1" (*)	11+11	3/4" Eurocone	1	01297628
1" (*)	12+12	3/4" Eurocone	1	01297630

(*) Items to be availables on order

Note: blind plug 1" M code 90004830 are not included.

Dimensions: see section Technical Attachments page 460

Connectors and distributors for multilayer pipe

Accessories for Topway Compact manifold



Pair of terminal Tee with manually air vent valve and adjustable bibcock

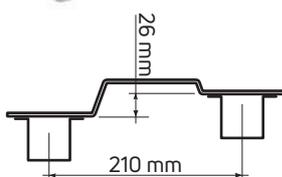
Size	Pcs. pack	Code
1"	1	01306158

With O-Ring.
Supplied with manually air vent valve 1/2" and charge/drain water bibcocks 1/2" with adjustable connection 3/4".



Pair of double metal support

Size	Tekeoffs	Pcs. pack	Code
1"	210 mm	1	90011570





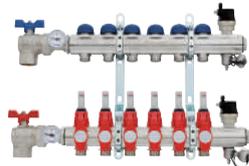
Manifolds, boxes and motorized ball valves



WEB

SCAN

> Bars manifolds
 **131**



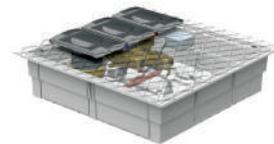
> Brass manifolds
 **172**



> Accessories for manifolds
 **159**



> Built-in box for water
 **173**



> Sanitary manifold
 **158**



> Brass manifolds with bibcocks
 **175**



> Control T Electro-thermic heads
 **166**



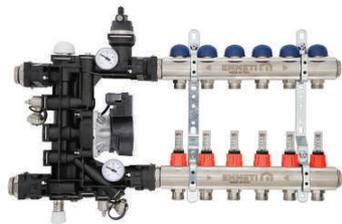
> Motor driven ball-valve
 **179**



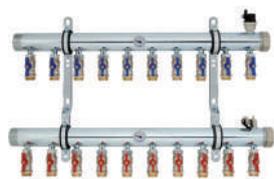
> Electric boxes
 **167**



> Regulation groups
 **185**



> Industrial manifold
 **168**



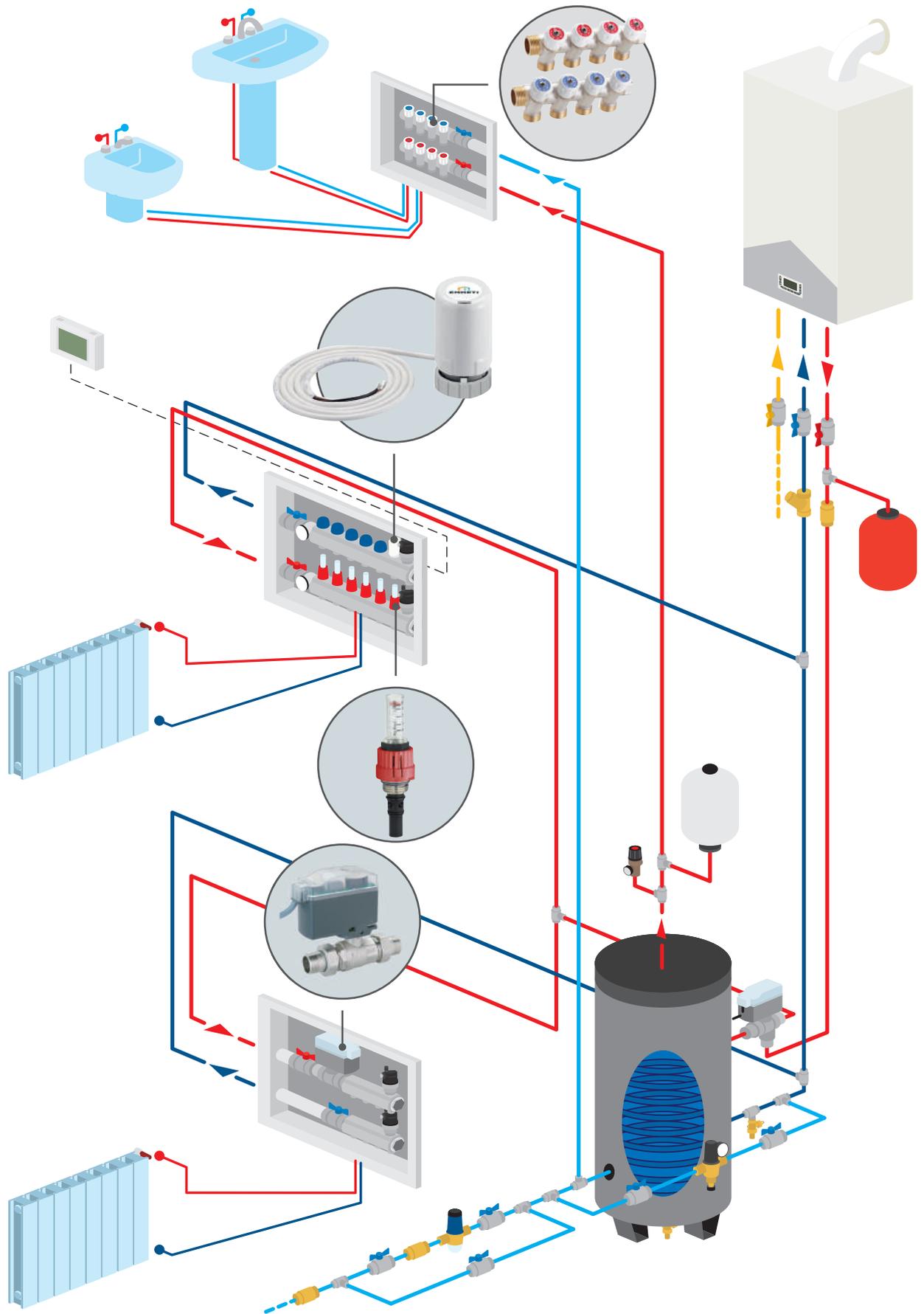
> Distribuion groups
 **198**



> Cabinets for manifolds
 **170**

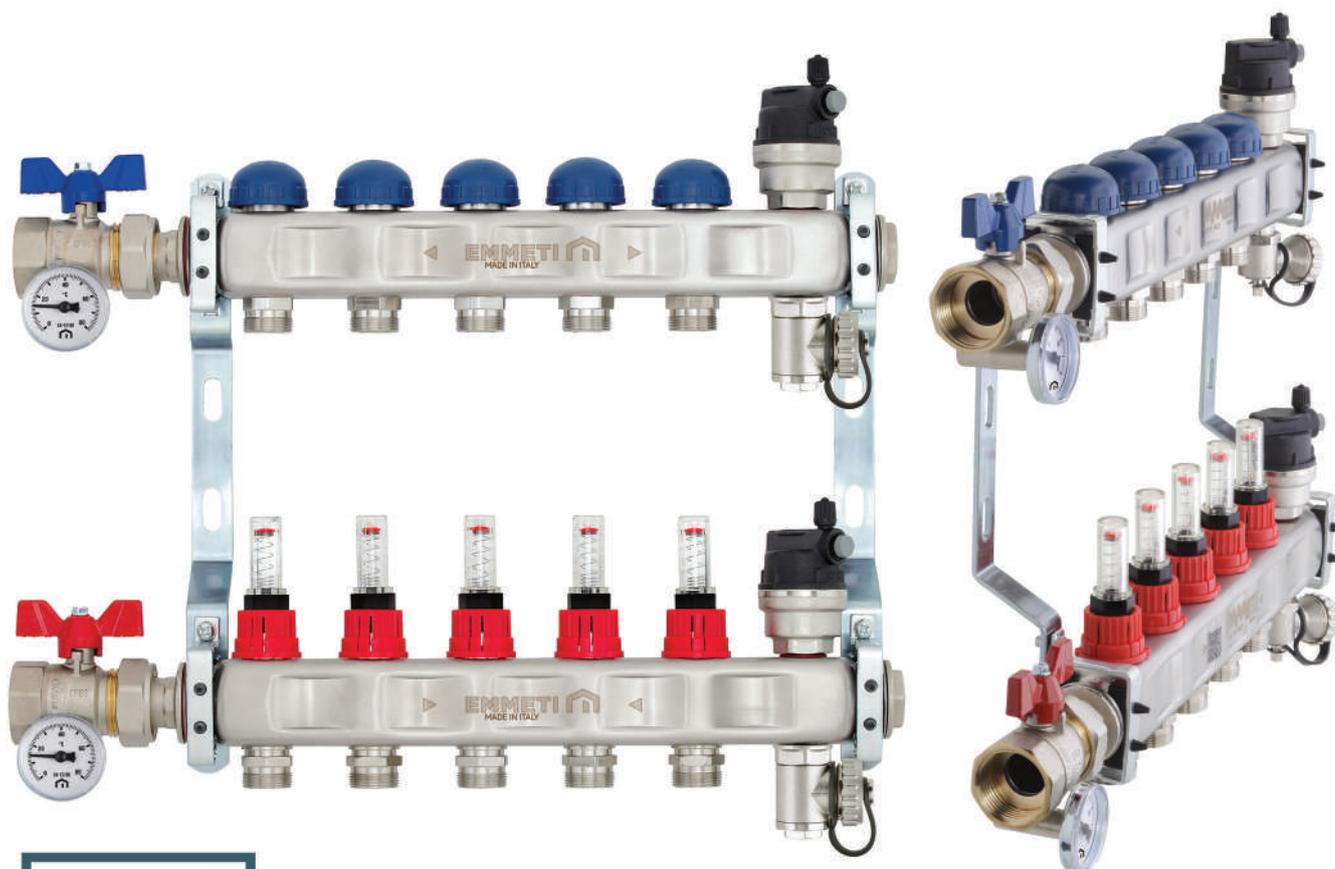


Example of installation



Topway S

Kit stainless steel distribution manifold



Advantages

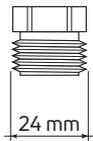
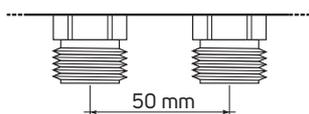
- High resistance material: stainless steel AISI 304 (brushed finish) for safer use and greater durability;
- Fixing supports supplied;
- Automatic air vent valves;
- Patented flow meters;
- Easy to connect: 24x19 or 3/4" Eurocone takeoffs;
- Possibility of connecting from 2 to 12 circuits;
- Return manifolds with valves controlled by electro-thermic actuators (M30x1,5).

Technical Data

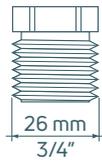
Stainless steel AISI 304 manifolds with a high nickel content and copper-free for increased corrosion resistance.
Seals: peroxide EPDM o-rings.
Maximum temperature: 90 °C.
Maximum pressure: 6 bar.
Head threads: G1" F.
Takeoff threads: 24x19 - 3/4" Eurocone, distance between connections 50 mm.

Dimensions: see section **Technical Attachments** from page 460

Kit stainless steel distribution manifold



24x19



Eurocone
3/4"

Kit Topway S - stainless steel distribution manifold 1"

Supplied with:

Lockshields with built-in flow meters (0÷4 l/min)

Manual regulation valves for electro-thermic actuators

No. 2 blanking plugs 1" with o-ring seal

No. 2 drain valves 1/2"

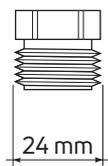
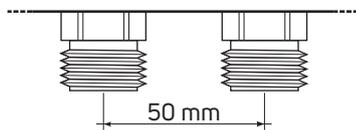
No. 2 air vent valves 1/2" with bleed (lateral+manual)

No. 2 double metal brackets

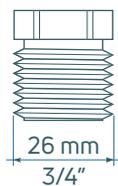
Note: to be completed with n. 2 1" Progress ball valves with red and blue butterfly handles, with or without thermometer holder and thermometer (not included).

Dimension	Ways	Takeoffs	Pcs. pack	Code
1"	2+2	24x19	1	01282200
1"	3+3	24x19	1	01282202
1"	4+4	24x19	1	01282204
1"	5+5	24x19	1	01282206
1"	6+6	24x19	1	01282208
1"	7+7	24x19	1	01282210
1"	8+8	24x19	1	01282212
1"	9+9	24x19	1	01282214
1"	10+10	24x19	1	01282216
1"	11+11	24x19	1	01282218
1"	12+12	24x19	1	01282220
1"	2+2	3/4" Eurocone	1	01282290
1"	3+3	3/4" Eurocone	1	01282292
1"	4+4	3/4" Eurocone	1	01282294
1"	5+5	3/4" Eurocone	1	01282296
1"	6+6	3/4" Eurocone	1	01282298
1"	7+7	3/4" Eurocone	1	01282300
1"	8+8	3/4" Eurocone	1	01282302
1"	9+9	3/4" Eurocone	1	01282304
1"	10+10	3/4" Eurocone	1	01282306
1"	11+11	3/4" Eurocone	1	01282308
1"	12+12	3/4" Eurocone	1	01282310

Kit stainless steel distribution manifold



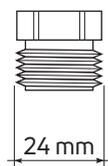
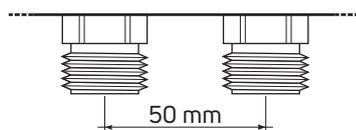
24x19



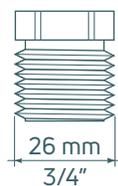
Eurocone

Topway S - single bar return manifold, with valves and with additional way

Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01282760
1"	3	24x19	2	01282762
1"	4	24x19	2	01282764
1"	5	24x19	2	01282766
1"	6	24x19	2	01282768
1"	7	24x19	2	01282770
1"	8	24x19	2	01282772
1"	9	24x19	2	01282774
1"	10	24x19	2	01282776
1"	11	24x19	2	01282777
1"	12	24x19	2	01282779
1"	2	3/4" Eurocone	2	01282910
1"	3	3/4" Eurocone	2	01282912
1"	4	3/4" Eurocone	2	01282914
1"	5	3/4" Eurocone	2	01282916
1"	6	3/4" Eurocone	2	01282918
1"	7	3/4" Eurocone	2	01282920
1"	9	3/4" Eurocone	2	01282922
1"	8	3/4" Eurocone	2	01282924
1"	10	3/4" Eurocone	2	01282926
1"	11	3/4" Eurocone	2	01282928
1"	12	3/4" Eurocone	2	01282930



24x19

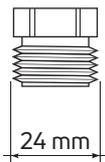
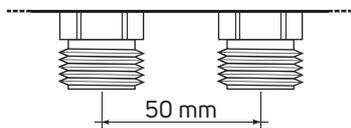


Eurocone

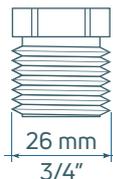
Topway S - single bar flow manifold, with flow meters and with additional way

Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01282790
1"	3	24x19	2	01282792
1"	4	24x19	2	01282794
1"	5	24x19	2	01282796
1"	6	24x19	2	01282798
1"	7	24x19	2	01282800
1"	8	24x19	2	01282802
1"	9	24x19	2	01282804
1"	10	24x19	2	01282806
1"	11	24x19	2	01282808
1"	12	24x19	2	01282810
1"	2	3/4" Eurocone	2	01282940
1"	3	3/4" Eurocone	2	01282942
1"	4	3/4" Eurocone	2	01282944
1"	5	3/4" Eurocone	2	01282946
1"	6	3/4" Eurocone	2	01282948
1"	7	3/4" Eurocone	2	01282950
1"	9	3/4" Eurocone	2	01282952
1"	8	3/4" Eurocone	2	01282954
1"	10	3/4" Eurocone	2	01282956
1"	11	3/4" Eurocone	2	01282958
1"	12	3/4" Eurocone	2	01282960

Kit stainless steel distribution manifold



24x19



Eurocone

Kit Topway S Compact - stainless steel distribution manifold

Complete with:

Built-in flowmeters (0÷4 l/min)

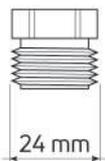
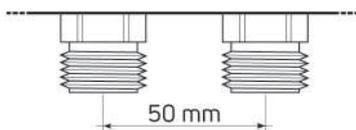
Valves with manual adjustment predisposed for electrothermal heads

Nr. 2 water drain valve 1/2" with plug - Nr. 2 metal brackets for installation in metal box or wall

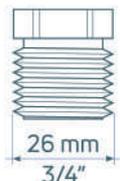
Dimension	Ways	Thread	Pcs. pack	Code
1"	2+2	24x19	2	01282620
1"	3+3	24x19	2	01282622
1"	4+4	24x19	2	01282624
1"	5+5	24x19	2	01282626
1"	6+6	24x19	2	01282628
1"	7+7	24x19	2	01282630
1"	8+8	24x19	2	01282632
1"	9+9	24x19	2	01282634
1"	10+10	24x19	2	01282636
1"	11+11	24x19	2	01282638
1"	12+12	24x19	2	01282640

1"	2+2	3/4" Eurocone	2	01282320
1"	3+3	3/4" Eurocone	2	01282322
1"	4+4	3/4" Eurocone	2	01282324
1"	5+5	3/4" Eurocone	2	01282326
1"	6+6	3/4" Eurocone	2	01282328
1"	7+7	3/4" Eurocone	2	01282330
1"	8+8	3/4" Eurocone	2	01282332
1"	9+9	3/4" Eurocone	2	01282334
1"	10+10	3/4" Eurocone	2	01282336
1"	11+11	3/4" Eurocone	2	01282338
1"	12+12	3/4" Eurocone	2	01282340

Topway S Compact - single bar return manifold, with valves, without additional way



24x19



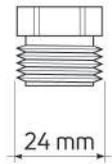
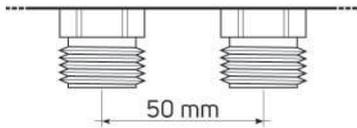
Eurocone

Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01282820
1"	3	24x19	2	01282822
1"	4	24x19	2	01282824
1"	5	24x19	2	01282825
1"	6	24x19	2	01282828
1"	7	24x19	2	01282830
1"	8	24x19	2	01282832
1"	9	24x19	2	01282834
1"	10	24x19	2	01282836
1"	11	24x19	2	01282838
1"	12	24x19	2	01282840

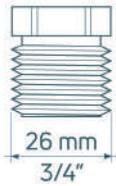
1"	2	3/4" Eurocone	2	01282650
1"	3	3/4" Eurocone	2	01282652
1"	4	3/4" Eurocone	2	01282654
1"	5	3/4" Eurocone	2	01282656
1"	6	3/4" Eurocone	2	01282658
1"	7	3/4" Eurocone	2	01282660
1"	9	3/4" Eurocone	2	01282662
1"	8	3/4" Eurocone	2	01282664
1"	10	3/4" Eurocone	2	01282666
1"	11	3/4" Eurocone	2	01282668
1"	12	3/4" Eurocone	2	01282670

Availables on request

Kit stainless steel distribution manifold



24x19



Eurocone

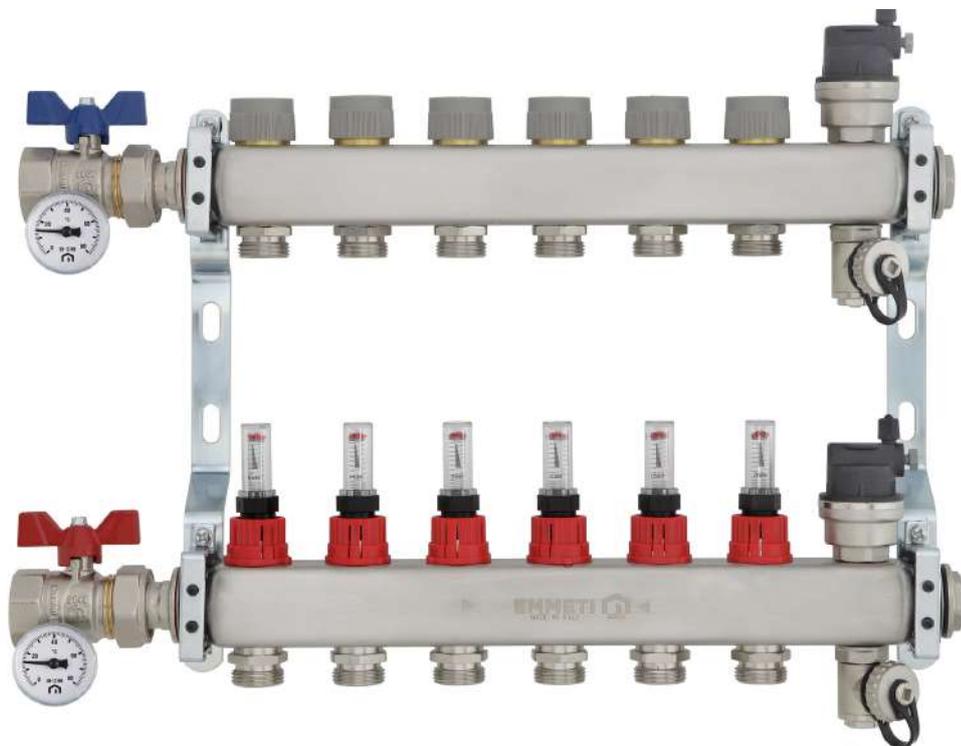
Topway S Compact - single bar flow manifold, with flow meters, without additional way

Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01282850
1"	3	24x19	2	01282852
1"	4	24x19	2	01282854
1"	5	24x19	2	01282856
1"	6	24x19	2	01282858
1"	7	24x19	2	01282860
1"	8	24x19	2	01282862
1"	9	24x19	2	01282864
1"	10	24x19	2	01282866
1"	11	24x19	2	01282868
1"	12	24x19	2	01282870
1"	2	3/4" Eurocone	2	01282880
1"	3	3/4" Eurocone	2	01282882
1"	4	3/4" Eurocone	2	01282884
1"	5	3/4" Eurocone	2	01282886
1"	6	3/4" Eurocone	2	01282888
1"	7	3/4" Eurocone	2	01282890
1"	9	3/4" Eurocone	2	01282892
1"	8	3/4" Eurocone	2	01282894
1"	10	3/4" Eurocone	2	01282896
1"	11	3/4" Eurocone	2	01282898
1"	12	3/4" Eurocone	2	01282900

Availables on request

Topway S-D

Distribution manifold in stainless steel, with automatic dynamic balancing of the flow rate of the individual circuits



SCAN

Advantages

The new Topway S-D stainless steel manifold is characterized by the return bars, equipped with special inserts (dynamic valves) with continuous flow regulation and a membrane mechanism that guarantees automatic hydraulic balancing of the radiant heating and cooling systems, regardless of the differential pressure. Even in the presence of highly oscillating differential pressures, which can occur in the event of opening or closing sections of the system, the flow rate is kept constant within the adjustment range. To set the project flow rate, the appropriate numbered ring nut (liters / min) is rotated using the special plastic key supplied. The insert has an interception device which, in combination with electrothermal actuators, M30x1.5 connection, and room thermostats, can be used to regulate the temperature of the single room. The delivery manifold is equipped with interception devices complete with indicators to check the actual passage of the flow.

Technical data

Distribution bars: AISI 304 stainless steel with high nickel content and without copper for greater resistance to corrosion.

Sealing gasket: peroxide EPDM.

Maximum operating temperature: + 80 °C

Minimum operating temperature: + 2 °C

Maximum operating pressure: 6 bar (600 kPa)

Flow rate adjustment range: 0.5-5 l / min

Head threads: G1 "F.

Outlets threads: 3/4 "Eurocone

Center line between ports: 50 mm

Actuator connection thread: M30x1.5

Piston stroke: 1.8 mm

Closing dimension: 11.8 mm

Closing force (actuator): 90 - 150 N

Adjustment range:

Δp max : 150 kPa (1,5 bar)

Δp min. (0,5 - 2 l/min): 10 kPa (0,10 bar)

Δp min. (>2 - 2,8 l/min): 15 kPa (0,15 bar)

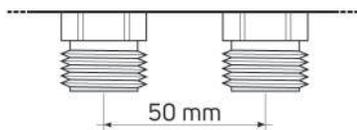
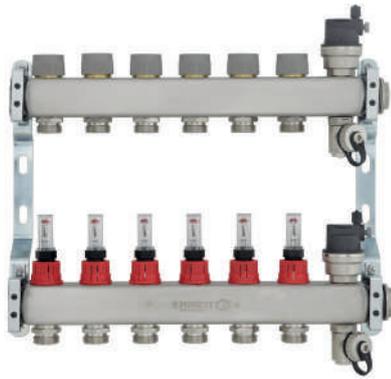
Δp min. (>2,8 - 5 l/min): 20 kPa (0,20 bar)

For values lower than Δp min. the valve works like a normal valve with thermostatic option, therefore the flow rate varies according to the differential pressure.

Dimensions and technical data:

see section **Technical Attachments page 462**

Distribution manifold in stainless steel



1" Topway S-D pre-assembled distribution manifold in steel with automatic dynamic balancing of the flow rate of the individual circuits

Supplied with:

Lockshields with built-in flow indicators

Dynamic valves with continuous flow regulation, 0.5 - 5 l / min, designed for electro-thermal heads

Nr. 2 1" blind plugs with o-ring gasket

Nr. 2 1/2" water drain valves

Nr. 2 1/2" air vent valves with vent (automatic + manual)

Nr. 2 double metal supports

Nr. 1 key for adjusting the dynamic valves (supplied)

Note: to be completed with no. 2 Progress 1" ball valve with butterfly handle red and blue, with filler, with or without thermometer (not included).

Dimension	Way	Thread	Pcs. pack	Code
1"	2+2	3/4" Eurocone	1	01330022
1"	3+3	3/4" Eurocone	1	01330024
1"	4+4	3/4" Eurocone	1	01330026
1"	5+5	3/4" Eurocone	1	01330028
1"	6+6	3/4" Eurocone	1	01330030
1"	7+7	3/4" Eurocone	1	01330032
1"	8+8	3/4" Eurocone	1	01330034
1"	9+9	3/4" Eurocone	1	01330036
1"	10+10	3/4" Eurocone	1	01330038
1"	11+11	3/4" Eurocone	1	01330040
1"	12+12	3/4" Eurocone	1	01330042



3/4" Eurocone Monobloc seal for Multilayer, PE-X, PE-RT pipes

Dimension	Thread	Pcs. pack	Code
12 x 2	3/4" Eurocone	10	28100788
16 x 2 (*)	3/4" Eurocone	10	28100792
17 x 2 (*)	3/4" Eurocone	10	28100794
20 x 2	3/4" Eurocone	10	28100798

(*) Items to be out of stock

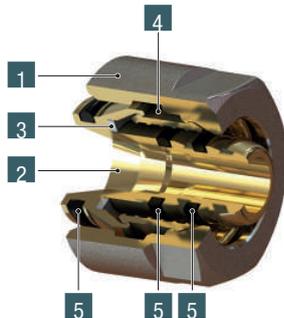


Monoblocco 2.0 3/4" Eurocone fitting for Multilayer, PE-X and PE-RT pipe

NEW

Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Adapter in brass UNI EN 12164 CW617N
- 3 Washer in PTFE, dielectric
- 4 Serrated hose-clamp in brass UNI EN 12164 CW614N
- 5 O-ring seals EPDM



Dimension	Thread	Pcs. pack	Code
16 x 2 (with o-ring)	3/4" Eurocone	10	28110606
17 x 2 (with o-ring)	3/4" Eurocone	10	28110608

Accessories for Topway S and Topway S-D

Ball valves kit for Topway S and Topway S-D manifolds



Technical data

Valve body thread with Female connection: UNI EN 10226-1 (ISO 7-1: 1994)

Male connection valve sleeve thread: UNI EN ISO 228-1

Shank and nut thread: UNI EN ISO 228-1

REDUCED PASSAGE

Flow direction: in both directions

Minimum and maximum working temperature: -20 °C / + 120 °C **

Maximum pressure (T = 120 °C): 10 bar

Nominal pressure (T = 20 °C): PN 40

** In the absence of steam; use with water and glycol mixtures for temperatures below 0 °C

The valves must be used in the fully open or closed position.

Sealing O-Ring

Upper shaft seal O-Ring: VITON 70 Sh A (ASTM D2240)

Lower shaft seal O-Ring: EPDM Peroxide 70 Sh A (ASTM D2240)

Shank O-Ring: Peroxide EPDM 70 Sh A (ASTM D2240)



Right-angle Progress ball valves with pipe union and thermometer

Dimension	Pcs. pack	Code
1"	1	01306714

UNI EN ISO 228/1 threads - Reduced pitch (DN 20) - Thermometer scale 0-80 °C
Use the pair of red O-rings for valve installation on steel Topway S manifolds and the pair of black O-rings for valve installation on Topway brass manifolds. Both pairs of O-rings are supplied in the package.



Right-angle Progress ball valves with pipe union

Dimension	Pcs. pack	Code
1"	1	01306712

UNI EN ISO 228/1 threads - Reduced pitch (DN 20)
Use the pair of red O-rings for valve installation on steel Topway S manifolds and the pair of black O-rings for valve installation on Topway brass manifolds. Both pairs of O-rings are supplied in the package.



Right-angle Progress ball valve with pipe union and thermometer

Dimension	Pcs. pack	Code
1"	1	01306858

UNI EN ISO 228/1 threads - Reduced bore (DN 20) - Thermometer scale 0-80 °C
Use the pair of red O-Rings for valve installation on Topway S steel manifolds, and the pair of black O-Rings for valve installation on Topway brass manifolds. Both pairs of O-Rings are supplied in the package.



Right-angle Progress ball valve with pipe union

Dimension	Pcs. pack	Code
1"	1	01306856

UNI EN ISO 228/1 threads - Reduced passage (DN 20)
Use the pair of red O-Rings for valve installation on Topway S steel manifolds, and the pair of black O-Rings for valve installation on Topway brass manifolds. Both pairs of O-Rings are supplied in the package.

Accessories for Topway S and Topway S-D



Straight Progress ball valves with pipe union, and thermometer

Dimension	Pcs. pack	Code
1"	1	01306710

UNI EN ISO 228/1 threads - Reduced bore (DN 20) - Thermometer scale 0-80 °C
Use the pair of red O-Rings for valve installation on Topway S steel manifolds, and the pair of black O-Rings for valve installation on Topway brass manifolds. Both pairs of O-Rings are supplied in the package.

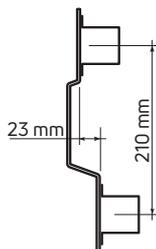


Straight Progress ball valves with pipe union

Dimension	Pcs. pack	Code
1"	1	01306708

UNI EN ISO 228/1 threads - Reduced passage (DN 20)
Use the pair of red O-Rings for valve installation on Topway S steel manifolds, and the pair of black O-Rings for valve installation on Topway brass manifolds. Both pairs of O-Rings are supplied in the package.

Accessories for Topway S and Topway S-D manifolds



Pair of double metal holder

Dimension	Take off	Pcs. pack	Code
1"	210 mm	1	01306826



Terminal kit with by-pass

Overpressure valve from 0,2 to 0,5 bar

Dimension	Pcs. pack	Code
1"	1	01306174

Item to be out of stock



Terminal kit with by-pass for steel and brass manifolds

Maximum working temperature: 110 °C.

Maximum working pressure: 6 bar.

Dimension	Pcs. pack	Code
For manifolds size 1" (*)	1	01307010

Thread UNI EN ISO 228-1

(*) Code 01307010 is equipped with a red O-ring on the upper union, for coupling with Topway S steel manifolds; to use the item in combination with the Topway brass manifolds, replace the red O-ring with the black one supplied in the package.

Dimensions and technical data: see section Technical Attachments page 462

Accessories for Topway S and Topway S-D



Splitter fitting

Connection Dimension	Pcs. pack	Code
24x19	2	01300000
3/4" Eurocone	2	28130606

Splitter fitting for manifolds with 24x19 or 3/4" Eurocone outlets, takeoffs 50 mm.
Takeoffs between splitter outlets: 36 mm.
Thread UNI EN ISO 228-1

Dimensions: see section Technical Attachments page 467



Kit lockshield with incorporated flow meter 0÷4 l/min

Dimension	Pcs. pack	Code
0÷4 l/min	4	01306810



Lockshield / flow meter seat

Dimension	Pcs. pack	Code
For manifold 1" - 24x19	4	01306812
For manifold 1" - 3/4" eurocone	4	01306814



Tecno-Varia air bleed valve 1/2" with plastic casing

Dimension	Pcs. pack	Code
1/2"	12	00400020



Charge and drain valve, nickel-plated with Male 3/4" adjustable connection

Dimension	Pcs. pack	Code
1/2"	4	01306824
1"	2	01300002



Couple of terminal with manual vent valve and adjustable bibcock

Dimension	Pcs. pack	Code
1" with O-ring	1	01306158

Supplied with:

- 1/2" manual vent valve

- 1/2" water bibcock for water charge/drain with adjustable 3/4" connection.

For use on Topway S steel manifolds, replace the black O-Rings with the red ones supplied. It can also be used in combination with Topway manifold (with appropriate black o-rings in the package).



Kit thermostatic shutter

Dimension	Pcs. pack	Code
For manifolds 1" - 24x19	4	01306816
For manifolds 1" - 3/4" Eurocone	4	01306818

Accessories for Topway S and Topway S-D



Nickel-plated blind plug

Dimension	Pcs. pack	Code
1/2" M with O-ring	30	90004930
1" M with O-ring	15	90004830
NEW 24 x 19 F blind monoblocco with O-ring	20	01321462

Thread UNI EN ISO 228-1



Nickel plated reduction

Dimension	Pcs. pack	Code
1" M x 3/8" F	15	90005060
1" M x 1/2" F	15	90004850
1" M x 3/4" F	15	90006870

With o-ring
Thread UNI EN ISO 228-1



Nickel-plated nipple, o-ring seal

Dimension	Pcs. pack	Code
1" M x 1" M	2	01306872

With o-ring
Thread UNI EN ISO 228-1



Thermometer Ø 40

NEW

Dimension	Pcs. pack	Code
0-80 °C	1	90006866



Tee union with pipe union for thermometer

Dimension	Pcs. pack	Code
24x19	1	90011760

24 mm gas thread and 19 screw threads for inch.



Hand wheel for manual control

Dimension	Pcs. pack	Code
	6	01306112



Insulating shell for Topway S manifolds

Dimension	Pcs. pack	Code
1"	1	01306862

In closed cell cross-linked expanded polyethylene. No. of branch holes: 13, interval 50 mm. To be cut to dimension according to the number of ways of the collector to be insulated.

Accessories for Topway S and Topway S-D



Pair of insulating shells for right-angle kit valves, with or without thermometer holder, for Topway S manifolds

Dimension	Pcs. pack	Code
1"	1	01306864

In closed-cell crosslinked extruded polyethylene.



Pair of insulating shells for straight valve kit, with or without thermometer holder, for Topway S manifolds

Dimension	Pcs. pack	Code
1"	1	01306866

In closed-cell crosslinked extruded polyethylene.



Kit expansion vessel for connection to the distribution manifold Topway in boxes Metalbox

Dimension	Pcs. pack	Code
8 liters	1	07245370
10 liters	1	07245380

Complete with:

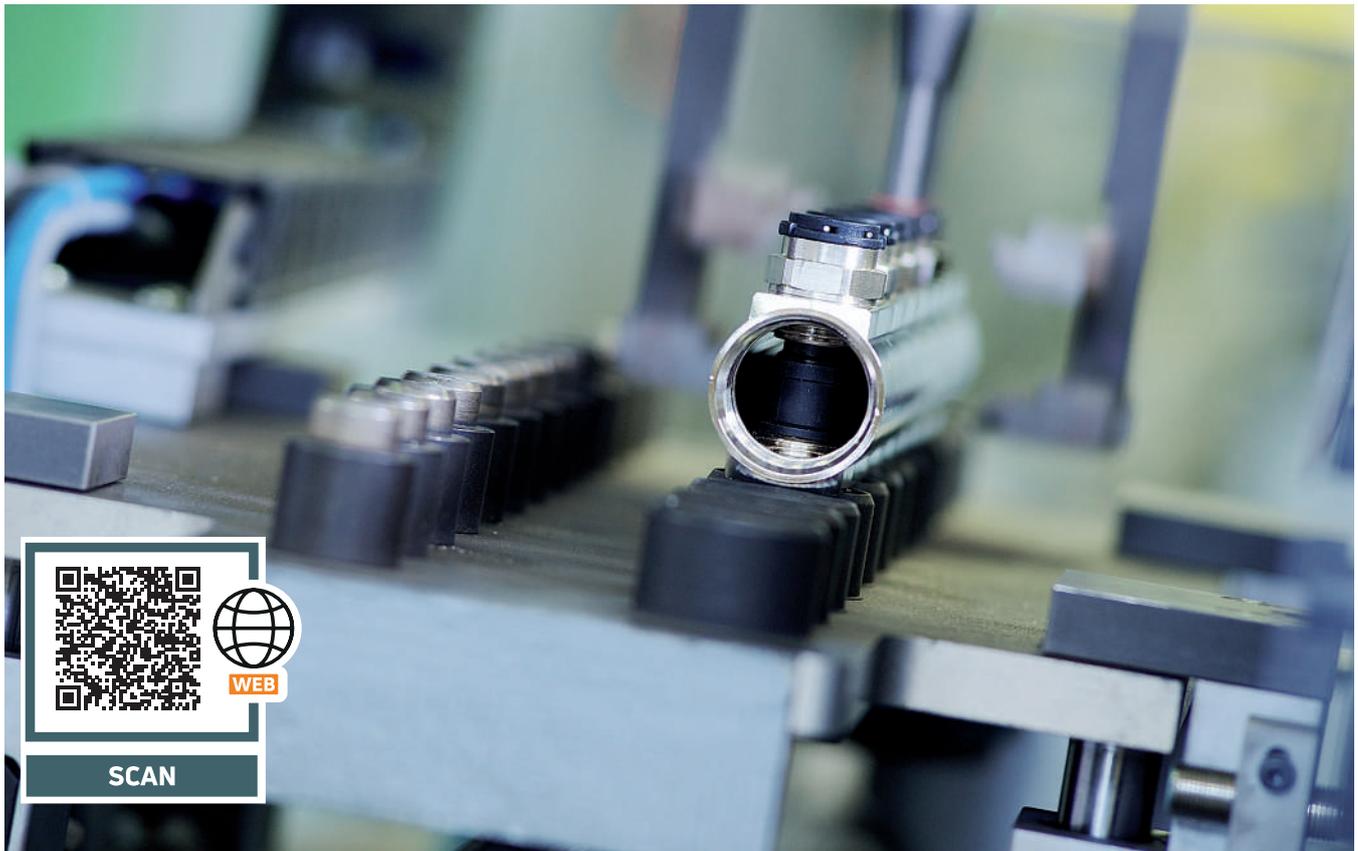
Expansion vessel 8 or 10 liters; mounting plate with screws for installation in box Metalbox; copper pipe \varnothing 18x1 prepared for connection tap loading / unloading 1/2" diameter copper pipe 10x1 derivation with nut 3/8" connection for expansion vessel; sealing block for copper pipe \varnothing 18x1; shank 1/2" - 24x19 with o-ring for connection manifold Topway S 1"; gasket 3/8".

Note: Kit expansion vessel 10 liter can only be installed in boxes for partition of 120 mm.

Width 260 mm x height 490 mm

Dimensions: see section Technical Attachments page 467

Bars manifold



Uses

The Topway bar manifold, with its multitude of components and accessories, is the perfect solution to current system engineering needs. It offers flexible solutions for various system configurations. This manifold makes it possible to set the temperature in any room through the installation of electro-thermal actuators so as to automatically control each circuit using a thermostat.

Special attention has been given to speed and ease of installation. All of the parts combine easily with one another. Adjustment and control can be performed with precision using flow rate measurement devices that are already built into the manifold.

The performance features of the product, along with its high level of quality, ensured by the materials used and the demanding production controls, make it reliable and functional over time, reducing maintenance and allowing substantial energy savings.

Topway distribution manifolds are tested 100% prior to packaging.

Construction

All Topway manifold distribution headers and accessories are nickel plated / brass.

Brass header retrieved through a bar drawing process

TN UNI EN 12168 CW614N.

Seals in EPDM

Technical data

Maximum operating temperature:

- 110 °C with lockshields

- 90° with flow meters

Maximum working pressure:

- 10 bar with lockshields

- 6 bar with flow meters

Head thread G 3/4" - 1" - 1 1/4"

Outlets thread 24x19 - 3/4" Eurocone

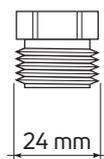
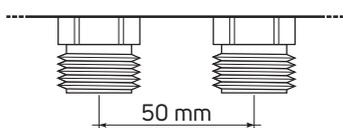
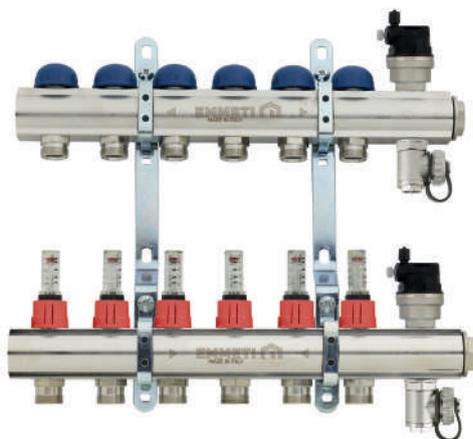
Note: 24x19 thread - 24 mm gas thread and 19 screw threads for inch.

Note: seal on thread of heads ONLY with o-ring.

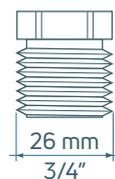
DO NOT USE tapered threads.

Dimensions: see section **Technical Attachments** page 463

Bars manifold



24x19



Eurocone

Pre-assembled distribution manifold nickel-plated, 24x19 takeoffs (flow and return) and 3/4" eurocone takeoffs (flow and return)

WITH 0÷4 l/min FLOW-METERS

Supplied together with:

- Lockshields with flow meters included on inlet (0÷4 l/min)
- Manual adjustment valves set up to take thermo-electric heads
- Nr. 2 blanking plugs 1" or 1"1/4 complete with o-ring
- Nr. 2 water drain valves 1/2" with plug
- Nr. 2 Tecno-Varia air vent 1/2" with bleed (lateral + manual)
- Nr. 2 double metal holders 1" or 1"1/4

Note:

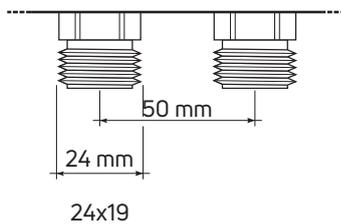
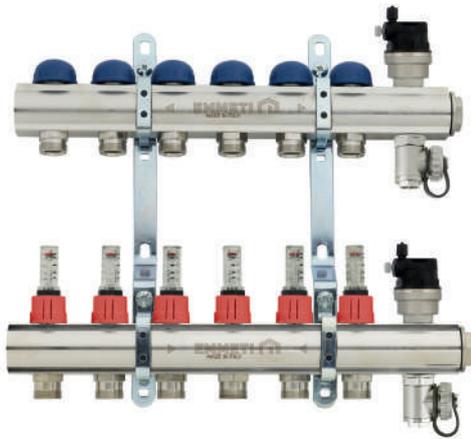
to be completed with n. 2 1" or 1"1/4 Progress ball valves with red and blue butterfly handles, with or without thermometer holder and thermometer (not included).

Dimension	Ways	Thread	Pcs. pack	Code
1"	2+2	24x19	1	01298540
1"	3+3	24x19	1	01298542
1"	4+4	24x19	1	01298544
1"	5+5	24x19	1	01298546
1"	6+6	24x19	1	01298548
1"	7+7	24x19	1	01298550
1"	8+8	24x19	1	01298552
1"	9+9	24x19	1	01298554
1"	10+10	24x19	1	01298556
1"	11+11	24x19	1	01298558
1"	12+12	24x19	1	01298560
1"1/4	4+4	24x19	1	01298424
1"1/4	5+5	24x19	1	01298426
1"1/4	6+6	24x19	1	01298428
1"1/4	7+7	24x19	1	01298430
1"1/4	8+8	24x19	1	01298432
1"1/4	9+9	24x19	1	01298434
1"1/4	10+10	24x19	1	01298436
1"1/4	11+11	24x19	1	01298438
1"1/4	12+12	24x19	1	01298440
1"	2+2	3/4" Eurocone	1	01298570
1"	3+3	3/4" Eurocone	1	01298572
1"	4+4	3/4" Eurocone	1	01298574
1"	5+5	3/4" Eurocone	1	01298576
1"	6+6	3/4" Eurocone	1	01298578
1"	7+7	3/4" Eurocone	1	01298580
1"	8+8	3/4" Eurocone	1	01298582
1"	9+9	3/4" Eurocone	1	01298584
1"	10+10	3/4" Eurocone	1	01298586
1"	11+11	3/4" Eurocone	1	01298588
1"	12+12	3/4" Eurocone	1	01298590
1"1/4	6+6	3/4" Eurocone	1	01298458
1"1/4	7+7	3/4" Eurocone	1	01298460
1"1/4	8+8	3/4" Eurocone	1	01298462
1"1/4	9+9	3/4" Eurocone	1	01298464
1"1/4	10+10	3/4" Eurocone	1	01298466
1"1/4	11+11	3/4" Eurocone	1	01298468
1"1/4	12+12	3/4" Eurocone	1	01298470

Bars manifold

Pre-assembled distribution manifold nickel-plated, 24x19 takeoffs (flow and return)

WITH 0÷2,5 l/min FLOW METERS



Supplied together with:

Lockshields with flow meters (0÷2,5 l/min)

Manual adjustment valves set up to take thermo-electric heads

Nr. 2 blind nipples 1" complete with o-ring

Nr. 2 water drain valves 1/2"

Nr. 2 air vent valves 1/2" with bleed (lateral+manual)

Nr. 2 dual metal holders 1"

Note:

to be completed with n. 2 1" Progress ball valves with red and blue butterfly handles, with or without thermometer holder and thermometer (not included).

Dimension	Ways	Thread	Pcs. pack	Code
1"	2+2	24x19	1	01285060
1"	3+3	24x19	1	01285062
1"	4+4	24x19	1	01285064
1"	5+5	24x19	1	01285066
1"	6+6	24x19	1	01285068
1"	7+7	24x19	1	01285070
1"	8+8	24x19	1	01285072
1"	9+9	24x19	1	01285074
1"	10+10	24x19	1	01285076
1"	11+11	24x19	1	01285078
1"	12+12	24x19	1	01285080

Topway Compact

Manifold for underfloor heating regulation and control



Uses

The Topway bar manifold, with its multitude of components and accessories, is the perfect solution to current system engineering needs. It offers flexible solutions for various system configurations. This manifold makes it possible to set the temperature in any room through the installation of electro-thermal actuators so as to automatically control each circuit using a thermostat.

Special attention has been given to speed and ease of installation. All of the parts combine easily with one another.

Adjustment and control can be performed with precision using flow rate measurement devices that are already built into the manifold. The performance features of the product, along with its high level of quality, ensured by the materials used and the demanding production controls, make it reliable and functional over time, reducing maintenance and allowing substantial energy savings.

Topway distribution manifolds are tested 100% prior to packaging.

Construction

All Topway manifold distribution headers and accessories are nickel plated / brass.

Brass header retrieved through a bar drawing process

TN UNI EN 12168 CW614N.

Seals in EPDM.

Technical data

Maximum operating temperature:

- 90° C with flow meters

- 110 °c with lockshields

Maximum working pressure:

- 6 bar with flow meters

- 10 bar with lockshields

Head thread: G 1"

Outlets thread: 24x19 and 3/4" Eurocone

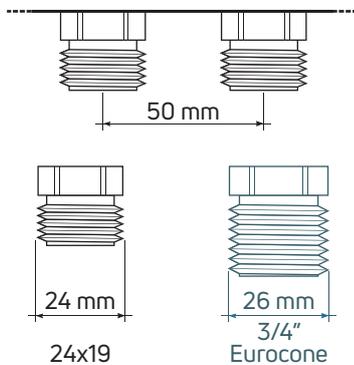
Note: 24x19 thread - 24 mm gas thread and 19 screw threads for inch.

Note: seal on thread of heads ONLY with o-ring.

DO NOT USE tapered threads.

Dimensions: see section Technical Attachments page 463

Manifold for underfloor heating regulation and control



Kit distribution manifold nickel-plated 24x19 and 3/4" Eurocone takeoffs (flow and return) and flow meters.

Complete with:

Built-in flowmeters (0÷4 l/min)

Valves with manual adjustment predisposed for electrothermal heads

Nr. 2 supports for installation in metal box or wall

Note: to be completed with n. 2 1" or 1"1/4 Progress ball valves with red and blue butterfly handles, with or without thermometer holder and thermometer (not included).

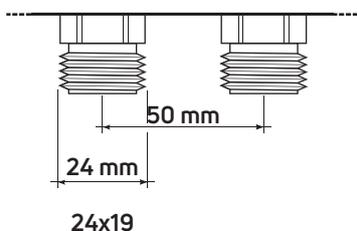
For installation in metal cabinet, for 80 mm brick thickness, insert the collars of the brackets on the B-B references.

Dimension	Ways	Thread	Pcs. Pack	Code
1"	2+2	24x19	1	01297280
1"	3+3	24x19	1	01297282
1"	4+4	24x19	1	01297284
1"	5+5	24x19	1	01297286
1"	6+6	24x19	1	01297288
1"	7+7	24x19	1	01297290
1"	8+8	24x19	1	01297292
1"	9+9	24x19	1	01297294
1"	10+10	24x19	1	01297296
1"	11+11	24x19	1	01297298
1"	12+12	24x19	1	01297300
1" (*)	2+2	3/4" Eurocone	1	01297610
1" (*)	3+3	3/4" Eurocone	1	01297612
1" (*)	4+4	3/4" Eurocone	1	01297614
1" (*)	5+5	3/4" Eurocone	1	01297616
1" (*)	6+6	3/4" Eurocone	1	01297618
1" (*)	7+7	3/4" Eurocone	1	01297620
1" (*)	8+8	3/4" Eurocone	1	01297622
1" (*)	9+9	3/4" Eurocone	1	01297624
1" (*)	10+10	3/4" Eurocone	1	01297626
1" (*)	11+11	3/4" Eurocone	1	01297628
1" (*)	12+12	3/4" Eurocone	1	01297630

(*) Items availables on request

Note: blind plugs 1" M code 90004830 are **NOT included**

Manifold for underfloor heating regulation and control



Kit distribution manifold nickel-plated with, 24x19 and 3/4" Eurocone takeoffs (flow and return)

Complete with:

Built-in flowmeters (0÷4 l/min)

Valves with manual adjustment predisposed for electrothermal heads

Nr. 2 water drain valve 1/2" with plug

Nr. 2 supports for installation in metal box or wall

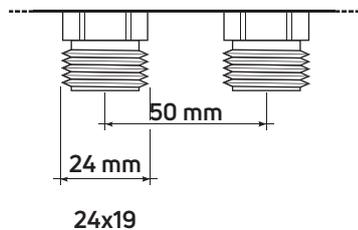
Note: to be completed with n. 2 1" or 1 1/4" Progress ball valves with red and blue butterfly handles, with or without thermometer holder and thermometer (not included).

For installation in metal cabinet, for 80 mm brick thickness, insert the collars of the brackets on the B-B references.

Dimension	Ways	Thread	Pcs. Pack	Code
1"	2+2	24x19	1	01297100
1"	3+3	24x19	1	01297102
1"	4+4	24x19	1	01297104
1"	5+5	24x19	1	01297106
1"	6+6	24x19	1	01297108
1"	7+7	24x19	1	01297110
1"	8+8	24x19	1	01297112
1"	9+9	24x19	1	01297114
1"	10+10	24x19	1	01297116
1"	11+11	24x19	1	01297118
1"	12+12	24x19	1	01297120
<hr/>				
1" (*)	2+2	3/4" Eurocone	1	01297580
1" (*)	3+3	3/4" Eurocone	1	01297582
1" (*)	4+4	3/4" Eurocone	1	01297584
1" (*)	5+5	3/4" Eurocone	1	01297586
1" (*)	6+6	3/4" Eurocone	1	01297588
1" (*)	7+7	3/4" Eurocone	1	01297590
1" (*)	8+8	3/4" Eurocone	1	01297592
1" (*)	9+9	3/4" Eurocone	1	01297594
1" (*)	10+10	3/4" Eurocone	1	01297596
1" (*)	11+11	3/4" Eurocone	1	01297598
1" (*)	12+12	3/4" Eurocone	1	01297600

(*) Items available on request

Manifold for underfloor heating regulation and control



Kit distribution manifold nickel-plated 24x19 (flow and return) with lockshields

Complete with:

Regulation lockshields

Manually regulation valves prepared for electro-thermic heads

Nr. 2 water drain valve 1/2" with plug

Nr. 2 supports for installation in metal box or wall

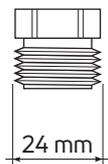
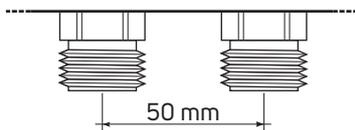
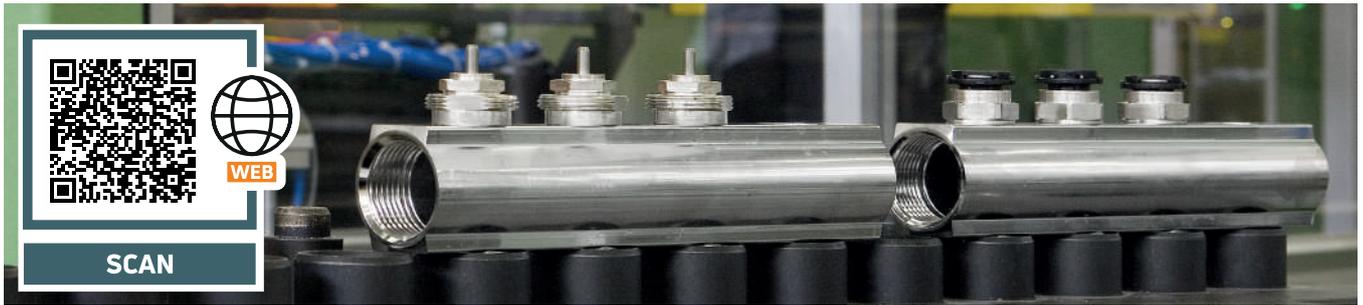
Note: to be completed with n. 2 1" Progress ball valves with red and blue butterfly handles, with or without thermometer holder and thermometer (not included).

For installation in metal cabinet, for 80 mm brick thickness, insert the collars of the brackets on the B-B references.

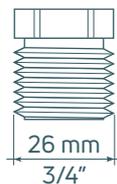
Dimension	Ways	Thread	Pcs. pack	Code
1"	2+2	24x19	1	01297790
1"	3+3	24x19	1	01297792
1"	4+4	24x19	1	01297794
1"	5+5	24x19	1	01297796
1"	6+6	24x19	1	01297798
1"	7+7	24x19	1	01297800
1"	8+8	24x19	1	01297802
1"	9+9	24x19	1	01297804
1"	10+10	24x19	1	01297806
1"	11+11	24x19	1	01297808
1"	12+12	24x19	1	01297810

Topway single bars

Single bars distribution manifolds



24x19



Eurocone

1" and 1 1/4" distribution manifold nickel-plated, 24x19 takeoffs (return) and 3/4" eurocone (return)

Supplied with:

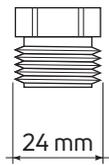
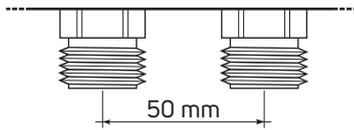
Manual valves with valve-caps, set up to take thermo-electric heads

Additional connections 1/2" Female for bleed valve and drain cock

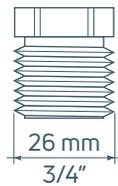
Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01293890
1"	3	24x19	2	01293892
1"	4	24x19	2	01293894
1"	5	24x19	2	01293896
1"	6	24x19	2	01293898
1"	7	24x19	2	01293900
1"	8	24x19	2	01293902
1"	9	24x19	2	01293904
1"	10	24x19	2	01293906
1"	11	24x19	2	01293908
1"	12	24x19	2	01293910
1 1/4"	4	24x19	2	01294694
1 1/4"	5	24x19	2	01294696
1 1/4"	6	24x19	2	01294698
1 1/4"	7	24x19	2	01294700
1 1/4"	8	24x19	2	01294702
1 1/4"	9	24x19	2	01294704
1 1/4"	10	24x19	2	01294706
1 1/4"	11	24x19	2	01294708
1 1/4"	12	24x19	2	01294710
1"	2	3/4" Eurocone	2	01293920
1"	3	3/4" Eurocone	2	01293922
1"	4	3/4" Eurocone	2	01293924
1"	5	3/4" Eurocone	2	01293926
1"	6	3/4" Eurocone	2	01293928
1"	7	3/4" Eurocone	2	01293930
1"	8	3/4" Eurocone	2	01293932
1"	9	3/4" Eurocone	2	01293934
1"	10	3/4" Eurocone	2	01293936
1"	11	3/4" Eurocone	2	01293938
1"	12	3/4" Eurocone	2	01293940
1 1/4"	6	3/4" Eurocone	2	01294728
1 1/4"	7	3/4" Eurocone	2	01294730
1 1/4"	8	3/4" Eurocone	2	01294732
1 1/4"	9	3/4" Eurocone	2	01294734
1 1/4"	10	3/4" Eurocone	2	01294736
1 1/4"	11	3/4" Eurocone	2	01294738
1 1/4"	12	3/4" Eurocone	2	01294740

Dimensions: see section Technical Attachments page 465

Single bars distribution manifolds



24x19



Eurocone

1" and 1 1/4" flow manifold nickel-plated, with lockshields 24x19 takeoffs (flow) and 3/4" eurocone takeoffs (flow)

Supplied with:

Double-adjustable lockshields

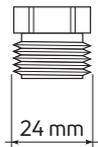
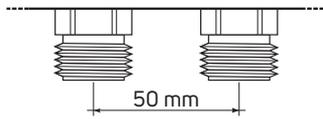
Additional connections 1/2" Female for drain valve and air vent

Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01298620
1"	3	24x19	2	01298622
1"	4	24x19	2	01298624
1"	5	24x19	2	01298626
1"	6	24x19	2	01298628
1"	7	24x19	2	01298630
1"	8	24x19	2	01298632
1"	9	24x19	2	01298634
1"	10	24x19	2	01298636
1"	11	24x19	2	01298638
1"	12	24x19	2	01298640
1 1/4"	4	24x19	2	01298864
1 1/4"	5	24x19	2	01298866
1 1/4"	6	24x19	2	01298868
1 1/4"	7	24x19	2	01298870
1 1/4"	8	24x19	2	01298872
1 1/4"	9	24x19	2	01298874
1 1/4"	10	24x19	2	01298876
1 1/4"	11	24x19	2	01298878
1 1/4"	12	24x19	2	01298880
1"	2	3/4" Eurocone	2	01298650
1"	3	3/4" Eurocone	2	01298652
1"	4	3/4" Eurocone	2	01298654
1"	5	3/4" Eurocone	2	01298656
1"	6	3/4" Eurocone	2	01298658
1"	7	3/4" Eurocone	2	01298660
1"	8	3/4" Eurocone	2	01298662
1"	9	3/4" Eurocone	2	01298664
1"	10	3/4" Eurocone	2	01298666
1"	11	3/4" Eurocone	2	01298668
1"	12	3/4" Eurocone	2	01298670
1 1/4"	6	3/4" Eurocone	2	01298898
1 1/4"	7	3/4" Eurocone	2	01298900
1 1/4"	8	3/4" Eurocone	2	01298902
1 1/4"	9	3/4" Eurocone	2	01298904
1 1/4"	10	3/4" Eurocone	2	01298906
1 1/4"	11	3/4" Eurocone	2	01298908
1 1/4"	12	3/4" Eurocone	2	01298910

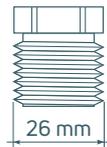
It is also possible to insert the flow meter cartridge into the new lockshield

Dimensions: see section Technical Attachments page 465

Single bars distribution manifolds



24x19



Eurocone

1" and 1 1/4" flow manifold nickel-plated, with lockshields with flow meters, 24x19 takeoffs (flow) and 3/4" eurocone (flow)

Supplied with:

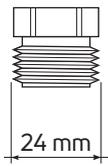
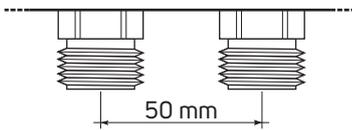
Lockshields with flow meters (0÷4 l/min)

Additional connections 1/2" Female for drain valve and air vent

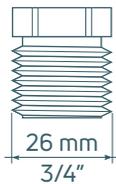
Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01298120
1"	3	24x19	2	01298122
1"	4	24x19	2	01298124
1"	5	24x19	2	01298126
1"	6	24x19	2	01298128
1"	7	24x19	2	01298130
1"	8	24x19	2	01298132
1"	9	24x19	2	01298134
1"	10	24x19	2	01298136
1"	11	24x19	2	01298138
1"	12	24x19	2	01298140
1 1/4"	4	24x19	2	01298364
1 1/4"	5	24x19	2	01298366
1 1/4"	6	24x19	2	01298368
1 1/4"	7	24x19	2	01298370
1 1/4"	8	24x19	2	01298372
1 1/4"	9	24x19	2	01298374
1 1/4"	10	24x19	2	01298376
1 1/4"	11	24x19	2	01298378
1 1/4"	12	24x19	2	01298380
1"	2	3/4" Eurocone	2	01298150
1"	3	3/4" Eurocone	2	01298152
1"	4	3/4" Eurocone	2	01298154
1"	5	3/4" Eurocone	2	01298156
1"	6	3/4" Eurocone	2	01298158
1"	7	3/4" Eurocone	2	01298160
1"	8	3/4" Eurocone	2	01298162
1"	9	3/4" Eurocone	2	01298164
1"	10	3/4" Eurocone	2	01298166
1"	11	3/4" Eurocone	2	01298168
1"	12	3/4" Eurocone	2	01298170
1 1/4"	6	3/4" Eurocone	2	01298398
1 1/4"	7	3/4" Eurocone	2	01298400
1 1/4"	8	3/4" Eurocone	2	01298402
1 1/4"	9	3/4" Eurocone	2	01298404
1 1/4"	10	3/4" Eurocone	2	01298406
1 1/4"	11	3/4" Eurocone	2	01298408
1 1/4"	12	3/4" Eurocone	2	01298410

Dimensions: see section Technical Attachments page 465

Single bars distribution manifolds



24x19



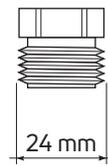
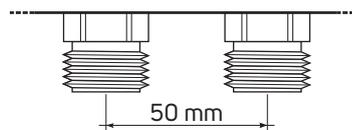
Eurocone

1" Distribution manifold nickel-plated, 24x19 takeoffs (return) and 3/4" eurocone (return), without additional way

Supplied with manual valves with valve-caps, set up to take thermo-electric heads

Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01294130
1"	3	24x19	2	01294132
1"	4	24x19	2	01294134
1"	5	24x19	2	01294136
1"	6	24x19	2	01294138
1"	7	24x19	2	01294140
1"	8	24x19	2	01294142
1"	9	24x19	2	01294144
1"	10	24x19	2	01294146
1"	11	24x19	2	01294148
1"	12	24x19	2	01294150
1"	2	3/4" Eurocone	2	01294160
1"	3	3/4" Eurocone	2	01294162
1"	4	3/4" Eurocone	2	01294164
1"	5	3/4" Eurocone	2	01294166
1"	6	3/4" Eurocone	2	01294168
1"	7	3/4" Eurocone	2	01294170
1"	8	3/4" Eurocone	2	01294172
1"	9	3/4" Eurocone	2	01294174
1"	10	3/4" Eurocone	2	01294176
1"	11	3/4" Eurocone	2	01294178
1"	12	3/4" Eurocone	2	01294180

Items available on request



24x19



Eurocone

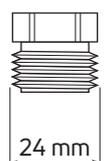
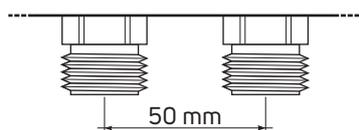
1" flow manifold nickel-plated, with lockshields 24x19 takeoffs (flow) and 3/4" eurocone takeoffs (flow), without additional way

Supplied with double-adjustable lockshields

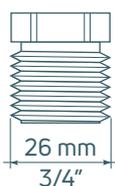
Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01298800
1"	3	24x19	2	01298802
1"	4	24x19	2	01298804
1"	5	24x19	2	01298806
1"	6	24x19	2	01298808
1"	7	24x19	2	01298810
1"	8	24x19	2	01298812
1"	9	24x19	2	01298814
1"	10	24x19	2	01298816
1"	11	24x19	2	01298818
1"	12	24x19	2	01298820
1"	2	3/4" Eurocone	2	01298830
1"	3	3/4" Eurocone	2	01298832
1"	4	3/4" Eurocone	2	01298834
1"	5	3/4" Eurocone	2	01298836
1"	6	3/4" Eurocone	2	01298838
1"	7	3/4" Eurocone	2	01298840
1"	8	3/4" Eurocone	2	01298842
1"	9	3/4" Eurocone	2	01298844
1"	10	3/4" Eurocone	2	01298846
1"	11	3/4" Eurocone	2	01298848
1"	12	3/4" Eurocone	2	01298850

It is also possible to insert the flow meter cartridge into the new lockshield
Items available on request

Single bars distribution manifolds



24x19



Eurocone

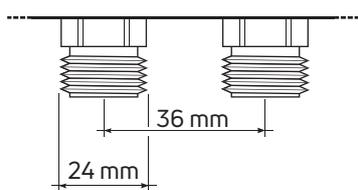
1" flow manifold nickel-plated, with lockshields with flow meters, 24x19 takeoffs (flow) and 3/4" eurocone (flow), without additional way

Supplied with:

Lockshields with flow meters (0÷4 l/min)

Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01298480
1"	3	24x19	2	01298482
1"	4	24x19	2	01298484
1"	5	24x19	2	01298486
1"	6	24x19	2	01298488
1"	7	24x19	2	01298490
1"	8	24x19	2	01298492
1"	9	24x19	2	01298494
1"	10	24x19	2	01298496
1"	11	24x19	2	01298498
1"	12	24x19	2	01298500
1"	2	3/4" Eurocone	2	01298510
1"	3	3/4" Eurocone	2	01298512
1"	4	3/4" Eurocone	2	01298514
1"	5	3/4" Eurocone	2	01298516
1"	6	3/4" Eurocone	2	01298518
1"	7	3/4" Eurocone	2	01298520
1"	8	3/4" Eurocone	2	01298522
1"	9	3/4" Eurocone	2	01298524
1"	10	3/4" Eurocone	2	01298526
1"	11	3/4" Eurocone	2	01298528
1"	12	3/4" Eurocone	2	01298530

Items available on request



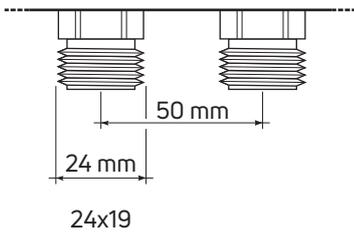
24x19

3/4" distribution manifold nickel-plated, complete with 24x19 takeoffs connections

Supplied with hole 1/2" Female on upper side bleed valve

Dimension	Ways	Pcs. pack	Code
3/4"	2	4	01293260
3/4"	3	4	01293262
3/4"	4	4	01293264
3/4"	5	4	01293266
3/4"	6	4	01293268
3/4"	7	4	01293270
3/4"	8	4	01293272
3/4"	9	4	01293274
3/4"	10	4	01293276
3/4"	11	4	01293278
3/4"	12	4	01293280

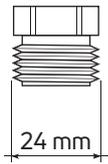
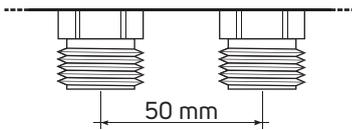
Single bars distribution manifolds



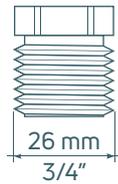
3/4" distribution manifold nickel-plated, complete with 24x19 takeoffs connections

Supplied with hole 1/2" Female on upper side for bleed valve

Dimension	Ways	Pcs. pack	Code
3/4"	2	4	01293290
3/4"	3	4	01293292
3/4"	4	4	01293294
3/4"	5	4	01293296
3/4"	6	4	01293298
3/4"	7	4	01293300
3/4"	8	4	01293302
3/4"	9	4	01293304
3/4"	10	4	01293306
3/4"	11	4	01293308
3/4"	12	4	01293310



24x19



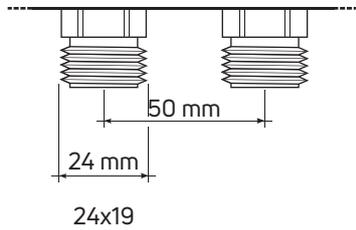
Eurocone

1" distribution manifold nickel-plated, complete with 24x19 takeoffs connection and 3/4" eurocone takeoffs (flow)

Supplied with hole 1/2" Female on upper side for bleed valve

Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	4	01293830
1"	3	24x19	4	01293832
1"	4	24x19	4	01293834
1"	5	24x19	4	01293836
1"	6	24x19	4	01293838
1"	7	24x19	4	01293840
1"	8	24x19	4	01293842
1"	9	24x19	4	01293844
1"	10	24x19	4	01293846
1"	11	24x19	4	01293848
1"	12	24x19	4	01293850
<hr/>				
1"	2	3/4" Eurocone	4	01293860
1"	3	3/4" Eurocone	4	01293862
1"	4	3/4" Eurocone	4	01293864
1"	5	3/4" Eurocone	4	01293866
1"	6	3/4" Eurocone	4	01293868
1"	7	3/4" Eurocone	4	01293870
1"	8	3/4" Eurocone	4	01293872
1"	9	3/4" Eurocone	4	01293874
1"	10	3/4" Eurocone	4	01293876
1"	11	3/4" Eurocone	4	01293878
1"	12	3/4" Eurocone	4	01293880

Single bars distribution manifolds



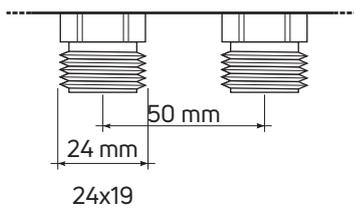
1"1/4 distribution bar manifold nickel-plated, complete with 24x19 takeoffs connections

Supplied with hole 1/2" Female on upper side for bleed valve

Dimension	Ways	Pcs. pack	Code
1"1/4	4	2	01294634
1"1/4	5	2	01294636
1"1/4	6	2	01294638
1"1/4	7	2	01294640
1"1/4	8	2	01294642
1"1/4	9	2	01294644
1"1/4	10	2	01294646
1"1/4	11	2	01294648
1"1/4	12	2	01294650

Topway R

Distribution bar manifold



SCAN

Pre-assembled distribution manifold nickel-plated, 24x19 takeoffs (flow and return), indicated for hydronic distribution of radiators and fan coils

Supplied together with:

Manual adjustment valves set up to take thermo-electric heads.

nr. 2 blind nipples 1" complete with o-ring.

nr. 2 supports dual size 1".

Note:

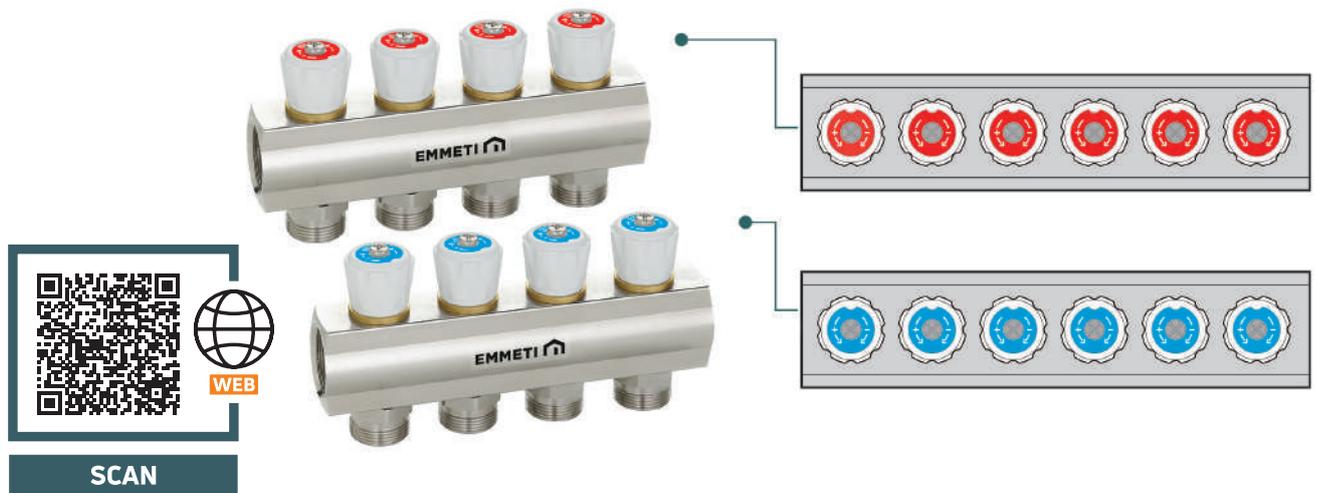
Nr. 2 Progress ball valves 1" with red and blue butterfly handles, with or without thermometer holder, are supplied optionally.

Dimension	Ways	Thread	Pcs. pack	Code
1"	2+2	24x19	1	01297850
1"	3+3	24x19	1	01297852
1"	4+4	24x19	1	01297854
1"	5+5	24x19	1	01297856
1"	6+6	24x19	1	01297858
1"	7+7	24x19	1	01297860
1"	8+8	24x19	1	01297862
1"	9+9	24x19	1	01297864
1"	10+10	24x19	1	01297866
1"	11+11	24x19	1	01297868
1"	12+12	24x19	1	01297870
1" 1/4	4+4	24x19	1	01285094
1" 1/4	5+5	24x19	1	01285096
1" 1/4	6+6	24x19	1	01285098
1" 1/4	7+7	24x19	1	01285100
1" 1/4	8+8	24x19	1	01285102
1" 1/4	9+9	24x19	1	01285104
1" 1/4	10+10	24x19	1	01285106
1" 1/4	11+11	24x19	1	01285108
1" 1/4	12+12	24x19	1	01285110

Dimensions: see section Technical Attachments page 464

Topway M

Distribution manifold with bibcocks



Applications

The Topway M manifold is used in closed circuit heating systems for the distribution of radiators, convectors, fan coils, adopting the Emmeti sealing systems with 24x19 thread, inserted in the appropriate box for Termobox manifolds.

Construction

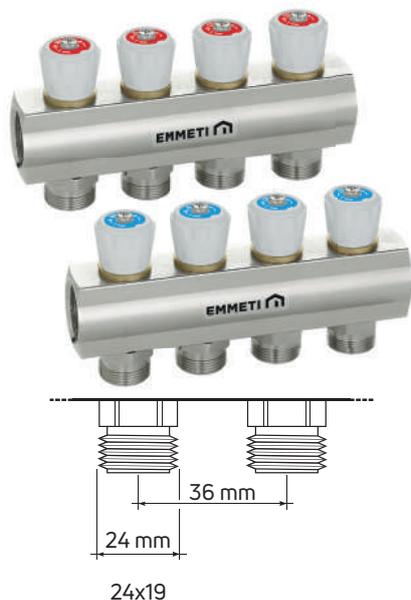
Brass header retrieved through a bar drawing process
 TN UNI EN 12168 CW614N
 Head threads Female - Female UNI EN ISO 228-1 (G 3/4)
 Threads side streets Gas 24x19, of 24 mm diameter and 19 threads per inch
 ABS white colour knobs
 Gasket in NBR
 Plate indicating the support services
 Takeoffs 36 mm centers

Technical data

Maximum operating pressure: 10 bar
 Maximum operating temperature: 110 °C
 Note: seals on head thread ONLY with o-ring
 DO NOT USE tapered threads

Note: not suitable for the way regulating, only open or closed

Dimensions: see section Technical Attachments page 466



Topway M distribution manifold with distribution bibcocks

Dimension	Ways	Thread	Pcs. pack	Code
3/4"	4	24x19	2	01282114
3/4"	5	24x19	2	01282116
3/4"	6	24x19	2	01282118

Accessories for Topway manifolds

Ball valves kit for Topway manifolds



Technical data

Valve body thread with Female connection: UNI EN 10226-1 (ISO 7-1: 1994)
 Male connection valve sleeve thread: UNI EN ISO 228-1
 Shank and nut thread: UNI EN ISO 228-1
 FULL PASSAGE

Flow direction: in both directions

Minimum and maximum working temperature: -20 °C / + 120 °C **

Maximum pressure (T = 120 °C): 10 bar

Nominal pressure (T = 20 °C): PN 40

** In the absence of steam; use with water and glycol mixtures for temperatures below 0 °C

The valves must be used in the fully open or closed position.

Sealing O-Ring

Upper shaft seal O-Ring: VITON 70 Sh A (ASTM D2240)

Lower shaft seal O-Ring: EPDM Peroxide 70 Sh A (ASTM D2240)

Shank O-Ring: Peroxide EPDM 70 Sh A (ASTM D2240)



Right-angle Progress ball valves with thermometers and pipe unions

Dimension	Pcs. pack	Code
1"	1	01306264

Thermometer scale: 0 - 80 °C

It can also be used in combination with steel Topway S manifold replacing black O-rings with the red ones supplied in the package.



Right-angle Progress ball valves with pipe union for thermometer and thermometers

Dimension	Pcs. pack	Code
1"1/4	1	01306136

Thermometer scale: 0 - 80 °C.



Right-angle Progress ball valves with pipe union

Dimension	Pcs. pack	Code
3/4"	1	01306180
1" (*)	1	01306266
1"1/4	1	01306184

(*) It can also be used in combination with steel Topway S manifold replacing black O-rings with the red ones supplied in the package.



Straight Progress ball valve with thermometers and pipe unions

Dimension	Pcs. pack	Code
1"	1	01306260

Thermometer scale: 0 - 80 °C

It can also be used in combination with steel Topway S manifold replacing black O-rings with the red ones supplied in the package.

Accessories for Topway manifolds



Straight Progress ball valves with pipe union for thermometer and thermometers

Dimension	Pcs. pack	Code
1"1/4	1	01306132

Thermometer scale: 0 - 80 °C



Straight Progress ball valves with pipe union

Dimension	Pcs. pack	Code
3/4"	1	01306140
1" (*)	1	01306262
1"1/4	1	01306144

(*) It can also be used in combination with steel Topway S manifold replacing black O-rings with the red ones supplied in the package.

Accessories for Topway manifolds



Terminal kit with by-pass for Topway manifolds

Overpressure valve from 0,2 to 0,5 bar

Dimension	Pcs. pack	Code
1"	1	01306174
1"1/4	1	01306176

Thread UNI EN ISO 228-1

Items to be out of stock



Terminal kit with by-pass for steel and brass manifolds

Maximum working temperature: 110 °C.

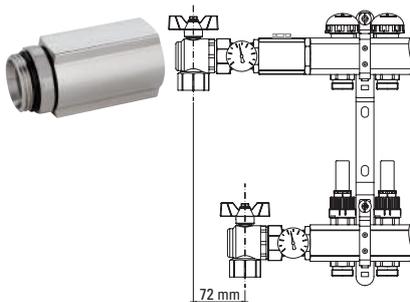
Maximum working pressure: 6 bar.

Dimension	Pcs. pack	Code
For manifolds size 1" (*)	1	01307010
For manifolds size 1"1/4	1	01307012

Thread UNI EN ISO 228

(*) Code 01307010 is equipped with a red O-ring on the upper union, for coupling with Topway S steel manifolds; to use the item in combination with the Topway brass manifolds, replace the red O-ring with the black one supplied in the package.

Dimensions and technical data: see section **Technical Attachments** page 462



Extension kit for Topway manifolds

The extension kit for Topway collectors is combined with the Progress angle valve kit in order to create a distance between the delivery and return tubes, to have more space available both during installation as well as when manoeuvring (see diagram).

Dimension	Pcs. pack	Code
M-F 1"	1	01306254
M-F 1"1/4	1	01306256

Thread UNI EN ISO 228-1

Kit stainless steel distribution manifold



Splitter fitting

Connection Dimension	Pcs. pack	Code
24x19	2	01300000
3/4" Eurocone	2	28130606

Splitter fitting for manifolds with 24x19 or 3/4" Eurocone outlets, takeoffs 50 mm.
Takeoffs between splitter outlets: 36 mm.
Thread UNI EN ISO 228-1

Dimensions: see section Technical Attachments page 467



Pack with red bands to lock regulator

Dimension	Pcs. pack	Code
1" - 1"1/4	12	01306320

With labels for identify circuits



Varia air bleed valve 1/2" nickel-plated

Dimension	Pcs. pack	Code
1/2"	12	00400662

Thread UNI EN ISO 228-1



Tecno-Varia air bleed valve 1/2" with plastic casing

Dimension	Pcs. pack	Code
1/2"	12	00400004

Thread UNI EN ISO 228-1



Drain valve nickel-plated

Dimension	Pcs. pack	Code
1/2"	1	90011750

Thread UNI EN ISO 228-1



Charge and drain valve, nickel-plated with Male 3/4" adjustable connection

Dimension	Pcs. pack	Code
1/2"	4	01306824
1"	2	01300002



Couple of T-terminal with adjustable drain valve and manual vent valve

Dimension	Pcs. pack	Code
1"	1	01306158

With O-ring. Complete with 1/2" manual air vent valve and 1/2" water fill / drain tap with adjustable 3/4" connection. Thread UNI EN ISO 228-1



Kit thermostatic shutter for 24x19

Dimension	Pcs. pack	Code
For manifold 1"	4	01306114
For manifold 1"1/4	4	01306118

Accessories for Topway manifolds



Kit thermostatic shutter for 3/4" Eurocone

Dimension	Pcs. pack	Code
For manifold 1"	4	01306290
For manifold 1 1/4"	4	01306292



Blue cap for valves

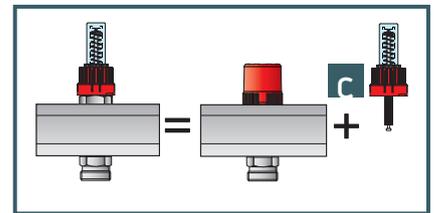
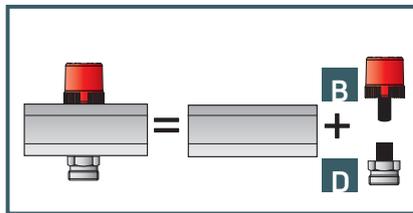
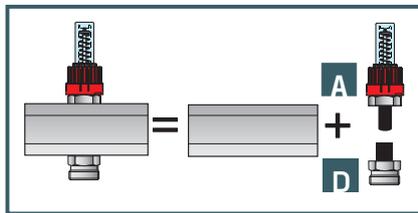
Dimension	Pcs. pack	Code
	1	90067510



Red cap for manifolds

Dimension	Pcs. pack	Code
	1	90023360

Instructions for the selection of lockshields/flow meter with a capacity on the basis of the manifold installed



A



Kit lockshield with incorporated flow meter 0÷4 l/min

Dimension	Pcs. pack	Code
0÷4 l/min	4	01306302

B



Kit lockshield

Dimension	Pcs. pack	Code
	4	01306300

C



Kit flow meter

Dimension	Pcs. pack	Code
0÷2,5 l/min (*)	4	01306828
0÷4 l/min (*)	4	01306830
0÷6 l/min (*)	4	01306832

(*) For manifolds produced from the 31st week of 2017

D



Lockshield / flow meter seat

Dimension	Pcs. pack	Code
For manifold 1" - 24x19	4	01306312
For manifold 1" - 3/4" eurocone	4	01306314
For manifold 1 1/4" - 24x19	4	01306316
For manifold 1 1/4" - 3/4" eurocone	4	01306318

Accessories for Topway manifolds



Nickel-plated blind plug

Dimension	Pcs. pack	Code
1/2" M with O-ring	30	90004930
3/4" M with O-ring	30	90004820
1" M with O-ring	15	90004830
1"1/4 M with O-ring	10	90005070
3/4" F	30	01291536
1" F	15	01291538
24 x 19 F blind monoblocco with O-ring	20	01321462

NEW

Thread UNI EN ISO 228-1



Nickel plated reduction

Dimension	Pcs. pack	Code
3/4" M x 3/8" F	30	90005050
3/4" M x 1/2" F	30	90004840
1" M x 3/8" F	15	90005060
1" M x 1/2" F	15	90004850
1" M x 3/4" F	15	90006870
1"1/4 M x 1/2" F	10	90005080
1"1/4 M x 1" F	10	90005084

With o-ring

Thread UNI EN ISO 228-1



Key for nipples CH 37 - 48

Dimension	Pcs. pack	Code
	1	01306044



Nickel-plated nipple, O-Ring seal

Dimension	Pcs. pack	Code
1" M x 1" M	2	01306872
1"1/4 M x 1"1/4 M	2	01306874

With o-ring.

Thread UNI EN ISO 228-1



Swivel nipple

Dimension	Pcs. pack	Code
1" M x 1" M	2	01306426
1"1/4 M x 1"1/4 M	2	01306430
1" M x 1" F (**)	6	01306428
1"1/4 M x 1" M (*)	2	01306432
3/4" M x 3/4" M	2	01306434

Thread UNI EN ISO 228-1

(*) Reduction

(**) Item to be out of stock



Thermometer Ø 40

NEW

Dimension	Pcs. pack	Code
0-80 °C	1	90006866

Accessories for Topway manifolds



Tee union with pipe union for thermometer

Dimension	Pcs. pack	Code
24x19	1	90011760

24 mm gas thread and 19 screw threads for inch.



Hand wheel for manual control

Dimension	Pcs. pack	Code
	6	01306112



Couple single metal holder

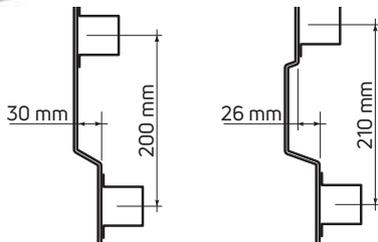
Dimension	Pcs. pack	Code
3/4"	1	90011500
1"	1	90011510
1"1/4	1	90011520



Pair of double metal holder

Dimension	Take off	Pcs. pack	Code
3/4"	200 mm	1	90011530
1"	200 mm	1	90011540
1"1/4	200 mm	1	90011550
3/4" (*)	210 mm	1	90011560
1" (*)	210 mm	1	90011570
1"1/4 (*)	210 mm	1	90011580

(*) For wall fixing



Pair of single holder

Dimension	Pcs. Pack	Code
3/4"	1	01306600
1"	1	01306602
1"1/4	1	01306604



Pair of double adjustable holder

Dimension	Take off	Pcs. pack	Code
1" (*)	200 - 210 mm	1	01306554
3/4"	200 - 210 mm	1	01306596
1"1/4 (**)	200 - 210 mm	1	01306598

(*) When installing the cassette partition from 80 mm to move the collars of the brackets on the B-B references.

(**) Do not install in boxes for the partition of 80 mm.

Dimensions: see section Technical Attachments page 466

Accessories for Topway manifolds



Insulating shells with metal adjustable holders for Topway manifolds

Dimension	Pcs. pack	Code
1"	1	90062280

In extruded polyethylene. No. of branch holes: 13, interval 50 mm.
To be cut to size according to the number of ways of the collector to be insulated.



Insulating shells for Topway manifolds with metal brackets

Dimension	Pcs. pack	Code
1"1/4	1	01306502

In extruded polyethylene. No. of branch holes: 12, interval 50 mm.
To be cut to size according to the number of ways of the collector to be insulated.



Kit expansion vessel for connection to the distribution manifold Topway in boxes Metalbox

Dimension	Pcs. pack	Code
8 liters	1	07245370
10 liters	1	07245380

Complete with:

Expansion vessel 8 or 10 liters; mounting plate with screws for installation in box Metalbox; copper pipe \varnothing 18x1 prepared for connection tap loading / unloading 1/2" diameter copper pipe 10x1 derivation with nut 3/8" connection for expansion vessel; sealing block for copper pipe \varnothing 18x1; shank 1/2" - 24x19 with o-ring for connection manifold Topway 1" or 1"1/4; gasket 3/8".

Note: Kit expansion vessel 10 liter can only be installed in boxes for partition of 120 mm.
Width 260 mm x height 490 mm

Dimensions: see section Technical Attachments page 467

Control T

Electro-thermic head



Construction

- 1 Polycarbonate case
- 2 Stainless steel spring
- 3 Indicator PPA (35% FV)
- 4 Steel radial stop ring
- 5 Shutter support in polycarbonate
- 6 Polycarbonate base
- 7 Ring nut M30x1.5 in PA 66 (50% FV) or in nickel-plated UNI EN 12164 CW614N brass
- 8 PVC cable
- 9 Microswitch 1A 250 V
- 10 Wax expansion electrothermal actuator



SCAN

Dimensions: see section Technical Attachments page 467



Control T - Electro-thermic head normally closed

The valve opens upon receiving the command from the thermostat or any similar control device - Absorption 3,45 VA (230 V) 3 VA (24 V) - Protection: IP 40 (IP 44 vertical position) - Cable length: 1 m - Breakaway current: 0,35 A (model 24 V) - 0,25 A (model 230 V) - Closing/opening time: 5-6 min

Dimension	Ring nut	Pcs. pack	Code
230 V (AC/DC)	Plastic ring nut	1	01213242
24 V (AC/DC)	Plastic ring nut	1	01213202
230 V (AC/DC)	Metal ring nut	1	01213245

Note: The electro-thermic heads can be used in conjunction with: Topway and Topway S bar manifolds with valves, Thermostatic Tris 3 valves, Full and Poker thermostatic and thermostatisables valves. For the use with different type of Emmeti manifold, it can be necessary the adaptor code 90039364.



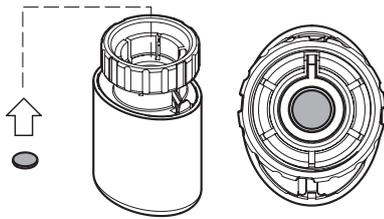
Control T - Electro-thermic head normally closed with end switch (1 A 250 V)

The valve opens upon receiving the command from the thermostat or any similar control device - Absorption 3,45 VA (230 V) 3 VA (24 V) - Protection IP 40 (IP 44 vertical position) - Cable length: 1 m - End switch: 1 A 250 V - Breakaway current: 0,35 A (model 24 V) - 0,25 A (model 230 V) - Closing/opening time: 5-6 min

Dimension	Ring nut	Pcs. pack	Code
230 V (AC/DC) with micro	Plastic ring nut	1	01213252
24 V (AC/DC) with micro	Plastic ring nut	1	01213212
230 V (AC/DC) with micro	Metal ring nut	1	01213255

Note: The electro-thermic heads can be used in conjunction with: Topway and Topway S bar manifolds with valves, Thermostatic Tris 3 valves, Full and Poker thermostatic and thermostatisables valves. For the use with different type of Emmeti manifold, it can be necessary the adaptor code 90039364.

Electro-thermic head



Adapter for Control T - electro-thermic heads

Dimension	Pcs. pack	Code
	12	90039364

Apply in the case of incomplete closure on manifolds not produced by Emmeti.



Control T - Electro-thermic head normally open

The valve closes upon receiving the command from the thermostat or any similar control device - Absorption - protection 3,45 VA (230 V) 3 VA (24 V) - Protection: IP 40 (IP 44 vertical position) - Cable length: 1 m - Breakaway current: 0,35 A (model 24 V) - 0,25 A (model 230 V) - Closing/opening time: 5-6 min

Dimension	Pcs. pack	Code
230 V (AC/DC)	1	01213280
24 V (AC/DC)	1	01213260

Note: The electro-thermic heads can be used in conjunction with: Topway and Topway S bar manifolds with valves, Thermostatic Tris 3 valves, Full and Poker thermostatic and thermostatic valves.

Electronic system for electro-thermic actuators



Basic wiring box 6T

Electronic system for electrothermic heads, comprised of a basic junction box and additional extension;
 Power supply 230 V or 24 V;
 Direct power supply to the normally closed electrothermal heads (at the same power supply voltage as the junction box);
 Direct connection to the environment thermostats (at the same power supply voltage as the junction box);
 Connection of up to six electrothermal heads (configured at high or low temperature);
 Connection of up to six environment thermostats;
 Connection for low temperature circulating pump;
 Connection for heat source activation;
 Adjustable safety thermostat (30±60 °C);
 Safety thermostat contact;
 Circulating pump anti-blocage function.

Dimension	Pcs. pack	Code
Basic wiring box 6T	1	28130616

Electric boxes



Electric box with safety thermostat for pump cable low temperature

Bulb length: 65 mm - Bulb diameter: 7 mm - Setting: 0±60 °C ± 3 - Contacts: 400 V 16(4) A - Differential: 4 °C

Dimension	Pcs. pack	Code
	1	28130632

Emmeti Industrial Floor

Modular distribution manifold



Example of 8-way modular combination

Modular brass manifold, for the construction of systems up to a maximum of 24 circuits (24 ways). Comes complete with:

- ball valves on the individual ways of the delivery manifold;
- lockshields for regulation on the individual ways of the return manifold;
- fittings to be tightened for PEX pipe 25x2.3 on each single way of the manifolds;
- pair of head gaskets for joining the different modules;
- pair of 1/2" M caps for connecting the fill / drain cocks.

The valves and lockshields are already installed on the manifold and sealed with an O-ring and locknut.

The manifold is designed for connection on the left side to the main pipes of the system; to reverse the arrangement, allowing the connection on the right side, it is necessary to unscrew the valves and lockshields from the respective locknuts, replace the O-rings with the spare set supplied, and screw them back on.

Materials

- Manifold: CW508L brass
- Fittings to tighten: CW614N
- Head gaskets: AFM 34
- O-Ring: EPDM

Technical data

- Maximum operating temperature: 90 ° C
- Maximum working pressure: 6 bar
- Head threads: male side: G 2" (UNI EN ISO 228-1); side with swivel nut: G 2" (UNI EN ISO 228-1).
- Center line between ports: 80 mm



Industrial Floor modular distribution manifold

Dimension	Way	Pcs. pack	Code
1"1/2	3+3	1	07401100
1"1/2	4+4	1	07401102
1"1/2	5+5	1	07401104
1"1/2	6+6	1	07401106

Dimensions and technical data: see section Technical Attachments page 468



Pair of fixing brackets for Industrial Floor manifold

Model	Pcs. pack	Code
Pair of fixing brackets	1	07401120

Material: Galvanized Steel
Screws/dowels and isophonic collars supplied.



Pair of taps and end caps for Industrial Floor manifold

Dimension	Pcs. pack	Code
Set of 2" plugs and 1/2" fill / drain cocks	1	07401122



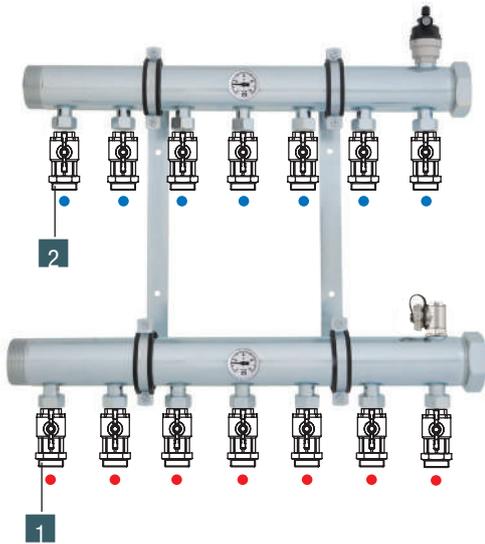
2" M-F Export ball valve with red plasticized steel lever for Industrial Floor manifold

Dimension	Pcs. pack	Code
2"	1	09811350

Dimensions: see section Technical Attachments page 468

Industrial manifold

Steel industrial distribution manifold



Steel industrial manifold prepared for ball valves

Manifolds and branches in drawn steel Fe 306B UNI EN 10305
 Braze welding in continuous oven at 1080 °C with copper welding material 99.9%
 Surface treatment: white zinc plating

Technical Data

Maximum operating temperature 110 °C
 Maximum operating pressure 10 bar
 Head thread Male in confirm to UNI EN ISO 228-1 (G 2)
 Derivation takeoff thread 80 mm with swivel nut in confirm to UNI EN ISO 228-1 (G 3/4)
 Distance between connections: 80 mm

Supplied together with:

- Nr. 2 blins nipples G 2" F
- Nr. 1 water drain/discharge valve G 1/2" M
- Nr. 1 automatic + manual air vent valve G 1/2" M
- Nr. 2 thermometers Ø 40 (80 °C)
- Nr. 2 dual metal holders

Application of steel industrial manifold for ball valves

- 1 Kit valve 3/4" red butterfly + fitting
- 2 Kit valve 3/4" blue butterfly + fitting

Dimension	Ways	Pcs. pack	Code
2"	5 + 5	1	07400460
2"	6 + 6	1	07400462
2"	7 + 7	1	07400464
2"	8 + 8	1	07400466
2"	9 + 9	1	07400468
2"	10 + 10	1	07400470
2"	11 + 11	1	07400472
2"	12 + 12	1	07400474
2"	13 + 13	1	07400476
2"	14 + 14	1	07400478
2"	15 + 15	1	07400480

Note: manifold supplied NOT assembled

Dimensions: see section Technical Attachments page 468

Accessories for Industrial manifolds



Kit valve 3/4" red butterfly + fitting

Dimension	Pcs. pack	Code
24x19	1	01306196
M32x1,5	1	01306192

The valves must be used fully open or closed



Kit valve 3/4" blue butterfly + fitting

Dimension	Pcs. pack	Code
24x19	1	01306198
M32x1,5	1	01306194

The valves must be used fully open or closed

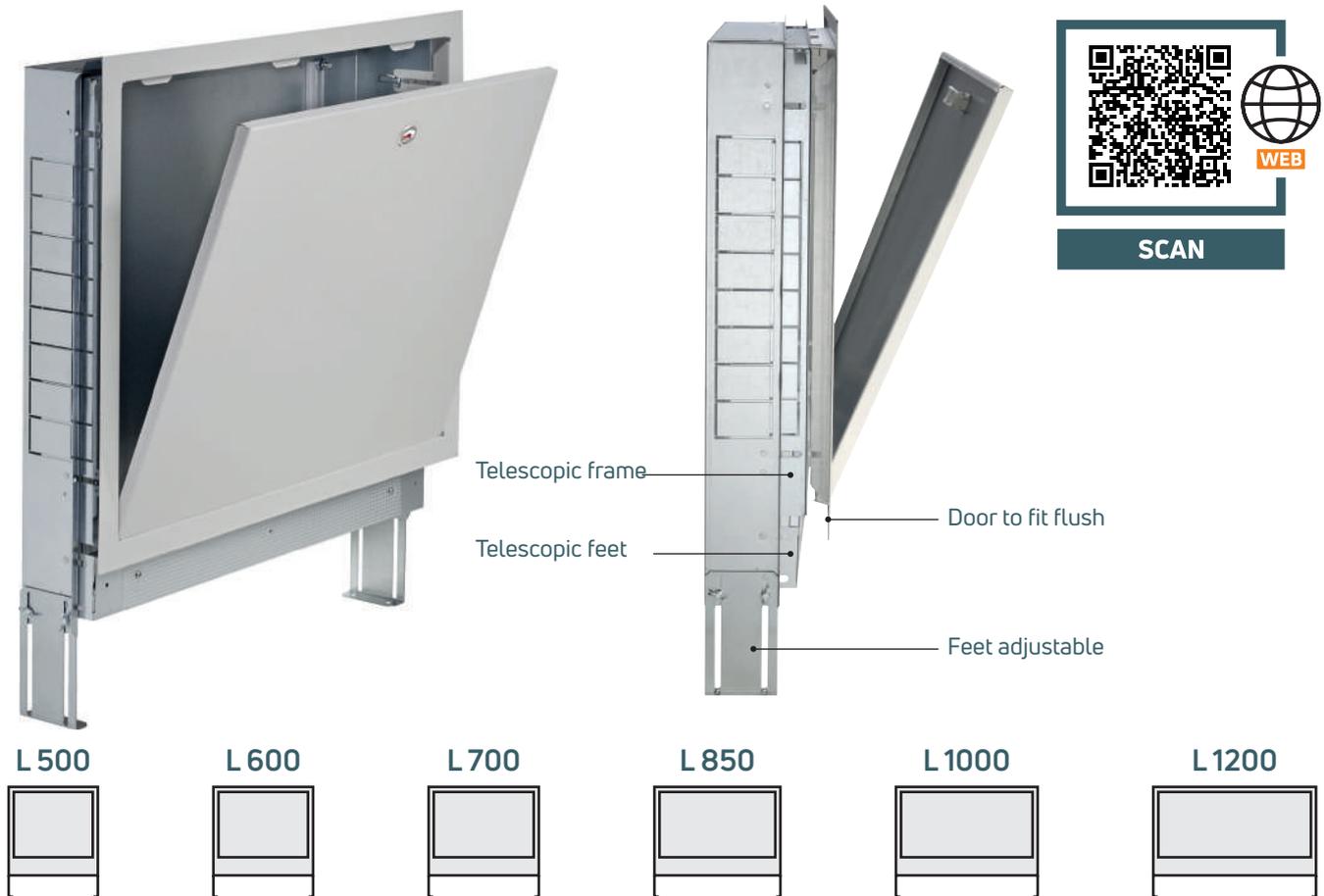


Vertical male union joint, nickel plated

Dimension	Thread	Pcs. pack	Code
3/4"	24x19	14	28103050
3/4"	M32x1,5	10	28103060

Metalbox Plus

Manifold cabinet for manifolds and distribution groups



Dimensions: see section Technical Attachments from page 469 and following



Casing in galvanized sheet and plastic door frame, white color RAL 9010.

Suitable for flush installation with adjustable depth for the partition 80 and 120 mm.

Suitable for:

- Collectors Topway from 1" to 1 1/4"
- Mixing groups: Floor Control Unit HE, TM3-R and Firstbox
- Metering modules of thermal energy consumption, with a key lock purchased separately.

Dimension	Pcs. pack	Code
L 500	1	01301450
L 600	1	01301452
L 700	1	01301454
L 850	1	01301456
L 1000	1	01301458
L 1200	1	01301460

It is supplied complete with closure of screwdriver cut, adjustable feet in height from 0 to 100 mm and in sheet construction site protection. Wire frame plaster 3 mm.

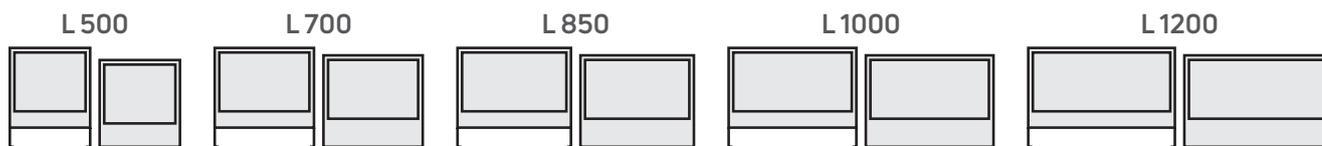


Key lock

Dimension	Pcs. pack	Code
	1	90067980

Metalbox

Manifold cabinet for manifolds and distribution groups



Dimensions: see section Technical Attachments from page 469 and following



HEIGHT
850 mm

Cabinet in galvanized steel with plastified door, white colour RAL 9010, for 120 mm brick thickness. Suitable for Modular Firstbox

Box for Modular Firstbox, flush fitting with adjustable depth. Supplied complete with keylocking catch, feet adjustable for height from 0 to 100 mm and cover for protection during site work.

Dimension	Pcs. pack	Code
L 500	1	01301470
L 700	1	01301472
L 850	1	01301474
L 1000	1	01301476
L 1200	1	01301478

Frame and door to fit flush with wall 3 mm



HEIGHT
700 mm

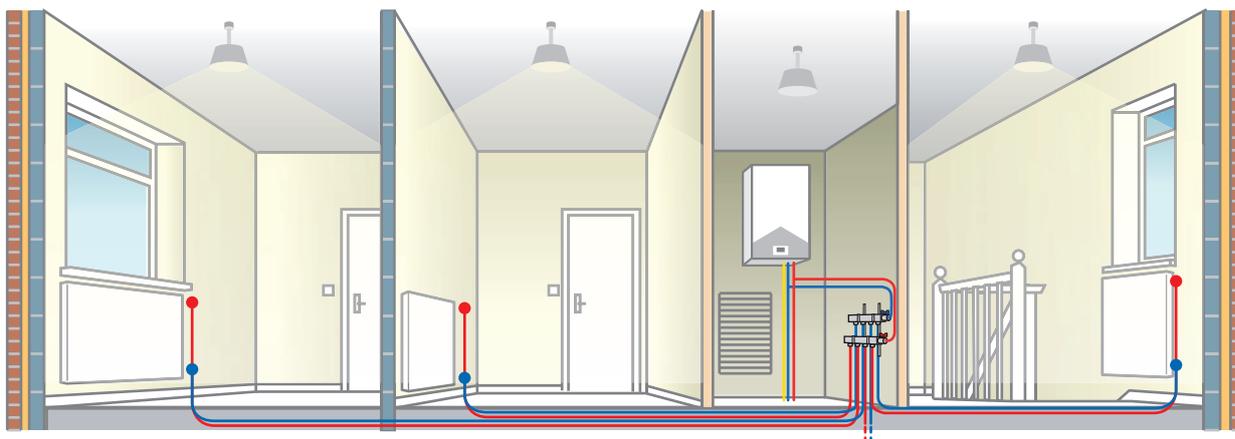
External cabinet in galvanized steel with plastified door, white colour RAL 9010. Suitable for 1 1/4 Topway manifolds.

External box for manifolds, supplied complete with locking catch.

Dimension	Pcs. pack	Code
L 500	1	01301480
L 700	1	01301482
L 850	1	01301484
L 1000	1	01301486
L 1200	1	01301488

Modular

Brass manifold



Construction

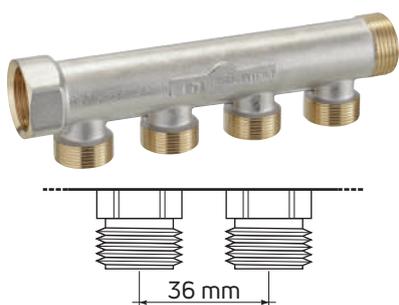
Body made of brass ST UNI EN 12165 CW617N with nickel finish
24x9 threaded outlets with \varnothing 14 mm passage

Technical data

Head thread: Male - Female UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum operating temperature range: 110 °C

Compliant with 4MS Common Composition List requirements

Dimensions: see section Technical Attachments page 475



Modular nickel-plated manifold for copper pipe, multi-layer, Pex, PP, PB takeoffs centers 36 mm

Dimension	Ways	Pcs. pack	Code
3/4"	2	10	01303150
3/4"	3	6	01303152
3/4"	4	10	01303154
1"	2	8	01303160
1"	3	10	01303162
1"	4	8	01303164

Emmeti seals 24x19: see section 8



Metallic support takeoffs 50 mm

Dimension	Pcs. pack	Code
Couple single x 3/4"	1	01306370
Couple double x 3/4"	1	01306374
Couple single x 1"	1	01306372
Couple double x 1"	1	01306376

NOT suitable for distribution manifolds takeoffs 36 mm

Hydrobox Basic

Built-in box for water
with ball valves and retractable knobs



Uses

Box for sanitary distribution manifolds, equipped with a ball shut-off valve, suitable for built-in wall-mounting.

Features

- Box designed for Modular manifolds 3/4" up to 4 ways in the model 310x310 mm, up to 8 ways in the model 460x310 mm;
- Shut-off handles located behind elegant chrome plated or white doors (included) or anthracite (optional);
- Shut-off valves replaceable without demolition;
- Reversibility of the input lines (Right or Left);
- Compact size (110 mm) for drilling thickness 80 mm and plaster with a minimum thickness of 15 + 15 mm

Box materials

Box in ABS
Cover in ABS
Doors in ABS
Supports for valves and manifolds in PA 6

Compliant with 4MS Common Composition List requirements

Dimensions: see section Technical Attachments page 475

Technical data

DN15 valves with threaded connections UNI EN 10226-1 (R 3/4)
Opening and closing with 90 ° knob rotation
Flow direction: in both directions
Minimum and maximum working temperature: - 20 ° C / + 90 ° C **
Maximum pressure (T = 90 ° C): 10 bar
Nominal pressure (T = 20 ° C): 10 bar
** In the absence of steam for temperatures below 0 ° C, use water and glycol solutions.

The valves must be used in the fully open or closed position.

O-Ring shaft seal in EPDM Peroxide 70 Sh A (ASTM D2240)

These valves must be used at the pressures indicated in the catalog and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68 / EU Art. 13).

For particular uses (in compliance with the pressures established for these valves and the compatibility of the different fluids with the materials making up the valve) see the chemical compatibility table in the technical annexes of the current catalog.

The CW617N-DW brass, Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxide in contact with the fluid, comply with the Italian Ministerial Decree 174 (of 06/04/2004)

Note: the Modular manifolds are supplied separately



Built-in box for water with ball valves and retractable knobs

Dimension	Ways	Pcs. pack	Code
310 x 310	up to 4 ways	1	01308100
460 x 310	up to 8 ways	1	01308120

To be combined with Modular brass manifolds.
Modular manifolds are supplied separately

Accessories for Hydrobox Basic



White door

Model	Pcs. pack	Code
White door	1	90033762



Chromed door

Model	Pcs. pack	Code
Chromed door	1	90033764



Anthracite

Model	Pcs. pack	Code
Anthracite door	1	90033766



Straight with swivel nut, flat seal

Dimension	Profile	Pcs. pack	Code
16 x 3/4"	B (KSP1) / TH (KSP1)	1	28102598
20 x 3/4"	B (KSP1) / TH (KSP1)	1	28102606
26 x 3/4"	B (KSP1) / TH (KSP1)	1	28102612

Thread UNI EN ISO 228-1

Multiplex

Brass manifold with bibcocks



SCAN



Construction

Body made of brass ST UNI EN 12165 CW617N with nickel finish
Thread 24x19
ABS white knobs
Copuling in EPDM
Plate indicating the supporting services
Distance between connections: 36 mm

Technical data

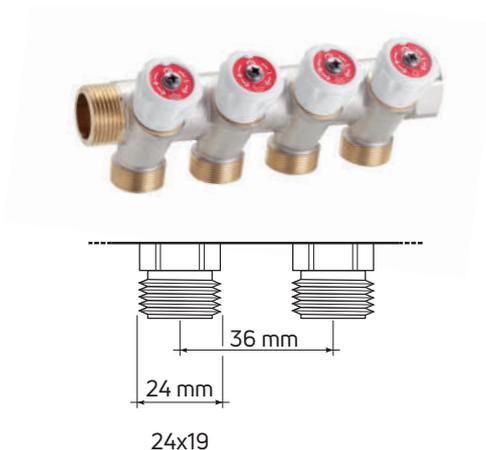
Head thread: Male-Female UNI EN ISO 228-1
24x19 gas thread outlets, 24 mm in diameter and 19 threads per inch
Maximum operating pressure: 10 bar
Maximum operating temperature: 110 °C

Compliant with 4MS Common Composition List requirements

Note: not suitable for the way regulating, only open or closed

Dimensions: see section Technical Attachments page 476

Brass manifold with bibcocks



Multiplex brass manifold with isolating taps , sectional with union nipple

Dimension	Ways	Pcs. pack	Code
3/4"	2	12	01307260
3/4"	3	8	01307265
3/4"	4	6	01307270
1"	2	8	01307280
1"	3	6	01307285
1"	4	4	01307290

Emmeti seals 24x19: see section 8



Multiplex manifold bridging piece

Dimension	Pcs. pack	Code
3/4"	10	01307200
1"	10	01307210

Thread UNI EN ISO 228-1

Accessories for Modular and Multiplex manifolds



Nickel-plated plug

Dimension	Pcs. pack	Code
3/4" M	30	90004820
1" M	15	90004830
3/4" F	30	01291536
1" F	15	01291538

Thread UNI EN ISO 228-1



Nickel-plated adapter

Dimension	Pcs. pack	Code
3/4" M x 3/8" F	30	90005050
1" M x 3/8" F	15	90005060

With o-ring
Thread UNI EN ISO 228-1



Right-angle Progress ball valves with pipe union

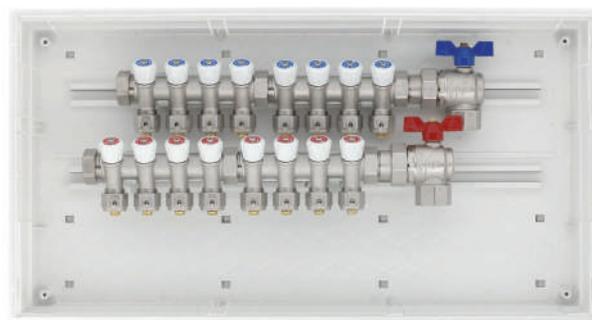
Dimension	Pcs. pack	Code
3/4"	1	01306180
1"	1	01306266

Thread of body valve UNI EN 10226-1;
thread of pipe union UNI EN ISO 228-1.

Technical data: refer to the section "Accessories for Topway manifolds" page 159

Termobox

Plastic manifold box



SCAN



L 310



L 460



L 610

Uses

Plastic box for manifolds, flush fitting with adjustable depth. Supplied complete with plastic netting and cover for protection during site work.

Construction

Made of plastic material for toughness and durability
Box in ABS
Cover in PS shock-resistant polystyrene supports in PA6



TermoBox universal white plastic box for manifolds

Dimension	Pcs. pack	Code
310 x 310 x 90	5	01302092
460 x 310 x 90	3	01302102
610 x 310 x 90	2	01302112



Kit supports for Topway bar manifolds without mechanics and Topway M

Type	Dimension	Pcs. pack	Code
Kit 10 couple supports Topway - Topway M	3/4"	1	01302120
Kit 10 couple supports Topway - Topway M	1"	1	01302130



Kit supports for Modular and Multiplex manifolds

Type	Dimension	Pcs. pack	Code
10 couples supports kit for Modular - Multiplex	3/4"	1	01302140
10 couples supports kit for Modular - Multiplex	1"	1	01302150

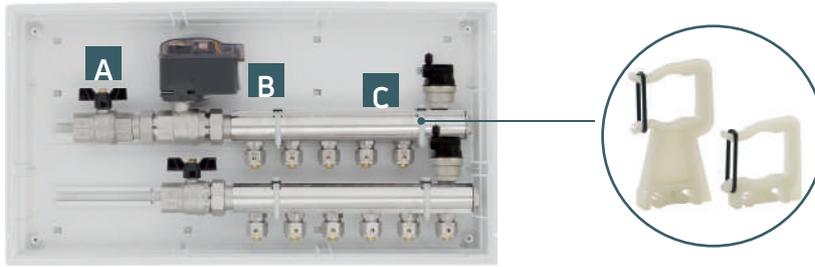


Aluminium profilers for supports manifold

Dimension	Pcs. pack	Code
400 mm	1	01306400
200 mm	1	01306398

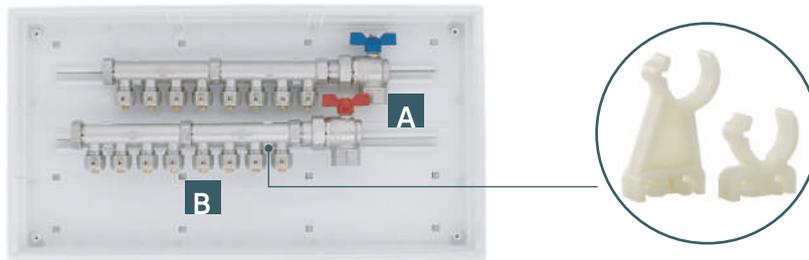
Plastic manifold box

Termobox with Topway manifolds: maximum number of ways



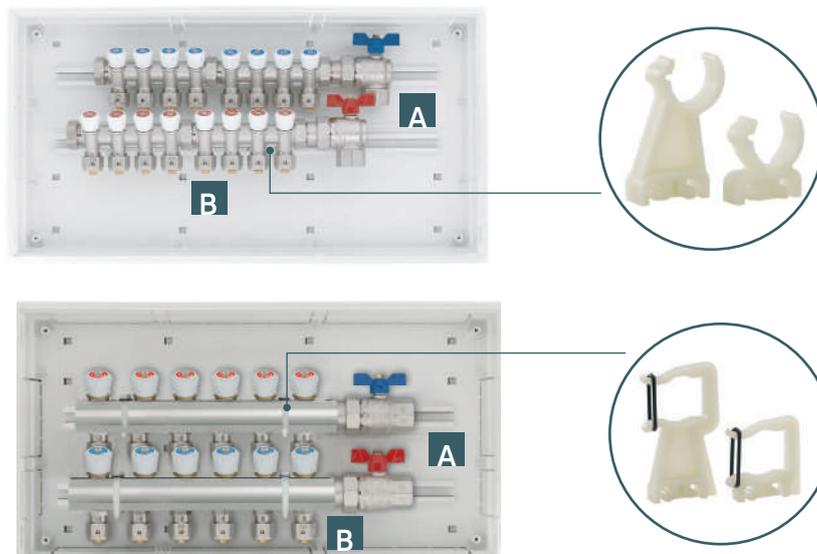
Termobox	1" A+C	3/4" A+C takeoff 50 mm	3/4" A+C takeoff 36 mm	1" B+C	3/4" B+C takeoff 50 mm	3/4" B+C takeoff 36 mm	1" A+B+C	3/4" A+B+C takeoff 50 mm	3/4" A+B+C takeoff 36 mm
310 x 310	2 ways	3 ways	4 ways	-	2 ways	2 ways	-	-	-
460 x 310	5 ways	6 ways	8 ways	4 ways	5 ways	6 ways	3 ways	4 ways	5 ways
610 x 310	8 ways	9 ways	12 ways	7 ways	8 ways	11 ways	6 ways	7 ways	9 ways

Termobox with Modular manifold: maximum number of ways



Termobox	1" A+B	3/4" A+B
310 x 310	3 ways	4 ways
460 x 310	7 ways	8 ways
610 x 310	12 ways	12 ways

Termobox with Multiplex or Topway M manifold: maximum number of ways



Termobox	1" A+B takeoffs 36 mm	3/4" A+B takeoffs 36 mm
310 x 310	3 ways	4 ways
460 x 310	7 ways	8 ways
610 x 310	12 ways	12 ways

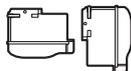
Modulo Compact

Motor driven ball-valve

IP 43



IP 40



SCAN



Valve technical data

Valve body made brass ST UNI EN 12165 CW617N with nickel finish
Ball made brass ST UNI EN 12165 CW617N chromium plated
Operating temperature range from -40 to 100 °C (circulating fluid)
Operating pressure PN 40
Maximum differential pressure 6 bar
Seals PTFE
Fittings for operating rod HNBR
Threads UNI EN ISO 228-1

Note: in the 3-way type is granted the flow port during the running operations.

Servomotor technical data

Power supply 230 V / 50 Hz or 24 Vac in function of model
Absorption 4 VA
Rotation angle 90° (2 ways) - 180° (3 ways) - 90/270° (4 ways)
Rotation time 60" (2 ways) - 120" (3 ways) - 60/180" (4 ways)
Torque: 8 Nm
Auxiliary contact 1-free 3 A / 230 V (on-off)
Protection class IP 43 IP 40
Insulating class: II
Indicator open valve (2 ways) diverted flux c-sx c-dx (3 ways)



Modulo Compact 230 Vac 2 ways with pipe union connection with thread

Dimension	Ways	Pcs. pack	Code
1/2"	2	1	01425800
3/4"	2	1	01425802
1"	2	1	01425804



Modulo Compact 230 Vac three ways diverter with pipe union connection with thread

Dimension	Ways	Pcs. pack	Code
1/2"	3	1	01425806
3/4"	3	1	01425808
1"	3	1	01425810



Modulo Compact 230 Vac 2 ways, Female Female thread

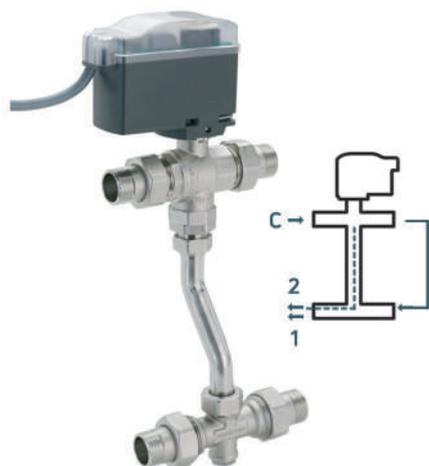
Dimension	Ways	Pcs. pack	Code
1/2"	2	1	01425820
3/4"	2	1	01425822
1"	2	1	01425824

Motor driven ball-valve



Modulo Compact 230 Vac 3 ways diverter, Female Female thread

Dimension	Ways	Pcs. pack	Code
1/2"	3	1	01425826
3/4"	3	1	01425828
1"	3	1	01425830



Body for Modulo Compact 4 ways take-off 190÷210 mm for by-pass

For Topway manifolds

Dimension		Pcs. pack	Code
3/4"	for Topway manifold	1	01425848
1"	for Topway manifold	1	01425850



Differential valve for by-pass

Dimension	Pz. conf.	Code
	1	01306360

Overpressure valve from 0,2 to 0,5 bar for the T fitting of 4 ways Modulo Compact



Servomotor for motorised ball valve Modulo Compact

Dimension	Pcs. pack	Code
2 ways - 230 Vac	1	01425860
3 ways - 230 Vac	1	01425862
4 ways - 230 Vac	1	01425864
4 ways - 24 Vac (*)	1	01425870

(*) Items to be out of range

Modulo Plus

Motor driven ball-valve

IP 43



IP 40



SCAN



Valve technical data

Valve body made brass ST UNI EN 12165 CW617N with nickel finish
Ball made brass ST UNI EN 12165 CW617N chromium plated
Operating temperature range from -40 to 100 °C (circulating fluid)
Operating pressure PN 40
Maximum differential pressure 6 bar
Seals PTFE
Fittings for operating rod HNBR
Threads UNI EN ISO 228-1

Servomotor technical data

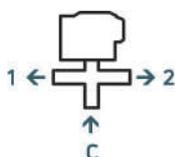
Power supply 230 V / 50 Hz
Absorption 4 VA
Rotation angle 90° (2 ways) - 180° (3 ways)
Rotation time 60" (2 ways) - 120" (3 ways)
Maximum torque 28 Nm (230 V)
Auxiliary contact 1-free 3 A / 230 V (on-off)
Protection class IP 43 IP 40
Insulating class: II
Indicator open valve (2 ways) diverted flux c-sx c-dx (3 ways)

Note: in the 3-way type is granted the flow port during the running operations.



Modulo Plus 230 Vac 2 ways with pipe union connection with thread

Dimension	Ways	Pcs. pack	Code
1"1/4	2	1	01425700
1"1/2	2	1	01425702
2"	2	1	01425704



Modulo Plus 230 Vac three ways diverter with pipe union connection with thread

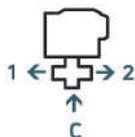
Dimension	Ways	Pcs. pack	Code
1"1/4	3	1	01425710
1"1/2	3	1	01425712
2"	3	1	01425714

Motor driven ball-valve



Modulo Plus 230 Vac 2 ways, Female Female thread

Dimension	Ways	Pcs. pack	Code
1"1/4	2	1	01425730
1"1/2	2	1	01425732
2"	2	1	01425734



Modulo Plus 230 Vac 3 ways diverter, Female Female thread

Dimension	Ways	Pcs. pack	Code
1"1/4	3	1	01425740
1"1/2	3	1	01425742
2"	3	1	01425744



Servomotor for motorised ball valve Modulo Plus

Dimension	Pcs. pack	Code
2 ways - 230 Vac	1	01420170
3 ways - 230 Vac	1	01420172

Bodies for motorized ball valves

Bodies for Modulo Compact and Modulo Plus motorized valves



SCAN



Body for Modulo 2 ways with pipe union connection with thread

Dimension	Ways	Pcs. pack	Code
1/2" (*)	2	1	90021400
3/4" (*)	2	1	90021410
1" (*)	2	1	90021420
1"1/4 (**)	2	1	90021430
1"1/2 (**)	2	1	90021440
2" (**)	2	1	90021450

(*) Recommended for Modulo Compact

(**) Recommended for Modulo Plus

Thread UNI EN ISO 228-1



Body for Modulo 3 ways with pipe union connection with thread

Dimension	Ways	Pcs. pack	Code
1/2" (*)	3	1	90021320
3/4" (*)	3	1	90021460
1" (*)	3	1	90021470
1"1/4 (**)	3	1	90021480
1"1/2 (**)	3	1	90021490
2" (**)	3	1	90021500

(*) Recommended for Modulo Compact

(**) Recommended for Modulo Plus

Thread UNI EN ISO 228-1



Body for Modulo 2 ways Female Female thread

Dimension	Ways	Pcs. pack	Code
1/2" (*)	2	1	90021200
3/4" (*)	2	1	90021210
1" (*)	2	1	90021220
1"1/4 (**)	2	1	90021230
1"1/2 (**)	2	1	90021240
2" (**)	2	1	90021250

(*) Recommended for Modulo Compact

(**) Recommended for Modulo Plus

Thread UNI EN ISO 228-1



Body for Modulo 3 ways Female Female thread

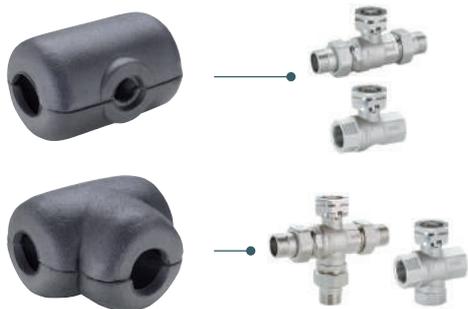
Dimension	Ways	Pcs. pack	Code
1/2" (*)	3	1	90021310
3/4" (*)	3	1	90021260
1" (*)	3	1	90021270
1"1/4 (**)	3	1	90021280
1"1/2 (**)	3	1	90021290
2" (**)	3	1	90021300

(*) Recommended for Modulo Compact

(**) Recommended for Modulo Plus

Thread UNI EN ISO 228-1

Modulo ball valves bodies



Insulating shells for Modulo ball valves

Dimension	Pcs. pack	Code
Insulating shell for ball valve 2 ways 1/2"	1	90045150
Insulating shell for ball valve 2 ways 3/4"	1	90045160
Insulating shell for ball valve 2 ways 1"	1	90045170
Insulating shell for ball valve 2 ways 1" 1/4	1	90045180
Insulating shell for ball valve 2 ways 1" 1/2	1	90045190
Insulating shell for ball valve 2 ways 2"	1	90045200
Insulating shell for ball valve 3 ways 1/2"	1	90045210
Insulating shell for ball valve 3 ways 3/4"	1	90045220
Insulating shell for ball valve 3 ways 1"	1	90045230
Insulating shell for ball valve 3 ways 1" 1/4	1	90045240
Insulating shell for ball valve 3 ways 1" 1/2	1	90045250
Insulating shell for ball valve 3 ways 2"	1	90045260

In close-cell expanded polyethylene



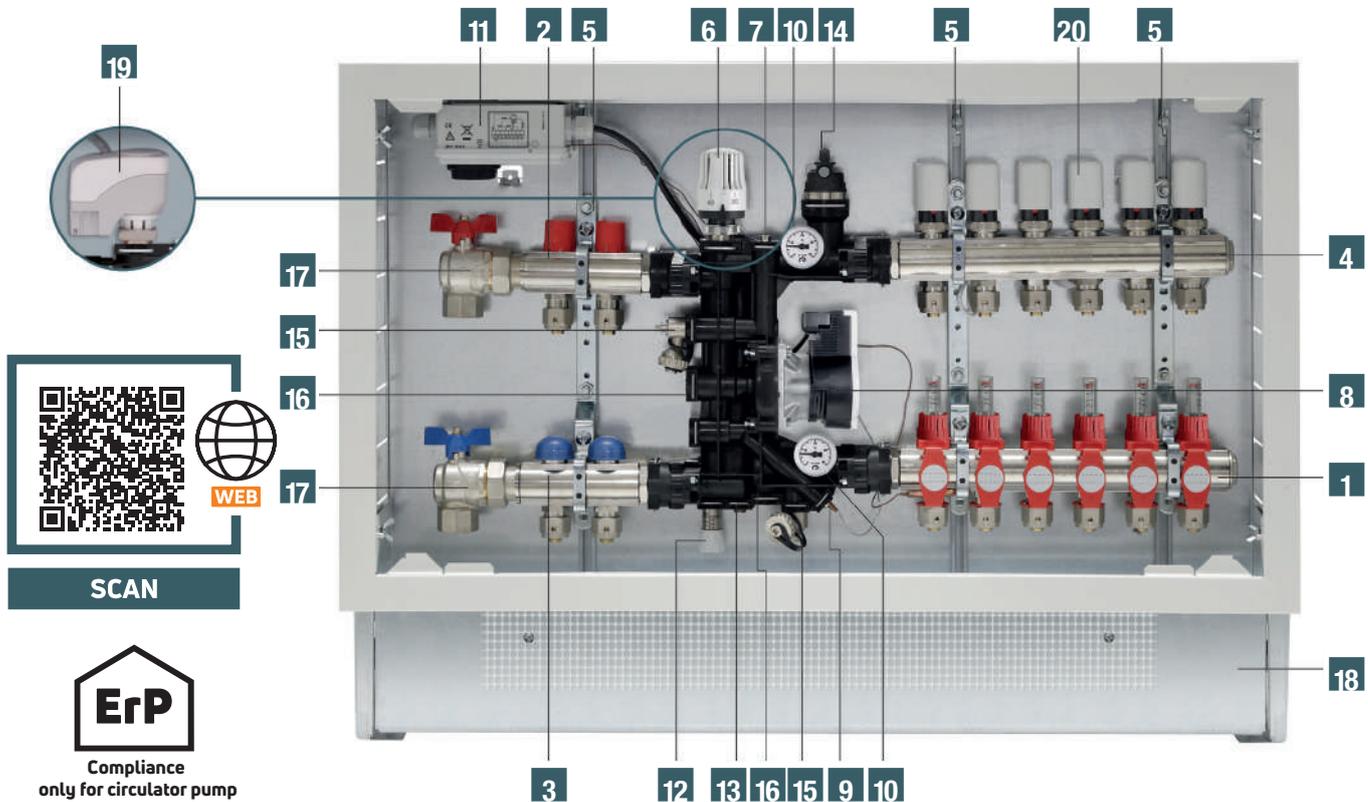
Insulating shells for servomotor for Modulo Compact

Dimension	Pcs. pack	Code
Insulating shell for servomotor for 4-ways Modulo Compact	1	90045270

In close-cell expanded polyethylene

Floor Control Unit HE

Pre-assembled regulation (fixed point or electronic climate) and distribution unit, for low temperature heating systems and mixed systems with two temperature levels (radiators + radiant panels), with electronic circulator in accordance with ErP



Construction

- 1 Nr. 1 supply bar for underfloor system with flow meters
- 2 Nr. 1 flow bar for radiator / fan coil system with lockshields of regulation
- 3 Nr. 1 return bar for radiator/fan coil system predisposed for mounting electrothermic heads
- 4 Nr. 1 return bar for the underfloor heating system predisposed for mounting electrothermic heads
- 5 Nr. 3 bar fixing brackets
- 6 Nr. 1 regulation valve with thermostatic head and immersion probe from 20 to 65 °C (for fixed-point control, not supplied as standard)
- 7 Nr. 1 by-pass calibration valve
- 8 Nr. 1 Wilo Para HU 15/7 wired circulator (triple-pole cable L = 1000 mm)
- 9 Nr. 1 supply probe
- 10 Nr. 2 control thermometers from 0 to 80 °C
- 11 Nr. 1 box with safety thermostat for low temperature circulator wiring (optional) or nr. 1 6T base unit for electrothermic heads (optional)
- 12 Nr. 1 overpressure valve (from 0.1 to 0.6 bar) for High Temperature zones
- 13 Nr. 1 shut-off and balancing lockshield
- 14 Nr. 1 automatic air exhaust valve 1/2"
- 15 Nr. 2 filling taps with swivel connection and safety cap
- 16 Nr. 2 circulator shut-off lockshields
- 17 Nr. 1 valve kit (optional)
- 18 Nr. 1 galvanized painted metal box (not supplied as standard)
- 19 Nr. 1 mixing valve with 3-point or 0-10 Vdc electric servomotor (temperature control versions, not supplied as standard)
- 20 Electrothermic head (optional)

Mixing kit materials

PPA resin (35% FV)
 Brass UNI EN 12164 CW 614N
 O-ring seals EPDM 70 Sh
 Elements in stainless steel AISI 304

Manifold materials

Manifolds made from drawn bar UNI EN 12168 CW617
 Manifold seals in EPDM 70 Sh

Dimensions: see section [Technical Attachments](#) from page 477 and following

Floor Control Unit HE - Regulation group

The range

Floor Control Unit HE L
Low temperature regulation and distribution unit (from 3 to 13 ways)
with circulator in accordance with ErP

Floor Control Unit HE 2H + L
High temperature + low temperature (from 3 to 13 ways) regulation
and distribution unit with circulator in accordance with ErP

Floor Control Unit HE 3H + L
High temperature, 3 way + low temperature (from 3 to 12 ways) re-
gulation and distribution unit with circulator in accordance with ErP

Mixing Unit M3V-V: regulation unit with circulator in accordance
with ErP

Topway manifolds

Measurement 1"
Head threads UNI EN ISO 228-1 G 1
Derivations M 24 x 19, distance between axes 50 mm

Regulation unit

Maximum temperature of primary circuit: 90°C
Maximum pressure: 6 bar
ΔP maximum primary circuit: 1 bar
Secondary regulation field (fixed point control): 20÷65 °C
Exchangeable thermal power (ΔT 7 °C, ΔP useful 0.25 bar)
- adjustment fixed point: 11 kW with by-pass position 0
- adjustment fixed point: 14 kW with by-pass position 5
Mixing valve pressure drop: Kv 2.5
Pressure drops with by-pass valve open: Kv max 6
Manifold head threads (where provided): 1" F
Manifold derivation threads: 24x19 distance between axes 50 mm
Thermometer scale: 0 ÷ 80 °C

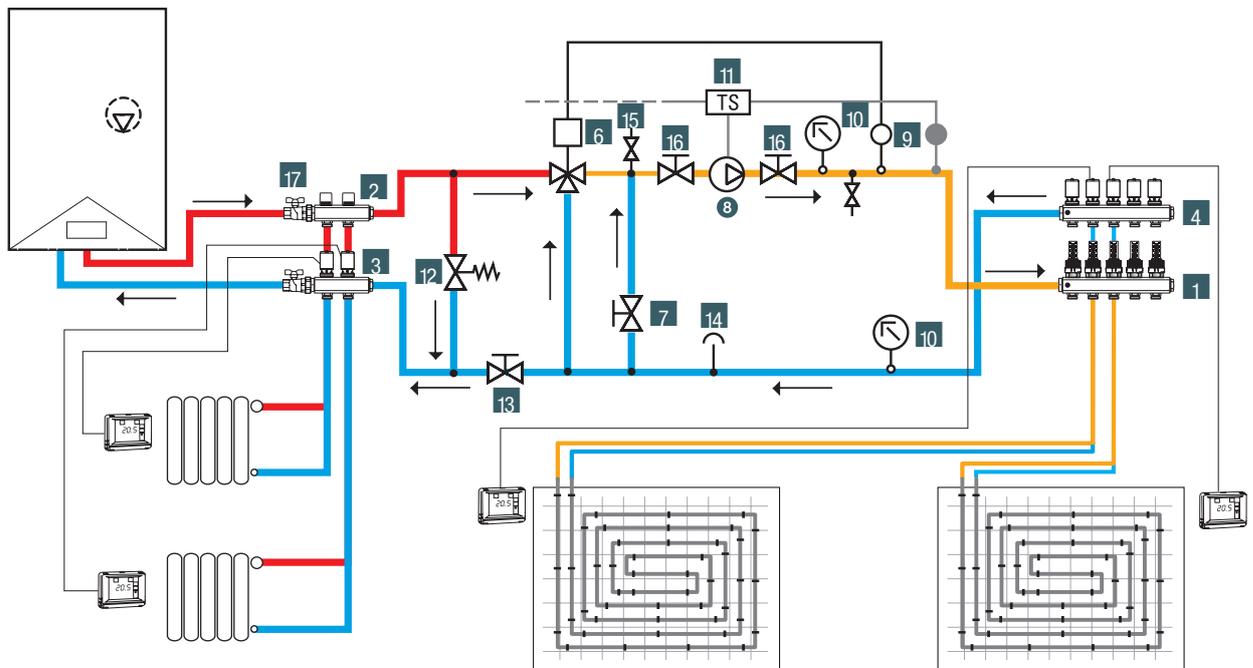
Wilo Para HU circulator 15/7

Speed of rotation: 2580 ÷ 4700 rpm.
Maximum head: 7 m
Maximum capacity: 2.0 m³/h
Electrical connection: 1-230V +10% / -15%, 50/60 Hz
Protection class: IPX 4D
Insulation class: F
Power consumption: from 1-230 V: 8.2 ÷ 50 W
Current consumption at 1-230 V: 0.07 ÷ 0.44 A
EEI ≤ 0.20
Usable fluids:
Cooling and heating water
Water and glycol: max 1:1

Compliance

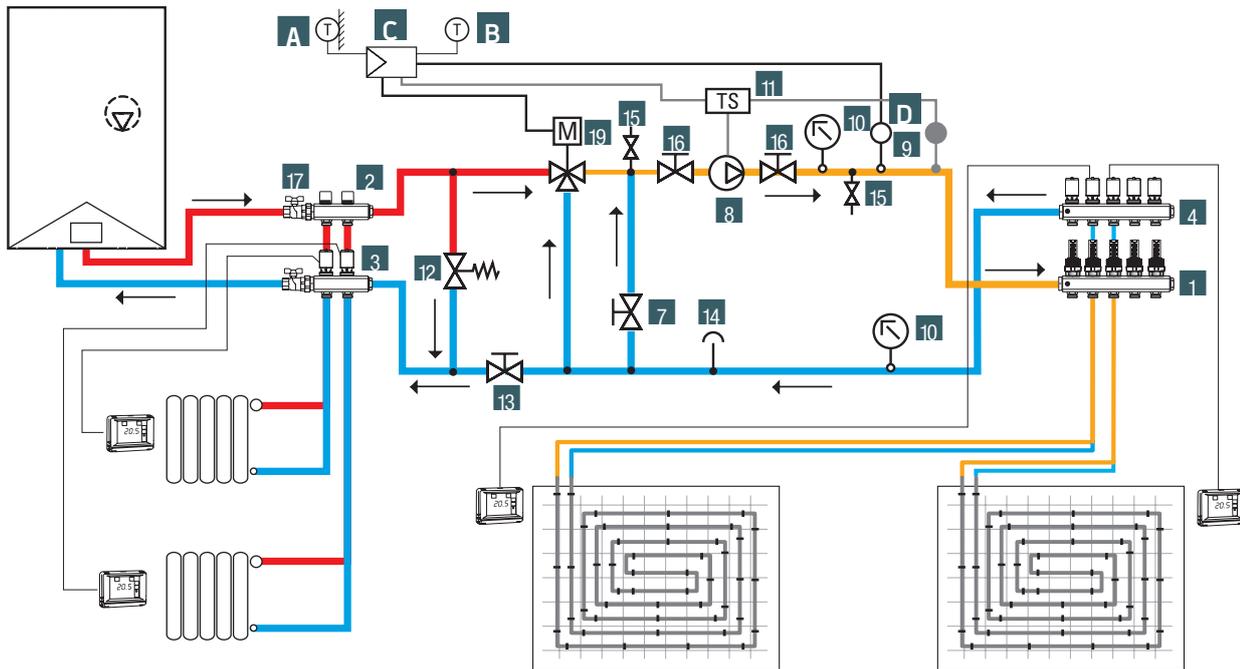
ErP Directive
EN 61800-3
EN 61000-6-1
EN 61000-6-2
EN 61000-6-3
ENI 61000-6-4
2014/35/UE (low voltage)
2014/30/UE (electromagnetic compatibility)

Hydraulic scheme for thermostatic regulation group



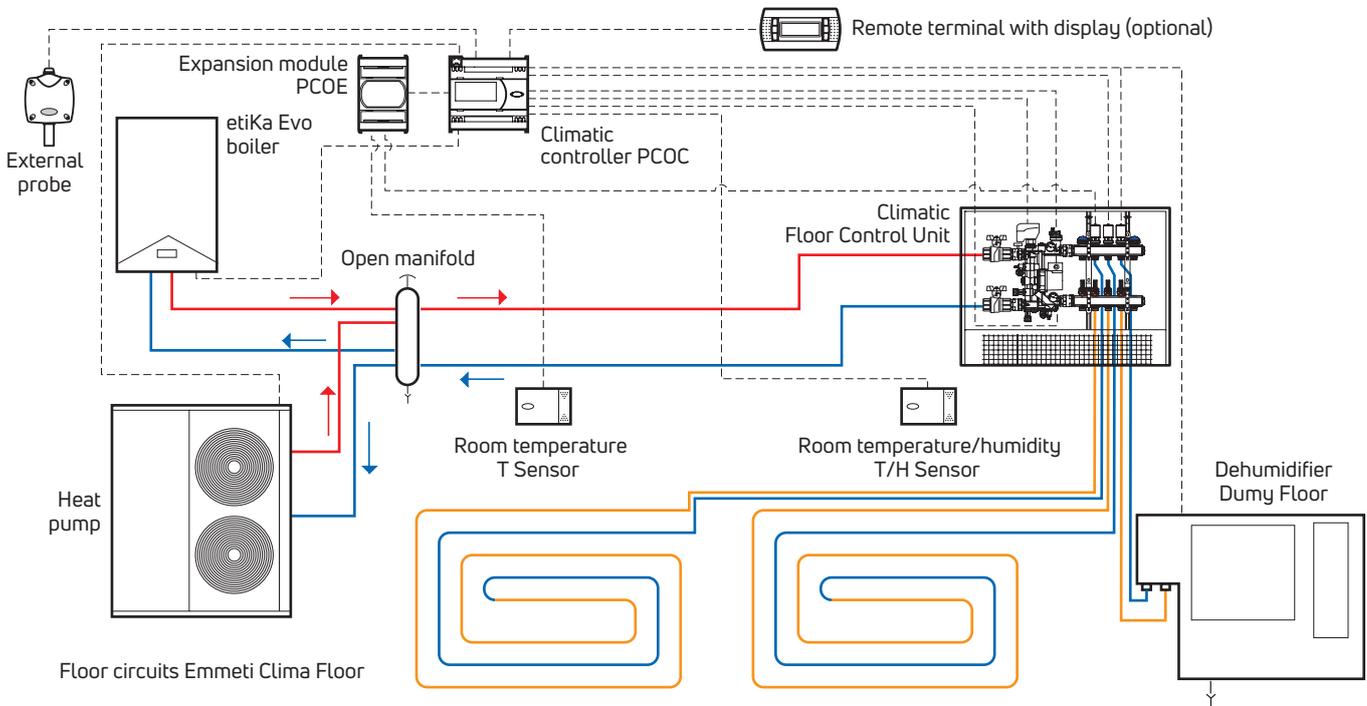
Floor Control Unit HE - Regulation group

Hydraulic scheme for climatic regulation group - only heating



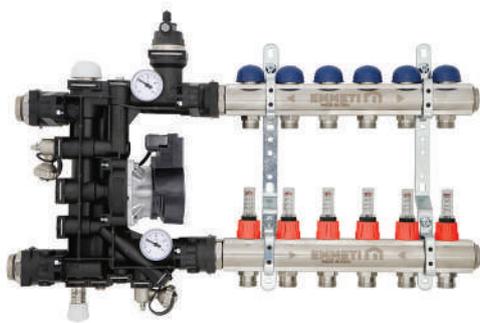
A external probe - B room sensor - C electronic climatic regulator - D flow pipe probe

Hydraulic scheme for climatic regulation group - heating and cooling



Note:
the volume of the open manifold/storage tank must be defined according to the working capacity of the chiller.

Floor Control Unit HE - Regulation group



Floor Control Unit HE only low temperature with flow meters, electronic circulator pump

Dimension	Box	Pcs. pack	Code
3L	L 700	1	28158404
4L	L 700	1	28158406
5L	L 700	1	28158408
6L	L 700	1	28158410
7L	L 850	1	28158412
8L	L 850	1	28158414
9L	L 850	1	28158416
10L	L 1000	1	28158418
11L	L 1000	1	28158420
12L	L 1000	1	28158422
13L	L 1200	1	28158424

Complete with: - thermostatic head with immersion probe code 90046750 or
- 3 point electric servomotor code 28157210 or
- electric servomotor 0-10 V DC code 28157220

If an electric servomotor is installed, combine an electronic climate control kit RCE or PCOC for heating and/or cooling.



Floor Control Unit HE High and Low temperature with flow meters, electronic circulator pump

Dimension	Box	Pcs. pack	Code
2H + 3L	L 700	1	28158426
2H + 4L	L 850	1	28158428
2H + 5L	L 850	1	28158430
2H + 6L	L 850	1	28158432
2H + 7L	L 1000	1	28158434
2H + 8L	L 1000	1	28158436
2H + 9L	L 1000	1	28158438
2H + 10L	L 1200	1	28158440
2H + 11L	L 1200	1	28158442
2H + 12L	L 1200	1	28158444
2H + 13L	L 1200	1	28158446
3H + 3L	L 850	1	28158448
3H + 4L	L 850	1	28158450
3H + 5L	L 850	1	28158452
3H + 6L	L 1000	1	28158454
3H + 7L	L 1000	1	28158456
3H + 8L	L 1000	1	28158458
3H + 9L	L 1200	1	28158460
3H + 10L	L 1200	1	28158462
3H + 11L	L 1200	1	28158464
3H + 12L	L 1200	1	28158466

Complete with: - thermostatic head with immersion probe code 90046750 or
- 3 point electric servomotor code 28157210 or
- electric servomotor 0-10 V DC code 28157220

If an electric servomotor is installed, combine an electronic climate control kit RCE or PCOC for heating and/or cooling.



Mixing Unit M3V HE-V with electronic circulator pump

Dimension	Pcs. pack	Code
1" (*)	1	28158320
1 1/4 (**)	1	28158330

(*) Measurement of threaded connections: G 1"

(**) Measurement of threaded connections: G 1 1/4"

Complete with:

- thermostatic head with immersion probe code 90046750 or
- 3 point electric servomotor code 28157210 or
- electric servomotor 0-10 V DC code 28157220

If an electric servomotor is installed, combine an electronic climate control kit RCE or PCOC for heating and/or cooling.

Dimensions and diagrams: see section Technical Attachments page 478

Floor Control Unit HE - Regulation group

Accessories for Floor Control Unit HE



Casing in galvanized sheet and plastic door frame, white color RAL 9010.

Dimension	Pcs. pack	Code
L 500	1	01301450
L 600	1	01301452
L 700	1	01301454
L 850	1	01301456
L 1000	1	01301458
L 1200	1	01301460

It is supplied complete with closure of screwdriver cut, adjustable feet in height from 0 to 100 mm and in sheet construction site protection.
Wire frame plaster 3 mm.

Dimensions: see section Technical Attachments from page 469 and following

Selection guide of metal box for Floor Control Unit HE groups

Floor Control Unit HE		Metalbox Plus	
Size	Code	Size	Code
3B	28158404	L600	01301452
4B	28158406	L600	01301452
5B	28158408	L700	01301454
6B	28158410	L700	01301454
7B	28158412	L850	01301456
8B	28158414	L850	01301456
9B	28158416	L850	01301456
10B	28158418	L1000	01301458
11B	28158420	L1000	01301458
12B	28158422	L1000	01301458
13B	28158424	L1200	01301460
2A+3B	28158426	L700	01301454
2A+4B	28158428	L850	01301456
2A+5B	28158430	L850	01301456
2A+6B	28158432	L850	01301456
2A+7B	28158434	L1000	01301458
2A+8B	28158436	L1000	01301458
2A+9B	28158438	L1000	01301458
2A+10B	28158440	L1200	01301460
2A+11B	28158442	L1200	01301460
2A+12B	28158444	L1200	01301460
2A+13B	28158446	L1200	01301460
3A+3B	28158448	L850	01301460
3A+4B	28158450	L850	01301456
3A+5B	28158452	L850	01301456
3A+6B	20158454	L1000	01301458
3A+7B	28158456	L1000	01301458
3A+8B	28158458	L1000	01301458
3A+9B	28158460	L1200	01301460
3A+10B	28158462	L1200	01301460
3A+11B	28158464	L1200	01301460
3A+12B	28158466	L1200	01301460

Floor Control Unit HE - Regulation group



1" Right-angle Progress ball valves with pipe union for Floor Control Unit HE

Dimension	Pcs. pack	Code
F 1" - F 1" revolving nut	1	01306270

Kit suitable for installation on Floor Control Unit HE low temperature mixing groups only, if the high temperature manifolds are not present.
Complete with 2 gaskets.



1" Straight Progress ball valves with pipe union for Floor Control Unit HE

Dimension	Pcs. pack	Code
F 1" - F 1" revolving nut	1	01306272

Kit suitable for installation on mixing groups Floor Control Unit HE low temperature only, if there are no high temperature manifolds.
Complete with 2 gaskets.
Valve body thread UNI EN 10226-1
Union thread UNI EN ISO 228-1



Right-angle Progress ball valves with pipe union

Dimension	Pcs. pack	Code
1"	1	01306266

Kit suitable for installation in Floor Control Unit HE mixing groups equipped with high temperature manifolds.



Straight Progress ball valves with pipe union

Dimension	Pcs. pack	Code
1"	1	01306262

Kit suitable for installation in Floor Control Unit HE mixing groups equipped with high temperature manifolds.



Accessories kit high temperature

Dimension	Pcs. pack	Code
(2+2)H	1	01292316
(3+3)H	1	01292318
(4+4)H	1	01292320
(5+5)H	1	01292322
(6+6)H	1	01292324

Complete with: lockshield featuring dual micrometric adjustment on inlet and Nr. 2 blind nipples 1" or 1 1/4 M-M

Dimensions: see section Technical Attachments page 479



Insulating shell for Floor Control Unit HE, Mixing Unit M3V HE-V

Dimension	Pcs. pack	Code
	1	01306510

In closed-cell crosslinked expanded polyethylene.

For installation of the insulating shell, it's necessary to first remove the hydraulic assembly from the box (thus do not make the hydraulic and electrical connections before having installed the insulating shell). If the shell is being installed on an assembly inside a Metal-box metal box, it's recommended that the assembly be installed maintaining a distance of 135 mm between the back of the box and the wall.

Floor Control Unit HE - Regulation group

Accessories for regulation groups



Thermostatic head with immersion probe for thermostatic regulation group

Setting: 20 ÷ 65 °C - Size thread connection: M30x1,5

Dimension	Pcs. pack	Code
	1	90046750



Electric servomotor

3-Point Servomotor technical data

Type of operation: 3-position control - Nominal voltage: 230 Vac (± 15%) - Nominal frequency: 50/60 Hz - Maximum consumption: 6 VA - Permissible room temperature: 0÷55 °C - Maximum permissible fluid temperature: 110 °C - Nominal stroke: 2.5 mm (maximum 5.5 mm) - Stroke time (at 50/60 Hz, regarding a stroke of 2.5 mm): 150 s - Nominal force: 100 N - Degree of protection: IP40 according to EN 60529 - Insulation class: II according to EN 60730 - Threaded fitting size: M30x1.5

0-10 V Servomotor technical data

Type of operation: 0-10 V DC control - Nominal voltage: AC/DC 24 V (±20% / ±25%) - Nominal frequency: 50/60 Hz - Maximum consumption: 2 VA - Permissible room temperature: 1÷50 °C - Maximum permissible fluid - emperature: 110 °C - Nominal stroke: 2.5 mm (maximum 5.5 mm) - Stroke time (at 50/60 Hz, regarding a stroke of 2.5 mm): 150 s - Nominal force: 100 N - Degree of protection: IP40 according to EN 60529 - Insulation class: III according to EN 60730 - Threaded fitting size: M30x1.5

Dimension	Pcs. pack	Code
3 points	1	28157212
0-10 V DC	1	28157222

Complete with adapter for installation of the flow probe (for climatic temperature control) inside the regulation group.

To be combined with RCE or PCOC climatic regulators for heating and cooling.

Electronic system for electro-thermic actuators



Basic wiring box 6T

Electronic system for electrothermal heads, comprised of a basic junction box and additional extension;

Power supply 230 V or 24 V;

Direct power supply to the normally closed electrothermal heads (at the same power supply voltage as the junction box);

Direct connection to the environment thermostats (at the same power supply voltage as the junction box);

Connection of up to six electrothermal heads (configured at high or low temperature);

Connection of up to six environment thermostats;

Connection for low temperature circulating pump;

Connection for heat source activation;

Adjustable safety thermostat (30÷60 °C);

Safety thermostat contact;

Circulating pump anti-blocage function.

Dimension	Pcs. pack	Code
Basic wiring box 6T	1	28130616

Floor Control Unit HE - Regulation group

Electric boxes



Electric box with safety thermostat for pump cable low temperature

Bulb length: 65 mm - Bulb diameter: 7 mm - Setting: 0+60 °C ± 3 - Contacts: 400 V 16(4) A - Differential: 4 °C

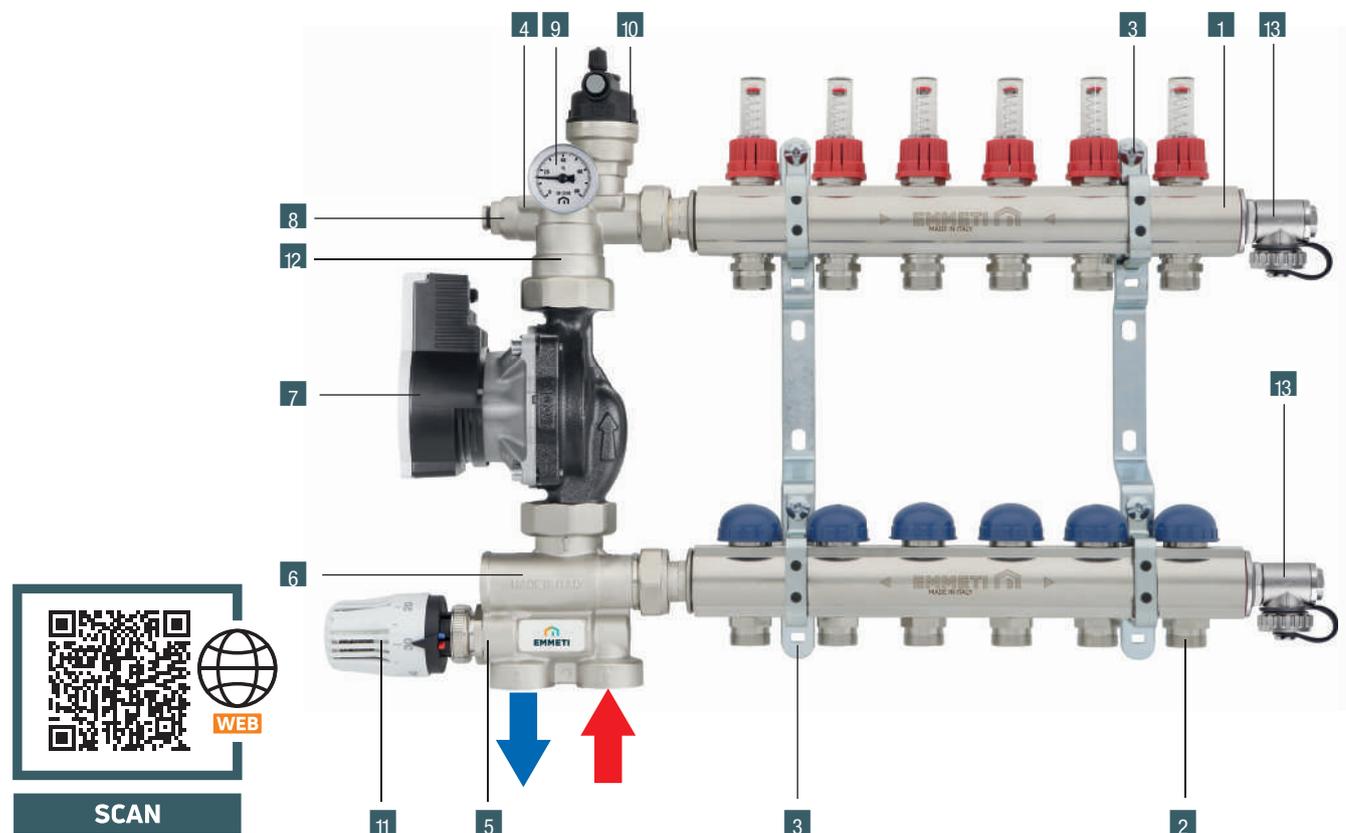
Dimension	Pcs. pack	Code
	1	28130632

**Guidelines for choosing the climatic regulation components to be combined with the pre-assembled groups :
Floor Control Unit HE and M3V HE-V.**

Components	Type of application			
	Heating / Cooling with 3-points servomotor		Heating / Cooling with 0-10 Vdc servomotor	
<p>28139070 - Section 5</p>	1		1	
<p>PCOC - Section 5</p>		1		1
<p>28157212 Section 4</p>	1	1		
<p>28157222 Section 4</p>			1	1
<p>28130632 - Section 4</p>	1	1	1	1

TM3-R Mixing Unit

Pre-assembled regulation group (thermostatic or climatic electronic), for low temperature heating systems complete with brackets for installation on wall or in Metalbox (for 120 mm brick thickness)



Construction

- 1 Nr. 1 flow bar for floor heating system with flow meter;
- 2 Nr. 1 return bar for floor heating system set up to take thermoelectric heads (where required);
- 3 Nr. 2 brackets for fixing manifolds;
- 4 Housing for thermostat safety probe;
- 5 Nr. 1 mixing valve thread M30x1,5 set up to thermoelectric head with immersion probe from 20 to 65 °C (where required) electric servomotor (not supplied);
- 6 Nr. 1 adjusting valve and by-pass (fixed-point adjustment)
- 7 Nr. 1 Wilo Para 25/7 circulator pump with cable (tripolar cable L = 1000 mm)
- 8 Nr. 1 housing for temperature flow probe;
- 9 Nr. 1 control thermometer from 0 to 80 °C;
- 10 Nr. 1 automatic bleed valve 1/2"
- 11 Nr. 1 thermostatic head with immersion probe from 20 to 65 °C (fixed-point adjustment)
- 12 Nr. 1 check valve (not shown in the figure)
- 13 Nr. 2 fill and discharge adjustable bibcocks with safety plug

Circulator compliance

ErP Directive
 EN 61800-3
 EN 61000-6-3 / EN 61000-6-4
 EN 61000-6-2 / EN 61000-6-1
 2014/35/UE (low voltage)
 2014/30/UE (electromagnetic compatibility)

Technical data

Max temperature for primary circuit: 90 °C
 Max operating pressure: 6 bar
 Δp max for primary circuit: 1 bar
 Secondary range: 20÷65 °C (fixed-point regulation)
 Thermal power exchangeable ΔT 7°C, Δp useful 0,25 bar
 - Fixed-point regulation: 10 kW by-pass position 0
 - Fixed-point regulation: 12.5 kW by-pass position 5
 Pressure drop with by-pass valve position 5: $K_{vmax}=4,8$
 Thermometer scale: 0÷80 °C
 Head threads of Mixing group: 1" Female
 Head threads of Topway manifolds: G 1" Female
 Topway manifolds takeoffs threads: 24x19 male, takeoffs 50 mm

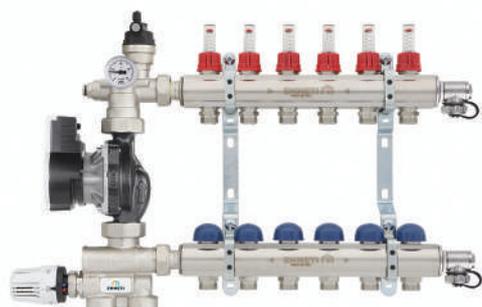
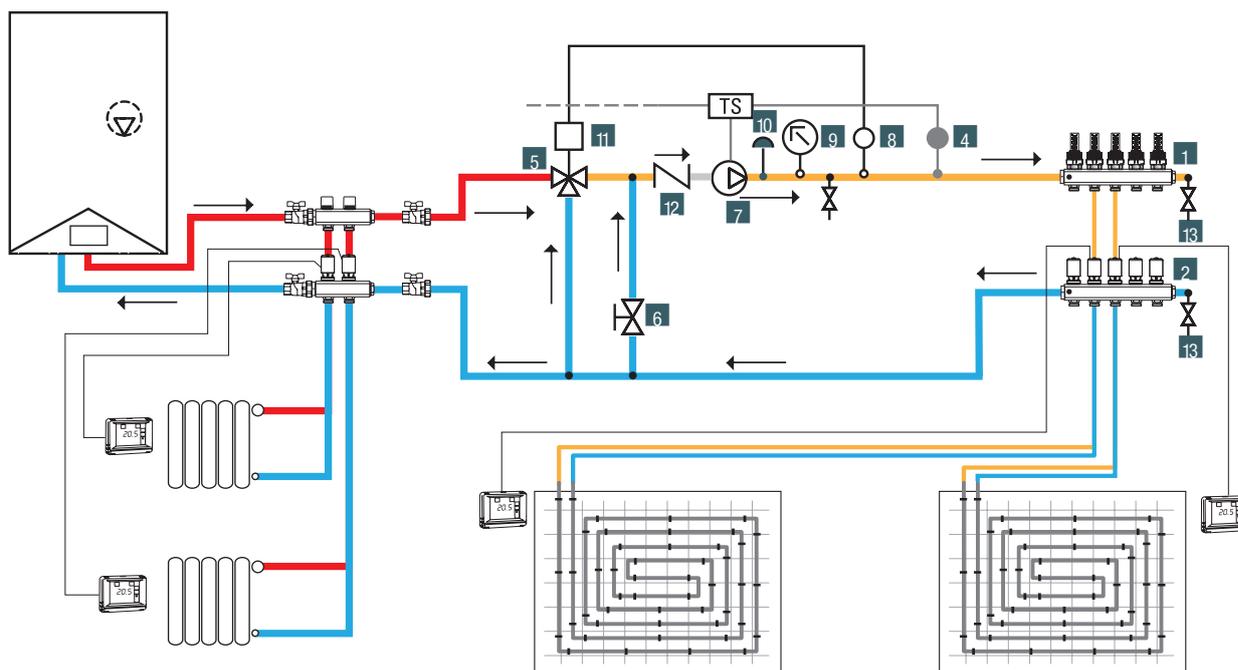
Circulator Pump Wilo Para 25/7

Thread UNI EN ISO 228-1 (G 1 1/2)
 Takeoff: 130 mm
 Variable rotation speed: 2580÷4700 rpm
 Maximum pressure head: 7 m
 Maximum flow rate: 3,5 m³/h
 Fluids can be used:
 - water cooling and heating
 - water and glycol: max 1:1
 Power absorbed: 1-230 V +10% / -15%, 50/60 Hz
 Protection class: IPX 4D
 Insulation class: F
 Power absorbed from 1-230 V: 8.2÷50 W
 Electrical consumption from 1-230V: 0.07 ÷0,44 A
 EEI ≤ 0,2

Dimensions: see section Technical Attachments page 480

TM3-R Mixing Unit - Regulation group

Hydraulic scheme of fixing regulation group and circulator pump



TM3-R thermostatic with manifolds with flow meters (4 l/min), low temperature

Dimension	Ways	Thread	Pcs. pack	Code
1"	2L	24x19	1	28132500
1"	3L	24x19	1	28132502
1"	4L	24x19	1	28132504
1"	5L	24x19	1	28132506
1"	6L	24x19	1	28132508
1"	7L	24x19	1	28132510
1"	8L	24x19	1	28132512
1"	9L	24x19	1	28132514
1"	10L	24x19	1	28132516
1"	11L	24x19	1	28132518
1"	12L	24x19	1	28132520

Complete with thermostatic head with immersion probe

Wilco Para RS 25/7

Connections - takeoffs: G1 1/2 - 130 mm



TM3-R thermostatic with manifolds with flow meters (4 l/min), low temperature without circulator pump

Dimension	Ways	Thread	Pcs. pack	Code
1"	2L	24x19	1	28132400
1"	3L	24x19	1	28132402
1"	4L	24x19	1	28132404
1"	5L	24x19	1	28132406
1"	6L	24x19	1	28132408
1"	7L	24x19	1	28132410
1"	8L	24x19	1	28132412
1"	9L	24x19	1	28132414
1"	10L	24x19	1	28132416
1"	11L	24x19	1	28132418
1"	12L	24x19	1	28132420

Complete with thermostatic head with immersion probe

TM3-R Mixing Unit - Regulation group



TM3-R thermostatic without circulator pump

Dimension	Pcs. pack	Code
	1	28132200

Complete with thermostatic head with immersion probe



TM3-R thermostatic with Wilo Para RS 25/7 electronic circulator pump

Dimension	Pcs. pack	Code
	1	28132206

Complete with thermostatic head with immersion probe

Wilo Para RS 25/7
Connections - takeoffs: G1 1/2 - 130 mm



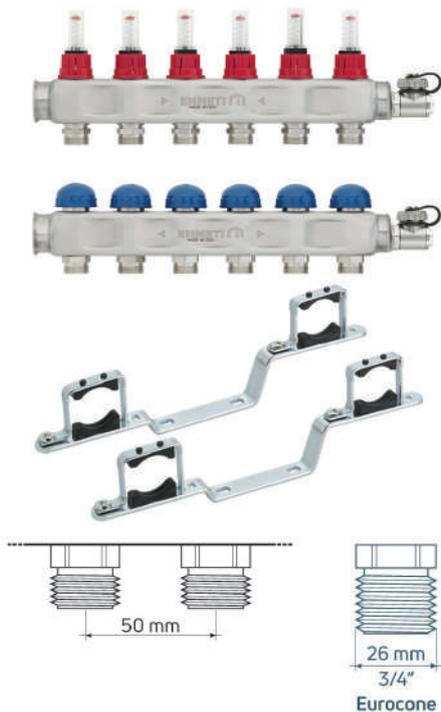
Pre-assembled distribution manifolds takeoffs 24x19 with lockshields with flow meters

Complete with:
Lockshields with built-in flow meters (0÷4 l/min)
Manual adjustment valves set up to take thermoelectric heads
Nr. 2 reductions 1" M - 1/2" F
Nr. 2 drain water valves 1/2"
Nr. 2 dual metal holders 1"
Use the black o-rings supplied with the TM3-R group to assemble the manifold.

Dimension	Ways	Thread	Pcs. pack	Code
1"	2	24x19	1	01297340
1"	3	24x19	1	01297342
1"	4	24x19	1	01297344
1"	5	24x19	1	01297346
1"	6	24x19	1	01297348
1"	7	24x19	1	01297350
1"	8	24x19	1	01297352
1"	9	24x19	1	01297354
1"	10	24x19	1	01297356
1"	11	24x19	1	01297358
1"	12	24x19	1	01297360

Items available on request

TM3-R Mixing Unit - Regulation group



Topway S Compact - stainless steel distribution manifold 1"

Complete with:
 Built-in flowmeters (0÷4 l/min)
 Valves with manual adjustment predisposed for electrothermal heads
 Nr. 2 water drain valve 1/2" with plug
 Nr. 2 metal brackets for installation in metal box or wall

Dimension	Ways	Thread	Pcs. pack	Code
1"	2+2	3/4" Eurocone	1	01282320
1"	3+3	3/4" Eurocone	1	01282322
1"	4+4	3/4" Eurocone	1	01282324
1"	5+5	3/4" Eurocone	1	01282326
1"	6+6	3/4" Eurocone	1	01282328
1"	7+7	3/4" Eurocone	1	01282330
1"	8+8	3/4" Eurocone	1	01282332
1"	9+9	3/4" Eurocone	1	01282334
1"	10+10	3/4" Eurocone	1	01282336
1"	11+11	3/4" Eurocone	1	01282338
1"	12+12	3/4" Eurocone	1	01282340

Use the red o-rings supplied with the TM3-R group to assemble the manifold.



Progress straight ball valves kit female-revolving nut with butterfly handle

Dimension	Pcs. pack	Code
1" x 1"	1	01306708



Mixing valve TM3-R

Dimension	Pcs. pack	Code
	1	90055552



Safety thermostat kit for mixing units

Dimension	Pcs. pack	Code
	1	90055734

TM3-R Mixing Unit - Regulation group



Insulating shells for TM3-R

Dimension	Pcs. pack	Code
1"	1	01306860

In closed-cell crosslinked expanded polyethylene.

Electronic system for electro-thermic actuators



Basic wiring box 6T

Electronic system for electrothermic heads, comprised of a basic junction box and additional extension;
Power supply 230 V or 24 V;
Direct power supply to the normally closed electrothermal heads (at the same power supply voltage as the junction box);
Direct connection to the environment thermostats (at the same power supply voltage as the junction box);
Connection of up to six electrothermal heads (configured at high or low temperature);
Connection of up to six environment thermostats;
Connection for low temperature circulating pump;
Connection for heat source activation;
Adjustable safety thermostat (30÷60 °C);
Safety thermostat contact;
Circulating pump anti-blocage function.

Dimension	Pcs. pack	Code
Basic wiring box 6T	1	28130616

Electric boxes



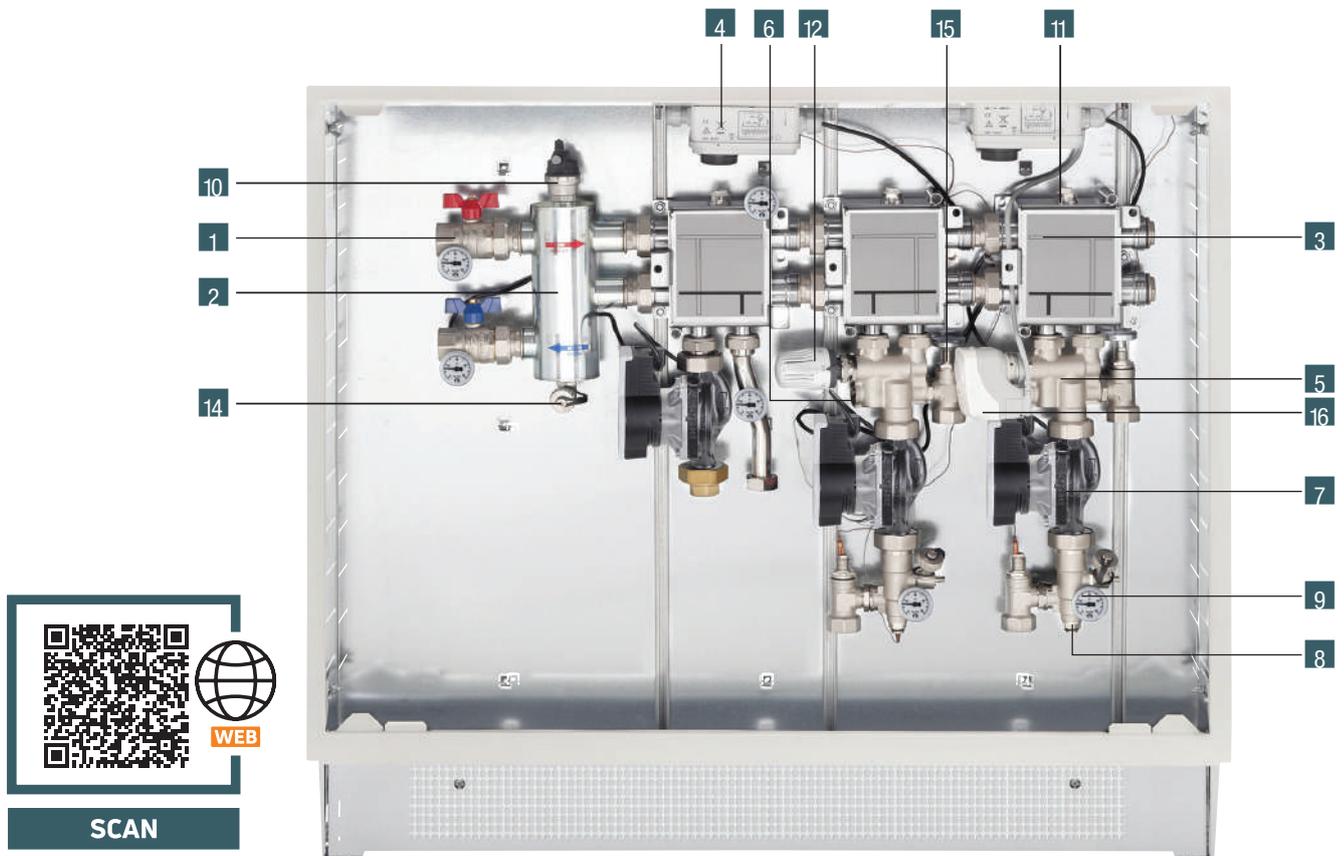
Electric box with safety thermostat for pump cable low temperature

Bulb length: 65 mm
Bulb diameter: 7 mm
Setting: 0÷60 °C ± 3
Contacts: 400 V 16(4) A
Differential: 4 °C

Dimension	Pcs. pack	Code
	1	28130632

Modular Firstbox high-low temperature systems

Distribution groups for high-low temperature systems, with electronic circulation pumps



Allows the creation of systems with high temperature zones (radiators, fan coils) and low temperature zones (floor systems) assembling one or more modules together as needed.

Besides the standard offer of preassembled boxed modules, individual modules are also available which can be used to build the distribution system that is most suited to your needs. The distribution manifold can be fed from both left and right and the branches can be directed either upwards or downwards.

The open manifold installed upstream from the zone distribution modules hydraulically separates the primary circuit from the secondary circuits. The nonreturn valves on the individual modules prevent recirculation and eddy currents that keep the terminals hot and the supply circuits to the pump floor systems nonfunctioning.

To exclude the individual circuits with stopped pumps, there must be electrothermal heads or zone valves directly connected to the distribution manifolds. In modules with electronic climate regulation, the automatic management of the individual low temperature zone is done by the climate regulator that is controlled by the thermostat and acts directly on the mixing valve servomotor and excludes the zone circuit with the circulator not running.

Through the use of electrical boxes for wiring the high and low temperature circulators (not included) controlled by zone thermostats, system operation can be automated.

Construction

- 1 Ball valve kit (not included)
- 2 Open manifold (if applicable)
- 3 Distribution manifold
- 4 Electrical Box with safety thermostat for wiring low temperature circulator (optional)
- 5 Threaded mixing valve M30x1.5 for installation of a thermostatic head with immersion probe from 20 to 65° C (where application) or an electric servomotor (not included);
- 6 Bypass and setting valve.
- 7 Wilo Para 25/7 electronic circulator wired with threepole cable L=1000 mm
- 8 Housing for output temperature probe;
- 9 Control thermometer from 0 to 80° C;
- 10 Automatic air vent valve, 1/2";
- 11 Manual air vent valve, 1/2";
- 12 Thermostatic head with immersion probe from 20 to 65° C (fixed point reg.)
- 13 Non return valve (not shown)
- 14 Load/unloading tap with adjustable attachment and safety cap (where applicable);
- 15 Shutoff lockshield with housing for thermometer or return probe (climate reg.)
- 16 3 point electric servomotor or 010 V DC (not shown)

Dimensions and diagrams: see section **Technical Attachments** page 481 and following

Modular Firstbox - underboiler kit

Technical data

Threads UNI EN ISO 228-1
 Head threads of distribution manifold: 1"1/4 M - 1" F
 Distribution manifold derivation threading: nut 1" F
 Individual zone derivation threading: 1" F
 Distribution manifold maximum temperature: 110 °C
 Maximum pressure: 10 bars
 Circulator connectors: pipe union 1" 1/2 spacing 130 mm

Low temperature mixing unit

Primary circuit maximum temperature: 90 °C
 Maximum pressure: 10 bars
 ΔP max, primary circuit: 1 bar
 Mixing unit regulation field: 20÷65° C (fixed point reg.)
 Exchangeable thermal power with ΔT 7°C and Δp useful = 0.25 bar
 - fixed point regulation: 10 kW by-pass pos. 0
 - fixed point regulation: 12.5 kW by-pass pos. 5
 Mixing valve load loss (fixed point reg.) Kv 3
 Load loss with bypass valve open (fixed point regulation)
 Kv max 4.8

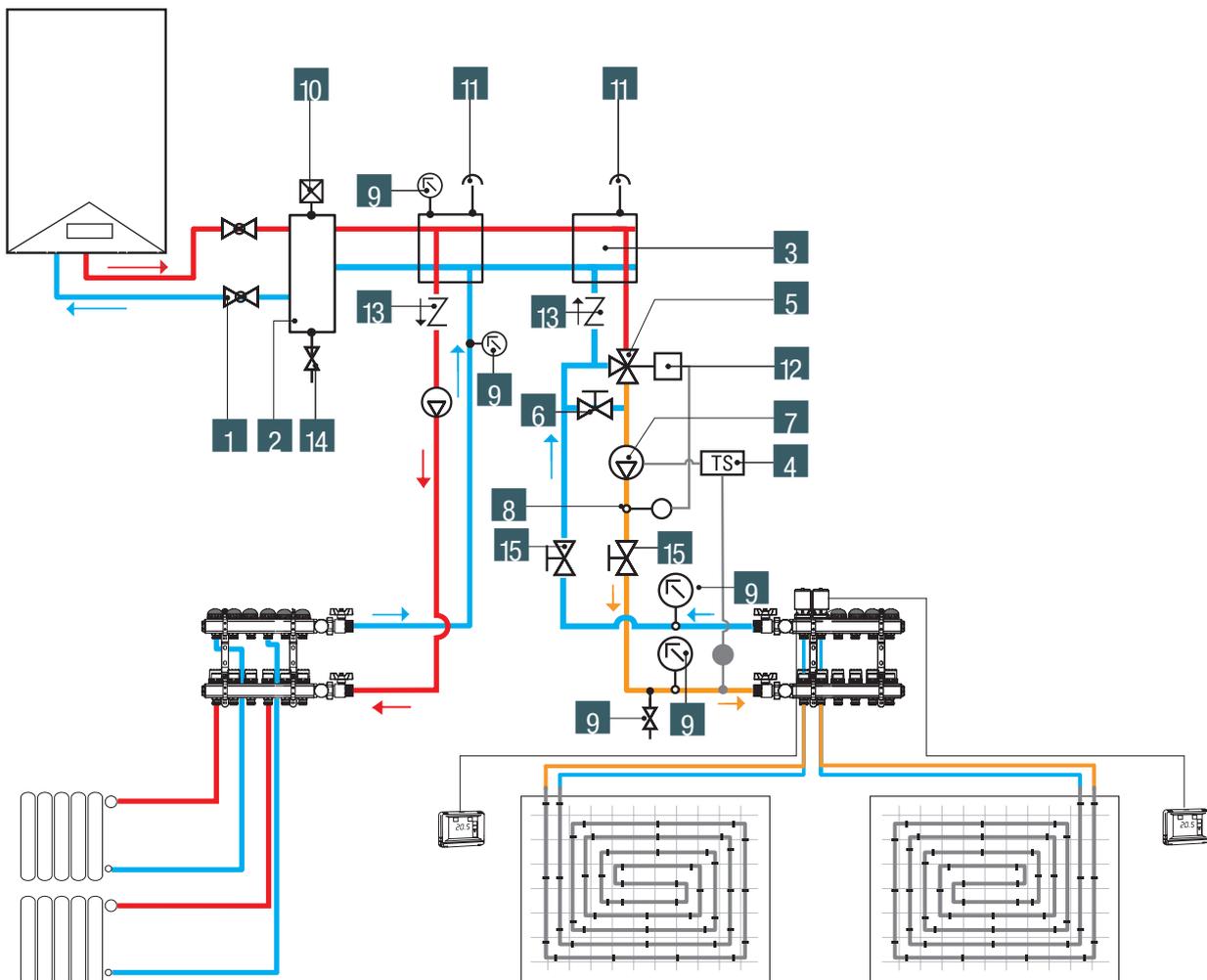
Wilco Para 25/7 circulator pump

Threads UNI EN ISO 228-1 (G 1/2)
 Takeoff 130 mm.
 Rotation speed: 2580÷4700 rpm
 Maximum head: 7 m
 Maximum flow: 3.5 m³/h
 Usable fluids:
 - cooling and heating water
 - water and glycol: max 1:1
 Electrical connection: 1-230 V +10% / -15%, 50/60 Hz
 Protection class: IPX 4D
 Insulation class: F
 Energy consumption: from 1-230 V: 8.2÷50 W
 Current absorbed at 1-230 V: 0.07 ÷ 0.44 A
 EEI ≤ 0,2

Circulatore compliance

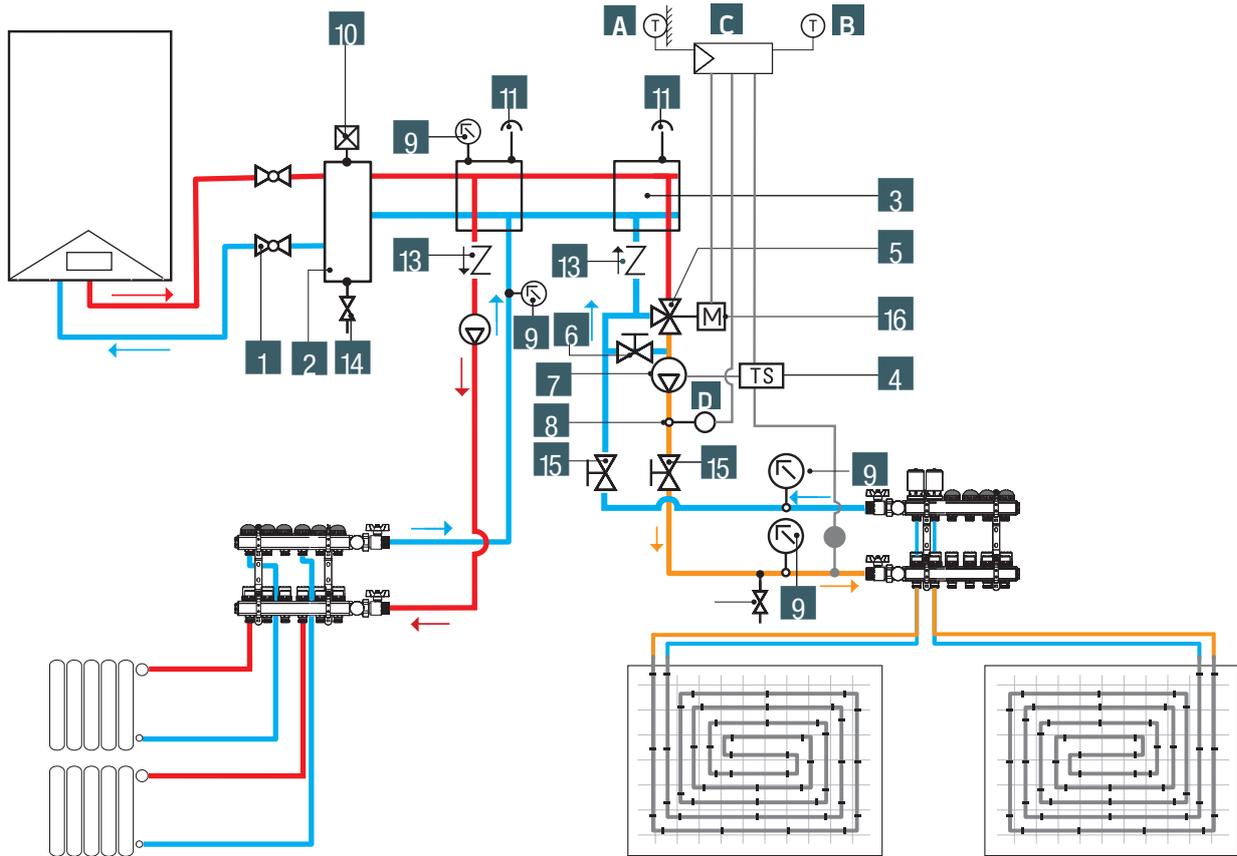
ErP Directive
 EN 61800-3
 EN 61000-6-3 / EN 61000-6-4
 EN 61000-6-2 / EN 61000-6-1
 2014/35/UE (low voltage)
 2014/30/UE (electromagnetic compatibility)

Hydraulic scheme - Modules with open manifold - Thermostatic regulation



Modular Firstbox - underboiler kit

Hydraulic scheme - Modules with open manifold - Climatic regulation



- A** external probe
- B** room sensor
- C** climatic regulator
- D** flow probe

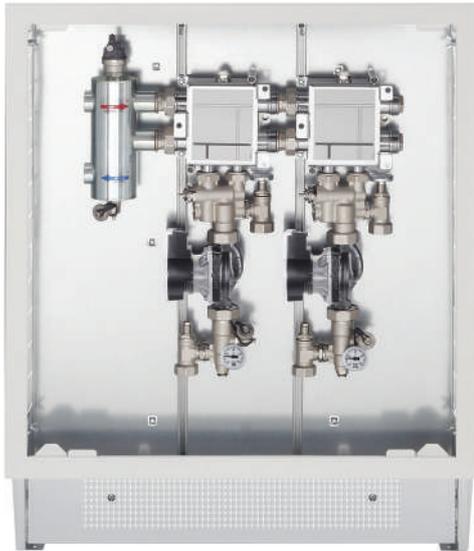


Distribution modules for High-temperature with electronic circulation pumps and open manifold

Dimension	Box	Pcs. pack	Code
1H	L 500	1	28151736
2H	L 700	1	28151738
3H	L 1000	1	28151740

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the cassette and the wall.

Modular Firstbox - underboiler kit



Distribution modules low temperature with mixing valve, pumps and electronic circulator pumps and open manifold.

Dimension	Box	Pcs. pack	Code
1L	L 500	1	28151742
2L	L 700	1	28151744
3L	L 1000	1	28151746

To be completed with:

- thermostatic head code 90046750
- 3-points electric servomotor code 28157210

or

- 0-10 V DC electric servomotor code 28157220

Combine with climatic regulator RCE or PCOC for heating and cooling.

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the cassette and the wall.



Distribution modules high + low temperature with mixing valve, electronic circulation pumps and open manifold.

Dimension	Box	Pcs. pack	Code
1H + 1L	L 700	1	28151748
1H + 2L	L 1000	1	28151750
2H + 1L	L 1000	1	28151752

To be completed with:

- thermostatic head code 90046750
- 3-points electric servomotor code 28157210

or

- 0-10 V DC electric servomotor code 28157220

Combine with climatic regulator RCE or PCOC for heating and cooling.

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the cassette and the wall.



Single distribution groups with electronic circulator pumps. High temperature

Dimension	Pcs. pack	Code
1H	1	28151730

Pivoting upwards or downwards. Delivered pre-assembled to bottom.

Dimensions: see section Technical Attachments page 481

Modular Firstbox - underboiler kit



Single distribution modules with electronic circulation pump. Low temperature.

Dimension	Pcs. pack	Code
1L	1	28151732

To be completed with:

- thermostatic head code 90046750
- 3-points electric servomotor code 28157210

or

- 0-10 V DC electric servomotor code 28157220

Combine with climatic regulator RCE or PCOC for heating and cooling.

Pivoting upwards or downwards. Delivered pre-assembled to bottom.

Dimensions: see section Technical Attachments page 481



Single distribution groups with predisposition for circulator pump. High temperature.

Dimension	Pcs. pack	Code
1H	1	28151800

Supplied with pipe union to install below the circulator pump.

Connections for circulator pumps: 1"1/2 flat seal

Pivoting upwards or downwards.



Single distribution group with predisposition for circulator pump. Low temperature.

Dimension	Pcs. pack	Code
1L	1	28151804

To be completed with:

- thermostatic head code 90046750
- 3-points electric servomotor code 28157210

or

- 0-10 V DC electric servomotor code 28157220

Complete with pipe union to be installed downstream of the circulation pump.

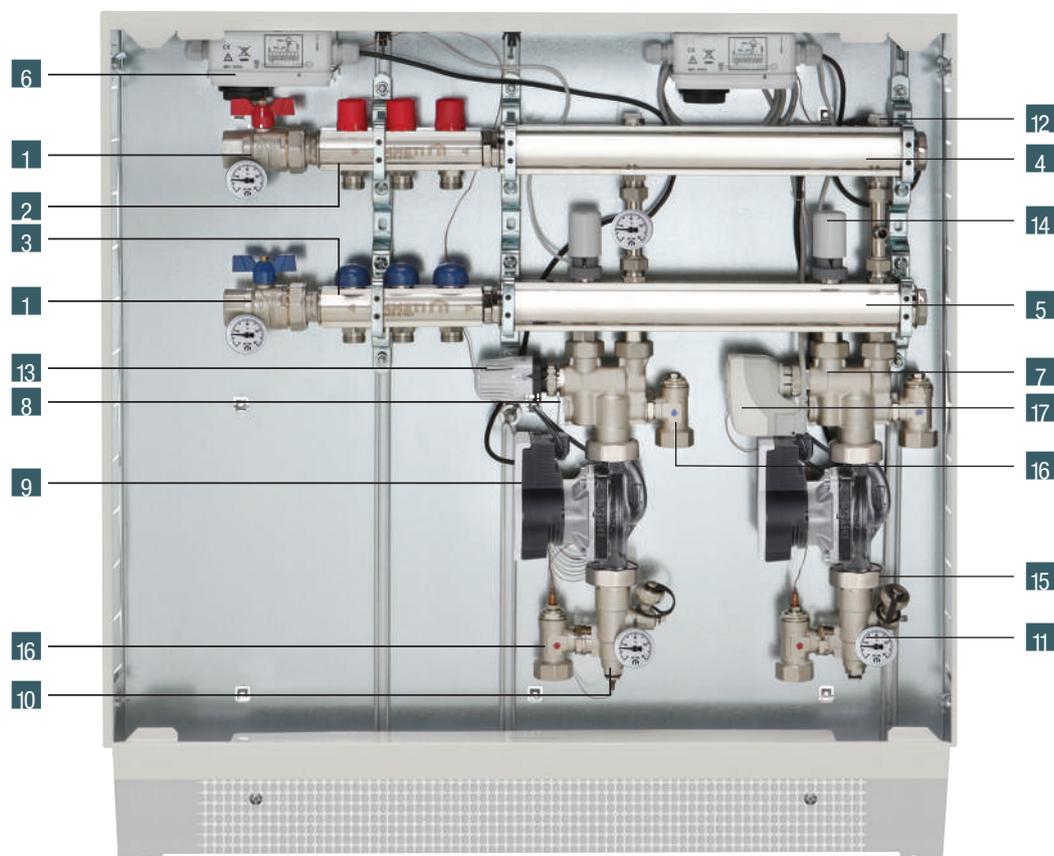
Connections for circulation pump: 1"1/2 F flat edge.

Combine with climatic regulator RCE or PCOC for heating and cooling.

Pivoting upwards or downwards. Delivered pre-assembled to bottom.

Modular Firstbox low temperature systems

Distribution groups for low temperature systems with auxiliary connections for high temperature terminals



The distribution system allows for the construction of systems with high temperature zones (radiators, fan coils) and low temperature zones (underfloor systems).

The distribution manifolds can be powered both from the right and from the left and the derivations can face upwards or downwards by reversing the power supply.

The non-return valves present on the individual modules prevent recirculation and eddy currents that keep the terminals hot and the supply circuits of the underfloor pump systems not all working.

To exclude the individual circuits with the pumps not running, there must be electrothermic heads or zone valves directly connected to the distribution manifolds.

In the models with electronic climate control, an individual low temperature zone is automatically managed by the climate regulator which, controlled by the ambient thermostat, acts directly on the mixing valve servomotor and excludes the zone circuit with the pump not running.

By using electrical boxes for the wiring of the high and low temperature circulators (not supplied as standard) controlled by the ambient thermostats of the zone, it is possible to make the operation of the system automatic.

Construction

- 1 Ball valve kit (not included)
- 2 Flow bar for radiators systems
- 3 Return bar for radiators systems
- 4 Flow bar for floor heating systems
- 5 Return bar for floor heating systems
- 6 Electrical box with safety thermostat for wiring low temperature circulator pump
- 7 Threaded mixing valve M30x1,5 for installation of a thermostatic head with immersion probe from 20 to 65 °C or an electric servomotor (not included)
- 8 By-pass and setting valve
- 9 Wilo Para 25/7 electronic circulator pump wired with threepole cable L=1000 mm
- 10 Housing for output temperature probe
- 11 Control thermometer from 0 to 80 °C
- 12 Manual air vent valve 1/2"
- 13 Nr. 1 thermostati head with immersion probe from 20 to 65 °C (fixed point adjustment, not included)
- 14 Thermo-electric actuator with auxiliary switch (optional) that isolates the area with circulator pump off
- 15 Fill and discharge bibcocks with adjustable connection and safety plug
- 16 Shutoff lockshield with housing for thermometer (or return probe with climatic regulation)
- 17 Electric servomotor 3 points or 0-10 V DC
- 18 Terminal kit with by-pass (not show in the picture and not supplied standard)

Dimensions: see section Technical Attachments page 482 and following

Modular Firstbox - Underboiler kit

Technical data

Threads UNI EN ISO 228-1
 Low temperature distribution manifold head threading: G 1 1/4 F
 High temperature distribution manifold head threading: G 1" F
 Individual zone derivation threading low temperature: G 1" F
 Individual zone derivation threading high temperature: 24x19
 Distribution manifold maximum temperature: 110 °C
 Maximum pressure: 10 bar
 Circulator pump connections: pipe union 1 1/2" - take off 130 mm.

Low temperature mixing unit

Maximum temperature of primary circuit: 90 °C
 Maximum pressure: 10 bar
 Δp maximum primary circuit: 1 bar
 Mixing unit regulation field: 20÷65 °C (fixed point regulation)
 Exchangeable thermal power (ΔT 7 °C, Δp useful 0,25 bar)
 Fixed point regulation: 10 kW by-pass pos. 0
 Fixed point regulation: 12.5 kW by-pass pos. 5
 Mixing valve load loss (fixed point regulation) Kv 3
 Load loss with bypass open valve (fixed point regulation) Kvmax 4,8
 Mixing unit head threading: G 1" M

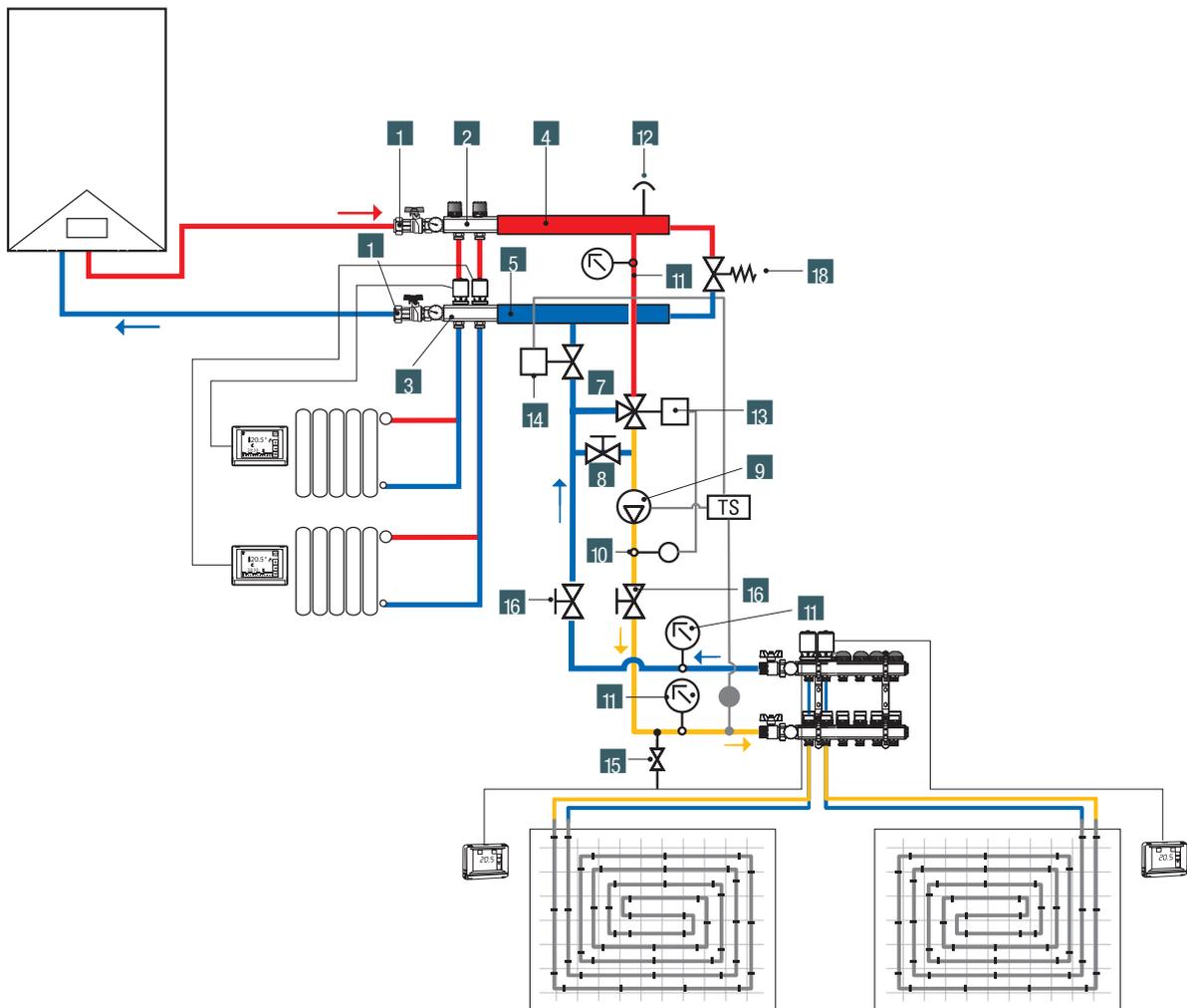
Wilo Para 25/7 circulator pump

Threads UNI EN ISO 228-1 (G 1/2)
 Takeoff 130 mm.
 Rotation speed: 2580÷4700 rpm
 Maximum head: 7 m
 Maximum flow: 3.5 m³/h
 Usable fluids:
 Cooling and heating water
 Water and glycol: max 1:1
 Electrical connection: 1-230 V +10% / -15%, 50/60 Hz
 Protection class: IPX 4D
 Insulation class: F
 Energy consumption: from 1-230 V: 8.2÷50 W
 Current absorbed at 1-230 V: 0.07 ÷0.44 A
 EEI ≤ 0,2

Circulatore compliance

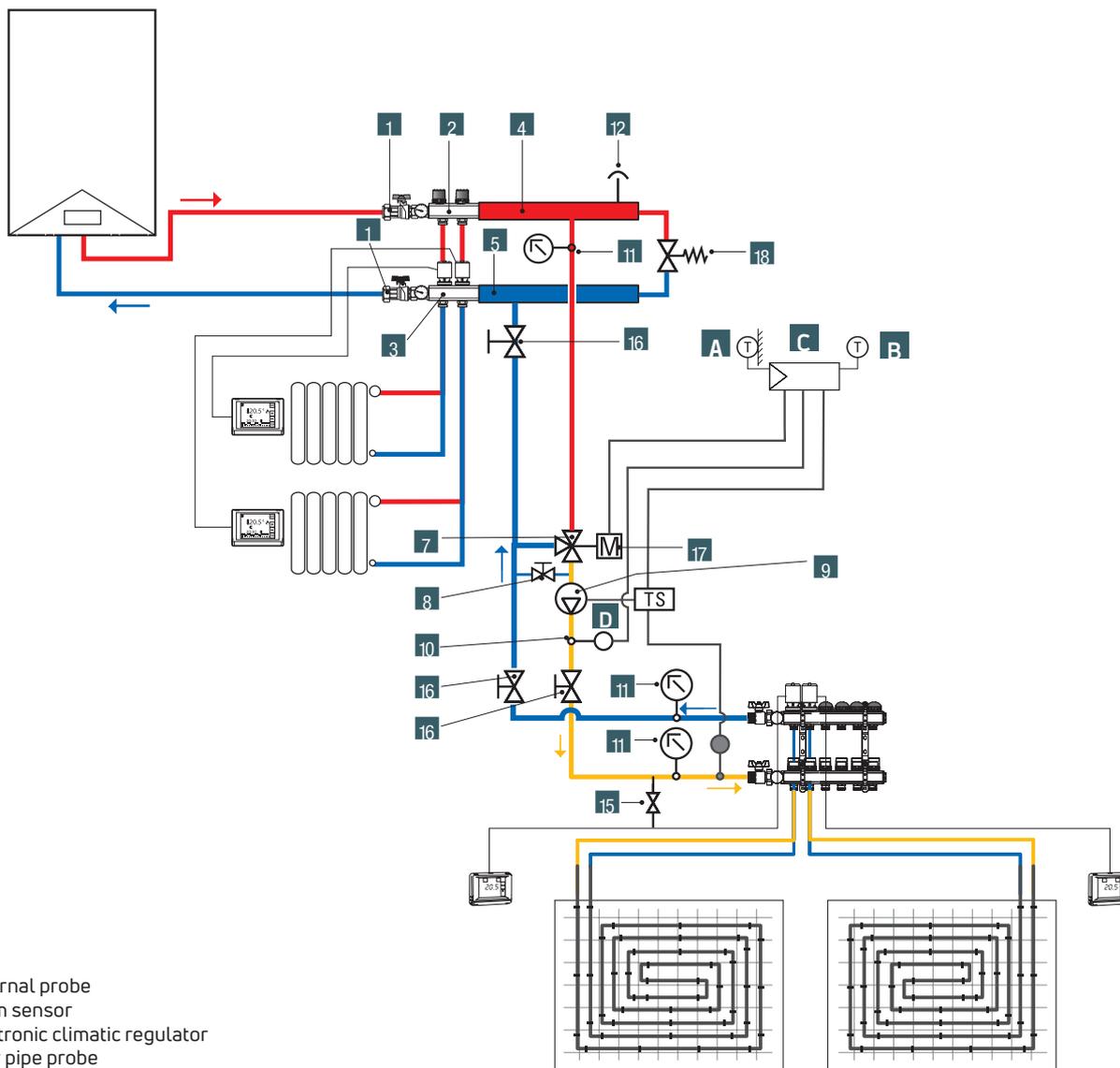
ErP Directive
 EN 61800-3
 EN 61000-6-3 / EN 61000-6-4
 EN 61000-6-2 / EN 61000-6-1
 2014/35/UE (low voltage)
 2014/30/UE (electromagnetic compatibility)

Hydraulic scheme - distribution system for low-temperature heating systems with auxiliary connections for high-temperature terminal. Fixed point adjustment.



Modular Firstbox - Underboiler kit

Hydraulic scheme - distribution system for low-temperature heating systems with auxiliary connections for high-temperature terminal. Climatic regulation.



- A external probe
- B room sensor
- C electronic climatic regulator
- D flow pipe probe



Distribution modules for low-temperature heating systems with mixing valve, auxiliary connections 2 or 3 high temperature radiators, electronic circulation pumps.

Dimension	Box	Pcs. pack	Code
(2+2)H + 1L	L 500	1	28151754
(3+3)H + 1L	L 700	1	28151756
(2+2)H + 2L	L 850	1	28151758
(3+3)H + 2L	L 850	1	28151760

To be completed with:

- thermostatic head with immersion probe code 90046750

or

- electric servomotor/s 3 points code 28157210

or

- electric servomotor/s 0-10 V DC code 28157220

Combine with RCE or PCOC climatic regulator for heating and cooling.

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the cassette and the wall.

Modular Firstbox - Underboiler kit



Distribution module with auxiliary connections for high temperature radiators.

Dimension	Pcs. pack	Code
(2+2)H + 1L	1	28151860
(3+3)H + 1L	1	28151862
(2+2)H + 2L	1	28151864
(3+3)H + 2L	1	28151866

To complete with couple of blind plug code 90005070



Regulation group low temperature with electronic circulator pump

Dimension	Pcs. pack	Code
1L	1	28151734

To be completed with:

- thermostatic head with immersion probe code 90046750

or

- electric servomotor/s 3 points code 28157210

or

- electric servomotor/s 0-10 V DC code 28157220

Combine with RCE or PCOC climatic regulator for heating and cooling.

Accessories for Modular Firstbox



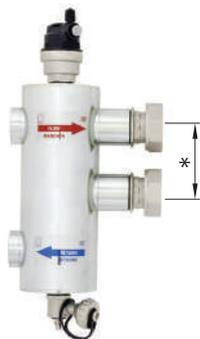
Right-angle valves kit

Dimension	Pcs. pack	Code
1"	1	01306190

Thread of body valve UNI EN 10226-1
Thread of pipe union UNI EN ISO 228-1

Technical data: see section "Accessories for Topway manifolds" page 159

Dimensions: see section Technical Attachments page 483



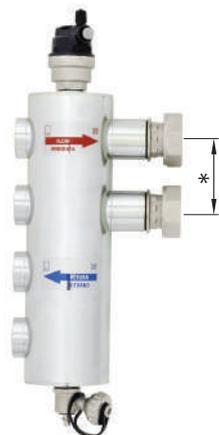
Open manifold 2+2

Dimension	Pcs. pack	Code
2"1/2	1	28151048

Complete with nr. 2 connection nipples 1" M - 1"1/4 F
(* Takeoff for Modular Firstbox)

Threads UNI EN ISO 228-1

Dimensions: see section Technical Attachments page 483



Open manifold 4+2 for Modular Firstbox

Size	Pcs. pack	Code
2"1/2 - 4+2 for Modular Firstbox	1	28151130

Complete with nr. 2 connection nipples 1" M - 1"1/4 F
(* Takeoff for Modular Firstbox)

Threads UNI EN ISO 228-1

Dimensions: see section Technical Attachments page 483



Pair of connection pipe union for Modular Firstbox

Dimension	Pcs. pack	Code
M 1" - F 1"1/4	2	01301240

Threads UNI EN ISO 228-1



Nickel-plated blind plug

Dimension	Pcs. pack	Code
1" M	10	90004830

Threads UNI EN ISO 228-1

Accessories for Modular Firstbox



Terminal kit with by-pass for Modular Firstbox with auxiliary connections for High temperature terminals

Overpressure valve adjustable from 0,2 to 0,5 bar

Dimension	Pcs. pack	Code
1"1/4	1	01306176

Threads UNI EN ISO 228-1
Item to be out of stock



Terminal kit with by-pass for steel and brass manifolds

Maximum working temperature: 110 °C.

Maximum working pressure: 6 bar.

Dimension	Pcs. pack	Code
For manifolds size 1"1/4 (*)	1	01307012

Thread UNI EN ISO 228-1

Dimensions and technical data: see section Technical Attachments page 462



Insulating shell for Modular Firstbox distribution groups 1 zone of High

Dimension	Pcs. pack	Code
1H	1	01306566

In closed-cell crosslinked expanded polyethylene.

For installation of the insulating shell, it's necessary to first remove the hydraulic assembly from the box (thus do not make the hydraulic and electrical connections before having installed the insulating shell). If the shell is being installed on an assembly inside a Metal-box metal box, it's recommended that the assembly be installed maintaining a distance of 135 mm between the back of the box and the wall.

Not combinable with distribution groups with auxiliary connections for radiators high temperature



Insulating shell for Modular Firstbox distribution groups 1 zone of Low

Dimension	Pcs. pack	Code
1L	1	01306568

In closed-cell crosslinked expanded polyethylene.

For installation of the insulating shell, it's necessary to first remove the hydraulic assembly from the box (thus do not make the hydraulic and electrical connections before having installed the insulating shell). If the shell is being installed on an assembly inside a Metal-box metal box, it's recommended that the assembly be installed maintaining a distance of 135 mm between the back of the box and the wall.

Not combinable with distribution groups with auxiliary connections for radiators high temperature



Insulating shell for Modular Firstbox open manifold

Dimension	Pcs. pack	Code
	1	01306564

In closed-cell crosslinked expanded polyethylene.

For installation of the insulating shell, it's necessary to first remove the hydraulic assembly from the box (thus do not make the hydraulic and electrical connections before having installed the insulating shell). If the shell is being installed on an assembly inside a Metal-box metal box, it's recommended that the assembly be installed maintaining a distance of 135 mm between the back of the box and the wall.

Suitable for open manifolds code 28151048 and 28151046.

Accessories for Modular Firstbox

Accessories for regulation groups



Thermostatic head with immersion probe for thermostatic regulation group

Setting: $20 \div 65$ °C - Size thread connection: M30x1,5

Dimension	Pcs. pack	Code
	1	90046750



Electric servomotor

3-Point Servomotor technical data

Type of operation: 3-position control - Nominal voltage: 230 Vac ($\pm 15\%$) - Nominal frequency: 50/60 Hz - Maximum consumption: 6 VA - Permissible room temperature: $0 \div 55$ °C - Maximum permissible fluid temperature: 110 °C - Nominal stroke: 2.5 mm (maximum 5.5 mm) - Stroke time (at 50/60 Hz, regarding a stroke of 2.5 mm): 150 s - Nominal force: 100 N - Degree of protection: IP40 according to EN 60529 - Insulation class: II according to EN 60730 - Threaded fitting size: M30x1.5

0-10 V Servomotor technical data

Type of operation: 0-10 V DC control - Nominal voltage: AC/DC 24 V ($\pm 20\%$ / $\pm 25\%$) - Nominal frequency: 50/60 Hz - Maximum consumption: 2 VA - Permissible room temperature: $1 \div 50$ °C - Maximum permissible fluid - emperature: 110 °C - Nominal stroke: 2.5 mm (maximum 5.5 mm) - Stroke time (at 50/60 Hz, regarding a stroke of 2.5 mm): 150 s - Nominal force: 100 N - Degree of protection: IP40 according to EN 60529 - Insulation class: III according to EN 60730 - Threaded fitting size: M30x1.5

Dimension	Pcs. pack	Code
3 points	1	28157212
0-10 V DC	1	28157222

Complete with adapter for installation of the flow probe (for climatic temperature control) inside the regulation group.

To be combined with RCE or PCOC climatic regulators for heating and cooling.

Electronic system for electro-thermic actuators



Basic wiring box 6T

Electronic system for electrothermal heads, comprised of a basic junction box and additional extension;

Power supply 230 V or 24 V;

Direct power supply to the normally closed electrothermal heads (at the same power supply voltage as the junction box);

Direct connection to the environment thermostats (at the same power supply voltage as the junction box);

Connection of up to six electrothermal heads (configured at high or low temperature);

Connection of up to six environment thermostats;

Connection for low temperature circulating pump;

Connection for heat source activation;

Adjustable safety thermostat ($30 \div 60$ °C);

Safety thermostat contact;

Circulating pump anti-blocage function.

Dimension	Pcs. pack	Code
Basic wiring box 6T	1	28130616

Accessories for Modular Firstbox

Electric boxes



Electric box with safety thermostat for pump cable low temperature

Bulb length: 65 mm - Bulb diameter: 7 mm - Setting: 0+60 °C ± 3
 Contacts: 400 V 16(4) A - Differential: 4 °C

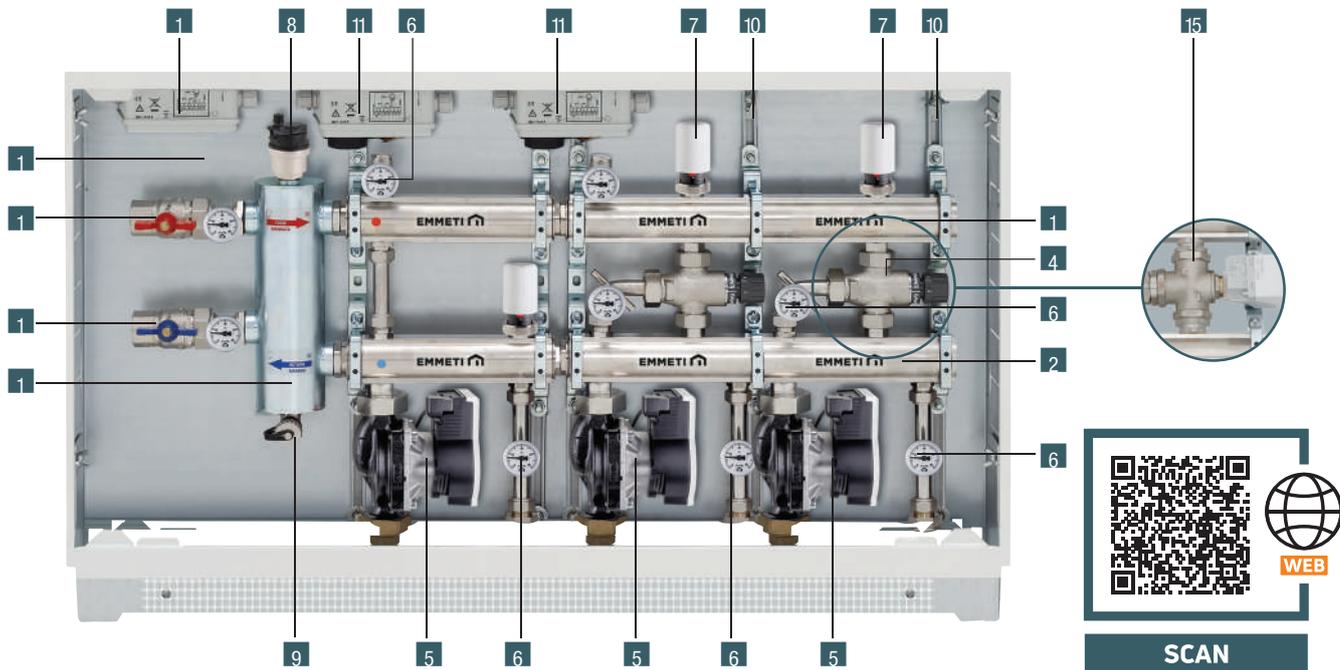
Dimension	Pcs. pack	Code
	1	28130632

Guidelines for choosing the climatic regulation components to be combined with the pre-assembled groups **Modular Firstbox**.

Components	Type of application			
	Heating / Cooling with 3-points servomotor		Heating / Cooling with 0-10 Vdc servomotor	
 28139070 - Section 5	1		1	
 PCOC - Section 5		1		1
 28157212 Section 4	1	1		
 28157222 Section 4			1	1
 28130632 - Section 4	1	1	1	1

Firstbox

Distribution groups for high-low temperature systems,
with electronic circulation pumps



Construction

- 1 nr. 1 flow bar
- 2 nr. 1 return bar
- 3 Open manifold
- 4 3-ways thermostatic mixing valve (fixing point versions)
- 5 Electronic circulator pump Wilo Para RS 25/7
- 6 Control thermometers 0-80 °C
- 7 Regulation valves for electric heads (optional)
- 8 Automatic air vent valve 1/2"
- 9 Drain bibcocks with adjustable connection and safety plug
- 10 Fixing bar brackets
- 11 Electric box with capillary safety thermostat for regulation low temperature pump (optional)
- 12 Electric box for regulation height temperature pump (optional)
- 13 Progress kit valve (optional)
- 14 Metal cabinet Metalbox Plus (optional)
- 15 Mixing valve with electric servomotor (climatic versions, 3 points or 0-10 V DC electric servomotor to buy separately)

Function conditions

Max operating temperature 90 °C (110 °C*)
Max operating pressure 6 bar (10 bar*)
(* con circolatori idonei a tali prestazioni)

Technical data of thermostatic mixer valve

Range of regulation: 25 °C - 55 °C*

* Nominal conditions: TH = 65 °C; TC = 15 °C;

$$\Delta p_{H-MIX} = \Delta p_{C-MIX}$$

$$Kv = 1,8 \div 3,3$$

H; C; Mix: see hydraulic scheme

Technical data for mixer valve activated by 3-point electric servomotor

Kv = 3

Range of adjustment: 15 ÷ 60 °C (*)

(*) with the following conditions:

TH = 65 °C

TC = 15 °C

$$\Delta p_{H-MIX} = \Delta p_{C-MIX}$$

H; C; Mix: see hydraulic scheme

Connections

Thread (built-in modules/Open manifold side): 1"

Thread (auxiliary connections for 2 or 3 high-temperature heating bodies): 1" F

Thread (single modules): 1 1/4" F

Zone connections thread: 3/4" F

Branch connections thread for high-temperature heating bodies:

M 24x19

Material of distribution modules

Brass from drawn bar TN UNI EN 12168 CW614N

Brass UNI EN 12165 CW 617 N

Annealed copper

Gasket o-rings EPDM 70 Sh

Flow and return manifolds

Size: 1 1/4"

Thread: G 1 1/4"

Open manifold

Zinc-plated sandblasted steel UNI EN 13134

Lateral connections 1" F

Auxiliary connections 1/2" F

Firstbox - Under boiler kit

Wilco Para 25/7 circulator pump

Threads UNI EN ISO 228-1 (G 1/2)
Takeoff 130 mm.
Rotation speed: 2580÷4700 rpm
Maximum head: 7 m
Maximum flow: 3.5 m³/h
Usable fluids:
Cooling and heating water
Water and glycol: max 1:1
Electrical connection: 1-230 V +10% / -15%, 50/60 Hz
Protection class: IPX 4D
Insulation class: F
Energy consumption: from 1-230 V: 8.2÷50 W
Current absorbed at 1-230 V: 0.07 ÷ 0.44 A

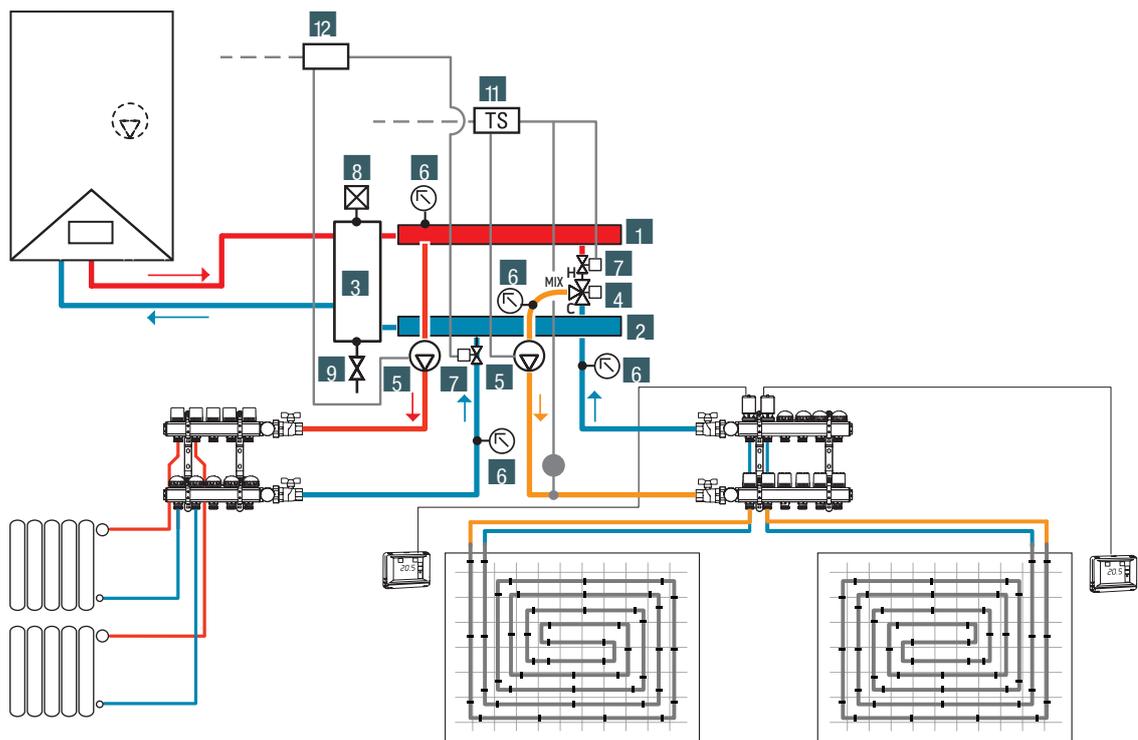
The range

- Firstbox H - distribution modules for high temperature zones
- Firstbox L - distribution modules for low temperature zones
- Firstbox H+L - distribution modules for high and low temperature zones
- Recessed distribution modules for high/low temperature systems, provided pre-assembled in recessed metallic box complete with enamelled door and frame
- Single distribution modules, provided with fastening brackets, to be assembled using joint nipples M-M 1"1/4

In confirm to:

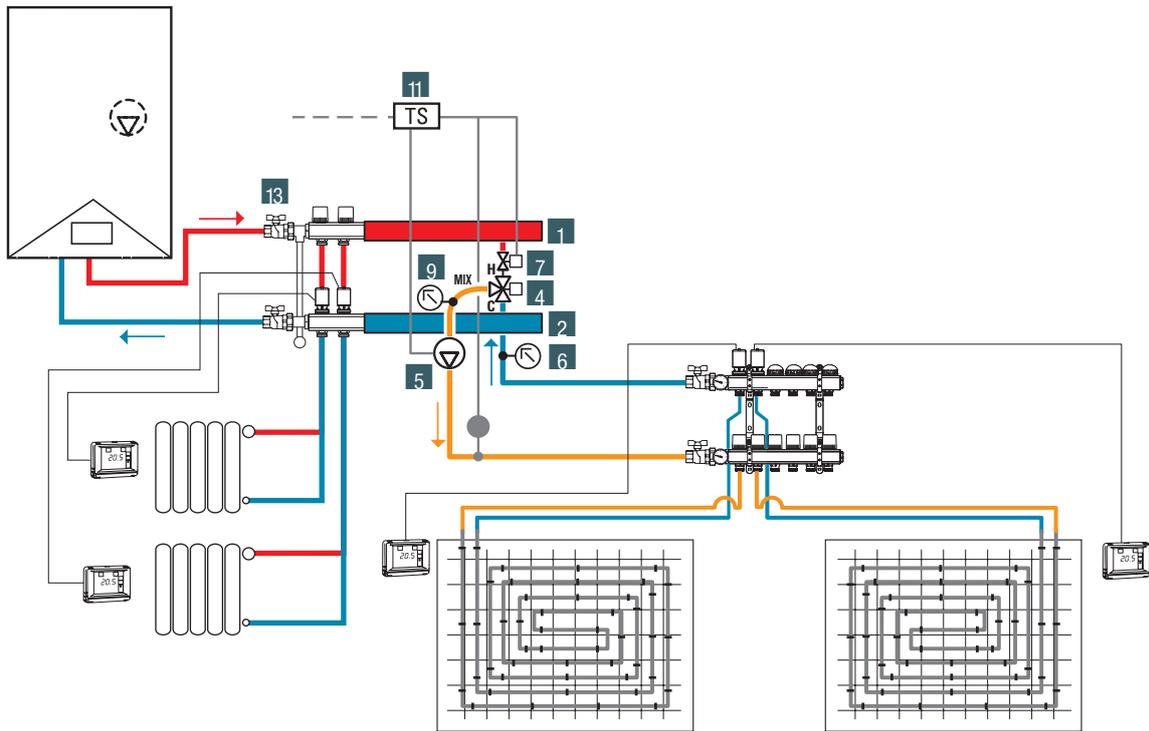
ErP Directive
EN 61800-3
EN 61000-6-3 / EN 61000-6-4
EN 61000-6-2 / EN 61000-6-1
2014/35/UE (low voltage)
2014/30/UE (electromagnetic compatibility)

Hydraulic scheme - Modules with open manifold - Thermostatic regulation

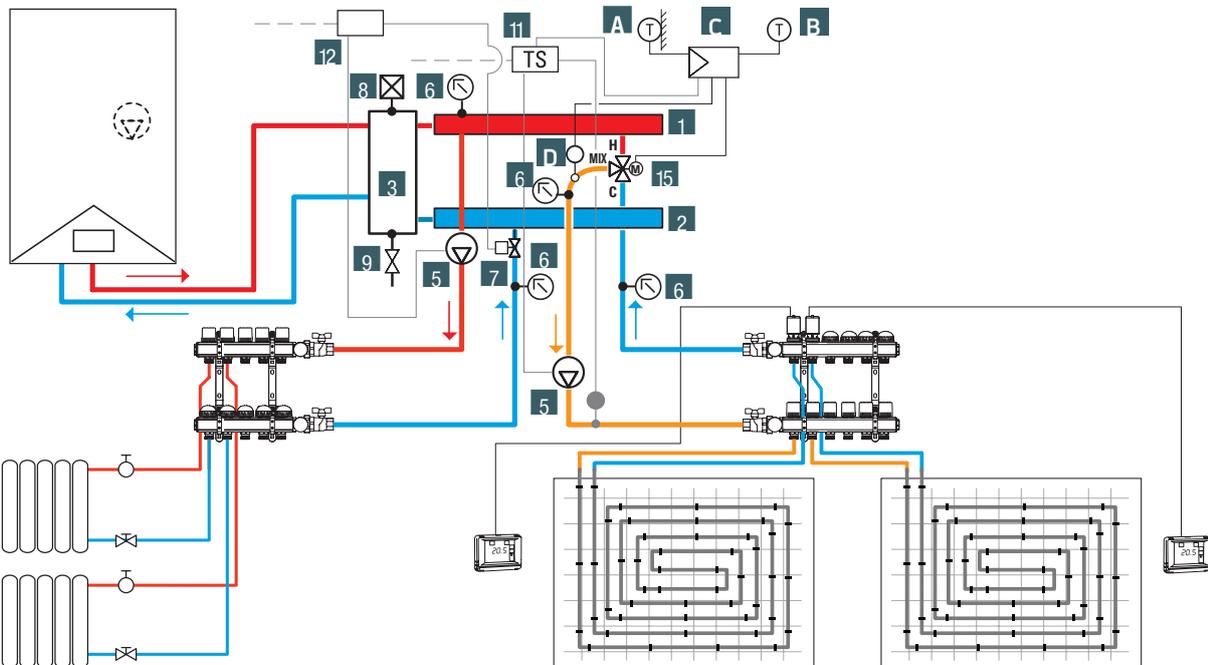


Firstbox - Under boiler kit

Hydraulic scheme - Modules for low temperature heating systems with auxiliary connections for high temperature terminals. Thermostatic regulation



Hydraulic scheme - Modules with open manifold - Climatic regulation



- A** external probe
- B** room sensor
- C** electronic climatic regulator
- D** flow pipe probe

Firstbox - Under boiler kit



Single distribution groups with below electronic circulator pumps. High temperature

Dimension	Pcs. pack	Code
1H	1	28151710
2H	1	28151712

Keep the high temperature modules near the open manifold or boiler.



Single distribution groups with below electronic circulator pumps. Low temperature. Thermostatic regulation

Dimension	Pcs. pack	Code
1L	1	28151714
2L	1	28151716

Keep the high temperature modules near the open manifold or boiler.



Single distribution modules with lower electronic circulation pump. Low temperature. Mixer valve set up for operation by means of electric servomotor.

Dimension	Pcs. pack	Code
1L	1	28151718

Keep the high-temperature modules near the open collector or boiler.

To be completed with:

- 3-point electric servomotor(s) code 28157210

or

- 0-10 V DC electric servomotor(s) code 28157220

Combine with the electronic climatic regulation kit for heating only code 28139060 or PCO regulators for heating and cooling.



Single distribution groups with predisposition for below circulator pump. High temperature.

Dimension	Pcs. pack	Code
1H	1	28151300
2H	1	28151304

Keep the high temperature modules near the open manifold or boiler.

Supplied with pipe union to install below the circulator pump/s.

Connections for circulator pumps: 1"1/2 flat seal



Single distribution groups with predisposition for below circulator pump. Low temperature. Thermostatic regulation

Dimension	Pcs. pack	Code
1L	1	28151302
2L	1	28151306

Keep the high temperature modules near the open manifold or boiler.

Supplied with pipe union to install below the circulator pump/s.

Connections for circulator pumps: 1"1/2 flat seal

Accessories for Firstbox



Right-angle valves kit

Dimension	Pcs. pack	Code
1"	1	01306190

Thread of body valve UNI EN 10226-1
Thread of pipe union UNI EN ISO 228-1

Technical data: see section "Accessories for Topway manifolds" page 159



Open manifold 2+2 for Firstbox

Dimension	Pcs. pack	Code
2"1/2	1	28151040

Supplied with nr. 2 connection nipples reduced 1"1/4 - 1", air vent valve and drain valve.
Volume: 1 lt

Thread UNI EN ISO 228-1

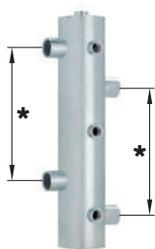


Open manifold 4+2 for Firstbox

Dimension	Pcs. pack	Code
2"1/2 - 4+2	1	28151042

Complete with: nr. 2 reduced nipple joint 1"1/4 - 1", air vent valve and adjustable drain bibcocks.

Thread UNI EN ISO 228-1



Open manifold 2+2 S, takeoff Firstbox

Dimension	Ways	Pcs. pack	Code
3"	2+2+5 S	1	07400284

Made in zinc-plated steel welding UNI EN13134. Lateral connections Female 1"1/4 - Auxiliar connection Female 1/2". Max operating pressure: 8 bar.

* Takeoff Firstbox 159 mm.

Thread UNI EN ISO 228-1



Connection nipple

Dimension	Pcs. pack	Code
M - M 1"1/4	6	01306430
Reduced 1"1/4 - 1"	4	01306432

Thread UNI EN ISO 228-1



Nickel-plated blind plug

Dimension	Pcs. pack	Code
1" 1/4 M with O-Ring	10	90005070

Thread UNI EN ISO 228-1

Accessories for Firstbox



Insulating shell for Firstbox distribution groups

Dimension	Pcs. pack	Code
1H pump below	1	01306514
1L pump below	1	01306516

In closed-cell crosslinked expanded polyethylene.

For installation of the insulating shell, it's necessary to first remove the hydraulic assembly from the box (thus do not make the hydraulic and electrical connections before having installed the insulating shell). If the shell is being installed on an assembly inside a Metal-box metal box, it's recommended that the assembly be installed maintaining a distance of 135 mm between the back of the box and the wall.

To be combined with the "RCFH electronic climatic regulation Kit" code 28139060 for heating only, or with PCO climatic regulators for heating and cooling.

DO NOT USE for Modular Firstbox.



Insulating shell for Firstbox open manifold

Size	Pcs. pack	Code
	1	01306512

In mesh expanded closed cell polyethylene.

For the installation of the insulating shell, you must first remove the plumbing assembly from the box. Therefore, do not make plumbing and electrical connections before installing the insulating shell). Also position the frame of the box at a distance of at least 135 mm from the bottom of the box itself.



Electric servomotor

3-Point Servomotor technical data

Type of operation: 3-position control - Nominal voltage: 230 Vac ($\pm 15\%$) - Nominal frequency: 50/60 Hz - Maximum consumption: 6 VA - Permissible room temperature: 0 \div 55 °C - Maximum permissible fluid temperature: 110 °C - Nominal stroke: 2.5 mm (maximum 5.5 mm) - Stroke time (at 50/60 Hz, regarding a stroke of 2.5 mm): 150 s - Nominal force: 100 N - Degree of protection: IP40 according to EN 60529 - Insulation class: II according to EN 60730 - Threaded fitting size: M30x1.5

0-10 V Servomotor technical data

Type of operation: 0-10 V DC control - Nominal voltage: AC/DC 24 V ($\pm 20\%$ / $\pm 25\%$) - Nominal frequency: 50/60 Hz - Maximum consumption: 2 VA - Permissible room temperature: 1 \div 50 °C - Maximum permissible fluid - emperature: 110 °C - Nominal stroke: 2.5 mm (maximum 5.5 mm) - Stroke time (at 50/60 Hz, regarding a stroke of 2.5 mm): 150 s - Nominal force: 100 N - Degree of protection: IP40 according to EN 60529 - Insulation class: III according to EN 60730 - Threaded fitting size: M30x1.5

Dimension	Pcs. pack	Code
3 points	1	28157212
0-10 V DC	1	28157222

Complete with adapter for installation of the flow probe (for climatic temperature control) inside the regulation group.

To be combined with RCE or PCOC climatic regulators for heating and cooling.

Electronic system for electro-thermic actuators



Basic wiring box 6T

Electronic system for electrothermic heads, comprised of a basic junction box and additional extension;

Power supply 230 V or 24 V;

Direct power supply to the normally closed electrothermal heads (at the same power supply voltage as the junction box);

Direct connection to the environment thermostats (at the same power supply voltage as the junction box);

Connection of up to six electrothermal heads (configured at high or low temperature);

Connection of up to six environment thermostats;

Connection for low temperature circulating pump;

Connection for heat source activation;

Adjustable safety thermostat (30 \div 60 °C);

Safety thermostat contact - Circulating pump anti-blocage function.

Dimension	Pcs. pack	Code
Basic wiring box 6T	1	28130616

Accessories for Firstbox

Electric boxes



Electric box with safety thermostat for pump cable low temperature

Bulb length: 65 mm - Bulb diameter: 7 mm - Setting: $0 \pm 60 \text{ }^\circ\text{C} \pm 3$ - Contacts: 400 V 16(4) A - Differential: $4 \text{ }^\circ\text{C}$

Dimension	Pcs. pack	Code
	1	28130632

Guidelines for choosing the climatic regulation components to be combined with the pre-assembled groups :
Floor Control Unit HE, M3V HE and Modular Firstbox.

Components	Type of application			
	Heating / Cooling with 3-points servomotor		Heating / Cooling with 0-10 Vdc servomotor	
<p>28139070 - Section 5</p>	1		1	
<p>PCOC - Section 5</p>		1		1
<p>28157212 Section 4</p>	1	1		
<p>28157222 Section 4</p>			1	1
<p>28130632 - Section 4</p>	1	1	1	1



Regulation and control



> Sintesi
Wall Wi-Fi
Chronothermostat



..... **221**

> Termec EVO
and Termec
room
thermostat



..... **232**

> Sintesi
Mini Wi-Fi
Chronothermostat



..... **223**

> Electronic
room thermostat



..... **233**

> SINTESI
Wall Wi-Fi RF
Chronothermostat



..... **224**

> Wall
chronothermostat
with humidistat



..... **235**

> Radiofrequency
actuator



..... **225**

> Wall-mounted
electronic
humidistat



..... **236**

> SINTESI
Touch screen
Chronothermostats
and Thermostats



..... **227**

> Radiofrequency
thermoregulation



..... **237**

> Smarty
Touch screen
Chronothermostats
and Thermostats



..... **228**

> RCE
Emmeti
Climatic Regulator



..... **243**

> Wall-mounted
touch screen
Chronothermostats
and Thermostats



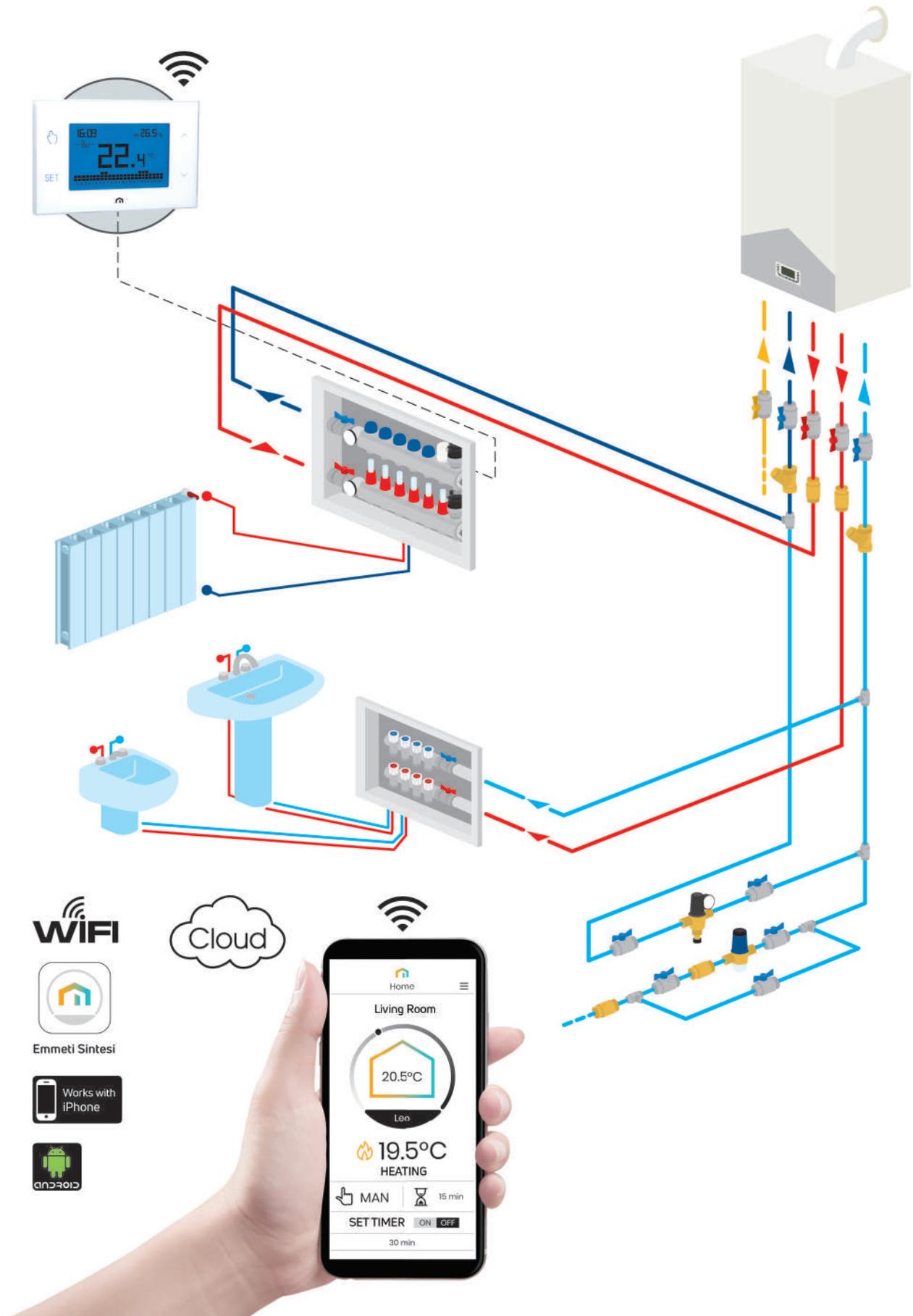
..... **230**

> PCOC
modular
climatic
regulator



..... **247**

Example of installation



WIFI

Cloud



Emmeti Sintesi



SINTESI Wall Wi-Fi

Weekly chronothermostat with Wi-Fi



Electronic chronothermostat with Wi-Fi connection, weekly programming and wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer).

The free App, available on the AppStore and Google Play, also allows programming and complete control from your Smartphone or Tablet. Any alarm situations are reported by sending an email to the specified address.

The keyboard consists of four touch keys located on the sides of the display.

- 1 Plastic base for wall installation or cover on 3-module flush-mounted box
- 2 Large backlit display to view the measured temperature and set programming
- 3 Backlit touch keys on the sides of the display
- 4 Terminal block on the back of the device for charging and power connection
- 5 Built-in Wi-Fi module compatible with standard 802.11 b/g/n

Free Emmeti Sintesi App available for iOS and Android systems



Compatible with Google Home and Amazon Echo



Emmeti Sintesi



Technical data

Installation: wall or cover on standard 503 type box
230Vac power supply (-15% ÷ +10%) 50/60Hz, maximum consumption: 6 VA / 230Vac

Relay capacity at 250 Vac: 5 A

Operating mode: summer/winter/off

Control type: ON/OFF or proportional

Differential: 0.1 ÷ 1 °C

Programming: weekly, minimum interval 1 hour

Settable temperatures: 3 + manual + anti-freeze

Settable setpoint: 2 ÷ 50 °C

Measured temperature resolution: 0.1°C

Measurement accuracy: 0.5°C

Antifreeze temperature (excludable): 1 ÷ 50°C

Start-up delay: 15, 30 or 45 minutes

Clock accuracy: ± 1 s/day

Keyboard lock with password to prevent unauthorised changes

Automatic summer/winter time change and automatic date and time synchronisation when connected to the network

Blue backlit touch screen

Operating temperature: 0 ÷ 50 °C

Storage temperature: -10 ÷ 65 °C

Operating humidity: 20% ÷ 90% non-condensing RH

Degree of protection: IP40

Delegated regulation (EU) no. 811/2013; annex IV-3:

- Class of the temperature control device: Class 4; Class IV

- Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

The Emmeti Sintesi App allows you to remotely control the thermostat using your Smartphone or Tablet.

In detail:

- turn on and off the air conditioning system;
- create and change the weekly programs;
- change the operating temperature values;
- simplify programming by copying and pasting a program over several days;
- set holidays when the system remains off;
- configure email address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
- lock keyboard operation ("local operation lock"), allowing for the device to be controlled only from the App itself.

Dimensions: see section Technical Attachments page 485



Weekly chronothermostat with Wi-Fi

Model	Pcs. pack	Code
SINTESI Wall Wi-Fi	1	02018146

SINTESI Wall Wi-Fi with battery

Battery-powered Wi-Fi weekly chronothermostat



Electronic chronothermostat with Wi-Fi connection, with battery power, weekly programming and wall installation, designed for adjusting the room temperature both in heating mode (winter) and in air conditioning mode (summer).

The free app, available on the AppStore and Google Play, allows programming and complete control even from your smartphone or tablet. The energy saving function allows you to set the daily frequency with which the programmable thermostat connects to the cloud, thus optimizing battery life.

Any alarm situations such as exceeding temperature limits or approaching battery discharge are reported by sending an email to the specified address or via notification in the app. The keypad consists of four touch keys located on the sides of the display.

- 1 Plastic base for wall installation or to cover the 3-module recessed box
- 2 Large backlit display for viewing the measured temperature and the set programming
- 3 Backlit touch keys on the sides of the display
- 4 Terminal block on the back of the device for connecting the load and power supply
- 5 Integrated Wi-Fi module compatible with 802.11 b / g / n standard

Free Emmeti Sintesi App available for iOS and Android systems

Dimensions: see section Technical Attachments page 485



Compatible with Google Home and Amazon Echo



Emmeti Sintesi



Technical data

Fixing: to the wall or to cover on a standard 503 type box
 Power supply 4 1.5 V AA alkaline non-rechargeable batteries (not supplied). With standard setting (update every 8 hours) and nominal conditions of the Wi-Fi network, the estimated battery life is 36 months. - Relay capacity at 250 Vac: 5 A
 Operating modes: summer / winter / off
 Type of regulation: ON / OFF or proportional
 Differential: 0.1 ÷ 1 °C
 Programming: weekly, minimum interval 1 hour
 Settable temperatures: 3 + manual + antifreeze
 Settable setpoint: 2÷50 °C - Resolution of measured temperature: 0.1 °C
 Measurement accuracy: 0.5 °C
 Antifreeze temperature (excludable): 1 ÷ 50 °C
 Ignition delay: 15, 30 or 45 minutes
 Clock accuracy: ± 1 s / day
 Keypad lock with password to prevent changes by unauthorized persons
 Automatic change of daylight saving time and automatic synchronization of date and time when connected to the network

Dimensions LxHxP: 130x85x28 mm
 Blue backlit touch screen
 Operating temperature: 0 ÷ 50 °C
 Storage temperature: -10 ÷ 65 °C
 Operating humidity: 20% ÷ 90% RH non condensing
 Degree of protection: IP40
 Delegated regulation (EU) n. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4; Class IV
 - Contribution of the temperature control device to seasonal space heating energy efficiency in%: 2%

The Emmeti Sintesi application allows you to remotely control the thermostat using your smartphone or tablet.

In detail:

- turn on and off the air conditioning system;
 - create and modify weekly programs;
 - change the values of the operating temperatures;
 - simplify programming thanks to the copy-paste of a program over several days;
 - set some holiday days in which the system remains off;
 - configure e-mail address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
 - block operation from the keyboard ("local operation block"), allowing the device to be controlled only from the App itself.
- Interval between two connections to the cloud: 10 min - 8 h



Wi-Fi weekly chronothermostat

Model	Pcs. pack	Code
SINTESI Wall Wi-Fi with battery	1	02018168

SINTESI Mini Wi-Fi

Built-in weekly chronothermostat with Wi-Fi



Electronic chronothermostat with Wi-Fi connection, weekly programming and installation on a flush-mounted box with a space of only 2 modules, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer). The free App, available on AppStore and Google Play, allows programming and full control from your Smartphone or Tablet. Any alarm situations are reported by sending an email to the specified address.

- 1 Installation on flush-mounted boxes with a height of 45 mm
- 2 Adapters supplied to install the device with the plates of the main civil series
- 3 White LED display for temperature display and red LED for status indication
- 4 Terminal block on the back of the device for charging and power connection
- 5 Built-in Wi-Fi module compatible with 802.11 b/g/n

Free Emmeti Sintesi App available for iOS and Android systems



Compatible with Google Home and Amazon Echo



Emmeti Sintesi



Technical data

Installation: flush-mounted with only 2 modules in the box type 503
 230Vac power supply (-15% ÷ +10%) 50/60Hz, maximum consumption: 6 VA / 230Vac
 Relay capacity at 250 Vac: 5 A - Operating mode: summer/winter/off
 Control type: ON/OFF or proportional - Differential: 0.1 ÷ 1 °C
 Programming: weekly, minimum interval 1 hour
 Settable temperatures: 3 + manual + anti-freeze
 Settable setpoint: 2 ÷ 50 °C - Measured temperature resolution: 0.1°C
 Measurement accuracy: 0.5°C
 Antifreeze temperature (excludable): 1 ÷ 50°C
 Start-up delay: 15, 30 or 45 minutes - Clock accuracy: ± 1 s/day
 Automatic summer/winter time change and automatic synchronisation of date and time when connected to the network
 Emergency control with manual operation and setting of the setpoint using the button on the device in case of lack of Wi-Fi connection
 Operating temperature: 0 ÷ 50 °C - Storage temperature: -10 ÷ 65 °C
 Operating humidity: 20% ÷ 90% non-condensing RH
 Degree of protection: IP40
 Delegated regulation (EU) no. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4; Class IV
 - Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

The Emmeti Sintesi App allows you to remotely control the thermostat using your Smartphone or Tablet.

In detail:

- turn on and off the air conditioning system;
- create and change the weekly programs;
- change the operating temperature values;
- simplify programming by copying and pasting a program over several days;
- set holidays when the system remains off;
- configure email address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
- lock keyboard operation ("local operation lock"), allowing for the device to be controlled only from the App itself.

Adaptors included for use with the following plates:

ABB: Mylos

AVE: S44

BTICINO: Axolute, Axolute AIR, Light, Living International, LivingLight, LivingLight AIR, Matrix

GEWISS: Chorus

VIMAR: Arkè, Eikon, Eikon Evo, Plana

Dimensions: see section Technical Attachments page 485



Built-in weekly chronothermostat with Wi-Fi

Model	Pcs. pack	Code
SINTESI Mini Wi-Fi	1	02018150

Available on request

SINTESI Wall Wi-Fi RF

Weekly chronothermostats with Wi-Fi and radio frequency



Electronic chronothermostat with Wi-Fi connection and radio frequency module, weekly programming and wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer).

The free App, available on the AppStore and Google Play, also allows programming and complete control from your Smartphone or Tablet. Any alarm situations are reported by sending an email to the specified address.

The heat generator can be activated by means of a remote actuator (controlled by sending a radio frequency signal), or by cable (thanks to the on-board relay).

The keyboard consists of four touch keys located on the sides of the display. The display backlight colour can be customised by the user.

- 1 Plastic base for wall installation or cover on 3-module flush-mounted box
- 2 Large backlit display to view the measured temperature and humidity and set programming
- 3 Backlit touch keys on the sides of the display
- 4 Terminal block on the back of the device for charging and power connection
- 5 Built-in Wi-Fi module compatible with standard 802.11 b/g/n
- 6 Built-in radio frequency module to send control signals to the remote actuators

Free Emmeti Sintesi App available for iOS and Android systems



Compatible with Google Home and Amazon Echo



Emmeti Sintesi



Technical data

Installation: wall or cover on standard 503 type box
230Vac power supply (-15% ÷ +10%) 50/60Hz, maximum consumption: 6 VA / 230Vac - Relay capacity at 250 Vac: 5 A

Operating mode: summer/winter/off

Control type: ON/OFF, proportional or setpoint sending for autonomous management of the radio frequency actuator

Differential: 0.1 ÷ 1 °C - Programming: weekly, minimum interval 1 hour;

Settable temperatures: 3 + manual + anti-freeze

Settable setpoint: 2 ÷ 50 °C

Measured temperature resolution: 0.1°C

Measurement accuracy: 0.5°C

Antifreeze temperature (excludable): 1 ÷ 50°C

Start-up delay: 15, 30 or 45 minutes - Clock accuracy: ± 1 s/day

Relative humidity display: range 20÷90%

Keyboard lock with password to prevent unauthorised changes

Automatic summer/winter time change and automatic date and time synchronisation when connected to the network

Operating temperature: 0 ÷ 50 °C - Storage temperature: -10 ÷ 65 °C

Operating humidity: 20% ÷ 90% non-condensing RH

Degree of protection: IP40

Touch screen with configurable backlight: always off, colour of choice between 48 possible shades or variable between red, green and blue depending on the difference between the measured temperature and the set temperature.

Compatible with both DIN bar and chronothermostatic radio frequency actuators for thermostatic valves

Maximum distance between SINTESI WALL WI-FI RF and radio frequency actuator: 50 metres in free range

Delegated regulation (EU) no. 811/2013; annex IV-3:

- Class of temperature control device: Class 4; Class IV

- Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

The Emmeti Sintesi App allows you to remotely control the thermostat using your Smartphone or Tablet.

In detail:

- turn on and off the air conditioning system;
- create and change the weekly programs;
- change the operating temperature values;
- simplify programming by copying and pasting a program over several days;
- set holidays when the system remains off;
- configure email address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
- lock keyboard operation ("local operation lock"), allowing for the device to be controlled only from the App itself.

Dimensions: see section Technical Attachments page 485



Weekly chronothermostat with Wi-Fi and radio frequency

Model	Pcs. pack	Code
SINTESI Wall Wi-Fi RF	1	02018148
Item available on request		

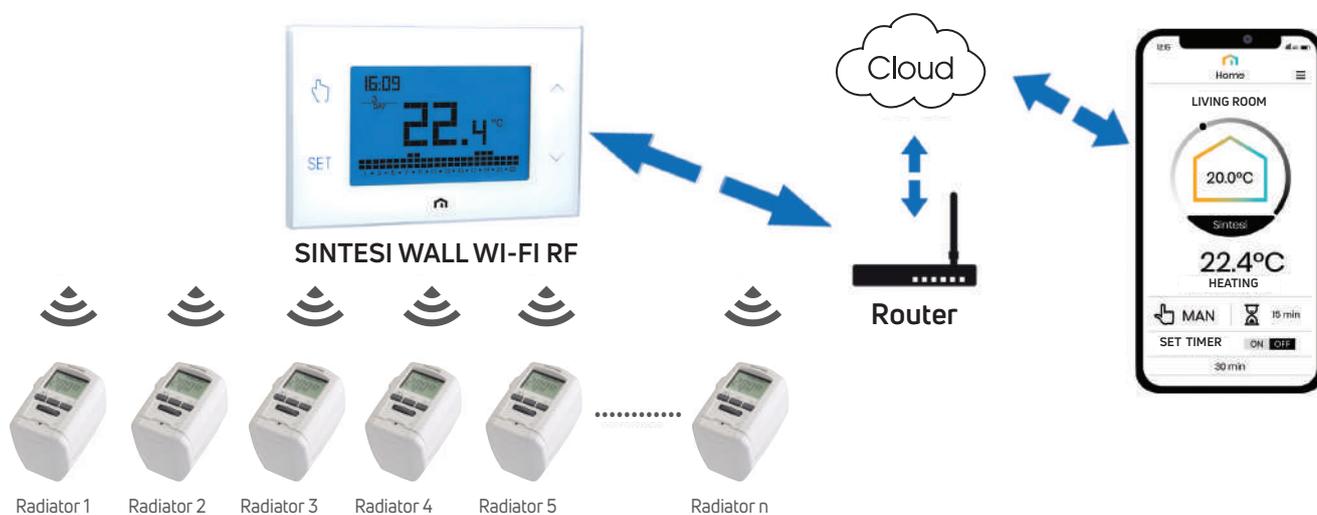
Weekly chronothermostats with Wi-Fi and radio frequency



Electronic radio frequency programmable thermostatic actuator for radiator valves

Description	Pcs. pack	Code
Electronic radio frequency programmable thermostatic actuator for radiator valves	1	02018094

Can be combined with: Tris 3 thermostatic valves, Full and Poker thermostatic and manual valves, 3/4" and 1" thermostatic valves.



SINTESI chronothermostat

Weekly chronothermostat with touch screen



Electronic chronothermostat with backlit touch screen display, weekly programming and wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer). The keyboard consists of four icons located in the lower part of the touch screen display.

Available in mains or battery powered versions

- 1 Plastic base for wall installation or cover on 3-module flush-mounted box.
- 2 Large backlit display to view the measured temperature and set programming
- 3 Touch-screen keyboard in the lower part of the display
- 4 Terminal block on the back of the device for charging and power connection (230 Vac version) or external contact (battery version).
- 5 Frame

Dimensions: see section Technical Attachments page 485

Technical Data

Installation: wall or cover on standard 503 type box

Operating mode: summer/winter/off

Control type: ON/OFF or proportional

Differential: $0.1 \div 1^\circ\text{C}$

Programming: weekly, minimum interval 1 hour

Settable temperatures: 3 + manual + anti-freeze

Settable setpoint: $2 \div 50^\circ\text{C}$

Measured temperature resolution: 0.1°C

Measurement accuracy: 0.5°C

Antifreeze temperature (excludable): $1 \div 50^\circ\text{C}$

Start-up delay: 15, 30 or 45 minutes

Clock accuracy: $\pm 1 \text{ s/day}$

Keyboard lock with password to prevent unauthorised changes

Operating temperature: $0 \div 50^\circ\text{C}$

Storage temperature: $-10 \div 65^\circ\text{C}$

Operating humidity: 20% \div 90% non-condensing RH

Degree of protection: IP40

Delegated regulation (EU) no. 811/2013; annex IV-3:

- Class of the temperature control device: Class 4; Class IV

- Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

Electrical data of version with 230 V power supply

230Vac power supply ($-15\% \div +10\%$) 50/60Hz, maximum consumption: 6 VA / 230Vac

Touch screen with multi-colour backlighting (can be deactivated)

Relay capacity at 250 Vac: 5 A

Electrical data of battery powered version

Battery powered: 2x1.5 V alkaline (type AAA) not supplied, 12 months autonomy

Touch screen with blue backlight active when keys are pressed

Relay capacity at 250 Vac: 5 A

Configurable digital input for connection of an external contact with which to reduce the set temperature by 3°C .



SINTESI chronothermostat

Model	Pcs. pack	Code
Chronothermostat SINTESI 230 V	1	02018152
Chronothermostat SINTESI with battery	1	02018154

SINTESI Thermostat

Touch screen thermostat



Electronic thermostat with backlit touch screen with wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer). The keyboard consists of two icons located in the lower part of the touch screen display. Available in mains or battery powered versions.

- 1 Plastic base for wall installation or cover on 3-module flush-mounted box.
- 2 Large backlit display to view the measured temperature
- 3 Touch-screen keys in the lower part of the display
- 4 Terminal block on the back of the device for charging and power connection (230 Vac version) or external contact (battery version).
- 5 Frame.

Technical Data

Installation: wall or cover on standard 503 type box
Operating mode: summer/winter/off
Control type: ON/OFF or proportional
Differential: $0.1 \div 1^\circ\text{C}$
Settable setpoint: $2 \div 50^\circ\text{C}$
Measured temperature resolution: 0.1°C
Measurement accuracy: 0.5°C
Antifreeze temperature (excludable): $1 \div 50^\circ\text{C}$
Keyboard lock with password to prevent unauthorised changes
Operating temperature: $0 \div 50^\circ\text{C}$
Storage temperature: $-10 \div 65^\circ\text{C}$
Operating humidity: $20\% \div 90\%$ non-condensing RH
Degree of protection: IP40
Delegated regulation (EU) no. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4; Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

Dimensions: see section Technical Attachments page 485

Electrical data of version with 230 V power supply

230Vac power supply ($-15\% \div +10\%$) 50/60Hz, maximum consumption: 6 VA / 230Vac
Touch screen with multi-colour backlighting (can be deactivated)
Relay capacity at 250 Vac: 5 A

Electrical data of battery powered version

Battery powered: 2x1.5 V alkaline (type AAA) not supplied, 12 months autonomy
Touch screen with blue backlight active when keys are pressed
Relay capacity at 250 Vac: 5 A
Configurable digital input for connection of an external contact with which to reduce the set temperature by 3°C .



SINTESI Thermostat

Model	Pcs. pack	Code
SINTESI Thermostat 230 V	1	02018156
SINTESI Thermostat with battery	1	02018158

Touch Screen backlight thermostats



Technical data Chronothermostat with daily programming

External dimensions: 120 x 90 x 28 mm

Touch-screen display 80 x 55 mm (3,8")

Weekly programming for periods of at least 30 minutes.

Temperatures can be adjusted on three levels:

- Comfort
- Energy saving
- Off with the option of setting the anti-freeze protection.

Temperature adjustment range from 4 to 40 °C (from 40 to 99.4 °F) with 0.5 °C/F intervals.

System on/off differential, 0.5 °C (can be modified)

Summer/Winter function

Operating and storage temperature between 0 and 40 °C

Fitted with reminder alarm

Display with backlight

Partial recessed (230 V mod.) or covered fastening (battery mod.) in a standard 503 box.

Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 1: Class I
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

Technical data of ambient Thermostat with manual control

External dimensions: 120 x 90 x 28 mm

Touch-screen display 80 x 55 mm (3,8")

Operating temperature selected manually and switched off manually with the option of setting the anti-freeze protection.

Temperatures can be adjusted on 2 levels:

- Comfort
- Energy saving

Temperature adjustment range from 4 to 40 °C (from 40 to 99.4 °F) with 0.5 °C/F intervals (adjustable).

System on/off differential, 0.5 °C (adjustable)

Summer/Winter function

Operating and storage temperature between 0 and 40 °C

Partial recessed (230 V mod.) or covered fastening (battery mod.) in a standard 503 box.

Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 1: Class I
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

Technical data of Thermostat with daily programming

External dimensions: 120 x 90 x 28 mm

Touch-screen display 80 x 55 mm (3,8")

Daily programming for periods of at least 1 hour.

Temperatures can be adjusted on 2 levels:

- Comfort
- Energy saving

Switched off manually with the option of setting the anti-freeze protection.

Temperature adjustment range from 4 to 40 °C (from 40 to 99.4 °F) with 0.5 °C/F intervals.

System on/off differential, 0.5 °C (can be modified)

Summer/Winter function

Operating and storage temperature between 0 and 40 °C

Fitted with reminder alarm

Display with backlight

Partial recessed (230 V mod.) or covered fastening (battery mod.) in a standard 503 box.

Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 1: Class I
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

Electrical data - versions with 230 V power supply

Power supply from 110 to 230 V - 50/60 Hz

Protection rating IP20

System activation contact: relay with 1 free deviation contact

6÷230 V - 5 (0.5) A max.

Contact for telephone actuator or centralised Summer-Winter commuter.

Electrical data - versions with battery power supply

Power supply with 2 alkaline batteries AAA - LR3 - 1.5 V

Protection rating IP20

System activation contact: relay with 1 free deviation contact

6÷230 V - 5 (0.5) A max.

Dimensions: see section Technical Attachments page 485

Touch Screen backlight thermostats



Smarty weekly touch screen backlight chronothermostat

Model	Pcs. pack	Code
Wall backlight chronothermostat with battery power supply	1	01514220
Semi-recessed backlight chronothermostat with 230 V power supply	1	01514222



Touch Screen backlight thermostat with daily programming

Model	Pcs. pack	Code
Wall backlight thermostat with daily programming and battery power supply	1	01514226
Semi-recessed backlight thermostat with daily programming and 230 V power supply	1	01514224



Manually room backlight thermostat touch screen

Model	Pcs. pack	Code
Wall backlight thermostat with battery power supply	1	01514230
Semi-recessed backlight thermostat with 230 V power supply	1	01514228

Touch screen chronothermostat for recessed installation

Touch screen chronothermostat with weekly programming for recessed installation



Electronic touch-screen chronothermostat with weekly programming and recessed installation in a 3-modules box, designed to control the room temperature, both in heating and air-conditioning mode. Both mains and battery-operated versions available.

- Installation in a 3-modules recessed box (503)
- Supports to adapt the instrument to the plates of the main civil series
- Touch-screen display to show the measured temperature and program the instrument
- Terminal board at the back of the instrument to connect the output relay of the power supply (only for the 230 Vac model) and the external contact (only for the battery-operated model)
- Interchangeable front panel available in white and anthracite grey (included)
- Procedure to extract the push-push instrument (only for the battery-operated model) to make it easier to replace the battery
- Backlight display: multicolour red, green, blue for the 230 Vac model; single-colour blue touch-screen display for the battery-operated model

Adapters included for use with the following plates:

ABB: Chiara, Mylos

AVE: S44

BTICINO: Axolute, Light, Light tech, Living, Livinglight, Livinglight Air (via a frame that can be purchased separately), Matix

GEWISS: Chorus

VIMAR: Eikon, Eikon Evo, Idea, Plana, Arké

Technical Data

- Power supply:
230 VAC 230 (-15% ÷ +10%) 50/60 Hz (230 model)
2 x 1.5 V (AAA) (battery-operated model)
- Installation: recessed
- Maximum cable cross-section: mm² 1.5
- Programming: weekly
- Operating modes: summer / winter / off
- Type of adjustment: ON/OFF and proportional / integral
- Differential: 0.1÷1 °C
- Temperatures that can be set: 3 + manual + antifreeze
- Setpoint values that can be set: 2÷35 °C
- Measured temperature resolution: 0.1 °C
- Measurement accuracy: 0.5 °C
- Antifreeze temperature (can be excluded) 1÷10 °C
- Programming resolution: 1 hour
- Start-up delay: 15, 30 or 45 minutes
- Output relay capacity: 5 A / 250 V (bistable)
- Clock accuracy: ± 1 s/day
- Digital input (only for the battery-operated model): to turn off the instrument remotely
- Operating temperature: 0÷50 °C
- Storage temperature: -10 ÷ 65 °C
- Operating humidity: RH 20%÷90%, non-condensing
- Protection rating: IP40
- Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4: Class IV
 - Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%

Dimensions: see section Technical Attachments page 486



Recessed touch-screen chronothermostat

Model	Pcs. pack	Code
230 V	1	02018086
Battery	1	02018088
BTicino LivingLightAir plate adapter	1	01306296

Touch-screen thermostat for recessed installation

Touch-screen electronic thermostats for recessed installations



Touch-screen electronic thermostat with recessed installation in a 3-modules box, designed to control the room temperature, both in heating and air-conditioning mode, both mains and a battery-operated versions available.

- Installation in a 3-modules recessed box (503)
- Supports to adapt the instrument to the plates of the main civil series
- Touch-screen display to show the measured temperature and program the instrument
- Terminal board at the back of the instrument to connect the output relay of the power supply (only for the 230 Vac model) and the external contact (only for the battery-operated model)
- Interchangeable front panel available in white and anthracite grey (included)
- Procedure to extract the push-push instrument (only for the battery-operated model) to make it easier to replace the battery
- Backlight display: multicolour red, green, blue for the 230 Vac model; single-colour blue touch-screen display for the battery-operated model

Adapters included for use with the following plates:

ABB: Chiara, Mylos

AVE: S44

BTICINO: Axolute, Light, Light tech, Living, Livinglight, Livinglight Air (via a frame that can be purchased separately), Matix

GEWISS: Chorus

VIMAR: Eikon, Eikon Evo, Idea, Plana, Arké

Technical Data

Power supply:

230 VAC 230 (-15% ÷ +10%) 50/60 Hz (230 model)

2 x 1.5 V (AAA) (battery-operated model)

Installation: recessed

Maximum cable cross-section: 1.5 mm²

Output relay capacity: 5A/250V (bistable)

Operating time: 12 months

Input: two terminals to reduce the setpoint (battery-operated model only)

Operating modes: summer/winter/off

Type of adjustment: ON/OFF and proportional / integral

Setpoint values that can be set: 2÷35 °C

Differential: 0.1±1 °C

Measured temperature resolution: 0.1 °C

Measurement accuracy: 0.5 °C

Antifreeze temperature: 1÷10 °C

Operating temperature: 0÷50 °C

Storage temperature: -10-65°C

Operating humidity: 20%÷90%, non-condensing RH

Protection rating: IP40

Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 4: Class IV

- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%

Dimensions: see section Technical Attachments page 486

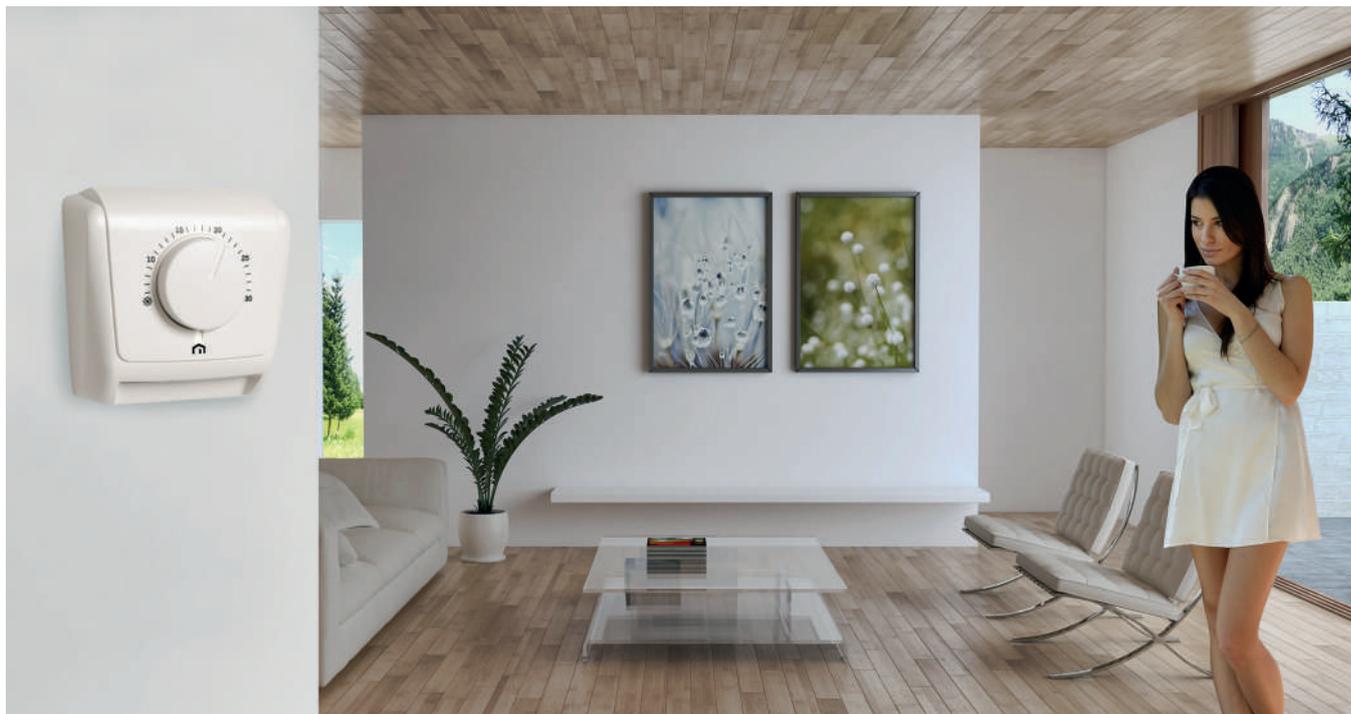


Recessed touch-screen thermostat

Model	Pcs. pack	Code
230 V	1	02018082
Battery	1	02018084
BTicino LivingLightAir plate adapter	1	01306296

Termec EVO

Room thermostat



Technical data

Gas expansion sensible element

Temperature limiting/blocking device

Protection class: IP 20

Contact's rating at 250 V: 16 (2,5) A or 10 (1,5) A (dependent of the model)

Temperature range: from 5 to 30 °C

Temperature differential: $DT \leq 1^\circ\text{C}$

Thermal gradient: $1^\circ\text{C}/15 \text{ min}$

Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 1: Class I

- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

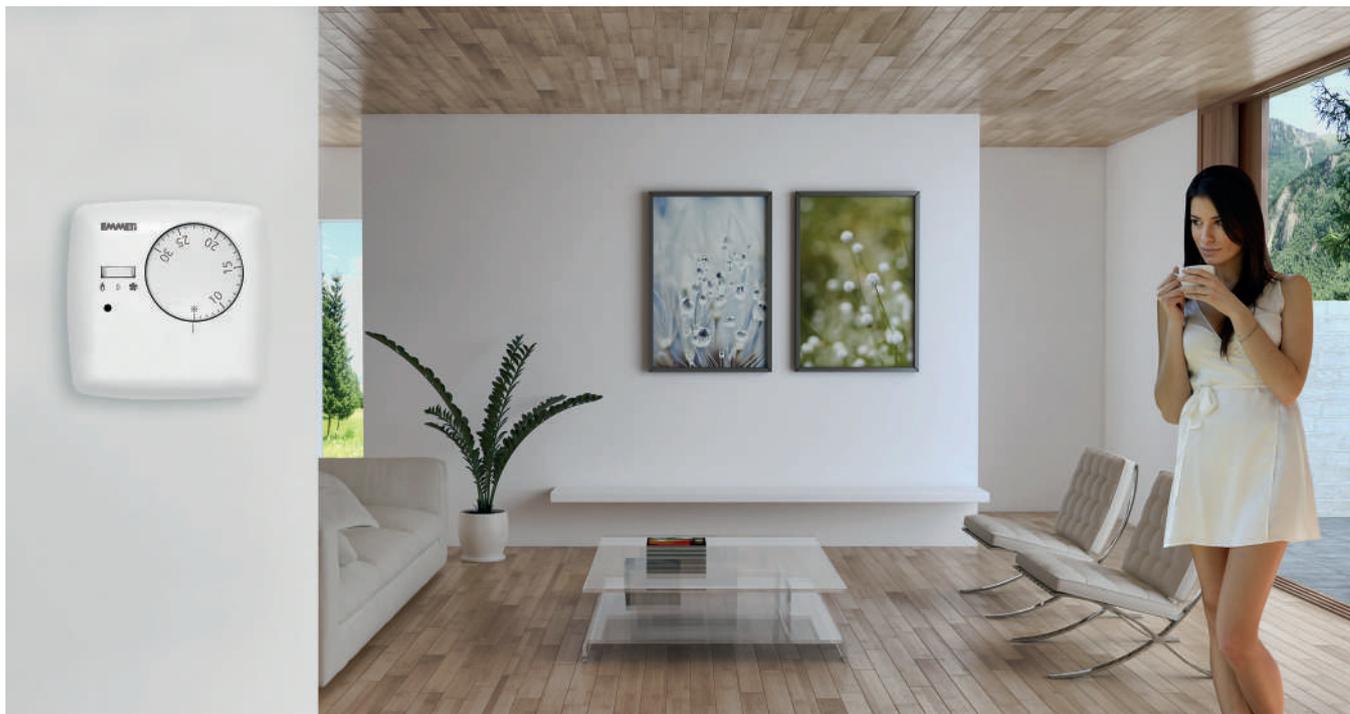
Dimensions: see section Technical Attachments page 486



Termec EVO thermostat

Model	Pcs. pack	Code
3 contacts	1	02018160
3 contacts with light	1	02018162
3 contacts with light + on/off switch	1	02018164
2 contacts with light + summer / winter switch	1	02018166

Room thermostat



Technical data

Saturated steam expansion sensing element

Temperature limiting/Locking mechanism

Degree of protection: IP20

Contact capacity: 10 (2.5) A - 250 V

Temperature regulation: from 5 to 30 °C

Tripping differential: 1.4 °C (4 °C/h)

Dimensions: 90 x 90 x 40mm

Weight from: 130 to 145 gr

Frost protection

Double insulation

Delegated regulation (EU) n. 811/2013; annex IV-3:

- Temperature control device class: Class 1; Class I

- Contribution of the temperature control device to the seasonal space heating energy efficiency in %: 1%



Termec Room mechanical thermostat

Model	Pcs. pack	Code
3 contacts with light + switch independent (*)	1	02001016

(*) Item to be out of stock

Thermostats



Electronic room thermostat



Electronic room thermostat

Power supply: 230 Vac 50 Hz
 Temperature adjustment: from 6 to 30 °C
 Range temperature: 0÷40 °C
 Protection rate: IP 30
 Absorption: 1 VA
 Contact's rating: 5 (1) AC 250 Vac
 Rcd triggering: 0,5 °C
 Dimensions: 85 x 85 x 31 mm
 Delegated Regulation (EU) n. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 1: Class I
 - Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

Model	Pcs. pack	Code
With summer/winter switch	1	02018046

Thermostats for fancoils



Contact thermostat for fan-coil

Free contact: 250 V -10 (2,5 A) - Contact closes: 42 °C - Contact opens: 34 °C

Model	Pcs. pack	Code
	1	02012030

Chronothermostat with wall-mounted humidistat

Chronothermostat with humidistat



Chronothermostat with weekly programming with built-in humidity sensor to adjust the temperature and control the ambient humidity thanks to two separate relays.

The first relay is controlled by the temperature setting, while the second relay is activated when the humidity threshold is reached. Depending on the setting, it serves as an instrument to measure the maximum or minimum value. For instance, it can control a dehumidifier or a humidifier, with automatic switch from standard time to daylight-saving time and keypad lock for installation in public areas.

- It has a plastic base for wall installation or it can be secured to a 503 box (or a similar one)
- Wide display to show the operating status, time and day, temperature and humidity in the room
- Keyboard concealed underneath the front panel and used to program the instrument.

Technical Data

Power supply: battery 1 x 1.5 V (AAA)
Battery charge: 1 h
Fixing system: Wall-mounted/503 box
Protection rating: IP XXD
Operating temperature: 0÷50 °C
Storage temperature: -10-65°C
Relative humidity: 20%÷90%, non-condensing RH
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4: Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%

Humidistat Technical Data

Operating range: HR Off, 30÷90%
Fixed centred differential: HR 5%
Time between two switchings: 1 min
Accuracy: HR ±3%
Resolution: HR 1%
N.O. bistable relay capacity at 250 Vac: A5

Chronothermostat Technical Data

Programming: weekly
Operation: summer/winter
Temperatures that can be set: 3 + antifreeze + manual
Temperature measurement: 0÷50 °C
Measurement accuracy: 0.5 °C
Temperature resolution: 0.1 °C
Programming resolution: 1 h
Interval between two temperature measurements: 20 s
Start-up delay: 15, 30, 45 min
Differential that can be set: 0.1±1 °C
Exchange relay capacity at 250 Vac: 5 A

Dimensions: see section Technical Attachments page 486



Chronothermostat with humidistat for wall-mounted

Dimension	Pcs. pack	Code
	1	02018090

Humidistat

Recessed humidistat



Recessed electronic humidistat

Recessed humidistat to adjust humidity in domestic environments

Installation in boxes for three recessed modules

Interchangeable front panel in two colours: anthracite grey and white (included in the package)

Adapters included for use with following plates:

ABB: Chiara, Mylos

AVE: S44

BTICINO: Axolute, Light, Light tech, Living, Livinglight, Livinglight Air, Matrix

GEWISS: Chorus

VIMAR: Eikon, Eikon Evo, Idea, Plana, Arké

Technical data:

Power supply: 230 VAC 50-60 Hz

Consumption: 4 VA (0.7 W)

Contact capacity 250 VAC: 5 A

Adjustment range: 30% - 90%

Differential: $\pm 2.5\%$

Operating temperature: 0 °C - 50 °C

Storage temperature: -10 °C - 60 °C

Protection rating: IP40 front

Dimension	Pcs. pack	Code
	1	28154581

Dimensions: see section Technical Attachments page 487

Radio frequency thermoregulation

Radio frequency touch screen weekly programmable chronothermostat



Radio frequency touch screen weekly programmable chronothermostat to be combined with the radio frequency programmable chronothermostat actuators for radiator valves; this allows to control one or more radiators.

- 1 Plastic base for wall-mounting or covering the box 503
- 2 Wide backlit touch screen display to view the operating status, time, day and temperature measured
- 3 Touch screen keyboard to program the device

General features

Power supply: 2 x 1,5 V (type AAA)
 Power reserve (to change batteries): 1 minute
 Autonomy: 12 months (with low battery indication, estimated but not guaranteed)
 Summer/Winter mode
 Automatic programming with:
 - 7 programs for winter operation (changeable)
 - 7 programs for summer operation (changeable)
 Temperature adjustment ON/OFF or proportional
 5 settable temperatures:
 - T1, T2, T3 in automatic mode
 - Tm in manual mode
 - Toff in off mode (anti-freeze temperature, excludable)
 Minimum adjustment interval: 1 hour
 Communication delay settable between 15, 30 or 45 minutes (independent for each hour)
 Keylock with password
 Summer/winter time change automatic
 Open window detection function
 Display with blue backlight (active at the touch of a button)

Technical data

Battery powered: 2x1,5 V battery (type AAA) (not supplied)
 Fixing: wall mounting
 Weekly programming
 Operating mode: summer / winter / off
 Type of control: ON / OFF or proportional or setpoint sending for autonomous management of the radiofrequency actuator
 Differential: 0,1 ÷ 1 °C
 Temperature settings: 3 + manual + antifreeze
 Setting setpoint: 2 ÷ 35 °C
 Measured temperature resolution: 0,1 °C
 Measurement precision: 0,5 °C
 Antifreeze temperature (excluded): 1 ÷ 10 °C
 programming resolution: 1 hour
 Ignition delay: 15, 30 or 45 minutes
 Watch accuracy: ± 1 / day
 Maximum distance between radiofrequency chronothermostat and actuator: 50 meters in free field
 Operating temperature: 0 ÷ 50 °C
 Storage temperature: -10 ÷ 65 °C
 Operating humidity: 20% to 90% RH non-condensing
 Degree of protection: IP40
 Delegated Regulation (EU) No. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4; class IV
 - Contribution of the temperature control device to the energy efficiency of ambient heating season in%: 2%

Dimensions: see section Technical Attachments page 487



Radio frequency programmable chronothermostat

Description	Pcs. pack	Code
Radio frequency programmable thermostat	1	02018144

Radio frequency thermoregulation

1-channel DIN rail radio frequency actuator with fixed delay



1-channel DIN rail radio frequency actuator with fixed delay

Radio frequency actuator that receives the actuation command directly from the Emmeti electronic radio frequency chronothermostat, operating as a normal remote actuator, installed on a DIN rail for boiler management, for example. Actuation occurs 5 minutes after the actuator has received the command from the chronothermostat.

- 1 Green LED indicating the operating status
- 2 Red LED indicating the relay status
- 3 SET button for programming and resetting the channel

Technical data

Power supply: 230 V CA (-15%/+10%) 50/60 Hz

Outputs:

- 1 relay with 8A 250 V CA changeover contact with resistive load
- Activation with a fixed delay of 5 minutes after receiving the command from the Emmeti radio frequency chronothermostat, and instantaneous deactivation
- Connection to an external antenna (optional)

Maximum distance between radiofrequency chronothermostat and actuator: 50 meters in free field.

Operating temperature: 0 ÷ 50 °C - Storage temperature: -10 ÷ 65 °C

Installation on DIN rail - Measurement: 2 DIN modules - Protection degree: IP40

Compliant with EU Directives:

- Low voltage (LVD)
- Electromagnetic compatibility (EMC)

Dimension	Pcs. pack	Code
2 DIN modules	1	02018124

Dimensions: see section Technical Attachments page 487

6-channel DIN rail radio frequency actuator, with additional contact with settable delay



6-channel DIN rail radio frequency actuator, with additional contact with settable delay

Electronic 6-channel radio frequency actuator, each channel can receive the actuation command directly from an Emmeti radio frequency chronothermostat.

The actuator operates as a normal remote actuator, installed on a DIN rail for boiler management, for example.

Actuation of additional contact occurs after a set time (from 3 seconds to 5 minutes) from the moment at least one channel of the actuator has received the first command from an Emmeti radio frequency chronothermostat paired with the corresponding channel.

- 1 Green LED indicating the device status (power on)
- 2 Red LEDs indicating the outputs status (1-6)
- 3 Yellow LED indicating the output status (7)
- 4 SET button for programming and resetting the channels
- 5 Trimmer for setting relay 7 switching delay

Technical data

Power supply: 230 V CA (-15%/+10%) 50/60 Hz

Absorption: 3 W (8VA)

Outputs:

- 6 relays with 5A / 250 V AC contact normally open
- 1 relay with 5A / 250 V AC contact normally open with delay
- external antenna (standard)
- connection to an external antenna (optional)

Switching delay of relay 7 that can be set between 3 seconds and 5 minutes with the trimmer
Maximum distance between radiofrequency chronothermostat and actuator: 50 meters in free field

Cable terminals with a maximum cross-section of 6 mm²

Operating temperature: 0 ÷ 50 °C - Storage temperature: -10 ÷ 65 °C

Operating humidity: 20 ÷ 90% non-condensing

Installation on DIN rail - Measurement: 4 DIN modules - Protection degree: IP20

Insulation: reinforced between front and all other terminals

Combinable with electrothermal heads (230 cvac or 24 Vac) in the Normally Closed version

Compliant with EU Directives:

- Low voltage (LVD)
- Electromagnetic compatibility (EMC)

Dimension	Pcs. pack	Code
4 DIN modules	1	02018126

Dimensions: see section Technical Attachments page 487

Radio frequency thermoregulation

Antenna for DIN rail radio frequency actuators



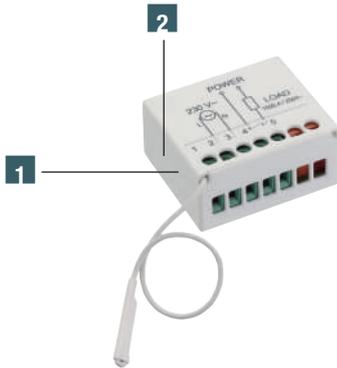
Antenna for DIN rail radio frequency actuators

Technical data

Frequency range: 433.92 ± 10 Mhz - Input impedance: 50 ohm - Cable length: 4.5 metres

Dimension	Pcs. pack.	Code
	1	02018128

Built-in radio frequency actuator



Built-in radio frequency actuator

Radio frequency actuator that receives the actuation command directly from the Emmeti radio frequency chronothermostat, operating as a normal remote actuator.

The actuator is installed flush in any civil electrical box (for example 503) with the possibility of managing a load, such as an electric radiator.

- 1 Button for managing a channel configuration
- 2 Green/red LED indicating the operating status

Technical data

Power supply: 230 V AC (-15%/+10%) 50/60 Hz

Output: bistable relay with capacity of 16(8)A / 250Vac

Maximum distance between radiofrequency chronothermostat and actuator: 50 meters in free field

Operating temperature: 0°C ÷ 40°C

Storage temperature: -10°C ÷ 70°C

Enclosure: suitable for built-in box (occupies the space of a module)

Protection rating: IP20

Combinable with electrothermal heads (230 Vac or 24 Vac) in the Normally Closed version

Compliant with Community Directives:

- Low voltage (LVD)
- Electromagnetic compatibility (EMC)

Dimension	Pcs. pack	Code
	1	02018130

Dimensions: see section Technical Attachments page 487

Radio frequency chronothermostat pairing to various radio frequency actuators

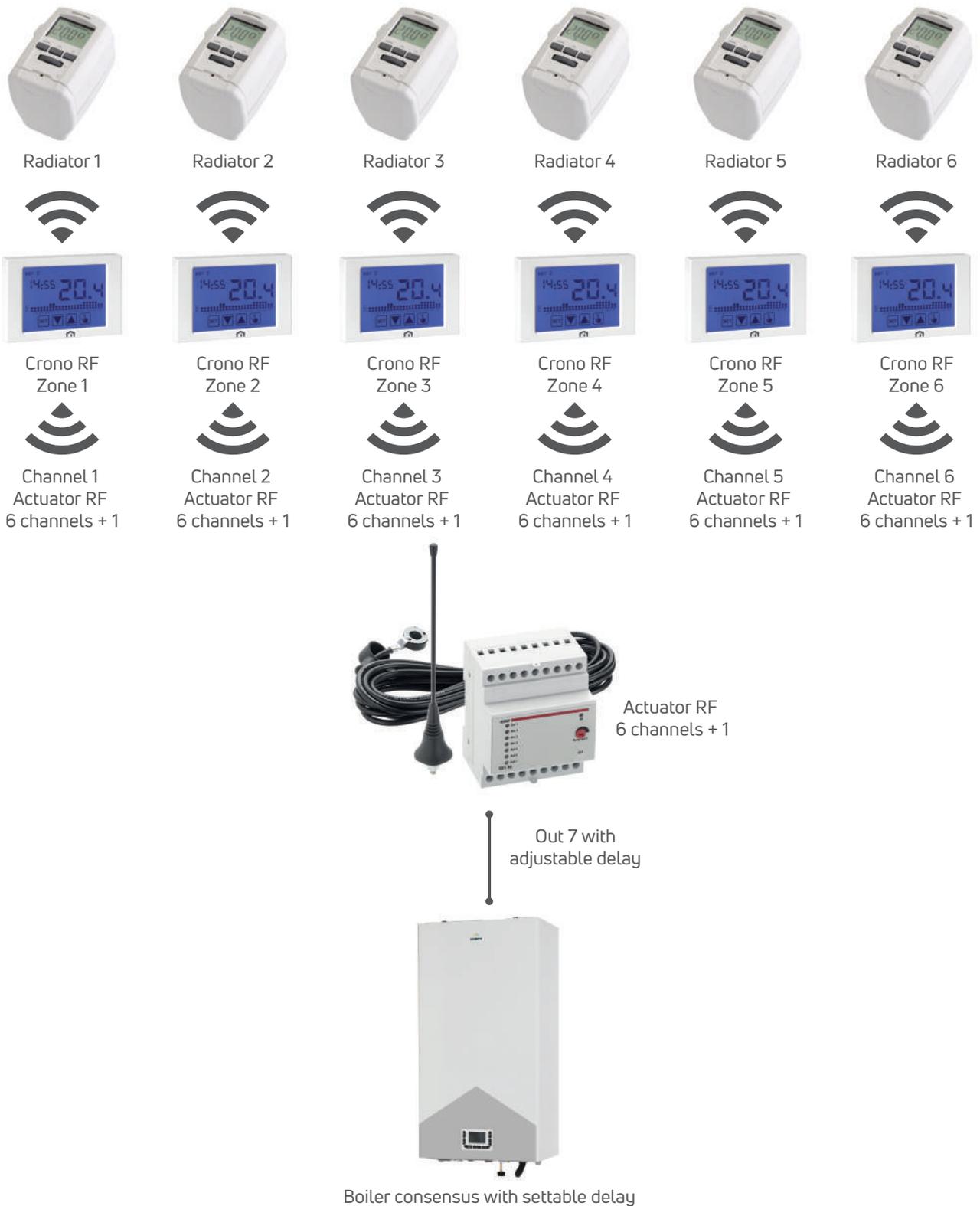
Configurations	Radio frequency chronothermostat Code 02018144	Electronic radio frequency thermostatic actuator for radiator valves code 02018094	1-channel DIN rail radio frequency actuator with fixed delay code 02018124	6-channel DIN rail radio frequency actuator, with additional contact with settable delay code 02018126	Built-in radio frequency actuator code 02018130
1: autonomous multi-zone radiator system (up to 6 zones)	up to 6	n for each chronothermostat		1	
2: autonomous system multi-zone type (up to 6 zones) in which the zone they are interceptable in one single point, for example with electrohermic heads installed on a collector	up to 6			1	
3: autonomous system of monozone type	1		1		
4: remote management of an electric radiator	1				1

n: maximum number of chronothermostat actuators that can be paired with a radio frequency chronothermostat. The limit is given by the distance. For the configurations, see the diagrams on the next pages.

Radio frequency thermoregulation

Configuration 1

Radio frequency chronothermostat + radio frequency chronothermostat actuators + 6-channel DIN rail radio frequency actuator, with additional contact with settable delay

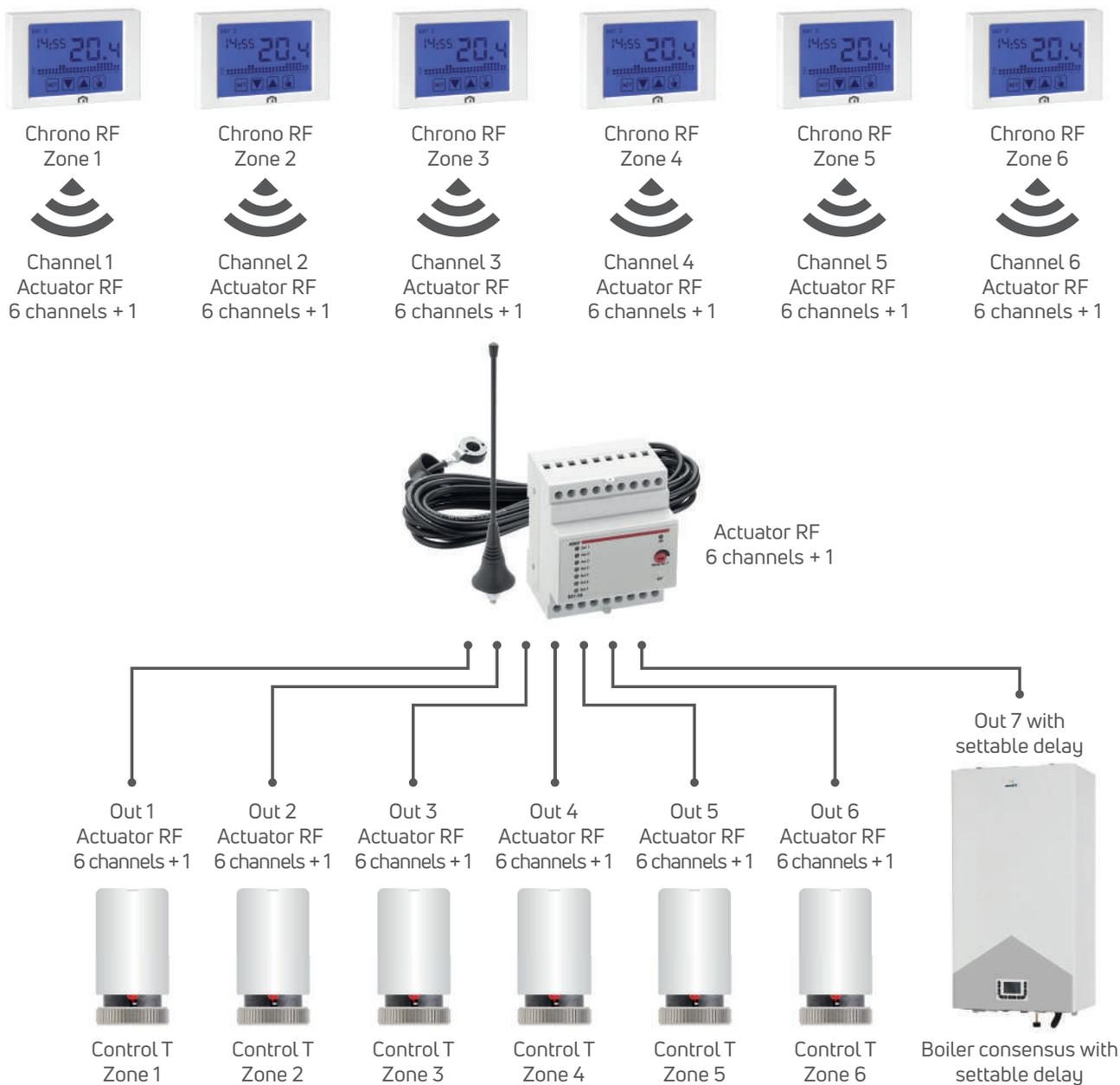


Use: autonomous system with multi-zone radiators (up to 6 zones)

Radio frequency thermoregulation

Configuration 2

Radio frequency chronothermostat + 6-channel DIN rail radio frequency actuator, with additional channel with settable delay



Use: autonomous multi-zone system (up to 6 zones) where the zones can be intercepted in a single point, for example with electrothermic heads installed on a manifold

Radio frequency thermoregulation

Configuration 3

Radio frequency chronothermostat + 1-channel DIN rail radio frequency actuator with fixed delay

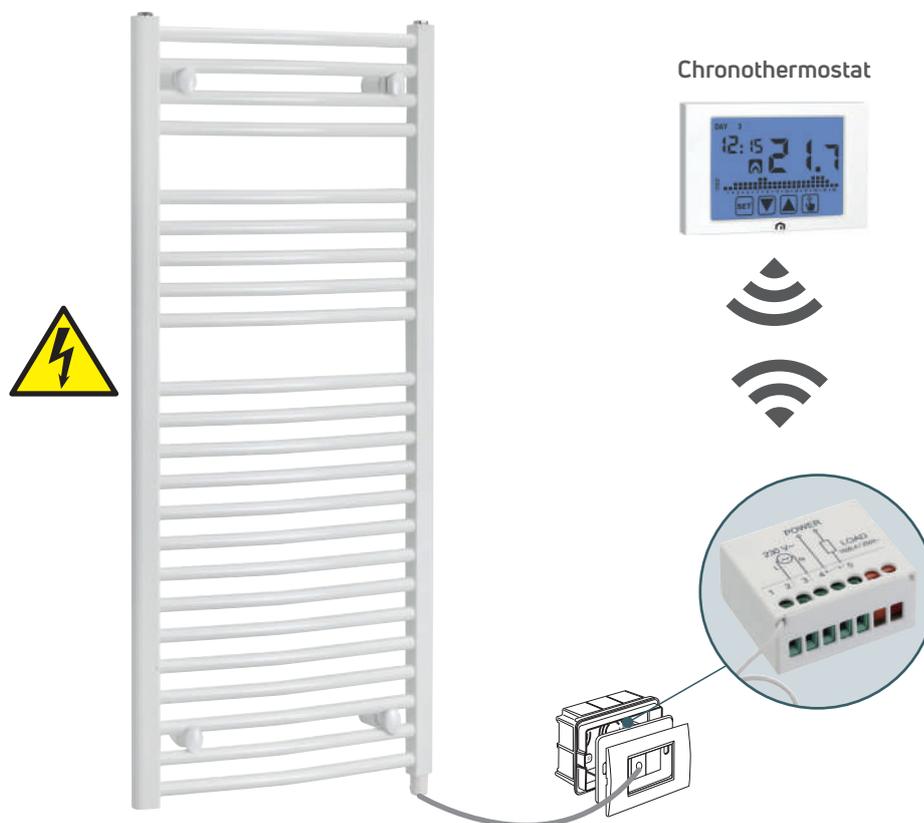


(*) RF actuator from DIN bar for boiler consent with 5 minutes delay.

Use: autonomous multi-zone system

Configuration 4

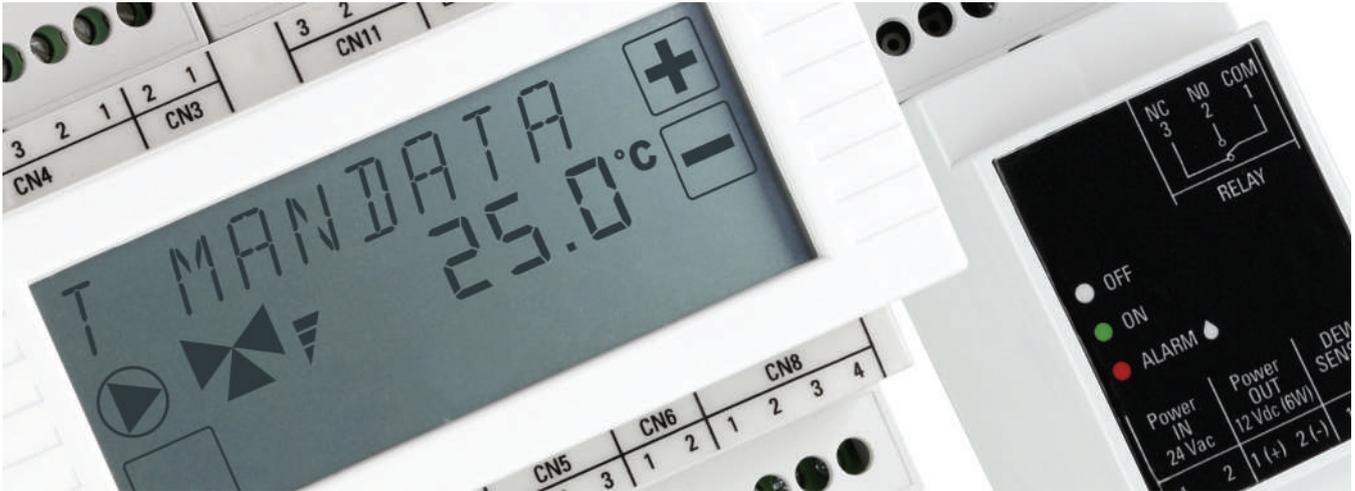
Radio frequency chronothermostat + built-in radio frequency actuator



Use: remote management of an electric radiator

RCE - Emmeti Climatic Regulator

RCE - Emmeti Climatic Regulator for mixing units



Mixing system thermoregulator for automatic control of heating and cooling functions of small and medium systems with radiant panels (floor and ceiling) or with high temperature (radiators, fancoils), such as houses, apartments, shops, offices, etc. Option of managing a centralised system.

This regulator manages the different functions required for the climatic control of the mixing system, such as controlling a mixing valve and relative pump.

Features

One of the main features is the different management of the delivery temperature according to the selected mode:

- 'Fixed point' mode: fixed delivery temperature in both heating and cooling mode;
- 'Modulating' mode: fixed delivery temperature in cooling mode and variable delivery temperature in heating mode.

In the latter case, the delivery temperature is modified compared to the temperature set according to the system return temperature.

- 'Climatic' mode: the delivery temperature is calculated according to the outdoor temperature (winter and summer climatic curve).

The regulator also manages the pump of the system and can control a mixing valve with floating servomotor 3-point or modulating servomotor 0-10 Vdc.

Important

Install a dew sensor for every delivery manifold in systems that also run in cooling mode. Every delivery manifold must be positioned in an area adjacent to the room to be cooled, in order to have equal temperature and humidity conditions. Moreover, the room must have a suitable air handling system (e.g. a dehumidifier regulated by a humidistat to control room humidity).

How to choose the components

Single system

Two-floor detached house with one mixing valve and two delivery manifolds (one per floor).

The system runs both in heating and cooling mode.

Components required:

nr. 1 Emmeti climatic regulator kit for mixing units (code 28139070).

Note: the required components for "fixed point" mode or "modulating" mode are found in the packaging.

For "climatic" mode, add 1 "external probe housing" (code 28139076) to install one of the probes found in the packaging outdoors.

nr. 2 "dew sensors" (code 28139072), install one for each delivery manifold. Both probes must be connected directly to the climatic regulator.

Central system

Central system for heating and cooling mode of a condominium consisting of 20 apartments and one single mixing valve in heating unit. Every apartment has one zone valve installed for the heat transfer fluid flowing towards the delivery manifold of the apartment.

Components required:

nr. 1 Emmeti climatic regulator kit for mixing units (code 28139070) in heating unit.

Note: the required components for "fixed point" mode or "modulating" mode are found in the packaging.

For the "climatic" mode, add the "external probe housing" (code 28139076) to install one of the probes found in the packaging outdoors.

For each apartment

- nr. 1 "dew sensor" (code 28139072) to be installed on the delivery manifold. (Total 20 pcs).

- nr. 1 converter for dew sensor (code 28139074), to which the dew sensor will be connected; it controls the zone valve, closing it in case of a condensation alarm. (Total 20 pcs).

- nr. 1 "230 V - 24 V, 10 VA transformer" (code 28139130) to power the dew sensor converter. (Total 20 pcs).

RCE - Emmeti Climatic Regulator for mixing units

RCE - Emmeti Climatic regulator for mixing units



Emmeti Climatic regulator kit for mixing units

Composition

- nr. 1 Emmeti Climatic Regulator (RCE)
- nr. 2 NTC temperature probes
- nr. 1 Probe-holder kit
- nr. 1 Wall plug for display
- nr. 1 male/female connector kit for display extension cable (connectors for 4-pin MSTB printed circuit boards)

Technical data of the climatic Regulator

Power supply: 110-230 Vac $\pm 10\%$; 50/60 Hz - Double insulation - Contact capacity: 5 A / 230 Vac - Protection rating IP20 - Connected to DIN (EN 60715) guide according to standards DIN 43880 - Regulator material: Self-extinguishing PPO - Regulator colour: RAL 7035 grey - Dimensions: 6 DIN modules (95 x 105 x 82 mm) - Display material: PC/ABS - Display colour: white
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 3: Class III
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1.5%

Inputs and outputs climate Regulator

2 analogic inputs for NTC temperature probes (flow temperature, return/external temperature), 4 digital inputs free of voltage (heating/cooling/dehumidification consensus, change of season, remote on/off, alarms).

1 digital output for the circulator, 1 digital output for the generator consensus, 1 digital output to a floating servomotor 3 points and 1 analogic output to a modulating servomotor 0-10 V (the regulator can manage only one servomotor)

Technical data of temperature Probes

Type: NTC; 10K Ω at 25°C; IP68; cable length: 3 m; probe length 50 mm, probe diameter 6 mm

Technical data of the wall plug for display

Fixing on 503 standard box

Dimension	Pcs. pack	Code
	1	28139070

Dimensions: see section Technical Attachments page 488

Accessories for Emmeti Climatic Regulator for mixing units



Dew sensor

Power supply: 15 Vdc $\pm 10\%$ - RH% of intervention: 90-95%

Dimension	Pcs. pack	Code
	1	28139078

To be used in the event that the Emmeti climatic regulator for mixing units operates also in cooling mode. Order one dew sensor for each system delivery manifold.

Dimensions: see section Technical Attachments page 488



Converter for dew sensor

Power supply: 24 Vac $\pm 10\%$; 50/60 Hz - Max. consumption 4.5 W - Contact capacity: 5 A / 230 Vac - Protection rating: IP20 - Connected to DIN (EN 60715) guide in according to standards DIN 43880 - Converter material: Self-extinguishing PPO - Converter colour: RAL 7035 grey - Dimensions: 2 DIN modules (95 x 35 x 58 mm).

Dimension	Pcs. pack	Code
(*)	1	28139074

To be used for central system operating also in cooling mode with one single mixing valve. Order one converter for each zone valve installed per apartment for the heat transfer fluid to flow in the apartment.

(*) Items to be out of stock

Dimensions: see section Technical Attachments page 488

RCE - Emmeti Climatic Regulator for mixing units



Transformer 230/24V 10 VA

230/24V, P=10VA, f=50/60Hz

Dimension	Pcs. pack	Code
2 DIN modules	1	28139130

To be used to power maximum two converters per dew sensor (code 28139074) or to power 0-10V / 24 Vac servomotors (the number of servomotors that can be powered depends on the load required).

Dimensions: see section Technical Attachments page 488



Socket for immersion type water sensor

Dimension	Pcs. pack	Code
G 1/4", L=83 mm	1	28153220

Dimensions: see section Technical Attachments page 488



Housing for external probe

Material: Self-extinguishing ABS - Colour: white - Housing equipped with cable gland
Dimensions: 80x80x25 mm

Dimension	Pcs. pack	Code
	1	28139076

To be ordered if you use the Emmeti Climatic Regulator in climatic mode



Probe holders kit

2 permanent adhesive probe holders for probes (diameter 6 mm, maximum length 70 mm) in contact on the pipe

Dimension	Pcs. pack	Code
	1	01306294

Dimensions: see section Technical Attachments page 488



DIN rail kit for RCE

DIN rail installation kit for RCE components (controller, converter, transformer).
Consisting of two guides omega DIN 35x7.5 mm, L = 80 mm and 4 screws.

Dimension	Pcs. pack	Code
	1	01301242



Recessed electronic humidistat

Recessed humidistat to adjust humidity in domestic environments - Installation in boxes for three recessed modules - Interchangeable front panel in two colours: anthracite grey and white (included in the package)

Adapters included for use with following plates:

ABB: Chiara, Mylos

AVE: S44

BTICINO: Axolute, Light, Light tech, Living, Livinglight, Livinglight Air, Matrix

GEWISS: Chorus

VIMAR: Eikon, Eikon Evo, Idea, Plana, Arké

Technical data:

Power supply: 230 VAC 50-60 Hz - Consumption: 4 VA (0.7 W) - Contact capacity 250 VAC: 5 A - Adjustment range: 30% - 90% - Differential: $\pm 2.5\%$ - Operating temperature: 0 °C - 50 °C - Storage temperature: -10 °C - 60 °C - Protection rating: IP40 front

Dimension	Pcs. pack	Code
	1	28154581

Dimensions: see section Technical Attachments page 487



RCE - Emmeti Climatic Regulator for mixing units

RCE Climate control unit selection guide

Components	Type of application				
	 Floor Control Unit HE Section 4	 Mixing Unit M3V HE-V Section 4	 Firstbox Section 4	 Modular Firstbox Section 4	 3-ways mixing valve Section 11
 28139070 - Section 5	1	1	1	1	1
 28157212 or 28157222 - Section 4	1	1	1	1	
 28130208 or 28130314 ⁽²⁾ or 28130316 ⁽³⁾ - Section 11					1
 28130084 ⁽¹⁾ - Section 11					1
 28130632 - Section 4	1	1	1	1	
 02012038 - Section 11					1
 28153220 ⁽⁴⁾ - Section 5					1

⁽¹⁾ Code 28130084: to be combined with the three-way mixer valves codes 28130218, 28130220, 28130222.

⁽²⁾ Code 28130314: Can be used in combination with three-way mixing valves for electronic adjustment kits with codes 28130210 - 28130214 - 28130316.

⁽³⁾ Code 28130216: Can be used in combination with three-way mixing valves for electronic adjustment kits with codes 28130210 - 28130214 - 28130216 - 28130218 - 28130220 - 28130222.

⁽⁴⁾ Code 28153220: If the RCE regulator is used in modulating mode, order two wells, one for the delivery probe and the other one for the return probe.

Climatic thermoregulation modular system



PCOC controller

Power supply 24 Vac +10/-15% 50/60 Hz and 48 Vdc (36 V min...72 v max)
 Max. consumption P=11 W, P=14VA
 Terminal strip with unpluggable M/F connector, max. voltage 250 Vac
 Cable size min. 0.5 mm² - max 2,5 mm²
 Can be combined with normally closed electrothermal heads
 Index of protection IP20, IP40 only in front panel only
 DIN rail mounting according to DIN 43880 and CEI EN 50022 standards
 Material: tecnopolymer - Size: 6 DIN modules
 Self-extinguishing class V2 according to UL94 and 960 °C according to IEC 695
 Ball test rating 125 °C - Creep current resistance ≥ 250 V
 Colour RAL 7035 grey - Cooling slots

Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 7. Class VII
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 3.5 %.

Model	Pcs. pack	Code
PCOC Controller with user terminal	1	28154142
PCOC Controller for external user terminal (*)	1	28154132
Screw type connector kit PCOC	1	28154150

(*) to be combined with the large terminal with frame (code 28154171)

Dimensions: see section Technical Attachments page 489



Remote terminal with display

Maximum distances

Maximum length of pLAN network: 500 m with AWG22 shielded pair cable
 PCOC terminal distance: 50 m with telephone cable 500 m with AWG22 shielded pair cable
 Note: to achieve maximum length, use a bus type with distribution lines not exceeding 5 mt.

Plastic casing

Clear front cover: clear polycarbonate
 Anthracite grey rear casing (wall/recess): polycarbonate + ABS
 Keypad: silicone rubber
 Clear glass/surround: clear polycarbonate
 Self-extinguishing class: V0 at clear front panel and rear casing
 HB at silicone keypad and remaining parts.

Electrical specifications

Power supply from pCO via telephone connector or 18/30 Vdc external source
 Protected by external 250 mA fuse
 Maximum consumption: 1.2 W.

Model	Pcs. pack	Code
Large terminal with surround	1	28154171

Use the remote large terminal (code 28154171) as the main display for the PCOC Regulator for the external user terminal (code 28154132). There is always the option of using two terminals as displays. For this purpose, use the PCOC Regulator as the user terminal (code 28154142) together with the remote terminal (code 28154171). This allows to view and control the system both from the regulator and the terminal (both with displays).
 Inclusive of frame for large terminal.

Dimensions: see section Technical Attachments page 489



PCOE modules

Power supply 24 Vac +10/-15% 50/60 Hz and 28 Vdc +10/-20%
 Max. consumption P=6 W, P=7VA
 Terminal strip with unpluggable M/F connector, max. voltage 250 Vac
 Cable size min. 0.5 mm² - max 2,5 mm²
 Index of protection IP20, IP40 only in front panel only
 DIN rail mounting according to DIN 43880 and CEI EN 50022 standards
 Material: tecnopolymer - Size: 4 DIN modules
 Self-extinguishing class V0 according to UL94 and 960 °C according to IEC 695
 Ball test rating 125 °C -
 Creep current resistance ≥ 250 V
 Colour RAL 7035 grey
 Cooling slots

Model	Pcs. pack	Code
PCOE Module (*)	1	28154261
Screw type connector kit PCOE	1	28154270

(*) the PCOE Module can be configured to:

- increase the number of areas (MOD_Z1, MOD_Z2, MOD_Z3)
- manage 3-point servomotors for mixing valves (MOD_M3P)

Dimensions: see section Technical Attachments page 489

Climatic thermoregulation



Room sensor temperature - humidity bus recessed with display

230Vac power supply model: 230 Vac (+10 -15%) 50/60 Hz

24VAC power model: 24 Vac (+10 -15%), 22 - 35 Vdc

Cable section: 0.5 mm² - 1.5 mm²

Maximum consumption: 2 VA

Operating conditions: -10T60 °C, 10-90% RH

Protection degree: IP20

Accuracy of temperature measurement: range 0T40 °C ± 1 °C; over: ± 1.5 °C

Connections: Serial 485: AWG 20-22, shielded cable, Lmax = 500 m

Note: To mount the rear must be at least a concealed housing Ø 65 mm and 31 mm depth

Model	Pcs. pack	Code
Room temperature sensor bus 24Vac	1	28154331
Room temperature and humidity sensor bus 24Vac	1	28154341
Room temperature sensor bus 230Vac	1	28154351
Room temperature and humidity sensor bus 230 Vac	1	28154361

Dimensions: see section Technical Attachments page 490



Room temperature - humidity sensor

Power supply 9/30 Vdc +- 10% - 12/24 vac -10%, +15%

Absorption (outputs active) - current outputs (maximum absorption with two outputs) - 35 mA with 12 Vdc power supply - 24 mA with 24 Vdc power supply - 50 mA with 12 Vac power supply - 24 mA with 24 Vac power supply - voltage outputs (typical absorption with 10 kΩ load) - 10 mA with 12 Vdc power supply - 8 mA with 24 Vdc power supply - Working temperature range -10 to 60 °C - Working humidity range 10 to 90% R.H. (0 to 50 °C) - Temperature sensor NTC - Index of protection of casing IP 30 - Index of protection of sensing element IP 30

Model	Pcs. pack	Code
Temperature sensor	1	28153181
Temperature and humidity sensor	1	28153191

Dimensions: see section Technical Attachments page 489



Outdoor temperature sensor

Power supply DC 9 to 30 V - Power supply AC 12 to 24 V - Temperature sensor NTC - Index of protection of casing IP55 - Index of protection of sensing element IP54 - Working range: -20 / +70 °C

Dimension	Pcs. pack	Code
	1	28153201

Dimensions: see section Technical Attachments page 490



Flow temperature sensor

Dimension	Pcs. pack	Code
	1	28153210

Dimensions: see section Technical Attachments page 490



Socket for immersion type water sensor

Dimension	Pcs. pack	Code
G 1/4", L=83 mm	1	28153220

Dimensions: see section Technical Attachments page 490



Transformer 230/24V 10 VA

230/24V, P=10VA, f=50/60Hz

Dimension	Pcs. pack	Code
2 DIN modules	1	28139130

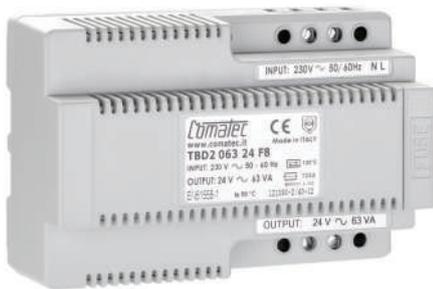
To be used to power 0-10V / 24 Vac servomotors (the number of servomotors that can be powered depends on the load required).

Dimensions: see section Technical Attachments page 488



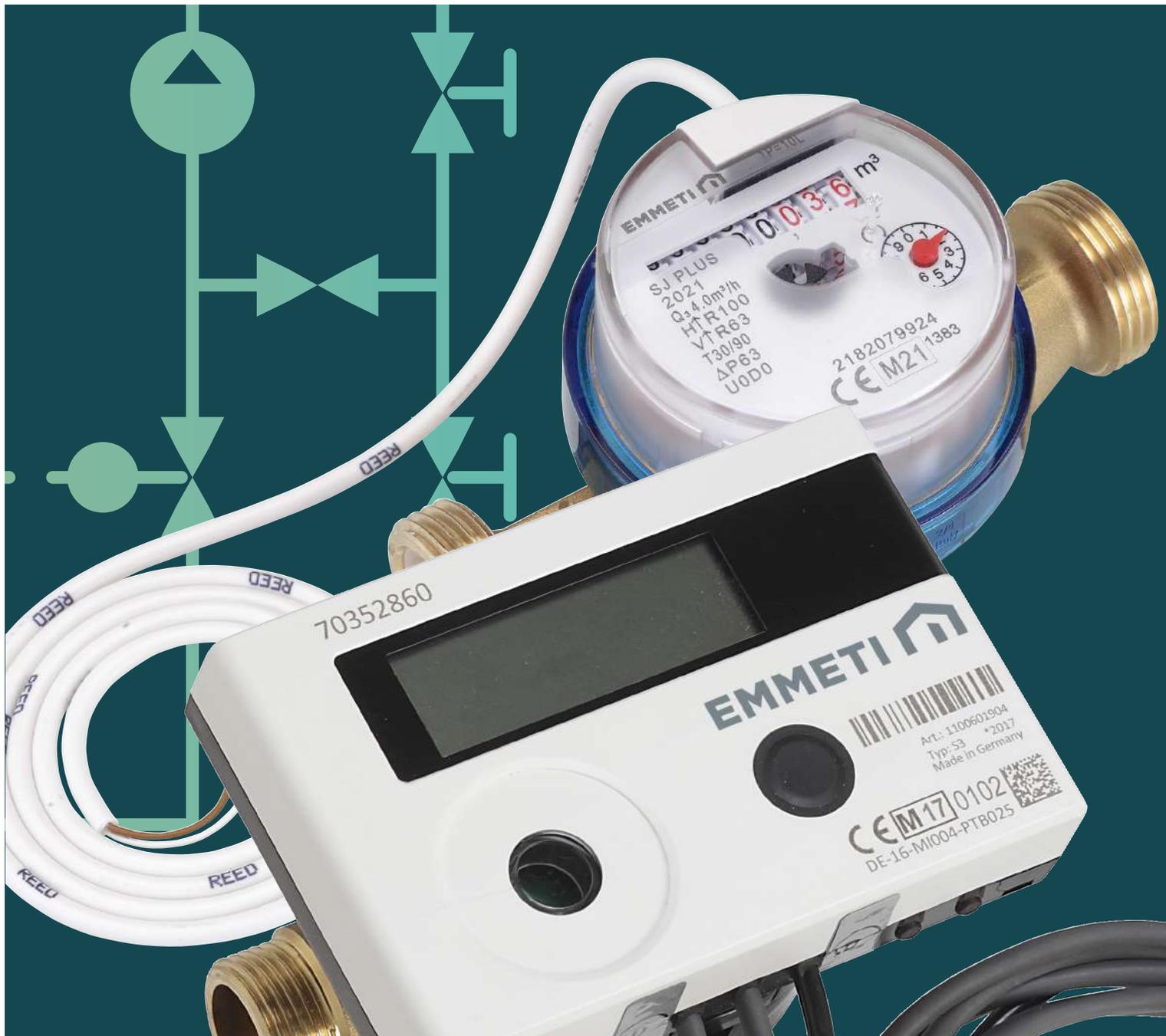
Transformer 230/24V 35 VA

Dimension	Pcs. pack	Code
5 DIN modules	1	28153410



Transformer 230/24V 63 VA

Dimension	Pcs. pack	Code
8 DIN modules	1	28153420



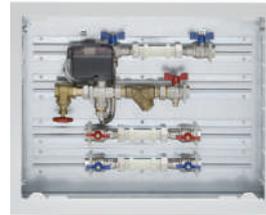
Consumption measuring system

Modules for the accounting of thermal and sanitary consumption



SCAN

> Energy Box Compact and Energy Box
modules for accounting
in box



..... 252

> Single modules
for accounting



..... 258

> Energy Wall
built-in cabinets



..... 261

> Energy Combibox Floor
module for accounting
in box for instant ACS production



..... 265

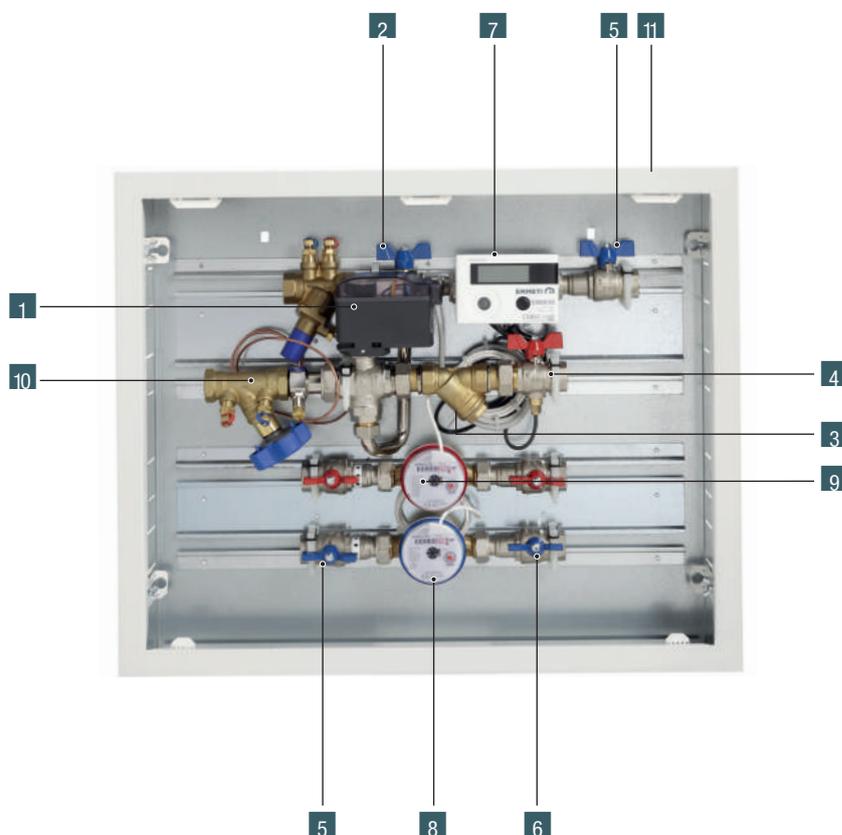
> Instruments



..... 269

Energy Box Compact

Compact modules for accounting of heating and plumbing consumption



Construction

- 1 Motorized ball valve DN20 4-way with by-pass passage (or 2-way depending on the model)
- 2 Ball valve DN20 with 3rd by-pass way
- 3 Impurity collection filter DN20
- 4 Ball valve DN20 with probe connection M10x1
- 5 Ball valve DN20 with integrated retaining cartridge
- 6 Ball valve DN20 with swivel nut for measuring instruments
- 7 Thermal energy meter with 3 pulse inputs and M-Bus output.
- 8 Cold water pulse-emitting volumetric meter
- 9 Hot water pulse-emitting volumetric meter
- 10 Dynamic balancing kit
- 11 Plastified galvanised metal box with key-operated lock for 120 mm partition

Technical data

Heat carrier fluid: water
Maximum operating temperature, heating circuit: 90 °C
Maximum operating pressure, heating circuit: 6 bar
Maximum temperature of domestic hot water: 85 °C
Maximum temperature of domestic cold water: 30 °C
Maximum domestic water pressure: 6 bar
Thread of connection valve UNI EN 10226-1

Operation

Compact thermal and domestic water heating consumption measuring modules (with centralized production of hot water), equipped with 2- or 4-way zone valve, set up for installation of a DN15 or DN20 energy meter and DN15 volumetric meter.

The zone valve is controlled by the temperature control thermostat of the individual residential unit, and this allows complete separation of the thermal zone of each flat on the centralized distribution network. In the models equipped with a 4-way zone valve, the by-pass passage realizes the pressure drops when the 4-way valve is open, so as to stabilize the operating conditions of the centralized system. Furthermore, to facilitate the balancing of the condominium distribution system and to avoid any problems of poor service caused by the greater transit of fluid in some modules to the disadvantage of others, a calibration and balancing gate valve is supplied installed on the fluid flow line in the housing in order to guarantee the transit of the design flow for each individual residential unit. As an accessory it is possible to equip the module with a dynamic balancing kit, to be installed on the delivery and return lines, to guarantee the maintenance of the differential pressure in any operating condition with different flow rates.

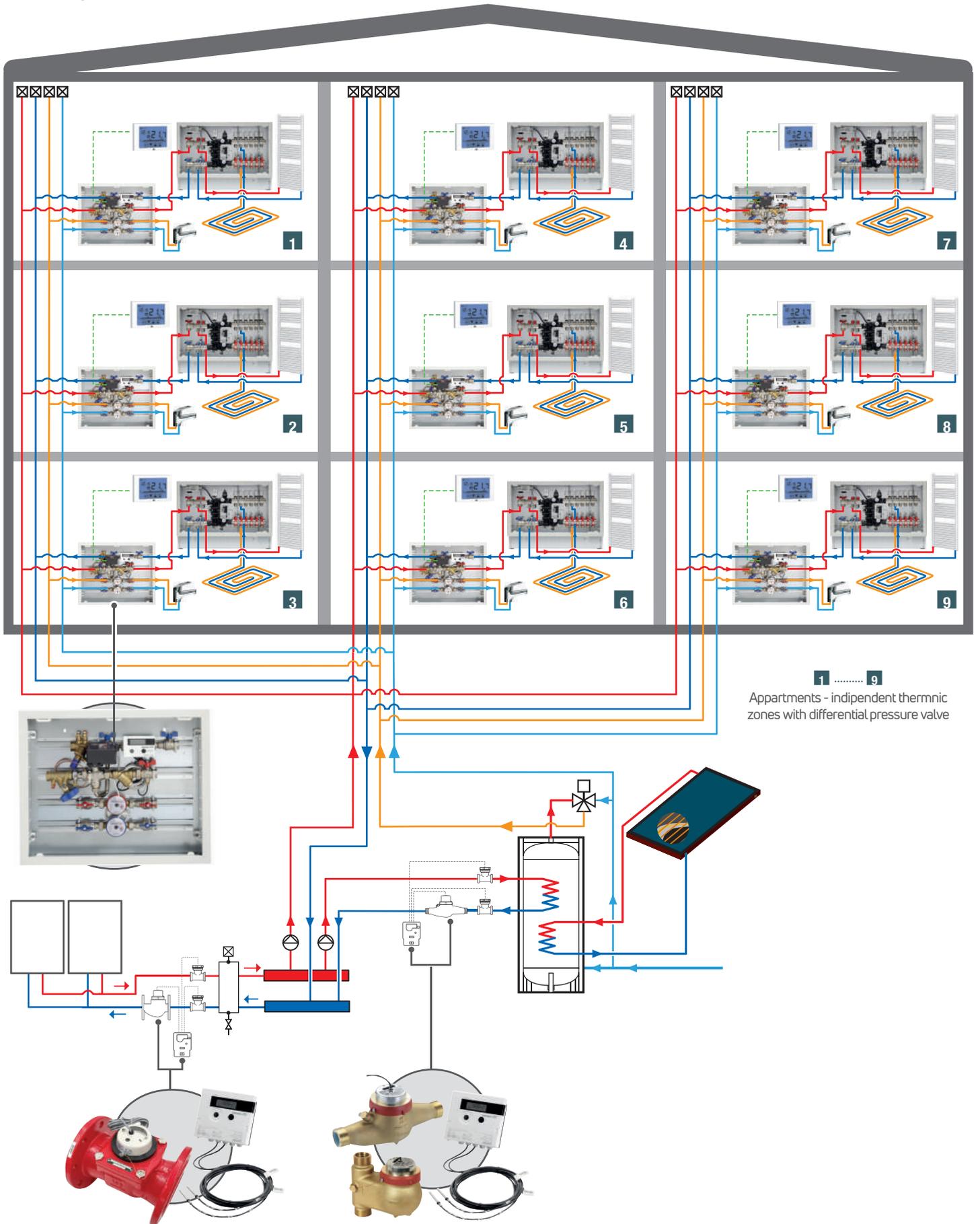
Plant expansion

N.B. Testing and starting up the system are not included in the sales price.

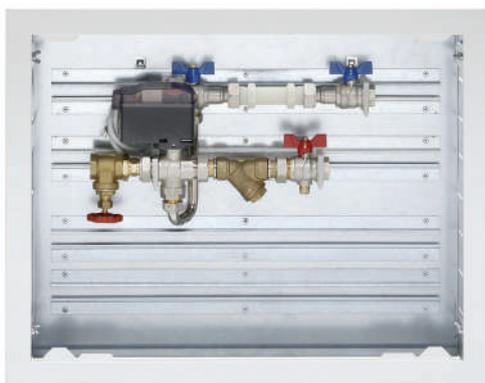
Dimensions: see section Technical Attachments page 492

Energy Box Compact

Example of installation



Compact modules for accounting



Heating/cooling consumption measuring, 4-way zone valve

Composition

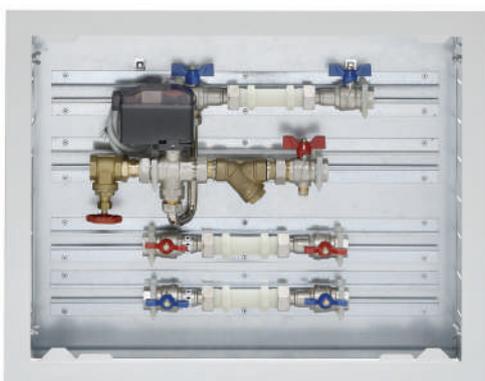
Galvanized metal box with key-operated lock - Zone valve DN20 4-way with by-pass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Gate valve DN20 to calibrate and balance the heating/cooling circuit

Dimension	Box Dimension	Pcs. pack	Code
DN 15 (*)	L 600	1	28170130
DN 20 (**)	L 600	1	28170132

(*) setup for thermal energy counter size DN15 (connection 3/4")

(**) setup for thermal energy counter size DN20 (connection 1")

The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system.



Heating/cooling and hot/cold domestic water consumption measuring, 4-way zone valve

Composition

Galvanized metal box with key-operated lock - Zone valve DN20 4-way with by-pass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Ball valve DN20 with integrated retaining cartridge on domestic water line - Gate valve DN20 to calibrate and balance the heating/cooling circuit

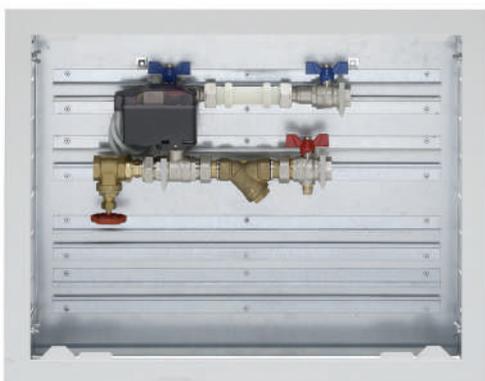
Dimension	Box Dimension	Pcs. pack	Code
DN15 (*)	L 600	1	28170134
DN20 (**)	L 600	1	28170136
DN20 / DN20 (***)	L 600	1	28170138

(*) setup for thermal energy meter size DN15 (connection 3/4") and volumetric counter DN15 (connection 3/4")

(**) setup for thermal energy meter size DN20 (connection 1") and volumetric counter DN15 (connection 3/4")

(***) setup for thermal energy meter size DN20 (connection 1") and volumetric counter DN20 (connection 1")

The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system



Heating/cooling consumption measuring, 2-way zone valve

Composition

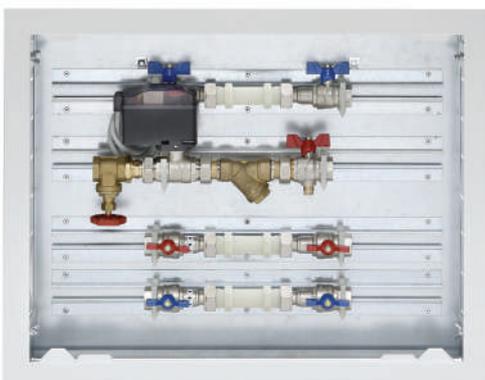
Galvanized metal box with key-operated lock - Zone valve DN20 2-way - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Gate valve DN20 to calibrate and balance the heating/cooling circuit

Dimension	Box Dimension	Pcs. pack	Code
DN15 (*)	L 600	1	28170146
DN20 (**)	L 600	1	28170148

(*) setup for thermal energy counter, size DN15 (connection 3/4")

(**) setup for thermal energy counter, size DN20 (connection 1")

The boxes thus assembled are suitable for connection on the left side of the main pipelines of centralized system



Heating/cooling and hot/cold domestic water consumption measuring, 2-way zone valve

Composition

Galvanized metal box with key-operated lock - Zone valve DN20 2-way - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Ball valve DN20 with integrated retaining cartridge on domestic water line - Gate valve DN20 to calibrate and balance the heating/cooling circuit

Dimension	Box Dimension	Pcs. pack	Code
DN15 (*)	L 600	1	28170150
DN20 (**)	L 600	1	28170152
DN20 / DN 20 (***)	L 600	1	28170154

(*) setup for thermal energy meter size DN15 (connection 3/4") and volumetric counter DN15 (connection 3/4")

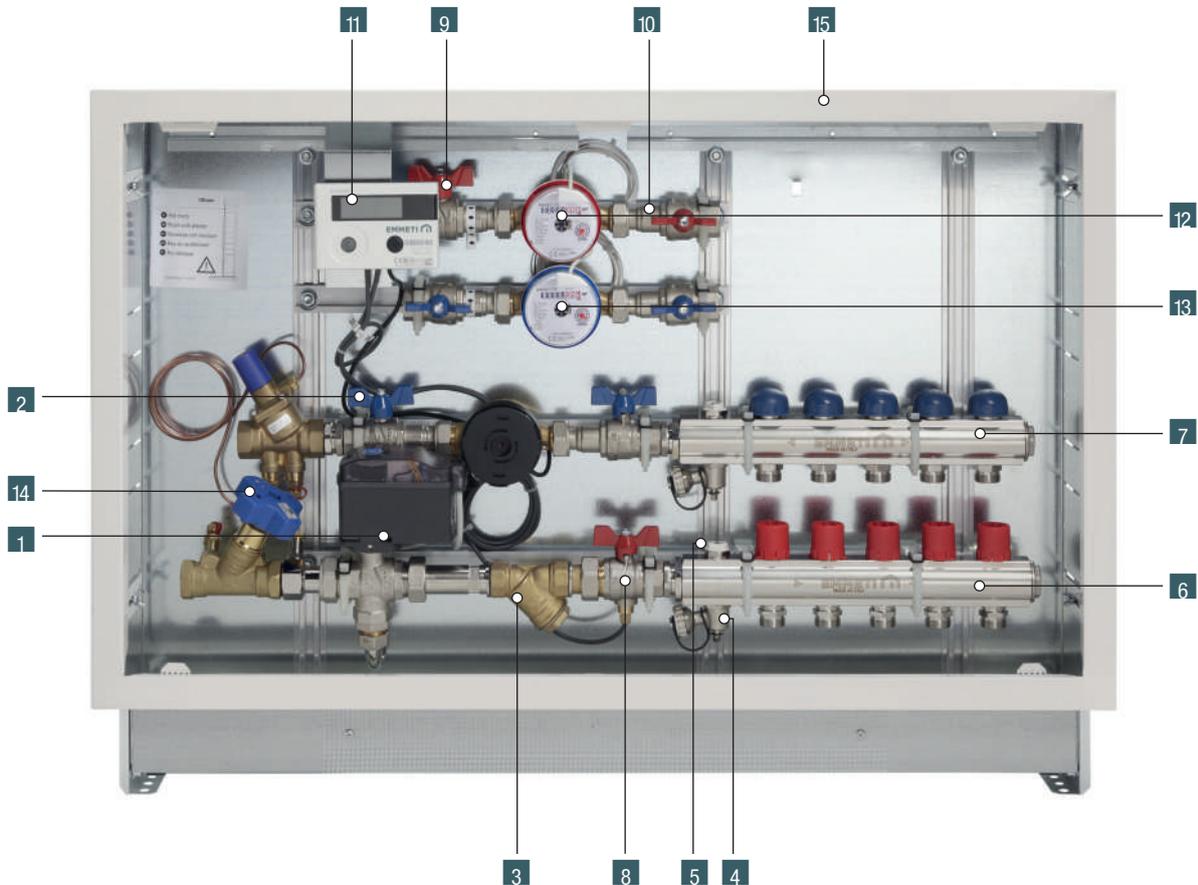
(**) setup for thermal energy meter size DN20 (connection 1") and volumetric counter DN15 (connection 3/4")

(***) setup for thermal energy meter size DN20 (connection 1") and volumetric counter DN20 (connection 1")

The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system

Energy Box

Modules for accounting of heating and plumbing consumption



Construction

- 1 Motorized valve DN20 4-way with by-pass passage
- 2 Ball valve DN20 with 3rd by-pass way
- 3 Impurity collection filter DN20
- 4 Discharge bibcock
- 5 Manual vent valve
- 6 Delivery manifold
- 7 Return manifold
- 8 Ball valve DN20 with probe connection M10x1
- 9 Ball valve DN20 with integrated check cartridge
- 10 Ball valve DN20 with swivel joint for accounting instruments
- 11 Measuring device for thermal energy with 3 impulsive input and M-Bus output
- 12 Hot water impulse launch volumetric counter
- 13 Cold water impulse launch volumetric counter
- 14 Metal cabinet Metalbox Plus with key-operated lock
- 15 Dynamic balancing kit DN20

Technical data

Heat carrier fluid: water
 Maximum operating temperature, heating circuit: 90 °C
 Maximum operating pressure, heating circuit: 6 bar
 Maximum temperature of domestic hot water: 90 °C
 Maximum temperature of domestic cold water: 30 °C
 Maximum domestic water pressure: 6 bar
 Thread of connection valve UNI EN 10226-1

Operation

Thermal and domestic water heating consumption measuring modules (with centralized production of hot water), equipped with 4-way zone valve, set up for installation of a DN15 energy meter and DN15 volumetric meter, with distribution collectors: available in a box for built-in installation or with brackets for direct wall-mounted installation. The zone valve is controlled by the temperature control thermostat of the individual residential unit, and this allows complete separation of the thermal zone of each flat on the centralized distribution network; the by-pass passage realizes the pressure drops when the 4-way valve is open, so as to stabilize the operating conditions of the centralized system.

Furthermore, to facilitate the balancing of the condominium distribution system and to avoid any problems of poor service caused by the greater transit of fluid in some modules to the disadvantage of others, a kit with a dynamic balancing valve is supplied as an accessory to be installed on the delivery and return lines to guarantee the maintenance of the differential pressure in all operating conditions, with different flow rates.

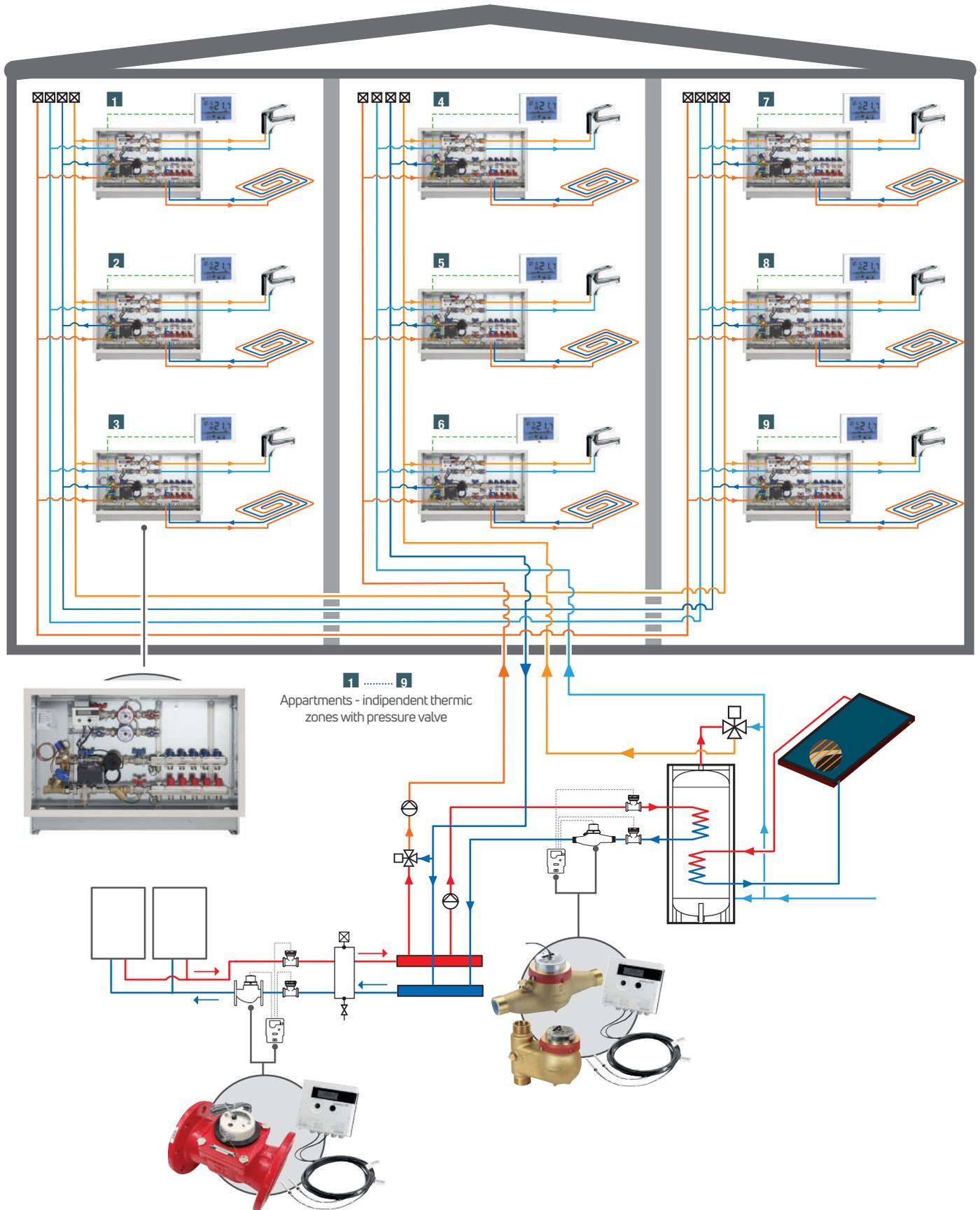
Plant expansion

N.B. Testing and starting up the system are not included in the sales price.

Dimensions: see section **Technical Attachments** page 491

Energy Box

Example of installation with accounting modules complete with dynamic balancing kit



Modules for accounting



Heating/cooling consumption measuring with flow-return manifolds of 1" (2÷12 ways) equipped with valves and lockshields

Composition

Galvanized metal box with key-operated lock - Zone valve DN20 4-way with bypass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Charge/discharge bibcocks - Manual vent valve - Ball valve DN20 with pipe union - Flow-return manifolds 1" (2÷12 ways) equipped with valves and lockshields - Setup for thermal energy counter, size DN15 (connection 3/4")

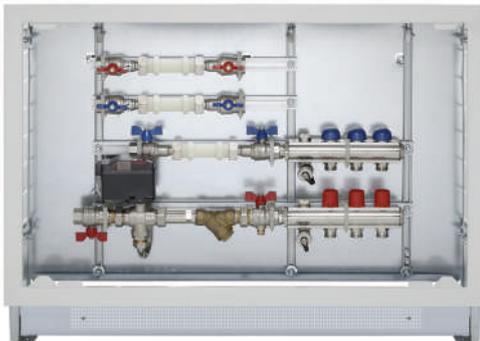
A flow rate meter can be installed instead of the stoppers once all of the hydraulic connections have been made on site. This must be done by the installer

Dimension	Box Dimension	Pcs. pack	Code
DN15 - 2 ways	L 700	1	28170350
DN15 - 3 ways	L 850	1	28170352
DN15 - 4 ways	L 850	1	28170354
DN15 - 5 ways	L 850	1	28170356
DN15 - 6 ways	L 1000	1	28170358
DN15 - 7 ways	L 1000	1	28170360
DN15 - 8 ways	L 1000	1	28170362
DN15 - 9 ways	L 1200	1	28170364
DN15 - 10 ways	L 1200	1	28170366
DN15 - 11 ways	L 1200	1	28170368
DN15 - 12 ways	L 1200	1	28170370

The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system.

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm



Heating/cooling and hot/cold domestic water consumption measuring with flow-return manifolds of 1" (2÷12 ways) equipped with valves and lockshields

Composition

Galvanized metal box with key-operated lock - Zone valve DN20 4-way with bypass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Charge/discharge bibcocks - Manual vent valve - Ball valve DN20 with pipe union - Ball valve DN20 with check valve on sanitary water line - Flow-return manifolds 1" (2÷12 ways) equipped with valves and lockshields - Setup for thermal energy counter, size DN15 (connection 3/4") - Setup for volumetric counters of domestic water, size DN15 (connection 3/4")

A flow rate meter can be installed instead of the stoppers once all of the hydraulic connections have been made on site. This must be done by the installer

Dimension	Box Dimension	Pcs. pack	Code
DN15 - 2 ways	L 700	1	28170450
DN15 - 3 ways	L 850	1	28170452
DN15 - 4 ways	L 850	1	28170454
DN15 - 5 ways	L 850	1	28170456
DN15 - 6 ways	L 1000	1	28170458
DN15 - 7 ways	L 1000	1	28170460
DN15 - 8 ways	L 1000	1	28170462
DN15 - 9 ways	L 1200	1	28170464
DN15 - 10 ways	L 1200	1	28170466
DN15 - 11 ways	L 1200	1	28170468
DN15 - 12 ways	L 1200	1	28170470

The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system.

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.



Single heating/cooling accounting module with 4-way zone valve with bypass passage

Composition

Zone valve DN20 4-way with bypass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20

Dimension	Pcs. pack	Code
DN 15 (*)	1	28170906
DN 20 (**)	1	28170908

(*) Prepared for installation of energy meter DN15 (3/4" connection)

(**) Prepared for installation of energy meter DN20 (1" connection)

It is not possible to install the "balancing valve kit" instead of the impurity collection filter inside the module. The assembly thus assembled is suitable for connection on the left side of the main pipelines of the centralized system

Thread of connection valve UNI EN 10226-1



Single heating/cooling accounting module with 2-way zone valve

Composition

Zone valve DN20 2-way - Servomotor: 230 Vac, 50 Hz - Ball valve DN20 - Setup for thermal energy counter, size DN15 (connection 3/4")

Dimension	Pcs. pack	Code
	1	28170904

Thread of connection valve UNI EN 10226-1



Domestic cold water single accounting module

Composition

Ball valve DN20 with check valve and pipe union - Ball valve DN20 with pipe union - Setup for volumetric counters of domestic cold water, size DN15 (connection 3/4")

Dimension	Pcs. pack	Code
	1	28170900

Thread of connection valve UNI EN 10226-1



Domestic hot water single accounting module

Composition

Ball valve DN20 with check valve and pipe union - Ball valve DN20 with pipe union - Setup for volumetric counters of domestic hot water, size DN15 (connection 3/4")

Dimension	Pcs. pack	Code
	1	28170902

Thread of connection valve UNI EN 10226-1

Accessories Energy Box and Energy Box Compact



Dynamic balancing kit for Energy Box and Energy Box Compact

It allows to distribute the flow that serves a circuit, maintaining the constant differential pressure.

The differential pressure value can be adjusted, within a certain range, to guarantee the required flow rate within the circuit.

Technical data

Nominal pressure: PN20

Minimum operating temperature: -10 °C

Maximum working temperature: 120 °C

Maximum differential pressure: 450 kPa

Construction

DZR brass, stainless steel, greyron, pps with fiberglass

Seals: EPDM, HNBR

Size	Differential pressure regulation range		Pcs.pack	Code
3/4" F	20-60 kPa	DN20 - PVM20	1	01306870



Balance valve kit

Uses

Balance valves for correct calibration and adjustment of heating, cooling, and plumbing systems.

They are equipped as standard with two pressure plugs, quick coupling, for connection to the differential electronic pressure gauge.

Technical data

Maximum operating pressure: 20 bar

Minimum operating temperature: -20 °C (for water and glycol solutions)

Maximum operating temperature: 120 °C (for water and anti-boiling additives solutions)

Minimum pressure drop: 2 kPa

Construction

Body: DZR brass

Gaskets: EPDM

Note:

kit are setup for installation of temperature delivery sensor of thermal energy counter

Dimension	Pcs. pack	Code
3/4"	1	01306364

The kit is to be installed in place of the impurity collection filter (if present) once the system has been cleaned.



Differential pressure gauge

Instrument for measuring differential pressure, for dynamic balancing valve kit. Supplied with two rechargeable NiMH AA batteries, carrying case, flexible hoses complete with needles for grafts on pressure taps.

Technical data

Error margin for pressure: 0.15%

Error margin for temperature: 1.5%

Fluid temperature: from -5 °C to 90 °C

Battery powered: 2xAA

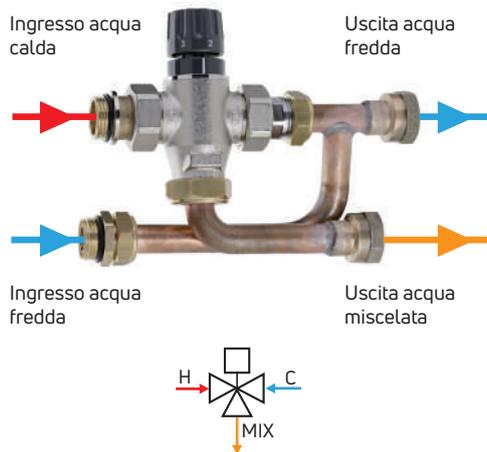
Display: illuminated 128x64 pixels

Dimensions: 94x218x40 mm

Degree of protection: IP65

Size	Pcs. pack	Code
	1	01406314

Accessories Energy Box and Energy Box Compact



Thermostatic mixer kit for domestic water

Dimensional data

Inlet connections: 3/4" male (O-Ring seal) - Outlet connections: 3/4" female
Connection centre distances: 75 mm - Maximum length of kit: 205 mm

Thermostatic mixer valve technical data

Maximum static pressure: 10 bar - Dynamic working pressure: 0 ÷ 5 bar
Maximum input temperature: 85 °C - Range of adjustment: 15 ÷ 45 °C*

Kv = 1.82 ÷ 2.90*

* Ideal conditions:

$T_H = 45\text{ °C}$

$T_C = 15\text{ °C}$

$\Delta p_{H-MIX} = \Delta p_{C-MIX}$

where:

H= hot water inlet - C= cold water inlet - MIX= mixed water outlet

Dimension	Pcs. pack	Code
	1	02708192

Accessory kit to be installed on the domestic hot and cold water lines downstream from the volumetric counters.

Thread UNI EN ISO 228-1



Set insulation shells for Energy Box Compact

Dimension	Pcs. pack	Code
	1	01306582

In closed-cell crosslinked expanded polyethylene.

For installation of the insulating shell, it's necessary to first remove the hydraulic assembly from the box (thus do not make the hydraulic and electrical connections before having installed the insulating shell).

Installed on all models Energy Box Compact DN15 - DN20, for connection to the left or right to the the main pipes of the centralized plant.



Kit flow meter

Dimension	Pcs. pack	Code
0÷2,5 l/min	4	01306828

The flow-rate meters can be installed on the Topway collectors in the place of the shut-off valves, once all the hydraulic connections have been made in the building site. This operation is performed by the installer

Energy Wall

Built-in or off-track cabinet meters for domestic water use consumption



Built-in or surface-mounted water heating consumption measuring cabinets for several users (up to 3 flats for the “max 3 users” model, up to 4 flats for the “max 4 users” model, up to 6 flats for the “max 6 users” model).

The cabinet can be built-in (recessed) or surface-mounted, and is fixed to the wall (as a shell) once the hydraulic modules are installed on the 2 vertical aluminium tracks supplied with the cabinet (and previously fixed to the wall with the plugs provided) and the hydraulic connections have been made; these connections can be made by passing the pipes through the lateral sides of the cabinet (using the precuts located on the cabinet) or having the pipes come out of the wall and then go back into it without exceeding the lateral dimension of the cabinet (in this case it's recommended that you use the “Templates Kit” and “Fittings for wall connection Kit”).

The small individual doors with key-operated lock guarantee that each user can only access the reading of his own consumption, without learning the consumptions of others (thus guaranteeing the users' privacy); furthermore the presence of a main lock on the door facilitates the reading of all the instruments installed by the assigned person (e.g.: condominium administrator).

Inside a cabinet for “max 3 users” it's possible to simultaneously install:

- max 3 “heating/cooling” assemblies, with setup for installation of a DN15 or DN20 thermal energy meter (depending on the model);
- max 3 “domestic hot water lines”, with setup for installation of a DN15 volumetric meter for domestic hot water;
- max 3 “domestic cold water lines”, with setup for installation of a DN15 volumetric meter for domestic cold water.

The analogous holds for the “max 4 users” and “max 6 users” models

As an accessory, it is possible to equip the module with a dynamic balancing kit, to be installed on the delivery and return lines, to guarantee the maintenance of the differential pressure in any operating condition with different flow rates.

Product ordering instructions

Order the desired cabinet (max 3 users, max 4 users or max 6 users) and order separately the “heating/cooling” assemblies and the “domestic hot water” and “domestic cold water” lines, depending on the number of flats for which the thermal and domestic water heating consumption must be measured.

Technical data

Heat carrier fluid: water
Maximum operating temperature, heating circuit: 90 °C
Maximum operating pressure, heating circuit: 6 bar
Maximum temperature of domestic hot water: 85 °C
Maximum temperature of domestic cold water: 30 °C
Maximum domestic water pressure: 6 bar
Thread of connection valve UNI EN 10226-1

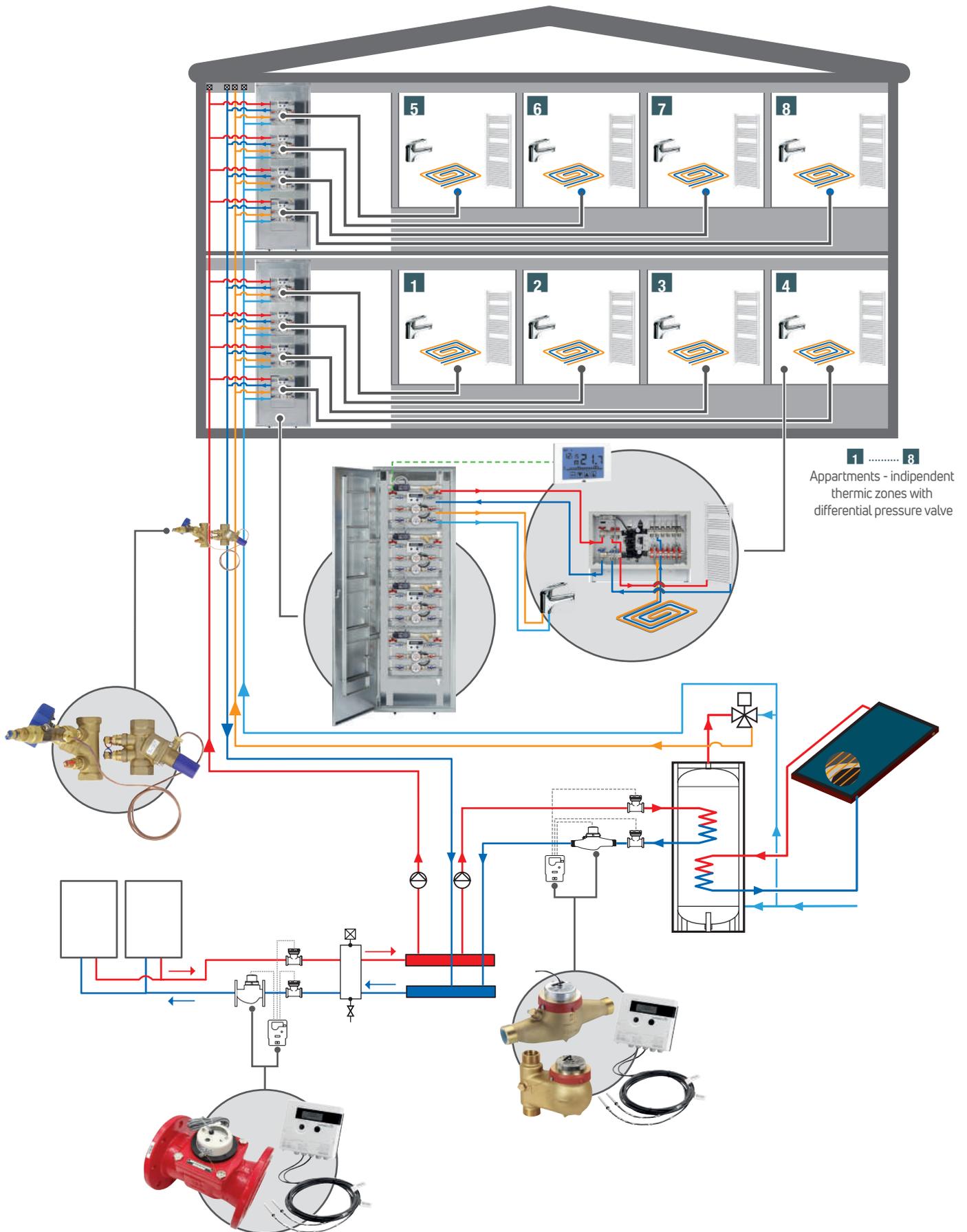
Plant expansion

N.B. Testing and starting up the system are not included in the sales price.

Dimensions: see section [Technical Attachments page 493](#)

Energy Wall

Example of installation with main distribution lines complete with dynamic balancing valves kit



Cabinet meters



Cabinet for metering units

Material: metal sheeting in galvanized steel, depth 12/10 mm, paintable, complete with 2 vertical aluminium guides (for wall mounting the hydraulic modules for the various utilities) and 10 blocks with screws. Prepared for installation of impulse adaptors on the inside of the hatch door. The cabinet should be wall mounted only after installing the utility units and executing hydraulic connections.

Dimension	Pcs. pack	Code
Max 3 utilities (*)	1	01301204
Max 4 utilities (**)	1	01301200
Max 6 utilities (***)	1	01301202

(*) Allows simultaneous installation of:

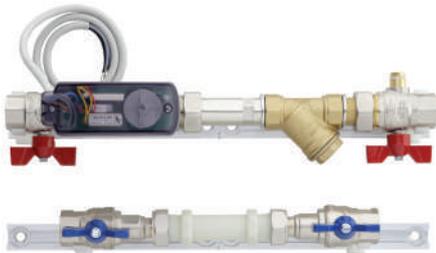
- max 3 "heating/cooling" units DN15 or DN20
- max 3 "domestic hot water lines"
- max 3 "domestic cold water" lines

(**) Allows simultaneous installation of:

- max 4 "heating/cooling" units DN15 or DN20
- max 4 "domestic hot water lines"
- max 4 "domestic cold water" lines

(***) Allows simultaneous installation of: max 6 "heating/cooling" units DN15 or DN20

- max 6 "domestic hot water lines"
- max 6 "domestic cold water lines"



Heating/cooling unit for cabinets

Composition

2-way valve for area DN20 - Servo-motor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with plug

Dimension	Pcs. pack	Code
DN15 (*)	1	01301210
DN20 (**)	1	01301212

(*) prepared for installation of energy meter DN15 (coupling 3/4")

(**) prepared for installation of energy meter DN20 (coupling 1")

Main couplings: 3/4" F. Complete with 2 aluminium crosspieces and 4 plastic supports for mounting the unit to the vertical guides provided with the cabinet.

Thread of connection valve UNI EN 10226-1



Domestic hot water line for cabinets

Composition

Ball valve DN20 with no-return cartridge built-in and plug - Ball valve DN20 with plug

Dimension	Connection	Pcs. pack	Code
DN15	3/4" F	1	01301220

Main couplings: 3/4" F.

Prepared for installation of domestic hot water volumetric meter, measure DN15 (couplings 3/4").

Thread of connection valve UNI EN 10226-1



Domestic cold water line for cabinets

Composition

Ball valve DN20 with no-return cartridge built-in and plug - Ball valve DN20 with plug

Dimension	Connection	Pcs. pack	Code
DN15	3/4" F	1	01301222

Main couplings: 3/4" F. Prepared for installation of domestic cold water volumetric meter, measure DN15 (couplings 3/4").

Cabinet meters

Accessories for Energy Wall



Condensation collection tank kit + electronic unit support kit for cabinets

The kit consists of 1 tank complete with drain trap and metal sheet support necessary for detaching the energy meter electronic unit from the brass body of the meter. It is recommended to use this kit (1 for each utility installed in the cabinet) in the case of cooling unit functioning.

Dimension	Pcs. pack	Code
	1	01301224



Balance valve kit

Uses

Balance valves for correct calibration and adjustment of heating, cooling, and plumbing systems. They are equipped as standard with two pressure plugs, quick coupling, for connection to the differential electronic pressure gauge.

Technical data

Maximum operating pressure: 20 bar - Minimum pressure drop: 2 kPa
 Minimum operating temperature: -20 °C (for water and glycol solutions)
 Maximum operating temperature: 120 °C (for water and anti-boiling additives solutions)

Construction

Body: DZR brass; Gaskets: EPDM

Note: kit are setup for installation of temperature delivery sensor of thermal energy counter

Dimension	Pcs. pack	Code
3/4"	1	01306364

The kit is to be installed in place of the impurity collection filter (if present) once the system has been cleaned.

Dynamic balancing kit



Dynamic balancing kit

The dynamic balancing kits are composed of:

- 1 Balancing valve
- 2 Capillary tube
- 3 Differential pressure valve
- 4 T-fitting with measuring and drainage socket

They allow to distribute the flow that serves a circuit, maintaining the constant differential pressure. The differential pressure value can be adjusted within a given range to ensure the required flow rate within the circuit.

Technical data

Nominal pressure: PN20 - Minimum operating temperature: -10 °C
 Maximum working temperature: 120 °C - Maximum differential pressure: 450kPa

Construction

DZR brass, stainless steel, greyiron, PPS with glass fiber; seals: EPDM, HNBR

Dimension	Differential pressure regulation range		Pcs. pack	Code
1/2" F	20-60 kPa	DN15 - PVM15	1	01406296
3/4" F	20-60 kPa	DN20 - PVM20	1	01406298
1" F	20-80 kPa	DN25 - PVM25	1	01406300
1 1/4" F	20-80 kPa	DN32 - PVM30	1	01406302
1 1/2" F	20-80 kPa	DN40 - PVM40	1	01406304
2" F	20-80 kPa	DN50 - PVM50	1	01406306

Threads: G (UNI EN 10226)



Differential pressure gauge

Instrument for measuring differential pressure, for dynamic balancing valve kit. Supplied with two rechargeable NiMH AA batteries, carrying case, flexible hoses complete with needles for grafts on pressure taps.

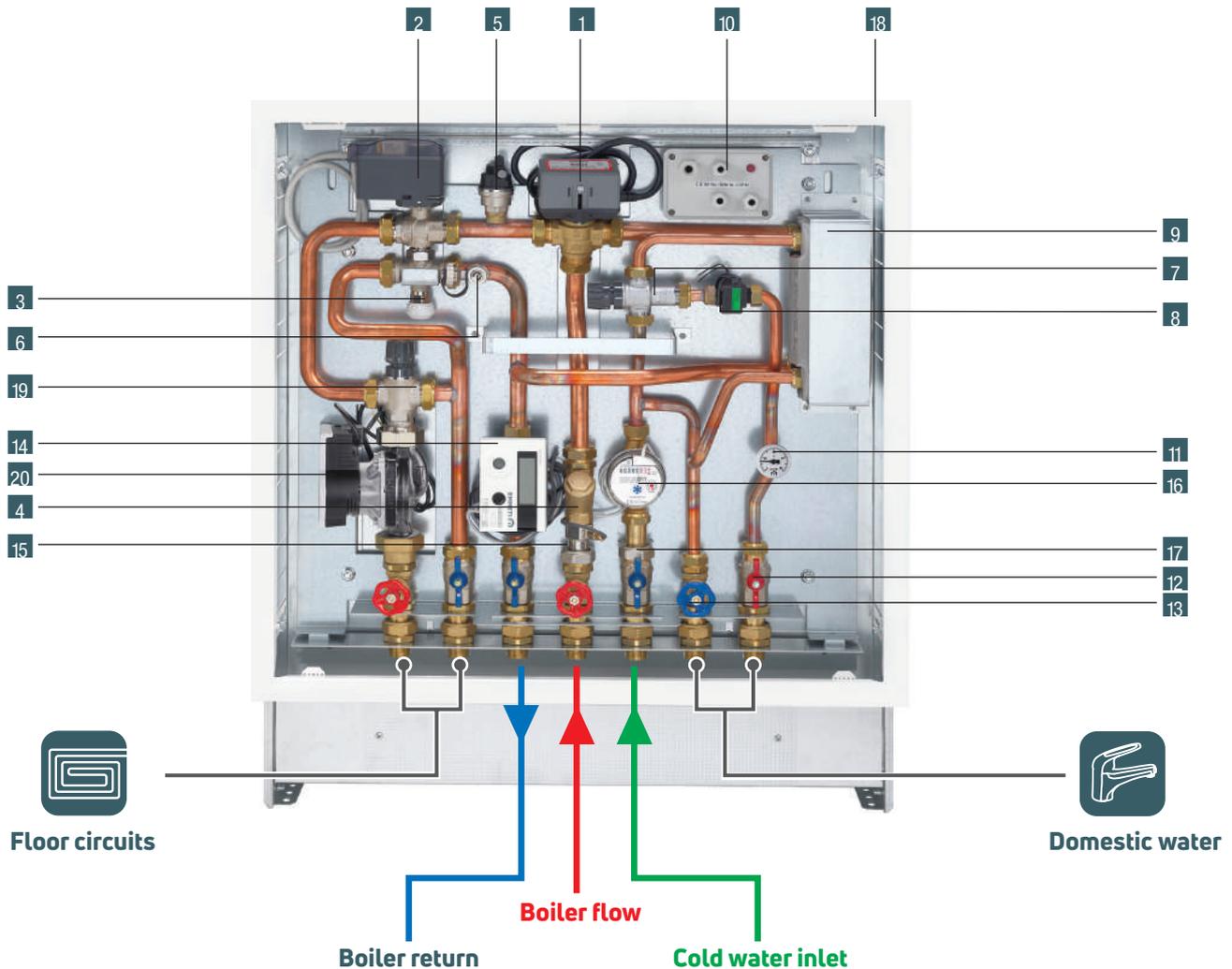
Technical data

Error margin for pressure: 0.15% - Error margin for temperature: 1.5%
 Fluid temperature: from -5 °C to 90 °C - Battery powered: 2xAA
 Display: illuminated 128x64 pixels - Dimensions: 94x218x40 mm
 Degree of protection: IP65

Dimension	Pcs. pack	Code
	1	01406314

Energy Combibox Floor

Built-in modules for accounting of heating and plumbing consumption with instant production of sanitary hot water



“Energy Combibox Floor” was designed to be split into two parts (supplied pre-assembled):

- The external casing, with fittings for connection to the system, which can be installed separately at first, to prevent theft or soiling of components;
- The internal module, which all components are secured to, and which is easy to install at a later date, since it features rapid fittings and lifting handles.

Dimensions:
see section **Technical Attachments** page 494

Construction

- 1 Motorized diverter valve DN25 for domestic water priority
- 2 Motorized zone valve DN20 4-way with bypass passage
- 3 Differential bypass valve
- 4 Impurity collection filter DN20
- 5 Automatic air vent valve
- 6 Drain/filling valve with adjustable connection and safety cap
- 7 Thermostatic mixer valve DN15 for domestic water
- 8 Priority flow switch for instantaneous production of domestic hot water
- 9 Braze-welded heat exchanger
- 10 Box for electrical wiring
- 11 Control thermometer with scale 0÷80 °C
- 12 Ball valves DN20
- 13 Gate valves DN20
- 14 Measuring device for thermal energy with 3 impulsive input and M-Bus output
- 15 Energy measurement device flow probe fitting, size M10x1
- 16 Impulse launch domestic cold water volumetric meter
- 17 Pipe union with non-return cartridge DN20 built-in
- 18 Galvanized metal box with key-operated lock for partition of 120 mm
- 19 Thermostatic mixing valve
- 20 Wilo Para 25/7 electronic circulator pump

Built-in modules for accounting

Operation

The Energy Combibox Floor module can work in 3 different conditions:

- 1 - Operation in heating mode: the priority valve (ref. n. 1 introductory figure) is diverted normally to the heating side and the zone valve (ref. n. 2 introductory figure), powered by the room thermostat, is open and conveys the heat carrier fluid into the user system.
- 2 - Operation in domestic hot water production mode: when domestic hot water is requested by the user system, the flow switch (ref. n. 8 introductory figure) switches the position of the priority valve (ref. n. 1 introductory figure), diverting the heat carrier fluid into the primary circuit of the plate exchanger (ref. n. 9 introductory figure). When the domestic hot water request ends, the flow switch returns to its original position (contact open) and the priority valve directs the heat carrier fluid normally to the heating circuit.
- 3 - Operation in by-pass mode: in the case in which neither domestic hot water nor thermal energy for heating the rooms is requested, the priority valve (ref. n. 1 introductory figure) is diverted normally to the heating circuit, while the zone valve (ref. 2 introductory figure) is in the by-pass position; in this manner the heat carrier fluid coming from the central heating plant is not directed to either the user heating system or the plate exchanger, but is redirected to the central heating plant once again.

Conditions of use

Heat carrier fluid: water

Maximum heating-side fluid temperature: 90 °C

Maximum heating-side operating pressure: 6 bar

Maximum domestic hot water-side operating temperature: 85 °C

Maximum domestic hot water-side operating pressure: 6 bar

Maximum inlet temperature of domestic cold water: 30 °C

Domestic hot water priority valve technical data

Power supply: 230 Vac, 50/60 Hz

Maximum absorption: 6 W

Nominal travel time: 7.2 s at 50 Hz, 6 s at 60 Hz

Maximum operating differential pressure: 4 bar

Technical data for thermostatic mixing valve for heating water

Range of adjustment: 25 °C - 55 °C*

*Nominal conditions: TH= 65 °C; TC=15 °C; $\Delta p_{H-MIX} = \Delta p_{C-MIX}$

Kw=1,8÷3,3

H= hot water inlet; C= cold water inlet; MIX= mixed water outlet

Zone valve technical data

Power supply: 230 Vac, 50/60 Hz

Absorption: 4 VA

Maximum differential pressure: 6 bar

Rotation angle: 90° (in closing), 270° (in opening)

Rotation time: 60" (in closing), 180" (in opening)

Auxiliary contact: 1 - free 5 A, 230 Vac (on/off)

Braze-welded heat exchanger technical data

Plates material: stainless steel 316L

Brazing material: copper

No. plates: 24

Exchange area: 0.28 m²

Exchange coefficient KA: 2200 W/K

Kv (primary = secondary): 8,1 (m³/h)/bar 0,5 at a temperature of 15 °C

Thermostatic mixing valve for domestic water technical data

Maximum pressure (static): 10 bar

Operating pressure (dynamic): 0÷5 bar

Maximum inlet temperature: 85 °C

Range of adjustment: 15÷45 °C

Kv maximum: 1.8*

Kv minimum: 1.3*

*values obtained with the following conditions:

TH = 45 °C; TC = 15 °C;

$\Delta p_H - MIX = \Delta p_C - MIX$

where: H= hot water inlet; C= cold water inlet; MIX= mixed water outlet

Flow switch technical data

Material: reinforced 66 nylon GF 30%

Maximum operating temperature: 88 °C

Maximum operating pressure: 15 bar

Flow rate: 1.7±0.3 l/min

Contact capacity: 0.2 A

Contact resistance: max 100 mΩ

Installation: horizontal

Box technical data

Box material: galvanized steel sheet, thickness 8/10 mm

Frame material: painted galvanized steel sheet (RAL 9010), thickness 8/10 mm

Lock: key

Dimensions (width x height x depth): 740x900x110 mm

Feet with adjustable height from 0 to 130 mm.

Complete with worksite cardboard protection.

Wilo Para 25/7 circulation pump

Thread UNI EN ISO 228-1: G 1 1/2

Takeoff 130 mm.

Variable rotation speed: 2580÷4700 rpm.

Fluids used:

Water cooling and heating; Water and glycol: max 1:1

Maximum static pressure: 7 m - Maximum capacity: 3.5 m³/h

Max water temperature 95 °C at room temperatures of 57 °C

Max water temperature 90 °C at room temperatures of 59 °C

Max water temperature 70 °C at room temperatures of 70 °C

Electrical connection 1-230 V +10% / -15%, 50/60 Hz

Protection class IPX 4D, F insulation

Nominal engine Power: 37 W

Energy consumption by 1-230 V: 8.2÷50W

Current consumption at 1-230V: 0.07÷0.44 A

Circulator compliance

ErP Directive

EN 61800-3

EN 61000-6-3 / EN 61000-6-4

EN 61000-6-2 / EN 61000-6-1

2014/35/UE (low voltage)

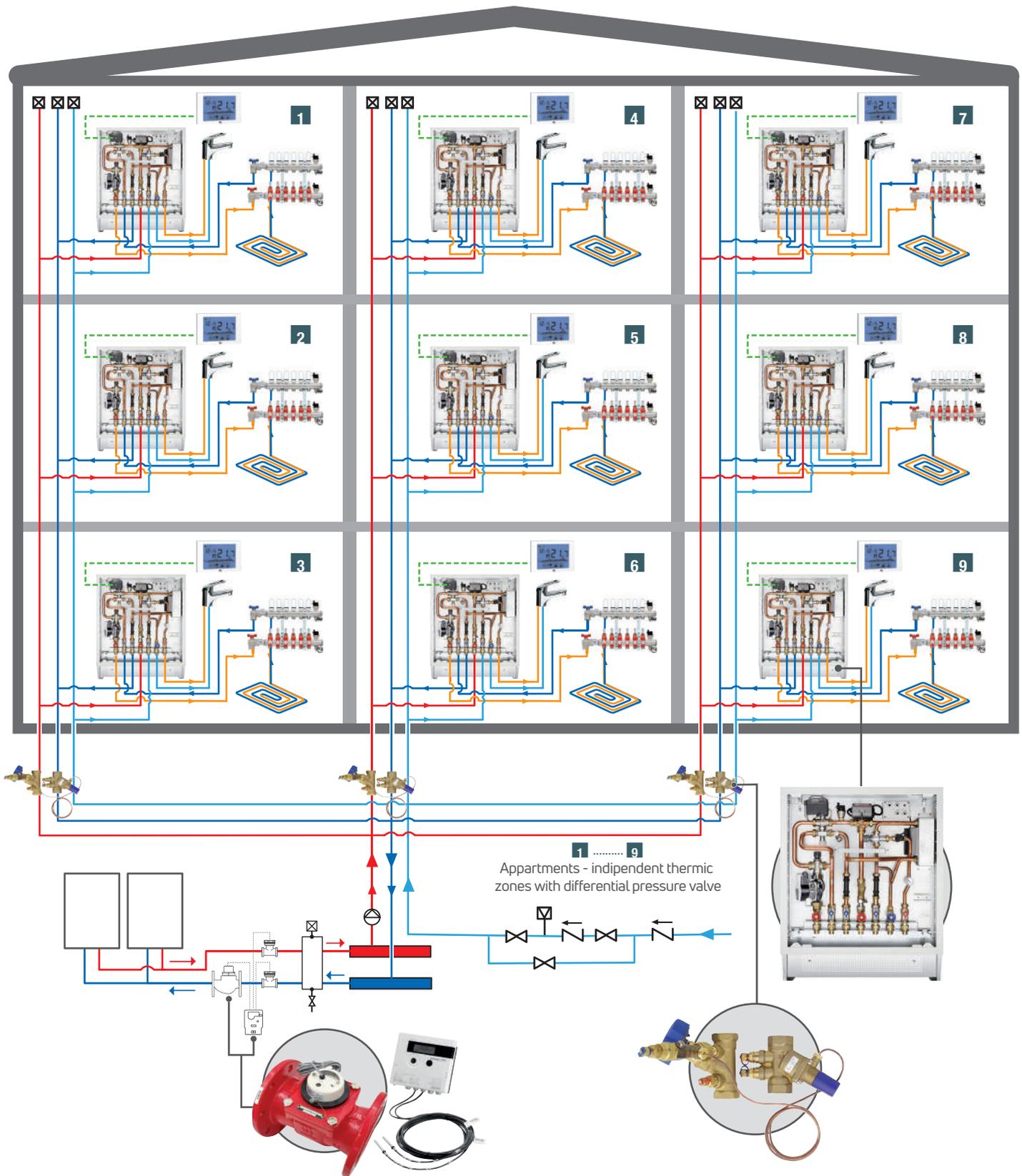
2014/30/UE (electromagnetic compatibility)

Plant expansion

N.B.: testing and starting up the system are not included in the sales price

Built-in modules for accounting

Example of installation



Built-in modules for accounting



Accounting substations with instantaneous production of domestic water with sections

Dimension	Box Dimension	Pcs. pack	Code
DN15 (*)	700	1	28170514

(*) Prepared for installation of energy meter DN15 and volumetric meter DN15 for domestic cold water.

Main connections: male 3/4" ISO 7/1 R (tapered thread), interaxis 70 mm.

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 10 days to order confirm

Dynamic balancing kit



Dynamic balancing kit

The dynamic balancing kits are composed of:

- 1 Balancing valve
- 2 Capillary tube
- 3 Differential pressure valve
- 4 T-fitting with measuring and drainage socket

They allow to distribute the flow that serves a circuit, maintaining the constant differential pressure. The differential pressure value can be adjusted within a given range to ensure the required flow rate within the circuit.

Technical data

Nominal pressure: PN20

Minimum operating temperature: -10 °C

Maximum working temperature: 120 °C

Maximum differential pressure: 450kPa

Construction

DZR brass, stainless steel, greyron, PPS with glass fiber

Seals: EPDM, HNBR

Size	Differential pressure regulation range		Pcs. pack	Code
1/2" F	20-60 kPa	DN15 - PVM15	1	01406296
3/4" F	20-60 kPa	DN20 - PVM20	1	01406298
1" F	20-80 kPa	DN25 - PVM25	1	01406300
1"1/4 F	20-80 kPa	DN32 - PVM30	1	01406302
1"1/2 F	20-80 kPa	DN40 - PVM40	1	01406304
2" F	20-80 kPa	DN50 - PVM50	1	01406306

Threads: G (UNI EN 10226)



Differential pressure gauge

Instrument for measuring differential pressure, for dynamic balancing valve kit. Supplied with two rechargeable NiMH AA batteries, carrying case, flexible hoses complete with needles for grafts on pressure taps.

Technical data

Error margin for pressure: 0.15%

Error margin for temperature: 1.5%

Fluid temperature: from -5 °C to 90 °C

Battery powered: 2xAA

Display: illuminated 128x64 pixels

Dimensions: 94x218x40 mm

Degree of protection: IP65

Size	Pcs. pack	Code
	1	01406314

Consumption measuring instruments

Components and accessories for direct reading consumption measuring



Direct reading EVO energy meter

Accuracy class according to UNI EN 1434: 3
 Environmental class according to UNI EN 1434: C
 Permanent flow rate: 0.6 or 1.5 m³/h (DN15 size), 2.5 m³/h (DN20 size)
 Maximum flow rate: 1.2 or 3 m³/h (DN15 size), 5 m³/h (DN20 size)
 Minimum flow rate DN15 size:
 horizontal installation 12 or 30 l/h, vertical installation 24 or 60 l/h
 Minimum flow rate DN20 size:
 horizontal installation 50 l/h, vertical installation 100 l/h
 Nominal pressure: 16 bar - Flow meter temperature range: 5 ÷ 90°C Electronic unit temperature range: 0 ÷ 150°C
 Flow-return temperature difference: 3 ÷ 100 K
 Type of probes: Pt1000 - Ø 5 mm - cable 1.5 m

Battery-powered, maximum estimated life, not guaranteed, of the battery 10 years (battery life is affected by the installation and usage conditions).
 The battery is guaranteed for 4 years from the date of sale.
 The battery can be replaced. Set up for external power supply (230 Vac) with optional feeder. Protection rating: IP65.
 Configured for installation on the return pipe with possibility of installation on the flow pipe.
 Product compliant with UNI EN 1434 and certified in accordance with Leg.Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) only using water as a fluid.

Dimension	Type	Kv	Pcs. pack	Code
DN15 Conn. M 3/4" - 0,6/1,2 m ³ /h	H/C (*)	1,52	1	02709540
DN15 Conn. M 3/4" - 1,5/3,0 m ³ /h	H/C (*)	3,27	1	02709542
DN20 Conn. M 1" - 2,5/5,0 m ³ /h	H/C (*)	6,15	1	02709544

(*) Hot/Cold

Threads G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 495



230 Vac power supply for EVO energy meter

Technical data

Input: 230 Vac (2.5 m cable);
 Output: 3 Vdc (1 m cable);
 Protection rating: IP65.
 In the event of a power cut, the backup battery (lithium, 3 Vdc) guarantees power for up to one year.

Dimension	Pcs. pack	Code
	1	02709580

Dimensions: see section Technical Attachments page 495



Sensor-holder Tee assembly

Dimension	Pcs. pack	Code
1/2" x (M10x1) x 1/2"	1	02708188
3/4" x (M10x1) x 3/4"	1	02708190

Threads G (UNI EN ISO 228-1)

Complete with male plug M10x1 to perform the system test run, before installing the energy meter. The assemblies are not necessary for the installation of the energy meters in individual and cassette Emmeti modules.

Dimensions: see section Technical Attachments page 496

Energy consumption measuring instruments



Direct reading volumetric counter for hot water SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)

Length of counter: 110 mm - Horizontal or vertical installation

Minimum Q1 flow rate: 25 L/h (horizontal installation)

Minimum Q1 flow rate: 39,7 L/h (vertical installation)

Permanent Q3 flow rate: 2.5 m³/h - Maximum Q4 flow rate: 3.13 m³/h

MID metrological class:

R (Q3/Q1) = 100 H (horizontal installation),

R (Q3/Q1) = 63 V (vertical installation)

Operating temperature: from 30 °C to 90 °C

Operating pressure (PN): 16 bar

Kv = 3,15

Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code
DN15 Connection M 3/4"	3,15	1	02709708

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 498



Direct reading volumetric counter for hot water SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)

Length of counter: 130 mm

Horizontal or vertical installation - Minimum Q1 flow rate: 40 L/h (horizontal installation)

Minimum Q1 flow rate: 63,5 L/h (vertical installation)

Permanent Q3 flow rate: 4 m³/h - Maximum Q4 flow rate: 5 m³/h

MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation)

Operating temperature: from 30 °C to 90 °C

Operating pressure (PN): 16 bar - Kv=5,04

Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code
DN20 Connection M 1"	5,04	1	02709716

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 498



Direct reading volumetric counter for cold water SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)

Length of counter: 110 mm

Horizontal or vertical installation

Minimum Q1 flow rate: 25 L/h (horizontal installation)

Minimum Q1 flow rate: 39,7 L/h (vertical installation)

Permanent Q3 flow rate: 2.5 m³/h - Maximum Q4 flow rate: 3.13 m³/h

MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation)

Maximum operating temperature: 50 °C

Operating pressure (PN): 16 bar

Kw=3,15

Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code
DN15 Connection M 3/4"	3,15	1	02709706

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 498

Energy consumption measuring instruments



Direct reading volumetric counter for cold water SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)

Length of counter: 130 mm

Horizontal or vertical installation

Minimum Q1 flow rate: 40 l/h (horizontal installation)

Minimum Q1 flow rate: 63,5 l/h (vertical installation)

Permanent Q3 flow rate: 4 m³/h - Maximum Q4 flow rate: 5 m³/h

MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation)

Maximum operating temperature: 50 °C - Operating pressure (PN): 16 bar

Kv=5,04

Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code
DN20 Connection M 1"	5,04	1	02709714

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 498



Pipes

Dimension	Connections	Pcs. pack	Code
L=110 mm (*)	3/4"	1	01306354
L=130 mm (**)	1"	1	01306358

(*) Predisposition for installation of measuring instruments DN15

(**) Predisposition for installation of measuring instruments DN20

Threads: G (UNI EN ISO 228-1)

Complete with no. 2 gaskets



Pipe union connections kit

Dimension	Pcs. pack	Code
3/4" F - 1/2" M	1	02708098
1" F - 3/4" M	1	02708110

Threads: G (UNI EN ISO 228-1)

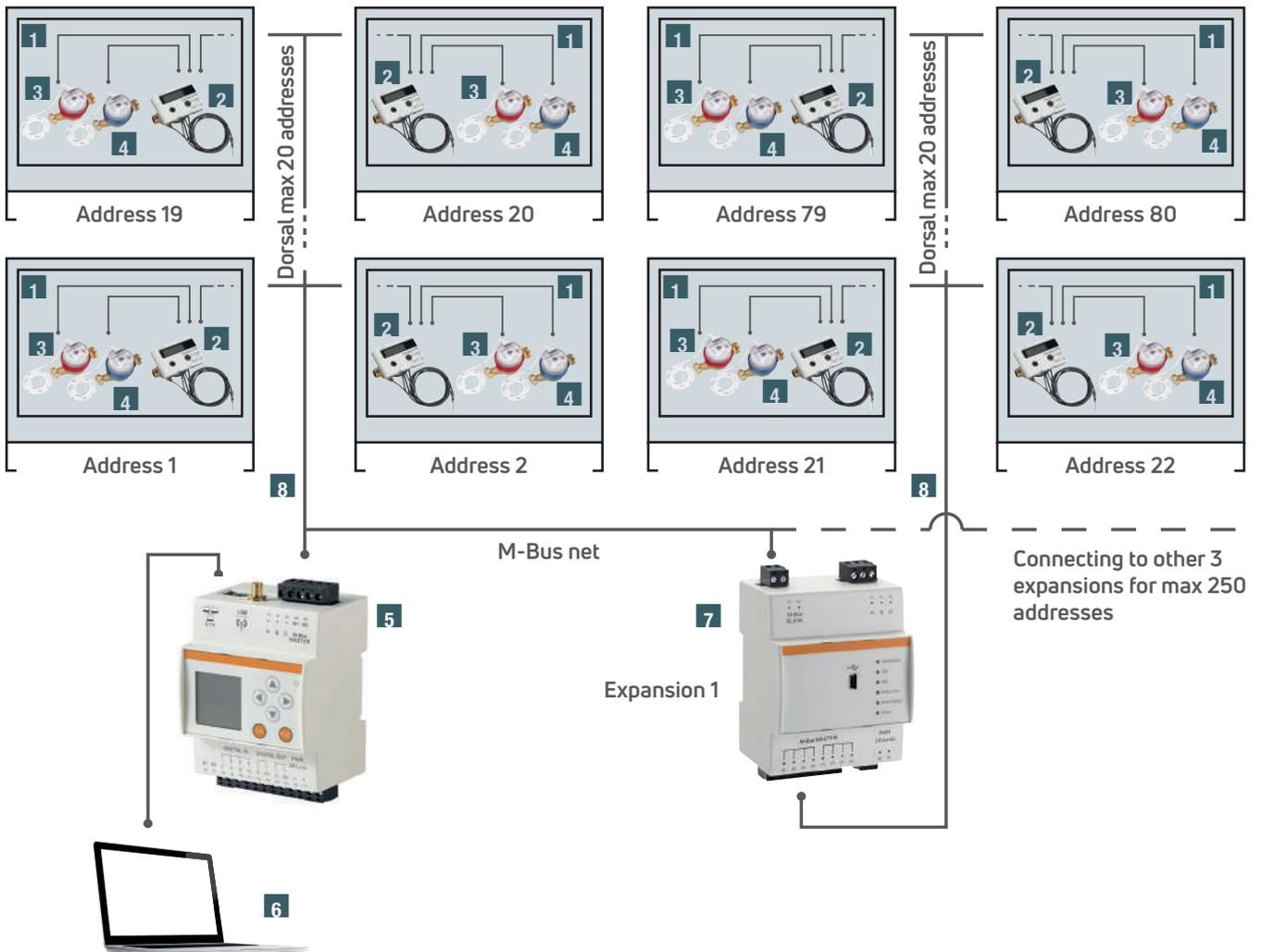
Body made of brass CW617N-DW (UNI EN 12164 and 12165)

The kit is not needed for the installation of the heat meter and water meters in the Emmeti modules singles or in boxes.

Energy consumption measuring instruments

Components and accessories for consumption measuring with data transmission

Installation scheme with energy meter with dual pulse input and concentrator



Note:

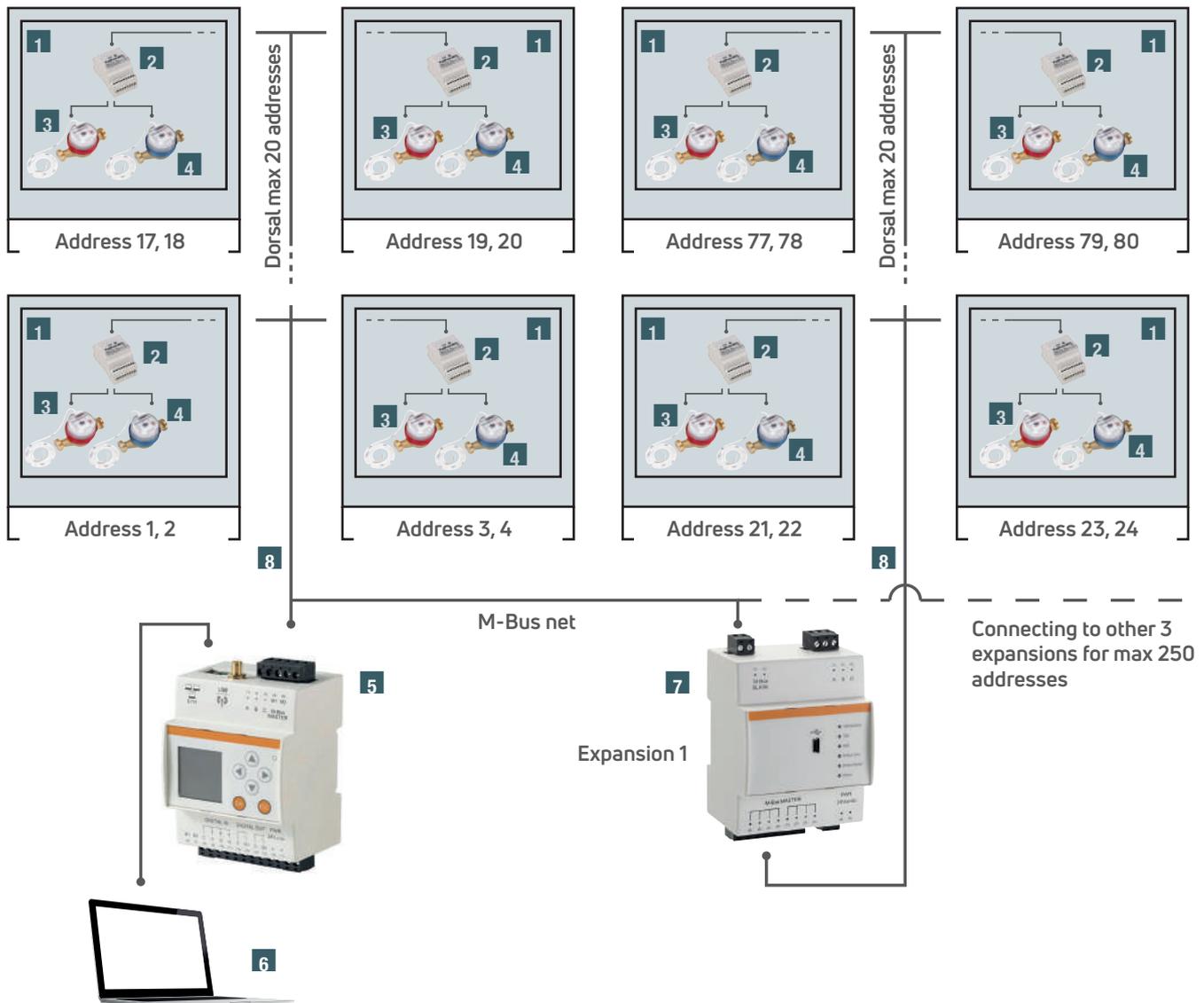
maximum no. of addresses that can be connected to a concentrator and relative expansions: 250 (concentrator can be combined up to 4 expansions to manage up to 250 addresses).

Construction

- 1 Accounting box (total no. of M-Bus addresses per box: 1)
- 2 Energy measuring device with data transmission double impulsive input
- 3 Hot water impulse launch volumetric counter
- 4 Cold water impulse launch volumetric counter
- 5 Concentrator up to 20 addresses
- 6 PC
- 7 Expansion up to 60 addresses
- 8 Unshielded 2-wire twisted cable for data transmission via M-Bus protocol

Energy consumption measuring instruments

Installation scheme with pulse adapters and concentrator



Note:
maximum no. of addresses that can be connected to a concentrator and relative expansions: 250 (concentrator combined up to 4 expansions to manage up to 250 addresses).

Construction

- 1 Accounting box (total no. of M-Bus addresses per box 2) (no. 1 address for each impulse adaptor port, to which the volumetric counter is connected).
- 2 Impulse adaptor
- 3 Hot water impulse launch volumetric counter
- 4 Cold water impulse launch volumetric counter
- 5 Concentrator up to 20 addresses
- 6 PC
- 7 Expansions up to 60 addresses
- 8 Unshielded 2-wire twisted cable for data transmission via M-Bus protocol

Energy consumption measuring instruments



Hot/cold EVO energy meter with data transmission with 3 volumetric pulse-emitting meters

Accuracy class according to UNI EN 1434:3
 Environmental class according to UNI EN 1434:C
 Permanent flow rate: 0.6/1.5 m³/h (DN15 size), 2.5 m³/h (DN20 size)
 Maximum flow rate: 1.2/3 m³/h (DN15 size), 5 m³/h (DN20 size)
 Minimum flow rate DN15 size:
 Horizontal installation 12/30 l/h, vertical installation 24/60 l/h
 Minimum flow rate DN20 size:
 Horizontal installation 50 l/h, vertical installation 100 l/h
 Nominal pressure: 16 bar - Flow meter temperature range: 5÷90°C
 Electronic unit temperature range: 0÷150°C
 Flow-return temperature difference: 3÷100 K
 Type of probes: Pt1000 - Ø 5 mm - cable 1.5 m
 Battery-powered, maximum estimated life, not guaranteed, of the battery 10 years (battery life is affected by the installation and usage conditions).
 The battery is guaranteed for 4 years from the date of sale. The battery can be replaced.
 Set up for external power supply (230 Vac) with optional feeder.
 Protection rating: IP65.
 Configured for installation on the return pipe with possibility of installation on the flow pipe.
 Communication via M-Bus protocol in accordance with UNI EN 1434-3.
 The energy meter is recognised by an M-Bus concentrator as a single device with a single address, even if 3 impulse launch volumetric counters are connected to it. Use the "USB optical feeler kit" to configure the primary M-Bus address and the 3 impulsive inputs of the meter.
 Product compliant with UNI EN 1434 and certified in accordance with Leg.Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) only using water as a fluid.

Dimension	Type	Kv	Pcs. pack	Code
DN15 Conn. M 3/4" - 0,6/1,2 m ³ /h	H/C (*)	1,52	1	02709546
DN15 Conn. M 3/4" - 1,5/3,0 m ³ /h	H/C (*)	3,27	1	02709548
DN20 Conn. M 1" - 2,5/5,0 m ³ /h	H/C (*)	6,15	1	02709550

Threads G (UNI EN ISO 228-1)

(*) Hot/Cold

Dimensions: see section Technical Attachments page 495



230 Vac power supply for EVO energy meter

Technical data

Input: 230 Vac (2.5 m cable);

Output: 3 Vdc (1 m cable);

Protection rating: IP65.

In the event of a power cut, the backup battery (lithium, 3 Vdc) guarantees power for up to one year.

Dimension	Pcs. pack	Code
	1	02709580

Dimensions: see section Technical Attachments page 495



Sensor-holder Tee assembly

Dimension	Pcs. pack	Code
1/2" x (M10x1) x 1/2"	1	02708188
3/4" x (M10x1) x 3/4"	1	02708190

Threads G (UNI EN ISO 228-1)

Complete with male plug M10x1 to perform the system test run, before installing the energy meter. The assemblies are not necessary for the installation of the energy meters in individual and cassette Emmeti modules.

Dimensions: see section Technical Attachments page 496

Energy consumption measuring instruments



Hot water meter with pulse output SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165) - Length of counter: 110 mm
 Horizontal or vertical installation
 Minimum Q1 flow rate: 25 l/h (horizontal installation)
 Minimum Q1 flow rate: 39,7 l/h (vertical installation)
 Permanent Q3 flow rate: 2,5 m³/h - Maximum Q4 flow rate: 3,13 m³/h
 MID metrological class: R (Q3/Q1) =100 H (horizontal installation), R (Q3/Q1) =63 V (vertical installation) - Kv = 3,15
 Operating temperature: from 30 °C to 90 °C
 Operating pressure (PN): 16 bar
 Supplied with reed-switch pulse emitter 1 pulse/10 litres.
 Note: the pulse emitters used to interface with the M-Bus network must be connected to an energy meter with a double pulse inlet or with a pulse adaptor.
 Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code
DN15 Connection M 3/4"	3,15	1	02709712

Threads G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 498



Hot water meter with pulse output SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165) - Length of counter: 130 mm
 Horizontal or vertical installation
 Minimum Q1 flow rate: 40 l/h (horizontal installation)
 Minimum Q1 flow rate: 63,5 l/h (vertical installation)
 Permanent Q3 flow rate: 4 m³/h
 Maximum Q4 flow rate: 5 m³/h
 MID metrological class: R (Q3/Q1) =100 H (horizontal installation), R (Q3/Q1) =63 V (vertical installation)
 Operating temperature: from 30 °C to 90 °C - Operating pressure (PN): 16 bar
 Kv=5,04 - Supplied with reed-switch pulse emitter 1 pulse/10 litres.
 Note: the pulse emitters used to interface with the M-Bus network must be connected to an energy meter with a double pulse inlet or with a pulse adaptor.
 Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code
DN20 Connection M 1"	5,04	1	02709720

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 498



Cold water meter with pulse output SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)
 Length of counter: 110 mm
 Horizontal or vertical installation
 Minimum Q1 flow rate: 25 l/h (horizontal installation) - Minimum Q1 flow rate: 39,7 l/h (vertical installation)
 Permanent Q3 flow rate: 2,5 m³/h - Maximum Q4 flow rate: 3,13 m³/h
 MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation) - Kw=3,15
 Maximum operating temperature: 50 °C - Operating pressure (PN): 16 bar
 Supplied with reed-switch pulse emitter 1 pulse/10 litres.
 Note: the pulse emitters used to interface with the M-Bus network must be connected to an energy meter with a double pulse inlet or with a pulse adaptor.
 Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code
DN15 Connection M 3/4"	3,15	1	02709710

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 498

Energy consumption measuring instruments



Cold water meter with pulse output SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)

Length of counter: 130 mm

Horizontal or vertical installation

Minimum Q1 flow rate: 40 l/h (horizontal installation) - Minimum Q1 flow rate: 63,5 l/h (vertical installation)

Permanent Q3 flow rate: 4 m³/h - Maximum Q4 flow rate: 5 m³/h

MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation)

Maximum operating temperature: 50 °C - Operating pressure (PN): 16 bar

Kv=5,04 - Supplied with reed-switch pulse emitter 1 pulse/10 litres.

Note: the pulse emitters used to interface with the M-Bus network must be connected to an energy meter with a double pulse inlet or with a pulse adaptor.

Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code
DN20 Connection M 1"	5,04	1	02709718

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 498



Pipes

Dimension	Connections	Pcs. pack	Code
L=110 mm (*)	3/4"	1	01306354
L=130 mm (**)	1"	1	01306358

(*) Predisposition for installation of measuring instruments DN15

(**) Predisposition for installation of measuring instruments DN20

Threads: G (UNI EN ISO 228-1)

Complete with no. 2 gaskets



Pipe union connections kit

Dimension	Pcs. pack	Code
3/4" F - 1/2" M	1	02708098
1" F - 3/4" M	1	02708110

Threads: G (UNI EN ISO 228-1)

Body made of brass CW617N-DW (UNI EN 12164 and 12165)

The kit is not needed for the installation of the heat meter and water meters in the Emmeti modules singles or in boxes.

Energy consumption measuring instruments



Energy measurement device EVO hot/cold for high flow rates with threaded fitting and data transmission

Type

Multiple-jet counter with magnetic transmission.

EVO electronic unit technical data

Temperature range: 5÷55 °C - Temperature difference in heating phase: 3÷100 K

Temperature difference in cooling phase: -3÷-50 K - Storage temperature: 0÷55 °C

Minimum temperature difference in heating phase: 0.05 K

Minimum temperature difference in cooling phase: -0.05 K

Temperature measurement resolution: 0.01 °C

Measurement frequency: every 30 seconds (2 seconds with 230V power supply for EVO measurement device, optional)

Impulses: 10 litres/impulse - Display: LCD with 8 digits + special characters

Energy measurement unit: MWh

Power supply: 3.6 V lithium battery, maximum estimated duration, not guaranteed, 6 years (the battery life is affected by installation and operating conditions).

Battery It is guaranteed for 2 years from date of sale. On these models, the battery is replaceable.

Data storage EE-PROM / daily

Reading data: settable - Protection class: IP54 - Electromagnetic class: E2

Mechanical class: M2

Temperature probes: Pt500, Ø 5 mm (for measurement DN25), Ø 6 mm (for measurement DN32 and DN40), cable length: 3 m

Dimensions (Length x Width x Height): 150 x 130 x 35 mm

To be able to connect up to 3 meters for sanitary water with pulse outputs to the EVO electronic unit, install the optional module 3 pulse inputs for EVO meter.

Communication via M-bus protocol in compliance with standard UNI EN 1434-3.

Use "Kit USB optical head" to set the primary address of the measuring device.

The energy measuring device for high flow rates is compliant with UNI EN 1434 and certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU).

Dimension	Connection	Pcs. pack	Code
DN 25 Horizontal	M 1"1/4	1	02709664
DN 32 Horizontal	M 1"1/2	1	02709666
DN 40 Horizontal	M 2"	1	02709668
DN 25 Ascending vertical	M 1"1/4	1	02709670
DN 32 Ascending vertical	M 1"1/2	1	02709674
DN 40 Ascending vertical	M 2"	1	02709678
DN 25 Descending vertical	M 1"1/4	1	02709672
DN 32 Descending vertical	M 1"1/2	1	02709676
DN 40 Descending vertical	M 2"	1	02709680

Threads: G (UNI EN ISO 228-1)

Item available on request: 30 days from order confirm.

Dimensions: see section Technical Attachments page 495

Technical data of flow rate measurement device

Diameter DN		DN25 Horizontal/Ascending vertical/Descending vertical	DN32 Horizontal/Ascending vertical/Descending vertical	DN40 Horizontal/Ascending vertical/Descending vertical
Nominal flow rate	m ³ /h	3,5	6	10
Minimum flow rate	l/h	70	120	200
Maximum flow rate	m ³ /h	7	12	20
Max operating temperature	°C	90	90	90
Max operating pressure	bar	16	16	16
Weight	kg	2,7/2,3/3,5	2,8/2,3/3,7	5,2/5,7/7
Impulses (reed)	Litres/imp	10	10	10
Kv	(m ³ /h)/bar 0,5	10	13	21

Energy consumption measuring instruments



Pipe union connections kit

Dimension	Pcs. pack	Code
1"1/4 F - 1" M	1	02708160
1"1/2 F - 1"1/4 M	1	02708162
2" F - 1"1/2 M	1	02708164

Threads: G (UNI EN ISO 228-1)



Kit sensor holder Tee group for measurement devices DN25

Dimension	Pcs. pack	Code
1" x 1" x 1"	1	02708196

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 496



Probe holder kit for energy measurement devices DN32 and DN40

Dimension	Pcs. pack	Code
	1	02708296

Threads: G (UNI EN ISO 228-1)

Note: to be used in conjunction with energy measurement devices DN32 and DN40.

A kit is composed of:

- 2 sleeves to be welded for installation at right angles
- 2 wells of 1/2", L = 40 mm

Dimensions: see section Technical Attachments page 496

Energy consumption measuring instruments



Flanged energy measurement device EVO hot/cold for high flow rates with threaded fitting and data transmission

NEW

Typology

Woltmann mill counter for hot water up to 130 °C

EVO electronic unit technical data

Temperature range: 5÷55 °C

Temperature difference in heating phase: 3÷100 K

Temperature difference in cooling phase: -3÷-50 K

Storage temperature: 0÷55 °C

Minimum temperature difference in heating phase: 0.05 K

Minimum temperature difference in cooling phase: -0.05 K

Temperature measurement resolution: 0.01 °C

Measurement frequency: every 30 seconds (every 2 seconds with 230V power supply for EVO measurement device, optional)

Impulses: 100 litres/impulse (1000 litres/impulse for size DN150)

Display: LCD with 8 digits + special characters

Energy measurement unit: MWh

Power supply: battery 3 V lithium, estimated maximum battery life 6 years (battery life is influenced by the conditions of installation and use).

The battery is guaranteed for 2 years from date of sale.

On these models the battery is replaceable.

Data storage EE-PROM/daily

Reading data: settable

Protection class: IP54

Electromagnetic class: E2

Mechanical class: M2

Temperature probes: Pt500, Ø 6 mm, cable length: 3 m

Dimensions (Length x Width x Height): 150 x 130 x 35 mm

To be able to connect up to 3 meters for sanitary water with pulse outputs to the EVO electronic unit, install the optional module 3 pulse inputs for EVO meter.

Communication via M-bus protocol in compliance with UNI EN 1434-3.

Use "kit USB optical head" to set the primary address of the measuring device.

The energy measuring device for high flow rates with flanged connections, the electronic unit and the temperature probes are compliant with Italian Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU).

Dimension	Pcs. pack	Code
DN50	1	02709722
DN65	1	02709724
DN80	1	02709726
DN100	1	02709728
DN125	1	02709730
DN150	1	02709732

Item available on request: 30 days from order confirm

Dimensions: see section Technical Attachments page 497

Technical data of flow measurement device							
Diameter DN	mm	50	65	80	100	125	150
Nominal flow rate	m ³ /h	15	25	40	60	100	150
Minimum flow rate	m ³ /h	0,6	1,0	1,4	2,0	4,0	6,0
Maximum flow rate	m ³ /h	30	50	80	120	200	300
Operating pressure	bar	16	16	16	16	16	16
Maximum operating temperature	°C	130	130	130	130	130	130
Maximum reading	m ³	1000000	1000000	1000000	1000000	1000000	1000000
Minimum reading	l	0,5	0,5	0,5	0,5	0,5	0,5
Weight	kg	6,3	8,6	11,0	15,0	17,5	30,0
Impulses	Litres/imp	100	100	100	100	100	1000
Kv [mc/h]		79	126	199	316	506	791

Energy consumption measuring instruments



Probe holder kit for energy measurement devices DN50 and DN65

Dimension	Pcs. pack	Code
	1	02708296

Threads: G (UNI EN ISO 228-1)

Note: to be used in conjunction with energy measurement devices DN5 and DN65

A kit is composed of:

- 2 sleeves to be welded for installation at right angles
- 2 wells of 1/2", L = 40 mm

Dimensions: see section Technical Attachments page 498



Probe holder kit for energy measurement devices DN80, DN100 and DN125

Dimension	Pcs. pack	Code
	1	02708298

Threads: G (UNI EN ISO 228-1)

Note: to be used in conjunction with energy measurement devices DN 80, DN100 and DN125.

A kit is composed of:

- 2 sleeves to be welded for installation at 45°
- 2 wells of 1/2", L = 85 mm

Dimensions: see section Technical Attachments page 498



Probe holder kit for energy measurement devices DN150

Dimension	Pcs. pack	Code
	1	02708294

Threads: G (UNI EN ISO 228-1)

Note: to be used in conjunction with energy measurement devices DN150.

A kit is composed of:

- 2 sleeves to be welded for installation at 45°
- 2 wells of 1/2", L = 120 mm

Dimensions: see section Technical Attachments page 498



USB KMK116 optical feeler kit

Dimension	Pcs. pack	Code
	1	02709480

Complete with "Device Monitor" configuration software. To be used to configure the primary M-Bus address and the pulse inputs of the energy meters.



Micro-Master

Power supply via PC - USB interface - Dimensions: 30x54x100 mm

Use the Micro-Master for the configuration of the pulse adapter, using software MBCONF included. Using the Micro-Master, it's not possible to configure the 2 pulsed inputs of the energy meters with dual pulse input.

Dimension	Pcs. pack	Code
	1	02708214

MBCONF and FSERVICE software included

Energy consumption measuring instruments



Impulse adaptor

M-Bus impulse adaptor for up to 2 counters - Power supply by means of M-Bus or internal battery - Installation of DIN rail TS35x7.5 (EN 50022) - Dimensions: 53x90x58 mm - For configuration, use the MBCONF software provided and the Micro-Master.

Note: the impulse adaptor is recognised by the M-Bus network as one device with 2 addresses, regardless of the number of volumetric counters connected to it.

Dimension	Pcs. pack	Code
	1	02708212



Cable for meter systems with data transmission via M-bus protocol

Telephone cable TRR + T with 2 unsheathed twisted wires, complete with ground conductor

Conductor: watertight copper wire (Cu-Sn) with diameter 0.6 mm

Insulation: PVC with minimum depth of 0.15 mm

Maximum resistance of the conductor in dc 20 °C: 67.9 ohm/km

Minimum insulation resistance: 500 Mohm/km

Maximum mutual capacity at 800 Hz: 120 nF/km

Dimension	Mt. pack	Code
	250 m	02708262



Energy Manager EVO Concentrator 20

NEW

Central unit of the M-Bus network (Concentrator / Master) for the connection of up to 20 addresses.

Characteristics:

- Graphic, bright (colour), multilingual display.
- 6-key tactile membrane keyboard
- Memory capable of recording 1 year of readings (in the case of 250 instruments, read every 15 minutes).

Interfaces:

- M-Bus, wired connection for up to 20 addresses.
- Nr. 1 Ethernet port.
- Multilingual and secure webservice (SSL) for configuration and data consultation, with the possibility of local connection via Ethernet cable, or remotely via an optional external UMTS modem (no software required).
- Export of data to PC, also by sending e-mail.

Technical data:

- Power supply: 24 Vdc +/- 10%, 24 Vac (min 20 Vac, max 40 Vac).
- Maximum Consumption: 14.5W
- Degree of protection: IP20.
- Dimensions HxWxD: 90x71x62 mm.

Note: the pulse adaptor is recognized by the M-Bus network as 1 device with 2 addresses, regardless of the number of addresses connected to it.

Dimension	Pcs. pack	Code
Up to 20 M-Bus addresses	1	02709760



Energy Manager Expansion 60

Power supply: 24Vdc +/- 10%, 24Vac (min 20Vac, max 40Vac) - Maximum consumption: 12 W - M-BUS Master connection for connecting up to 60 addresses - M-BUS Slave for connection as expansion - Dimensions: 90x71x62 mm (HxLxD) - DIN (4 modules)

The number of addresses that each expansion can manage must be added to the number of addresses managed by the concentrator (max 20 addresses). Therefore, if, for example, a concentrator is combined with an expansion module of 60 addresses, a total of 60 + 20 = 80 M-Bus addresses can be managed.

Up to 4 expansions with 60 addresses can be combined with an M-Bus concentrator (20+60+60+60+60=260 total addresses considering, however, that the maximum limit of manageable M-Bus addresses is 250).

Dimension	Pcs. pack	Code
Up to 60 M-Bus addresses	1	02708290

Energy consumption measuring instruments



USB/Ethernet adaptor cable

With a USB 3.0 to Gigabit adaptor you can add a single RJ45 Ethernet port to a computer system with only USB ports
 Connectors: Female RJ-45, USB Type-A 3.0 Male
 Supports standard USB 1.1, 2.0 and 3.0
 CD with installation Driver included
 Compatible with Windows XP/Vista/7/8/8.1/10, Mac OS and Linux.

Dimension	Pcs. pack	Code
	1	02708376



Transformer 230/24V 10 VA

230/24V, P=10VA, f=50/60Hz

Dimension	Pcs. pack	Code
2 DIN modules	1	28139130

To be used to power 0-10V servomotors at 24 Vac (the number of servomotors that can be powered is dependent on the load required).



Transformer 230/24 V 35 VA

Dimension	Pcs. pack	Code
5 DIN modules	1	28153410



Transformer 230/24V 63 VA

Dimension	Pcs. pack	Code
8 DIN modules	1	28153420

Energy consumption measuring instruments

Guide to choosing the Energy Manager system and transformers based on the number of addresses connected to the M-Bus network

Connected addresses to the M-BUS net	Energy Manager System	Transformer model		
		 Transformer 230/24V 10 VA (28139130)	 Transformer 230/24V 35 VA (28153410)	 Transformer 230/24V 63 VA (28153420)
1 ÷ 20	 1 Concentrator 20 (02709760)	1		
21 ÷ 80	 1 Concentrator 20 (02709760) + 1 Expansion 60 (02708290)	1	1	
81 ÷ 140	 1 Concentrator 20 (02709760) + 2 Expansions 60 (02708290)	1	1	
141 ÷ 200	 1 Concentrator 20 (02709760) + 3 Expansions 60 (02708290)	1	1	1
201 ÷ 250	 1 Concentrator 20 (02709760) + 4 Expansions 60 (02708290)	1	1	1

Note:
 - 1 address corresponds to an energy meter;
 - 2 addresses correspond to an impulse adaptor;
 - no addresses correspond to a volumetric counter.



Connection and control of heating units





> FULL Manually, Thermostatizable, Thermostatic valves **287**



> POKER Manually, Thermostatizable, Thermostatic valves **297**



> Lockshields **300**



> Thermostatic heads **303**



> Actuators and thermostat radio frequency **308**



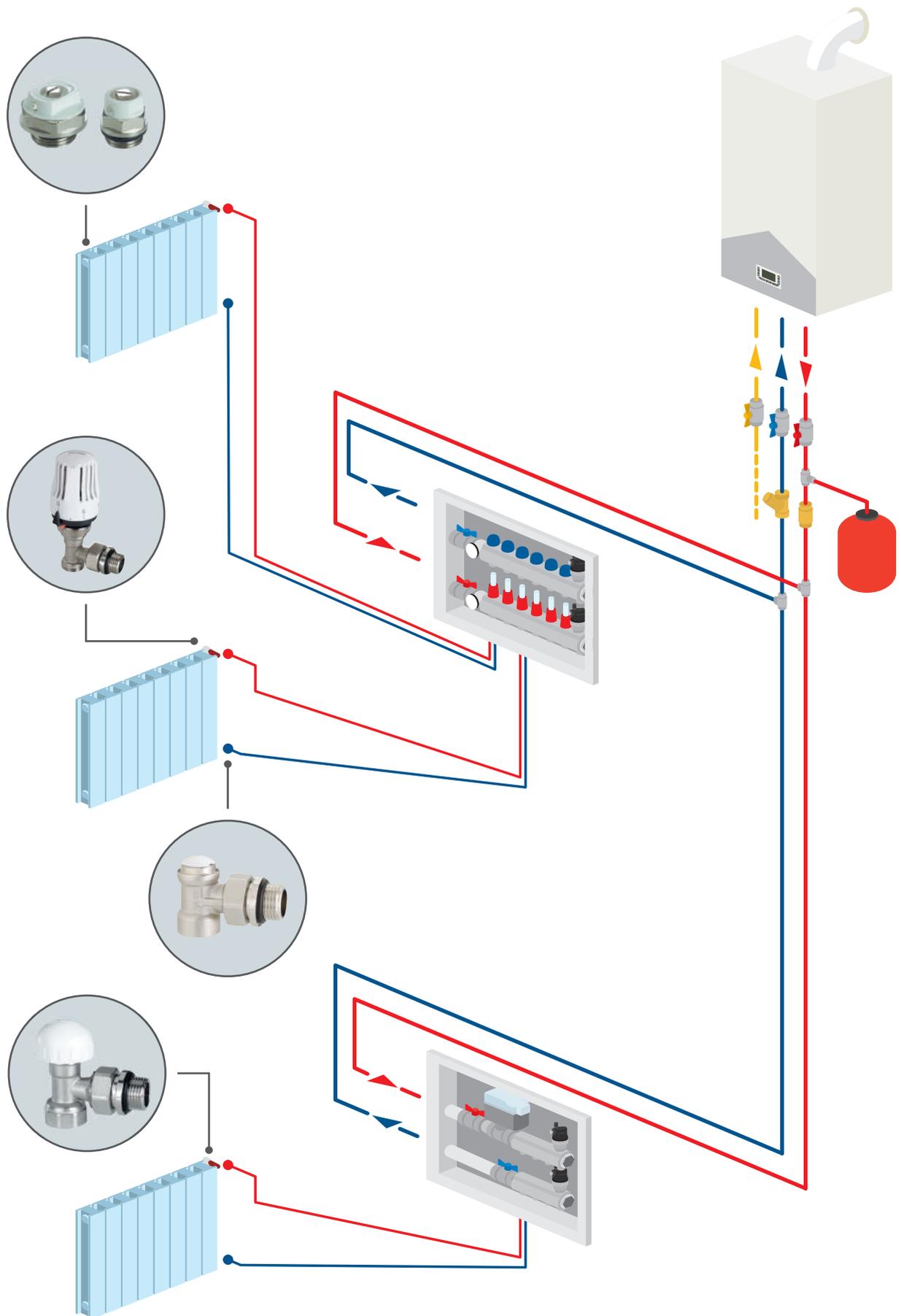
> Valves H **312**



> Bleed valves **313**

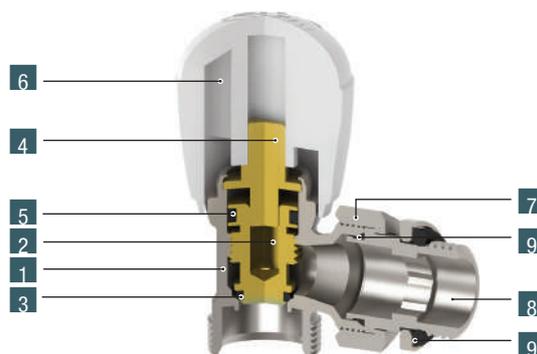


Example of installation



Full manual right-angle valve

Full manually valve



Construction

- 1 Body nickel-plated brass UNI EN 12165 CW617N
- 2 Shutter in brass UNI EN 12164 CW617N
- 3 Shutter seal O-ring in EPDM
- 4 Brass rod UNI EN 12164 CW617N
- 5 Shutter seal O-ring in EPDM
- 6 Knob in white ABS RAL 9003
- 7 Nut nickel-plated brass UNI EN 12165 CW617N
- 8 Tang nickel-plated brass UNI EN 12164 CW617N
- 9 O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread fo Female body valve UNI EN ISO 228-1
 Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Maximum operating temperature: +100 °C
 Large capacity
 Fitting also available with O-ring (NBR)

Note: the tang with radiator seal is also available with NBR O-Ring



Full manual right-angle valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Thread	Pcs. pack	Code
3/8"	24x19	10	01350920
1/2"	24x19	10	01350700
3/8" O-R	24x19	10	01350924
1/2" O-R	24x19	10	01350704
3/4" O-R	3/4" Eurocone	5	01350610

Emmeti seal: see section 8



Full manual right-angle valve for steel pipe

Dimension	Pcs. pack	Code
3/8"	5	01350930
1/2"	5	01350720
3/8" O-R	5	01350934
1/2" O-R	5	01350724
3/4" O-R	5	01350614



Full manual right-angle valve for multi-layer, connection G 1/2" M

Dimension	Thread	Pcs. pack	Code
3/8"	G 1/2"	25	01350780
1/2"	G 1/2"	25	01350708
3/8" O-R	G 1/2"	25	01350784
1/2" O-R	G 1/2"	25	01350712

Emmeti seal G 1/2"

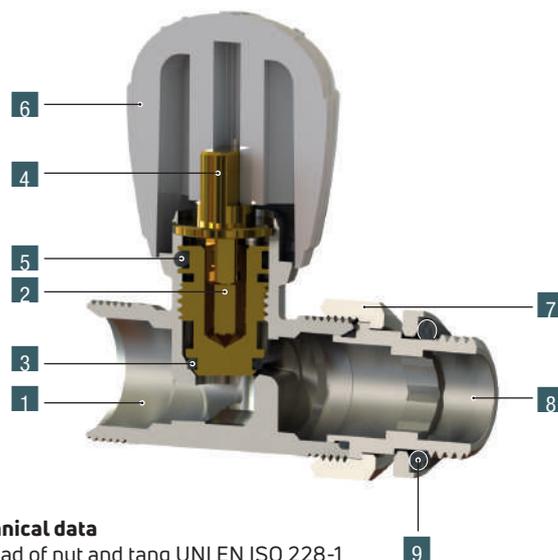


G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code
16 x 2	10	28100310

Full manual straight valve

Full manually valve



Construction

- 1 Body nickel-plated brass UNI EN 12165 CW617N
- 2 Shutter in brass UNI EN 12164 CW617N
- 3 Shutter seal O-ring in EPDM
- 4 Brass rod UNI EN 12164 CW617N
- 5 Shutter seal O-ring in EPDM
- 6 Knob in white ABS RAL 9003
- 7 Nut nickel-plated brass UNI EN 12165 CW617N
- 8 Tang nickel-plated brass UNI EN 12164 CW617N
- 9 O-ring for tang steadying in NBR

Technical data

- Thread of nut and tang UNI EN ISO 228-1
- Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
- Thread fo Female body valve UNI EN ISO 228-1
- Maximum operating pressure: 10 bar
- Maximum differential pressure: 1 bar
- Maximum operating temperature: +100 °C
- Large capacity
- Fitting also available with O-ring (NBR)

Note: the tang with radiator seal is also available with NBR O-Ring



Full manual straight valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Thread	Pcs. pack	Code
1/2"	24x19	5	01350850
1/2" O-R	24x19	5	01350854
3/8"	24x19	5	01350960
3/8" O-R	24x19	5	01350964

Emmeti seal 24x19: see section 8



Full manual straight valve for steel pipe

Dimension	Pcs. pack	Code
1/2"	5	01350870
1/2" O-R	5	01350874



Full manual straight valve for multi-layer, connection G 1/2" M

Dimension	Thread	Pcs. pack	Code
1/2"	G 1/2"	25	01350860
1/2" O-R	G 1/2"	25	01350864

Emmeti seal G 1/2"

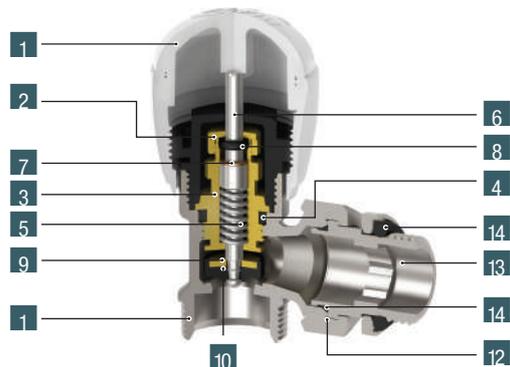


G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code
16 x 2	10	28100310

Full thermostatzable right-angle valve

Full thermostatzable valve



Construction

- 1 Body nickel-plated brass UNI EN 12165 CW617N
- 2 Collar in PA6 (30% FV)
- 3 Shutter in brass UNI EN 12164 CW617N
- 4 O-ring for shutter steadying in NBR
- 5 Spring in stainless steel AISI 302
- 6 Spindle in stainless steel AISI 304
- 7 Collar for body shutter in brass UNI EN 12164 CW617N
- 8 O-ring for shutter in EPDM
- 9 Washer of lock gasket in brass UNI EN 12164 CW617N
- 10 Shutter steadying in NBR
- 11 Knob in white ABS RAL 9003 in 2 pieces
- 12 Nut nickel-plated brass UNI EN 12165 CW617N
- 13 Tang nickel-plated brass UNI EN 12164 CW617N
- 14 O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread fo Female body valve UNI EN ISO 228-1
 Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Maximum operation temperature: +100 °C

Note: the tang with radiator seal is also available with NBR O-Ring

Note: can be used in conjunction with thermostatic Sensor heads and thermo-electric heads after the following steps:

- unscrew the upper part 11
- unscrew 2
- extract the lower part 11
- screw back in 2 (for size 3/4" simply unscrew the lower part 11)
- install the head



Full thermostatzable right-angle valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Thread	Pcs. pack	Code
3/8"	24x19	10	01350944
1/2"	24x19	10	01350760
3/8" O-R	24x19	10	01350946
1/2" O-R	24x19	10	01350762
3/4" O-R (*)	3/4" Eurocone	1	01350634

(*) Thread UNI EN ISO 228-1
 Emmeti seals: see section 8



Full thermostatzable right-angle valve for steel pipe

Tail Dimension	Pcs. pack	Code
3/8"	5	01350954
1/2"	5	01350764
3/8" O-R	5	01350956
1/2" O-R	5	01350766
3/4" O-R	1	01350636

Full thermostatzable valve



Full thermostatzable righ-angle valve for multi-layer, connection G 1/2" M

Dimension	Thread	Pcs. pack	Code
3/8"	G 1/2"	25	01350794
1/2"	G 1/2"	25	01350768
3/8" O-R	G 1/2"	25	01350796
1/2" O-R	G 1/2"	25	01350770

Emmeti seal G 1/2"

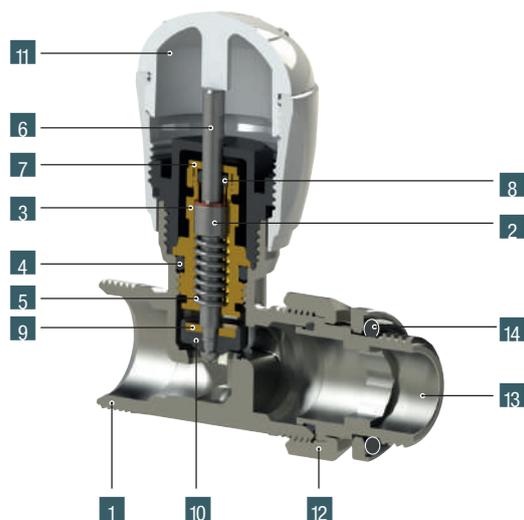


G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code
16 x 2	10	28100310

Full thermostatzable straight valve

Full thermostatzable valve



Construction

- 1 Body nickel-plated brass UNI EN 12165 CW617N
- 2 Collar in PA6 (30% FV)
- 3 Shutter in brass UNI EN 12164 CW617N
- 4 O-ring for shutter steadying in NBR
- 5 Spring in stainless steel AISI 302
- 6 Spindle in stainless steel AISI 304
- 7 Collar for body shutter in brass UNI EN 12164 CW617N
- 8 O-ring for shutter in EPDM
- 9 Washer of lock gasket in brass UNI EN 12164 CW617N
- 10 Shutter steadying in NBR
- 11 Knob in white ABS RAL 9003 in 2 pieces
- 12 Nut nickel-plated brass UNI EN 12165 CW617N
- 13 Tang nickel-plated brass UNI EN 12164 CW617N
- 14 O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread fo Female body valve UNI EN ISO 228-1
 Max operating pressure: 10 bar - Max differential pressure: 1 bar
 Maximum operation temperature: +100 °C

Note: can be used in conjunction with thermostatic Sensor heads and thermo-electric heads after the following steps:

- unscrew the upper part 11
- unscrew 2
- extract the lower part 11
- screw back in 2
- install the head



Full thermostatzable straight valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Thread	Pcs. pack	Code
1/2"	24x19	5	01350880
1/2" O-R	24x19	5	01350882
3/8"	24x19	5	01350974
3/8" O-R	24x19	5	01350976

Emmeti seal 24x19: see section 8



Full thermostatzable straight valve for steel pipe

Dimension	Pcs. pack	Code
1/2"	5	01350888
1/2" O-R	5	01350890



Full thermostatzable straight valve for multi-layer, connection G 1/2" M

Dimension	Thread	Pcs. pack	Code
1/2"	G 1/2"	25	01350884
1/2" O-R	G 1/2"	25	01350886

Emmeti seal G 1/2"

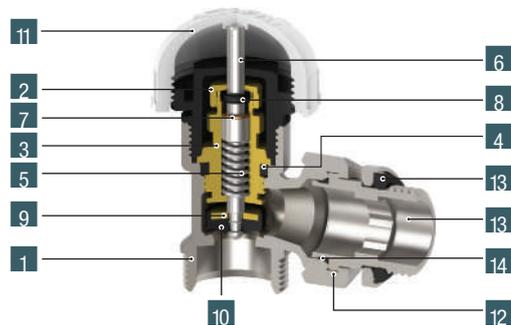


G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code
16 x 2	10	28100310

Full thermostatic right-angle valve

Full thermostatic valve



Construction

- 1 Body nickel-plated brass UNI EN 12165 CW617N
- 2 Collar in PA6 (30% FV)
- 3 Shutter body in brass UNI EN 12164 CW617N
- 4 O-ring for shutter body steadying in NBR
- 5 Spring in stainless steel AISI 302
- 6 Spindle in stainless steel AISI 304
- 7 Collar in brass UNI EN 12164 CW617N
- 8 O-ring for shutter in EPDM
- 9 Washer of lock gasket in brass UNI EN 12164 CW617N
- 10 Shutter steadying in NBR
- 11 Cap in white ABS RAL 9003
- 12 Nut nickel-plated brass UNI EN 12165 CW617N
- 13 Tang nickel-plated brass UNI EN 12164 CW617N
- 14 O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread fo Female body valve UNI EN ISO 228-1
 Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Maximum operation temperature: +100 °C

Note: the tang with radiator seal is also available with NBR O-Ring

Note: can be used in conjunction with thermostatic Sensor heads and thermo-electric heads



Full thermostatic right-angle valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Thread	Pcs. pack	Code
3/8"	34x19	10	01350940
1/2"	24x19	10	01350740
3/8" O-R	24x19	10	01350942
1/2" O-R	24x19	10	01350742
3/4" O-R (*)	3/4" Eurocone	1	01350630

(*) Thread UNI EN ISO 228-1

Emmeti seals: see section 8



Full thermostatic right-angle valve for steel pipe

Dimension	Pcs. pack	Code
3/8"	5	01350950
1/2"	5	01350744
3/8" O-R	5	01350952
1/2" O-R	5	01350746
3/4" O-R	1	01350632

Full thermostatic valve



Right-angle Valves and lockshields for steel pipe

Dimension		Pcs. pack	Code
1"	Valve	1	01266112
1"	Lockshield	1	01266114



Full thermostatic right-angle valve for multi-layer, connection G 1/2" M

Dimension	Thread (*)	Pcs. pack	Code
3/8"	G 1/2"	25	01350790
1/2"	G 1/2"	25	01350748
3/8" O-R	G 1/2"	25	01350792
1/2" O-R	G 1/2"	25	01350750

Emmeti seal G 1/2"

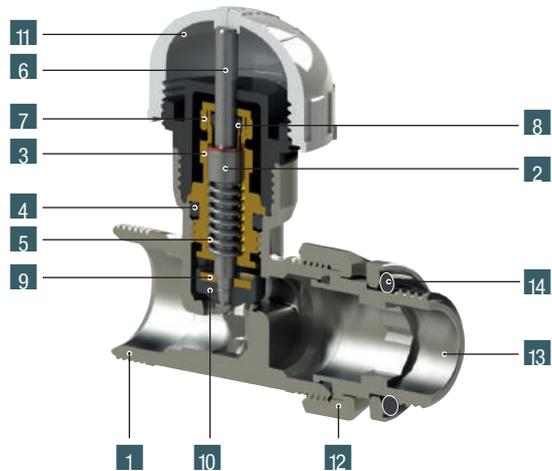


G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code
16 x 2	10	28100310

Full thermostatic straight valve

Full thermostatic valve



Construction

- 1 Body nickel-plated brass UNI EN 12165 CW617N
- 2 Collar in PA6 (30% FV)
- 3 Shutter body in brass UNI EN 12164 CW617N
- 4 O-ring for shutter body steadying in NBR
- 5 Spring in stainless steel AISI 302
- 6 Spindle in stainless steel AISI 304
- 7 Collar in brass UNI EN 12164 CW617N
- 8 O-ring for shutter in EPDM
- 9 Washer of lock gasket in brass UNI EN 12164 CW617N
- 10 Shutter steadying in NBR
- 11 Cap in white ABS RAL 9003
- 12 Nut nickel-plated brass UNI EN 12165 CW617N
- 13 Tang nickel-plated brass UNI EN 12164 CW617N
- 14 O-ring for tang steadying in NBR

Technical data

- Thread of nut and tang UNI EN ISO 228-1
- Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
- Thread fo Female body valve UNI EN ISO 228-1
- Maximum operating pressure: 10 bar
- Maximum differential pressure: 1 bar
- Maximum operation temperature: +100 °C

Note: the tang with radiator seal is also available with NBR O-Ring

Note: can be used in conjunction with thermostatic Sensor heads and thermo-electric heads



Full thermostatic straight valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Pcs. pack	Code
1/2"	5	01350900
1/2" O-R	5	01350902
3/8"	5	01350970
3/8" O-R	5	01350972

Emmeti seal 24x19: see section 8



Full thermostatic straight valve for steel pipe

Dimension	Pcs. pack	Code
1/2"	5	01350908
1/2" O-R	5	01350910

Full thermostatic valve



Straight Valve and Lockshield for steel pipe

Dimension		Pcs. pack	Code
1" (*)	Valve	1	01266116
1" (*)	Lockshield	1	01266118

(*) Items to be out of stock



Full thermostatic right-angle valve for multi-layer, connection G 1/2" M

Dimension	Pcs. pack	Code
1/2"	25	01350904
1/2" O-R	25	01350906

Emmeti seal G 1/2"



G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code
16 x 2	10	28100310

Full Kit



Full kit manually right-angle valve + lockshield 1/2" and connection for multi-layer pipe

Dimension	Pcs. pack	Code
Full manually right angle valve for copper pipe 1/2" + lockshield for copper pipe 1/2" + 2 monoblocco seals for multi-layer pipe Ø 16	1	01306282

Supplied in sachet + box
Available on request



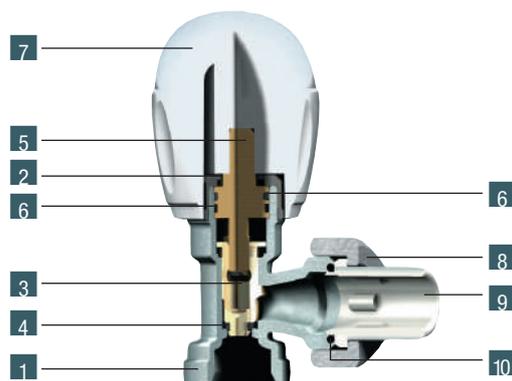
Full kit manually right-angle valve + lockshield 1/2" with O-R and connection for multi-layer pipe

Dimension	Pcs. pack	Code
Full manually right angle valve for copper pipe 1/2" O-R + lockshield for copper pipe 1/2" O-R + 2 monoblocco seals for multi-layer pipe Ø 16	1	01306278

Supplied in sachet + box
Available on request

Poker manual

Poker manual valve



Valve construction

- 1 Valve body made of brass UNI EN 12165 CW617N with nickel finish
- 2 Collar in brass UNI EN 12164 CW617N with nickel finish
- 3 Shutter in brass UNI EN 12164 CW617N
- 4 O-ring for shutter steadying in NBR
- 5 Rod in brass UNI EN 12164 CW617N
- 6 O-ring for rod steadying in EPDM
- 7 Knob in white ABS RAL 9003
- 8 Nut in brass UNI EN 12165 CW617N with nickel finish
- 9 Tang in brass UNI EN 12164 CW617N with nickel finish
- 10 O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread fo Female body valve UNI EN ISO 228-1
 Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Maximum operation temperature: +100 °C

Note: the tang with radiator seal is also available with NBR O-Ring



Manual right-angle valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Pcs. pack	Code
3/8"	10	01350300
1/2"	10	01350304
3/8" O-R	10	01350400
1/2" O-R	10	01350404

Emmeti seal 24x19: see section 8



Manual straight valve for copper pipe, multi-layer, PEX, PP, PB

Dimension	Pcs. pack	Code
3/8"	5	01350308
1/2"	5	01350312
3/8" O-R	5	01350408
1/2" O-R	5	01350412

Emmeti seal 24x19



Manual right-angle valve for steel pipe

Dimension	Pcs. pack	Code
3/8"	5	01350316
1/2"	5	01350320
3/8" O-R	5	01350416
1/2" O-R	5	01350420

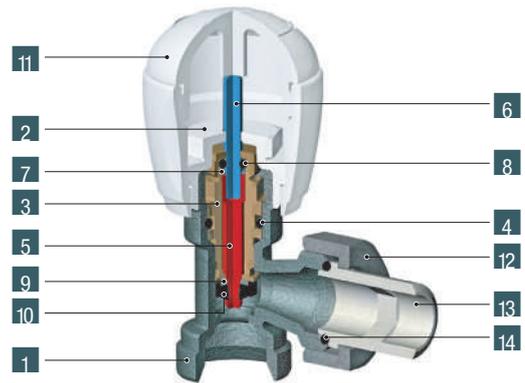


Manual straight valve for steel pipe

Dimension	Pcs. pack	Code
1/2"	5	01350328
1/2" O-R	5	01350428

Poker thermostatzable

Poker thermostatzable valve



Valve construction

- 1 Valve body made of brass UNI EN 12165 CW617N with nickel finish
- 2 Collar in brass UNI EN 12164 CW617N with nickel finish
- 3 Shutter in brass UNI EN 12164 CW617N
- 4 O-ring for shutter steadying in NBR
- 5 Bolt in brass UNI EN 12164 CW617N
- 6 Spindle in stainless steel AISI 304
- 7 Collar for shutter in brass UNI EN 12164 CW617N with nickel finish
- 8 O-ring for rod steadying in EPDM
- 9 Washer of lock gasket in brass UNI EN 12164 CW617N
- 10 Shutter steadying in NBR
- 11 Removable knob in white ABS RAL 9003 in two-pieces
- 12 Nut in brass UNI EN 12165 CW617N with nickel finish
- 13 Tang in brass UNI EN 12165 CW617N with nickel finish
- 14 O-ring for tang steadying in NBR

Note: the tang with radiator seal is also available with NBR O-Ring

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread fo Female body valve UNI EN ISO 228-1
 Max operating pressure: 10 bar - Max differential pressure: 1 bar
 Maximum operation temperature: +100 °C

Note: can be used in conjunction with thermostatic and thermoelectric heads after the following steps:

- unscrew the upper part 5
- unscrew 2
- extract the lower part 5
- screw back in 2
- install the head.



Thermostatzable right-angle valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Pcs. pack	Code
3/8"	10	01350380
1/2"	10	01350382
3/8" O-R	10	01350480
1/2" O-R	10	01350482

Emmeti seal 24x19: see section 8



Thermostatzable right-angle valve for steel pipe

Dimension	Pcs. pack	Code
3/8"	5	01350388
1/2"	5	01350390
3/8" O-R	5	01350488
1/2" O-R	5	01350490



Thermostatzable straight valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Pcs. pack	Code
3/8"	5	01350384
1/2"	5	01350386
3/8" O-R	5	01350484
1/2" O-R	5	01350486

Emmeti seal 24x19: see section 8

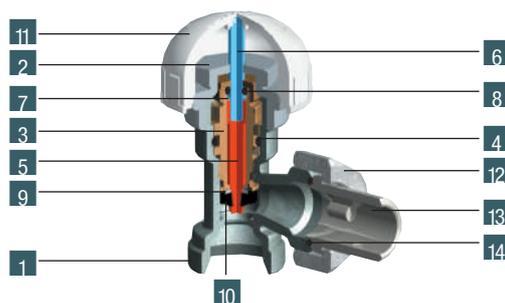


Thermostatzable straight valve for steel pipe

Dimension	Pcs. pack	Code
1/2"	5	01350394
1/2" O-R	5	01350494

Poker thermostatic

Poker thermostatic valve



Thermostatic valve construction

- 1 Valve body made of brass UNI EN 12165 CW617N with nickel finish
- 2 Collar in brass UNI EN 12164 CW617N with nickel finish
- 3 Shutter in brass UNI EN 12164 CW617N
- 4 O-ring for shutter steadying in NBR
- 5 Stem in brass UNI EN 12164 CW617N
- 6 Thrust rod in stainless steel AISI 304
- 7 Collar for shutter in brass UNI EN 12164 CW617N with nickel finish
- 8 O-ring for rod steadying in EPDM
- 9 Washer of lock gasket in brass UNI EN 12164 CW617N
- 10 Shutter steadying in NBR
- 11 Protection cap in white ABS RAL 9003
- 12 Nut in brass UNI EN 12165 CW617N with nickel finish
- 13 Tang in brass UNI EN 12165 CW617N with nickel finish
- 14 O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread of Female body valve UNI EN ISO 228-1
 Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Maximum operation temperature: +100 °C

Note: the tang with radiator seal is also available with NBR O-Ring

Note: can be used in conjunction with Sensor thermostatic heads and thermo-electric heads



Thermostatic right-angle valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Pcs. pack	Code
3/8"	10	01350340
1/2"	10	01350342
3/8" O-R	10	01350440
1/2" O-R	10	01350442

Emmeti seal 24x19: see section 8



Thermostatic right-angle valve for steel pipe

Dimension	Pcs. pack	Code
3/8"	5	01350348
1/2"	5	01350350
3/8" O-R	5	01350448
1/2" O-R	5	01350450



Thermostatic straight valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Pcs. pack	Code
3/8"	5	01350344
1/2"	5	01350346
3/8" O-R	5	01350444
1/2" O-R	5	01350446

Emmeti seal 24x19: see section 8



Thermostatic straight valve for steel pipe

Dimension	Pcs. pack	Code
1/2"	5	01350354
1/2" O-R	5	01350454

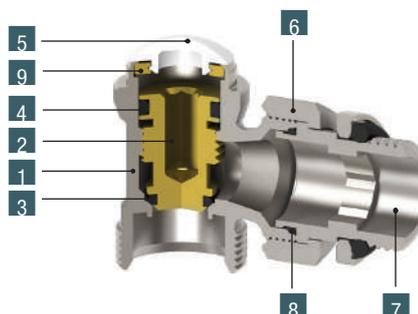
Product CEN certified in compliance with UNI EN 215 in the following couplings



Valve	Code	Head	Code
Thermostatic	01350342	+ Head	01213040
Thermostatic	01350346	+ Head	01213040

Full right-angle lockshields

Full lockshields



Construction

- 1 Body nickel-plated brass UNI EN 12165 CW617N
- 2 Shutter in brass UNI EN 12164 CW617N
- 3 O-ring for shutter body steadying in NBR
- 4 Upper O-ring for shutter steadying in EPDM
- 5 Cap in white ABS RAL 9003
- 6 Nut nickel-plated brass UNI EN 12165 CW617N
- 7 Tang nickel-plated brass UNI EN 12164 CW617N
- 8 O-ring for tang steadying in NBR
- 9 Collar in brass UNI EN 12164 CW617N

Note: the tang with radiator seal is also available with NBR O-Ring

Note: can be used in conjunction with thermostatic Sensor heads and thermo-electric heads

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread fo Female body valve UNI EN ISO 228-1
 Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Maximum operating pressure: +100 °C



Manual right-angle lockshield for copper pipe, PEX, multi-layer, PP, PB

Dimension	Thread	Pcs. Pack	Code
3/8"	24x19	10	01350922
1/2"	24x19	10	01350702
3/8" O-R	24x19	10	01350926
1/2" O-R	24x19	10	01350706
3/4" O-R (*)	3/4" Eurocone	5	01350612

(*) Thread UNI EN ISO 228-1
 Emmeti seals: see section 8



Manual right-angle lockshield for steel pipe

Dimension	Pcs. pack	Code
3/8"	5	01350932
1/2"	5	01350722
3/8" O-R	5	01350936
1/2" O-R	5	01350726
3/4" O-R	5	01350616



Manual right-angle lockshield for multi-layer, connection G 1/2" M

Dimension	Thread	Pcs. pack	Code
3/8"	G 1/2"	25	01350782
1/2"	G 1/2"	25	01350710
3/8" O-R	G 1/2"	25	01350786
1/2" O-R	G 1/2"	25	01350714

Emmeti seal G 1/2"

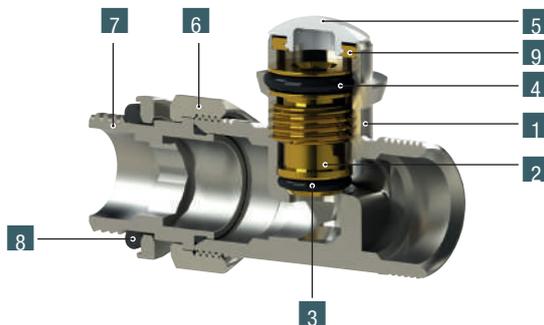


G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code
16 x 2	10	28100310

Full straight lockshields

Full lockshields



Construction

- 1 Body nickel-plated brass UNI EN 12165 CW617N
- 2 Shutter in brass UNI EN 12164 CW617N
- 3 O-ring for shutter body steadying in NBR
- 4 Upper O-ring for shutter steadying in EPDM
- 5 Cap in white ABS RAL 9003
- 6 Nut nickel-plated brass UNI EN 12165 CW617N
- 7 Tang nickel-plated brass UNI EN 12164 CW617N
- 8 O-ring for tang steadying in NBR
- 9 Collar in brass UNI EN 12164 CW617N

Note: the tang with radiator seal is also available with NBR O-Ring

Note: can be used in conjunction with thermostatic Sensor heads and thermo-electric heads

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread fo Female body valve UNI EN ISO 228-1
 Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Maximum operating pressure: +100 °C



Manual straight lockshield for copper pipe, PEX, multi-layer, PP, PB

Dimension	Thread (*)	Pcs. Pack	Code
1/2"	24x19	5	01350852
1/2" O-R	24x19	5	01350856
3/8"	24x19	5	01350962
3/8" O-R	24x19	5	01350966

Emmeti seal 24x19: see section 8



Manual straight lockshield for steel pipe

Dimension	Pcs. Pack	Code
1/2"	5	01350872
1/2" O-R	5	01350876



Manual straight lockshield for multi-layer, connection G 1/2" M

Dimension	Thread (*)	Pcs. pack	Code
1/2"	G 1/2"	25	01350862
1/2" O-R	G 1/2"	25	01350866

Emmeti seal G 1/2"

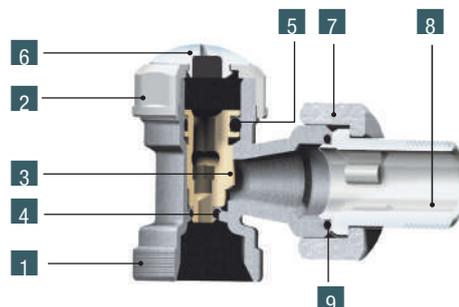


G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code
16 x 2	10	28100310

Poker lockshields

Poker right-angle and straight lockshields



Construction

- 1 Body made of brass UNI EN 12165 CW617N with nickel finish
- 2 Collar in brass UNI EN 12164 CW617N with nickel finish
- 3 Shutter in brass UNI EN 12164 CW617N
- 4 O-ring for shutter steadying in NBR
- 5 Upper O-ring for shutter steadying in EPDM
- 6 Cap in white ABS RAL 9003
- 7 Nut nickel-plated brass UNI EN 12165 CW617N
- 8 Tang nickel-plated brass UNI EN 12164 CW617N
- 9 O-ring for tang steadying in NBR

Note: the tang with radiator seal is also available with NBR O-Ring

Technical data

Thread of nut and tang UNI EN ISO 228-1
 Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
 Thread fo Female body valve UNI EN ISO 228-1
 Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Maximum operating pressure: +100 °C



Poker straight lockshields for copper pipe, PEX, multilayer, PP, PB

Dimension	Thread	Pcs. pack	Code
3/8" O-R (*)	24x19	5	01350410

Emmeti seals: see section 8

(*) Items to be out of stock



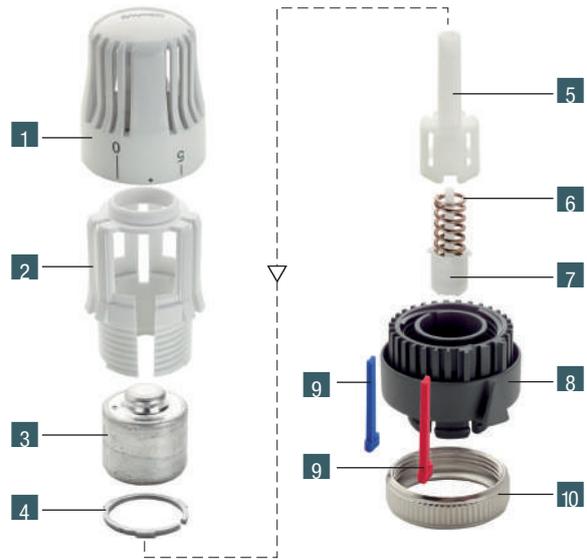
Poker right-angle lockshield for steel pipe

Dimension	Pcs. pack	Code
3/8" (*)	5	01350318
3/8" O-R (*)	5	01350418

(*) Items to be out of stock

Sensor

Thermostatic head Sensor



Construction

- 1 ABS control knob white RAL 9003
- 2 Basket in reinforced PA 6.6
- 3 Thermostatic sensor with fluid expansion
- 4 Ring in spring steel
- 5 Spindle in natural acetalic resin (POM)
- 6 Spring in nickel steel class D UNI 3823
- 7 Rod in natural acetalic resin (POM)
- 8 Base in reinforced PA 6.6
- 9 Pin for limiting temperature blue and red in acetalic resin (POM)
- 10 Fastening ring nut M30x1,5 made of brass TN UNI EN 12164 CW614N nickel finish

Technical data of connection between Sensor Thermostatic head and Poker thermostatisable and thermostatic valves

Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Influence of differential pressure: 0,3 k
 Maximum ambient temperature: 40 °C
 Maximum water temperature: 100 °C
 Maximum storage temperature: -10 ÷ +50 °C
 Range of regulation: 7 ÷ 28 °C
 Nominal climb: 0,22 mm/K
 Hysteresis: 0,8 K
 Antifreeze action: 7 °C
 Nominal rating straight Poker valves: 125 l/h
 Nominal rating right-angle Poker valves: 125 l/h
 Authority: 0,88
 Influence water temperature: 1 K
 Time of reaction: 25 minutes
 Control Accuracy (CA): 1 K

Note: can be used in conjunction with: Poker thermostatisable valves, Poker thermostatic valves, Tris 3 and Tris 2 valves (using adapter code 90001716 supplied separately), Full thermostatic valves and Full thermostatisable valves.

UNI EN 215

Setting of the room temperature

0	*	1	2	③	4	5
Closed	7 °C (*)	12 °C	16 °C	20 °C	24 °C	28 °C

(*) Antifreeze

Numbers from 0 to 5 are marked on the rotating knob.

Each one of these numbers corresponds to an established temperature. The distances between the single numbers correspond to intermediate temperatures.

With the help of the table that is provided ahead, you will find an approximate correspondence between the scale on the knob and the respective temperatures.

Sensor, thermostatic head

Product CEN certified in compliance with UNI EN 215 in the following couplings



028

Valve	Code		Head	Code
Thermostatic	01350342	+	Head	01213040
Thermostatic	01350346	+	Head	01213040



Thermostatic head with sensor

Dimension	Pcs. pack	Code
	6	01213040



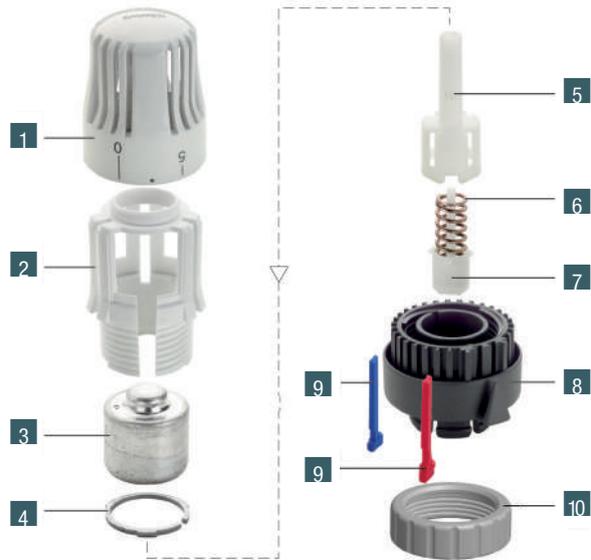
Safety band for thermostatic heads

Dimension	Pcs. pack	Code
	6	90023720

Can only be used in combination with the thermostatic head code 01213040

Sensor Eco

Thermostatic head Sensor Eco



Construction

- 1 ABS control knob white RAL 9003
- 2 Basket in reinforced PA 6.6
- 3 Thermostatic sensor with fluid expansion
- 4 Ring in spring steel
- 5 Spindle in natural acetalc resin (POM)
- 6 Spring in nickel steel class D UNI 3823
- 7 Rod in natural acetalc resin (POM)
- 8 Base in reinforced PA 6.6
- 9 Pin for limiting temperature blue and red in acetalc resin (POM)
- 10 Fastening ring nut M30x1,5 made of PA 6.6 (50%FV)

Technical data of connection between Sensor Eco Thermostatic head and Full thermostatisable and thermostatic valves

Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Influence of differential pressure: 0,3 k
 Maximum ambient temperature: 40 °C
 Maximum water temperature: 100 °C
 Maximum storage temperature: -10 ÷ +50 °C
 Range of regulation: 7 ÷ 28 °C
 Nominal climb: 0,22 mm/K
 Hysteresis: 0,6 K
 Antifreeze action: 7 °C
 Nominal rating right-angle Full valves: 180 l/h
 Authority: 0,88
 Influence water temperature: 1 K
 Time of reaction: 25 minutes

Setting of the room temperature

0	*	1	2	③	4	5
Closed	7 °C (*)	12 °C	16 °C	20 °C	24 °C	28 °C

(*) Antifreeze

Numbers from 0 to 5 are marked on the rotating knob.

Each one of these numbers corresponds to an established temperature. The distances between the single numbers correspond to intermediate temperatures.

With the help of the table that is provided ahead, you will find an approximate correspondence between the scale on the knob and the respective temperatures.



Thermostatic head with sensor

Dimension	Pcs. pack	Code
	12	01213068

Sensor R

Thermostatic head with remote sensor



Construction

- 1 Adjustment knob in ABS white RAL 9003
- 2 Basket in reinforced PA 6.6
- 3 Washer aluminum
- 4 Steel spring 172 SGB
- 5 Cup acetal natural
- 6 Stem acetal natural
- 7 Ring spring steel
- 8 Pusher acetal natural
- 9 Thermostat sensor liquid expansion
- 10 Base in reinforced PA 6.6
- 11 Fastening ring nut M30x1,5 brass TN UNI EN 12164 CW614N nickel
- 12 Limiters adjustment blue and red acetal
- 13 Clip for wall polyethylene

Technical data

Maximum operating pressure: 10 bar
 Maximum differential pressure: 1 bar
 Maximum ambient temperature: 40 °C
 Maximum water temperature: 100 °C
 Maximum storage temperature: -10 ÷ +50 °C
 Range of regulation: 7 ÷ 28 °C
 Nominal climb: 0,22 mm/K
 Antifreeze action: 7 °C
 Capillary length: 2 m

Setting of the room temperature

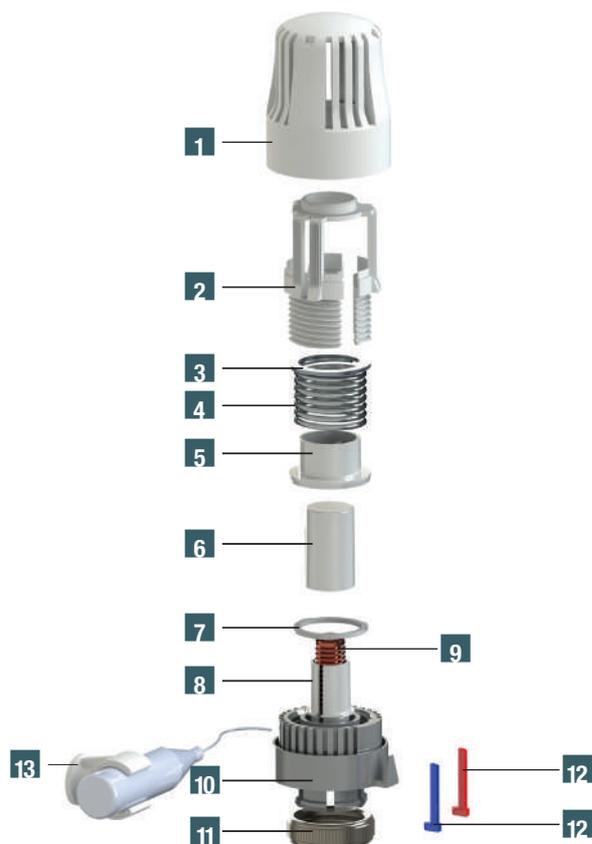
0	*	1	2	3	4	5
Closed	7 °C(*)	12 °C	16 °C	20 °C	24 °C	28 °C

(*) Antifreeze

Numbers from 0 to 5 are marked on the rotating knob.

Each one of these numbers corresponds to an established temperature. The distances between the single numbers correspond to intermediate temperatures.

With the help of the table that is provided ahead, you will find an approximate correspondance between the scale on the knob and the respective temperatures.



Thermostatic head with sensor

Dimension	Pcs. pack	Code
	4	01213072

Sensor kit for Poker valves

Sensor kit for Poker thermostatic radiator valve

The Sensor kit is a boxed set containing a thermostatic head, a Poker thermostatic radiator valve and a lockshield for 1/2" steel pipe, or for multi-layer pipe along with the required 16x2 seals and fitting instructions. This product is manufactured to EN215 specification.

It is a high quality liquid expansion thermostatic radiator valve that can be pre-set to desired room temperature.

As the room temperature raises or lowers, so the valve closes or opens, either stopping the flow or releasing more hot water into the radiator.



Sensor kit, Poker thermostatic right-angle valve + lockshield for steel pipe

Dimension	Pcs. pack	Code
Thermostatic head + 1/2" right-angle valve and lockshield for steel pipe	1	01213126

Items available on request



Sensor kit, Poker thermostatic right-angle valve + lockshield for steel pipe

Dimension	Pcs. pack	Code
Thermostatic head + 1/2" O-R right-angle valve and lockshield for steel pipe	1	01213130

Items available on request



Sensor kit, Poker thermostatic right-angle valve + lockshield and connection for Multilayer pipe PE-X/Al/PE-X

Dimension	Pcs. pack	Code
Thermostatic head + 1/2" right-angle valve and lockshield 24x19 + 2 pcs monoblocco seal 16x2 for multilayer pipe	1	01213128

Items available on request



Sensor kit, Poker thermostatic right-angle valve + lockshield and connection for Multilayer pipe PE-X/Al/PE-X

Dimension	Pcs. pack	Code
Thermostatic head + 1/2" O-R right-angle valve and lockshield 24x19 + 2 pcs monoblocco seal 16x2 for multilayer pipe	1	01213132

Items available on request

Stand alone thermostatic actuator

Electronic stand alone programmable thermostatic actuator for radiator valves



Electronic programmable thermostatic actuator for installation on radiator thermostat valves for the adjustment of the ambient temperature.

The device acts on the valve itself, opening it partially in function of the difference between the set temperature and the temperature detected.

The function keys, the wheel and the LCD display allow for direct programming on the device.

To facilitate the operation, you can use the special mini USB programming stick which allows for the programming, in graphical form, directly on your PC.

1 Display for programming

2 Function keys:

- MENU' (MENU) (to access the main menu)

- OK (OK) (to confirm the settings)

- CLOCK (CLOCK) (to access the clock functions)

3 Selection wheel

4 Mini USB port for programming via programming stick

5 Battery compartment

Technical data

Power supply: 2 batteries 1.5 V (type AA)

Autonomy: 5 years (with low battery indication; estimated but not guaranteed)

Operation:

- manual, with temperature set using the wheel

- automatic, with two temperature levels (comfort and economy), weekly programming

Maximum number of daily switching (automatic operation): 4 in comfort and 4 in economy

Holiday function, which adjusts to a temperature (or valve closure) for a set period

Window function, with valve closure in case the window is open

Keylock function

Size: 52 x 83 x 65 mm

Degree of protection: IP30

Operating temperature: 0 ÷ 50 °C

Storage temperature: -20 °C ÷ +70 °C

Valve connection: M30x1.5

Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 4: Class IV

- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%



Electronic stand alone programmable thermostatic actuator for radiator valves with programming stick

Description	Pcs. pack	Code
Electronic stand alone programmable thermostatic actuator for radiator valves (*)	1	02018092

Programming key for electronic stand alone programmable thermostat (**)	1	02018098
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(*) Can be combined with: Tris 3 thermostatic valves, Full and Poker thermostatic and manual valves.

(**) Key programming compatibility with USB 1.1 or 2.0 ports.
System requirements: Windows Xp (or higher).

Radio frequency thermostatic actuator

Electronic radio frequency programmable thermostatic actuator for radiator valves



Electronic radio frequency programmable thermostatic actuator which receives the operating parameters directly from the Emmeti radio frequency programmable thermostat, operating like a normal remote actuator.

It is installed directly on the thermostatic radiator valve, opening it partially in function of the difference between the set temperature and the temperature detected.

In required, the device can also operate independently since it can be programmed using the keyboard.

1 Programming display

2 Function keys:

- MENU (MENU) (to access the main menu)

- OK (OK) (to confirm the settings)

- CLOCK (CLOCK) (to access the clock functions)

3 Selection wheel

4 Battery compartment

5 Integrated radio frequency module

Technical data

Power supply: 2 batteries 1.5 V (type AA)

Autonomy: 5 years (with low battery indication; estimated but not guaranteed)

Operation:

- radiofrequency

- manual, with temperature set using the wheel

- automatic, with two temperature levels (comfort and economy), weekly programming

Maximum number of daily switching (automatic operation): 4 in comfort and 4 in economy

holiday function, which adjusts to a temperature (or valve closure) for a set period

Window function, with valve closure in case the window is open

Keylock function

Size: 52 x 83 x 65 mm

Maximum distance between radio frequency thermostat and actuator: 50 meters in free field

Degree of protection: IP30

Operating temperature: 0 ÷ 50 °C

Storage temperature: -20 °C ÷ +70 °C

Valve connection: M30x1.5

Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 4: Class IV

- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%



Electronic radio frequency programmable thermostatic actuator for radiator valves

Description	Pcs. pack	Code
Electronic radio frequency programmable thermostatic actuator for radiator valves	1	02018094

Can be combined with: Tris 3 thermostatic valves, Full and Poker thermostatic and manual valves, 3/4" and 1" thermostatic valves.

Radio frequency programmable thermostat

Radio frequency touch screen weekly programmable thermostat



Radio frequency touch screen weekly programmable thermostat to be combined with the radio frequency programmable thermostat actuators for radiator valves; this allows to control one or more radiators.

- 1 Plastic base for wall-mounting or covering the box 503
- 2 Wide backlit touch screen display to view the operating status, time, day and temperature measured
- 3 Touch screen keyboard to program the device

General features

Power supply: 2 x 1,5 V (type AAA)
 Power reserve (to change batteries): 1 minute
 Autonomy: 12 months (with low battery indication, estimated but not guaranteed).
 Summer/Winter mode
 Automatic programming with:
 - 7 programs for winter operation (changeable)
 - 7 programs for summer operation (changeable)
 Temperature adjustment ON/OFF or proportional
 5 settable temperatures:
 - T1, T2, T3 in automatic mode
 - Tm in manual mode
 - Toff in off mode (anti-freeze temperature, excludable)
 Minimum adjustment interval: 1 hour
 Communication delay settable between 15, 30 or 45 minutes (independent for each hour)
 Keylock with password
 Summer/winter time change automatic
 Open window detection function
 Display with blue backlight (active at the touch of a button)

Technical data

Battery powered: 2x1,5 V battery (type AAA) (not supplied)
 Fixing: wall mounting
 Weekly programming
 Operating mode: summer / winter / off
 Type of control: ON / OFF or proportional or setpoint sending for autonomous management of the radiofrequency actuator
 Differential: 0,1 ÷ 1 °C
 Temperature settings: 3 + manual + antifreeze
 Setting setpoint: 2 ÷ 35 °C
 Measured temperature resolution: 0,1 °C
 Measurement precision: 0,5 °C
 Antifreeze temperature (excluded): 1 ÷ 10 °C
 programming resolution: 1 hour
 Ignition delay: 15, 30 or 45 minutes
 Watch accuracy: ± 1 / day
 Operating temperature: 0 ÷ 50 °C
 Storage temperature: -10 ÷ 65 °C
 Operating humidity: 20% to 90% RH non-condensing
 Degree of protection: IP40
 Delegated Regulation (EU) No. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4; class IV
 - Contribution of the temperature control device to the energy efficiency of ambient heating season in%: 2%

Dimensions: see section Technical Attachments



Radio frequency programmable thermostat

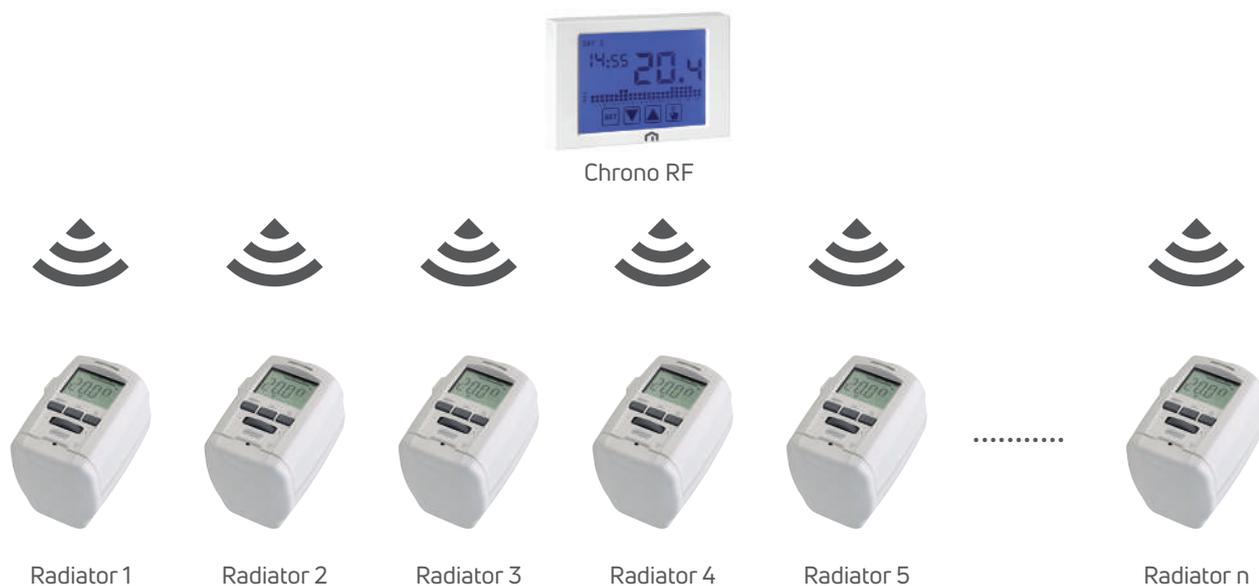
Description	Pcs. pack	Code
Radio frequency programmable thermostat	1	02018144

For more information on products and examples of radio frequency configuration, see the relevant paragraph in Section 5 "Adjustment and Control".

Radio frequency programmable thermostat

Example of configuration

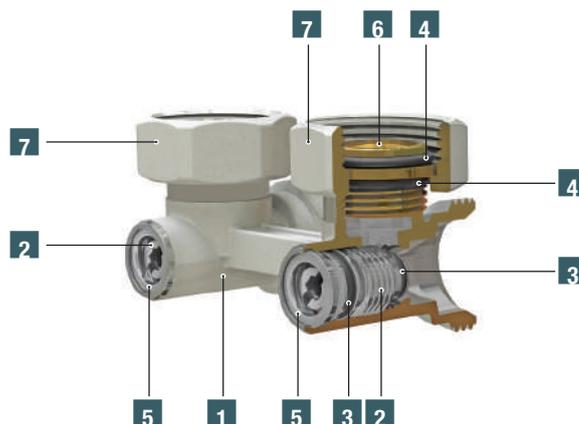
Radio frequency programmable thermostat + Electronic radio frequency programmable thermostatic actuators



Use on centralized radiator system

H valves

Manually H valves



Application

These valves can be used to connect the radiator to the heating water system.

The connection has a standard distance of 50 mm between flow and return. The radiator isolation is possible using the shut-off mechanism incorporated. Are available the straight version and the 90 ° version.

Technical data

Takeoffs: 50 mm

Max operating pressure: 10 bar - Max differential pressure: 6 bar

Max operating temperature: 100 °C - Connections to the plant: 3/4" Ek

Construction

- 1 Body made brass UNI EN 12165 CW617N with nickel finish
- 2 Shutter in brass UNI EN 12164 CW614N with nickel finish
- 3 O-Ring for shutter steadying in EPDM
- 4 O-Ring in EPDM
- 5 Brass ring UNI EN 12164 CW614N with nickel finish
- 6 Flanged brass ring UNI EN 12164 CW614N
- 7 Nut in brass UNI EN 12165 CW617N with nickel finish

Dimensions: see section Technical Attachments page 500



Straight manually H valves, with adapter

Dimension	Pcs. pack	Code
3/4" x 1/2"	2	01306954



Straight manually H valves

Dimension	Pcs. pack	Code
3/4" X 3/4"	2	01306956



Right-angle manually H valves, with adapter

Dimension	Pcs. pack	Code
3/4" x 1/2"	2	01306620



Right-angle manually H valves

Dimension	Pcs. pack	Code
3/4" x 3/4"	2	01306624



Pair of adapters 3/4" Eurocone x 1/2" Male

Dimension	Pcs. pack	Code
3/4" M x 1/2" M	2	01306626

Bleed valves



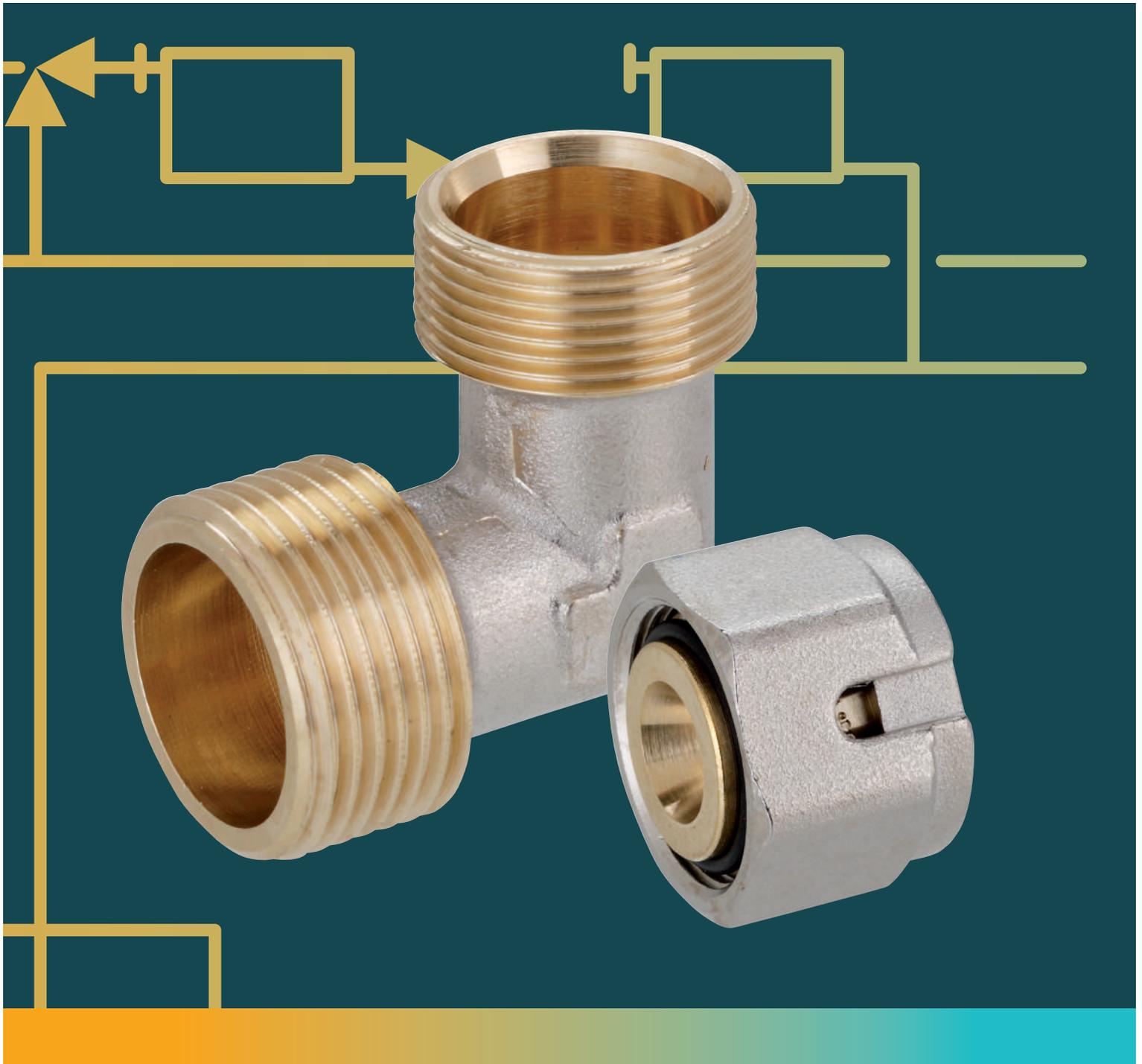
Bleed valves

Dimension	Pcs. pack	Code
3/8"	10	00410019
1/2"	10	00410021
1/4"	10	00410017
1/2"	1	00410121



Key for operating bleed valves

Dimension	Pcs. pack	Code
	1	00408330



Seales and screw fittings



> Monoblocco fitting 24x19 for copper pipe for water



317

> Fitting to be tightened 3/4" Eurocone for copper pipes for water



317

> Monoblocco fitting 24x19 for copper pipe for gas



319

> Monoblocco fitting 24x19 for Multi-layer pipe



321

> Monoblocco fitting Eurocone for Multi-layer pipe



322

> Monoblocco fitting 24x19 for PE-X, PE-RT, PP and PB



323

> Monoblocco fitting Eurocone for PE-X and PE-RT



324

> 3-pieces fitting for PE-X, PE-RT and Multi-layer



325

> Fittings to be tightened



327

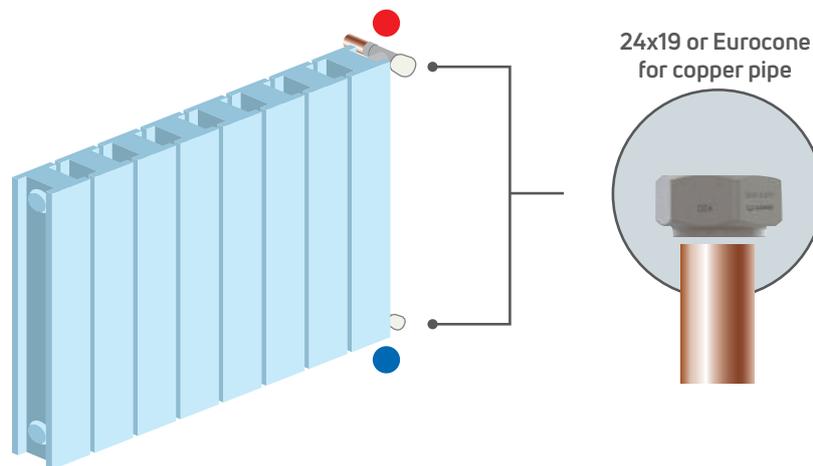
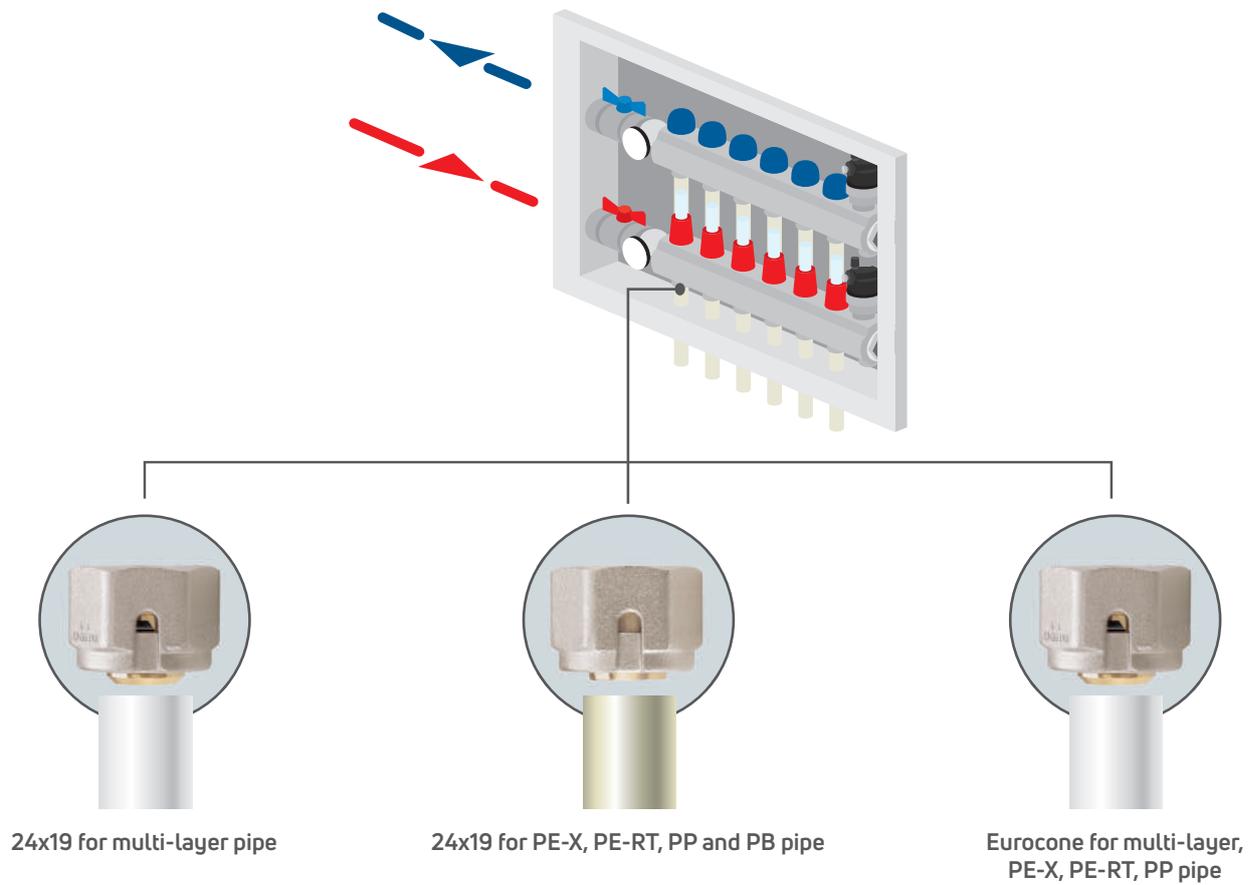
> Screw compression fittings



330

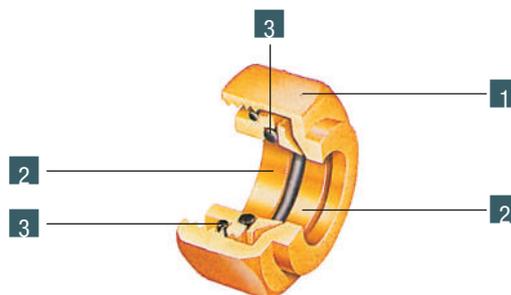


Example of installation



Copper Monoblocco fitting for water

Monoblocco fitting 24x19 for copper pipe, for water



Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Metal components in brass UNI EN 12164 CW617N
- 3 O-ring fitting in NBR

Dimensions: see section Technical Attachments page 499

Operating conditions (UNI EN 1254-2)

Maximum operating pressures as a function of temperatures:

- p_{max} for operating T up to 30 °C: 25 bar (for diameters from 10 to 15 mm), 16 bar (for diameters from 16 to 18 mm)
- p_{max} for operating T from 31 °C to 65 °C: 25 bar (for diameters from 10 to 15 mm), 13 bar (for diameters from 16 to 18 mm)
- p_{max} for operating T from 66 °C to 95 °C: 16 bar (for diameters from 10 to 15 mm), 10 bar (for diameters from 16 to 18 mm)

PATENT PENDING

Monoblocco fitting 24x19 for copper pipe, for water



PATENT PENDING

Monoblocco fitting for copper pipe, nickel-plated

Dimension	Thread	Tightening torque (Nm)	Pcs. pack	Code
10 (*)	24x19	30÷35	20	01321410
12 (*)	24x19	35÷40	20	01321412
14 (*)	24x19	40÷45	20	01321414
15 (*)	24x19	40÷45	20	01321415
16 (*)	24x19	45÷50	20	01321416
18 standard fitting	24x19	50÷55	20	01321320
NEW Monoblocco blind fitting (plug)	24x19	30÷35	20	01321462

(*) Items to be out of stock

Fitting 3/4" Eurocone for copper pipes, for water



Fitting 3/4" Eurocone for copper pipes, for water

Nut in nickel-plated brass UNI EN 12165 CW617N -
Adaptor UNI EN 12164 CW614N - Hose-clamp in EPDM peroxide
Maximum pressure: 10 bar - Maximum temperature: 120 °C

Dimension	Thread	Tightening torque (Nm)	Pcs. pack	Code
12	3/4" Eurocone	35÷45 (*) / 60÷80 (**)	2	01321512
14	3/4" Eurocone	35÷45 (*) / 60÷80 (**)	2	01321514
15	3/4" Eurocone	35÷45 (*) / 60÷80 (**)	2	01321515
16	3/4" Eurocone	35÷45 (*) / 60÷80 (**)	2	01321516

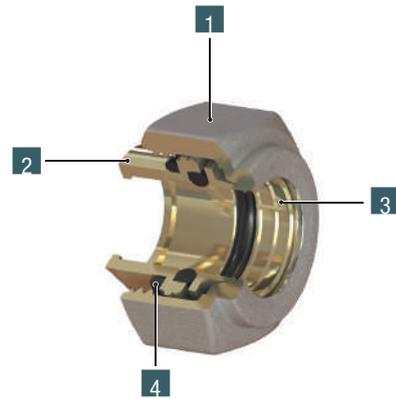
(*) Annealed copper tube

(**) Semi-hard copper tube

Copper Monoblocco 2.0 fitting for water

Monoblocco 2.0 fitting 24x19 for copper pipe, for water

NEW



Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Adapter with limit switch in brass UNI EN 12164 CW617N-DW
- 3 Brass hose clamp ring UNI EN 12164 CW617N
- 4 O-ring seals in NBR Sh 70 EN 681

Operating conditions (UNI EN 1254-2)

- Maximum operating pressures as a function of temperatures:
- p_{max} for operating T up to 30 °C: 25 bar (for diameters from 10 to 15 mm), 16 bar (for diameters from 16 to 18 mm)
 - p_{max} for operating T from 31 °C to 65 °C: 25 bar (for diameters from 10 to 15 mm), 13 bar (for diameters from 16 to 18 mm)
 - p_{max} for operating T from 66 °C to 95 °C: 16 bar (for diameters from 10 to 15 mm), 10 bar (for diameters from 16 to 18 mm)

PATENT PENDING

Monoblocco 2.0 fitting 24x19 for copper pipe, for water



PATENT PENDING

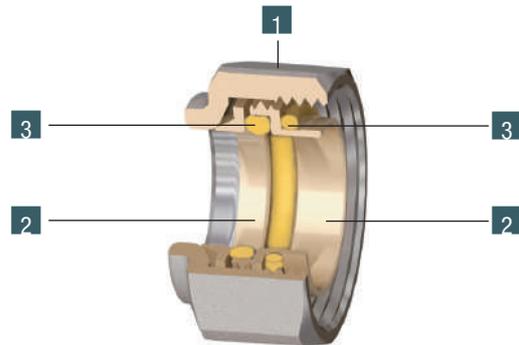
Monoblocco 2.0 fitting for copper pipe, nickel-plated, for water

NEW

Dimension	Thread	Tightening torque (Nm)	Pcs. pack	Code
10	24x19	40	20	01321810
12	24x19	40	20	01321812
14	24x19	40	20	01321814
15	24x19	40	20	01321815
16	24x19	40	20	01321816

Copper Monoblocco fitting for gas

Monoblocco fitting 24x19 for copper pipe for gas



Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Metal components in brass UNI EN 12164 CW617N
- 3 O-ring fitting in yellow HNBR

Operating conditions (UNI EN 1254-2)

Operating temperature: $-20 \div 70$ °C
Operating pressure: MOP 5

PATENT PENDING

Note

Monoblocco fittings must only be used with screw fittings or gas-use manifolds manufactured by Emmeti, with 24x19 thread, verifying applicability in compliance with national regulations.



PATENT PENDING

Monoblocco fitting 24x19 for copper pipe for gas

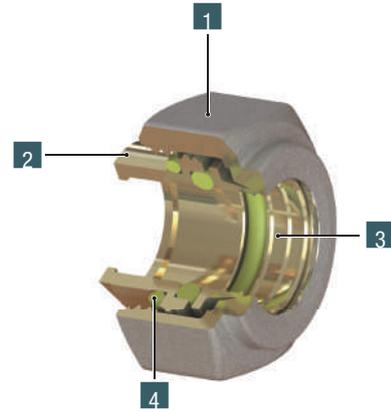
Dimension	Maximum torque (Nm)	Pcs. pack	Code
14 (*)	40÷45	20	01321454
15 (*)	40÷45	20	01321456
16 (*)	45÷50	20	01321458
Blind Monoblocco 24x19 with O-ring		20	01321460

Thread UNI EN ISO 228-1

(*) Items to be out of stock

Copper Monoblocco 2.0 fitting for gas

Monoblocco 2.0 fitting 24x19 for copper pipe, for gas



Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Adapter with limit switch in brass UNI EN 12164 CW617N-DW
- 3 Brass hose clamp ring UNI EN 12164 CW617N
- 4 O-ring seals in HNBR yellow Sh 70 EN 682 - EN 549

Operating conditions (UNI EN 1254-2)

Operating temperature: $-20 \div 70$ °C
Operating pressure: GT 5 / MOP 5

PATENT PENDING

Note

Monoblocco fittings must only be used with screw fittings or gas-use manifolds manufactured by Emmeti, with 24x19 thread, verifying applicability in compliance with national regulations.



Monoblocco 2.0 fitting 24x19 for copper pipe, for gas

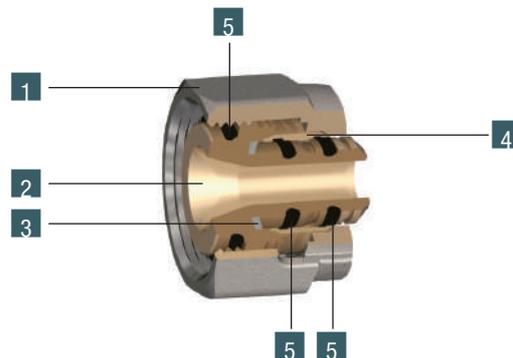
NEW

Dimension	Maximum torque (Nm)	Pcs. pack	Code
14	40	20	01321914
15	40	20	01321915
16	40	20	01321916

PATENT PENDING

Multilayer Monoblocco fitting

Monoblocco fitting 24x19 and Eurocone for multilayer pipe



Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Adapter in brass UNI EN 12164 CW614N
- 3 Washer in PTFE, dielectric
- 4 Serrated hose-clamp, cut brass UNI EN 12164 CW614N
- 5 O-ring seals in EPDM

Maximum torque:
 Ø 12 - Ø 20 with nut 24x19 CH27: 30÷35 Nm
 Ø 12 - Ø 16 with nut 3/4" EK: 30÷35 Nm
 Ø 20 with nut 3/4" EK: 40÷45 Nm
 Ø 26x3: 55÷60 Nm
 Ø 32x3: 40÷50 Nm

For the conditions of use of the seal (pressure and temperature), refer to the application classes of the pipe combined with it (ref. UNI EN ISO 21003-1).

PATENT PENDING

Dimensions: see section Technical Attachments page 499



PATENT PENDING

24x19 fitting for multilayer pipe, nickel-plated

Dimension	Thread	Pcs. pack	Code
12 x 1,6	24x19	20	28100355
14 x 2	24x19	20	28100356
16 x 2	24x19	50	28100358
16 x 2,25	24x19	20	28100360
18 x 2	24x19	50	28100364
20 x 2	24x19	50	28100366
20 x 2,5	24x19	20	28110218
26 x 3	M32x1,5	8	28100368

Pair of clamp fittings for multilayer pipe

Construction characteristics:
 - body in nickel-plated brass UNI EN 12165 CW617N
 - thread G (UNI EN ISO 228-1)
 - 46 mm nut spanner

Dimension	Thread	Pcs. pack	Code
32 x 3	1" M with O-ring	1	27180620
32 x 3	1" F	1	27180622



Multilayer Monoblocco fittings



Fitting Female 24x19 - Male M32x1,5

Dimension	Pcs. pack	Code
24x19 - M32x1,5	10	01306252

Complete with O-Ring and adapter female side



Straight Male fitting 1/2" - M32x1,5

Dimension	Pcs. pack	Code
1/2" - M32x1,5	10	01306250

Complete with O-Ring



Monoblocco fitting 3/4" Eurocone

Dimension	Thread	Pcs. pack	Code
16 x 2 (*)	3/4" Eurocone	10	28100792
20 x 2	3/4" Eurocone	10	28100798

(*) Item to be out of stock

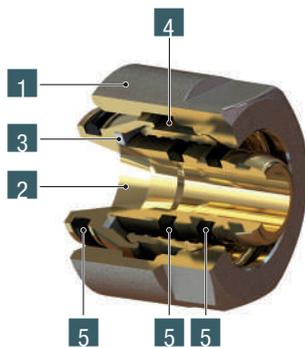


Monoblocco 2.0 fitting 3/4" Eurocone

NEW

Construction

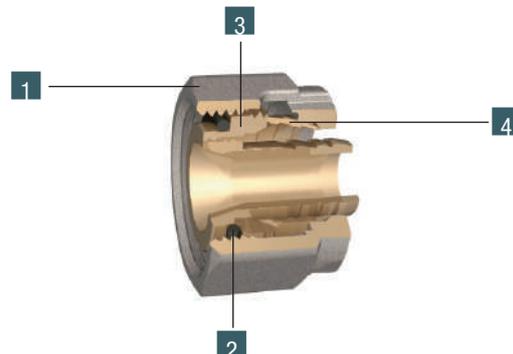
- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Adapter in brass UNI EN 12164 CW617N
- 3 Washer in PTFE, dielectric
- 4 Serrated hose-clamp in brass UNI EN 12164 CW614N
- 5 O-ring seals EPDM



Dimension	Thread	Pcs. pack	Code
16 x 2 (with o-ring)	3/4" Eurocone	10	28110606

PE-X, PE-RT, PP, PB Monoblocco fitting

Monoblocco fitting 24x19 and Eurocone for plastic pipe PE-X, PE-RT, PP, PB



Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 O-ring seals in EPDM
- 3 Adapter in brass UNI EN 12164 CW617N
- 4 Serrated hose-clamp in brass UNI EN 12164 CW614N

Maximum torque:

- Ø 12 - Ø 20 with nut 24x19: 30÷35 Nm
- Ø 12 - Ø 16 with nut 3/4" EK: 30÷35 Nm
- Ø 17 - Ø 20 with nut 3/4": 35÷40 Nm
- Ø 25x2,3: 55÷60 Nm

For the conditions of use of the seal (pressure and temperature), refer to the application classes of the pipe combined with it (ref. UNI EN ISO 21003-1 for pipes type PE-Xc PENTA; UNI EN ISO 15875-1 for pipes type PE-Xc and PE-Xa; UNI EN ISO 22391-1 for pipes type PE-RT).

Dimensions: see section Technical Attachments page 499



PATENT PENDING

Monoblocco fitting 24x19 for plastic pipe PE-X, PE-RT, PP

Dimension	Thread	Pcs. pack	Code
12 x 1	24x19	20	28110100
12 x 2	24x19	20	28110106
15 x 1,7	24x19	20	28110112
16 x 1,5	24x19	20	28110116
16 x 2	24x19	20	28110118
16 x 2,2	24x19	20	28110120
17 x 2	24x19	20	28110122
20 x 2	24x19	20	28110446
25 x 2,3	M32 x 1,5	8	28100382



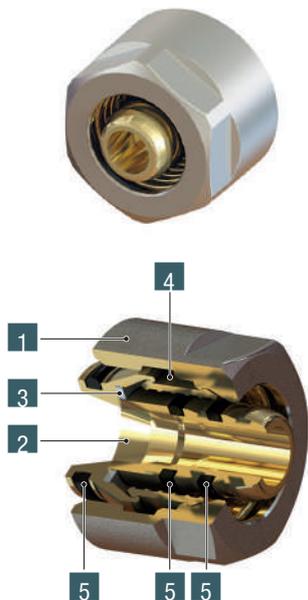
PATENT PENDING

Monoblocco 3/4" Eurocone fitting for plastic, PE-X and PE-RT pipe

Dimension	Thread	Pcs. pack	Code
12 x 2 (with o-ring)	3/4" Eurocone	10	28100788
16 x 2 (with o-ring) (*)	3/4" Eurocone	10	28100792
17 x 2 (with o-ring) (*)	3/4" Eurocone	10	28100794
20 x 2 (with o-ring)	3/4" Eurocone	10	28100798

(*) Items to be out of stock

Monoblocco PEX-PP-PB



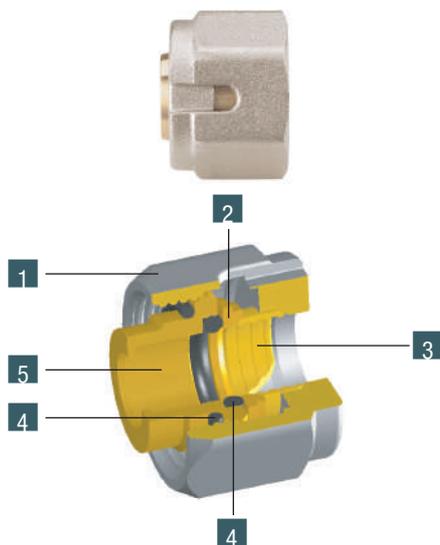
Monoblocco 2.0 3/4" Eurocone fitting for plastic, PE-X and PE-RT pipe

NEW

Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Adapter in brass UNI EN 12164 CW617N
- 3 Washer in PTFE, dielectric
- 4 Serrated hose-clamp in brass UNI EN 12164 CW614N
- 5 O-ring seals EPDM

Dimension	Thread	Pcs. pack	Code
16 x 2 (with o-ring)	3/4" Eurocone	10	28110606
17 x 2 (with o-ring)	3/4" Eurocone	10	28110608



Monoblocco fitting 24x19 for plastic pipe PB

Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Collar in brass UNI EN 12164 CW614N
- 3 Serrate hose-clamp, cut, in brass UNI EN12164 CW614N
- 4 O-ring seal in EPDM
- 5 Adapter in brass UNI EN 12164 CW617N

Dimension	Pcs. pack	Code
Ø 15 (*)	50	28100330

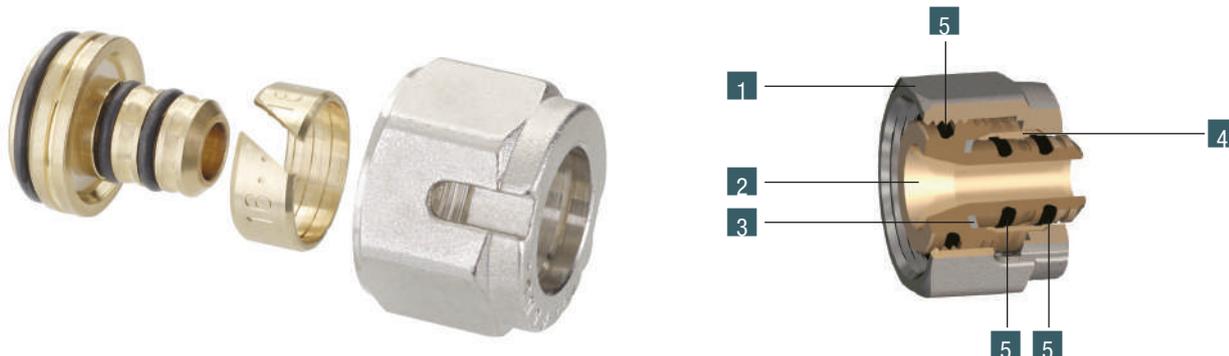
(*) Polybutylene

When using Emmeti compression fittings for Polybutylene pipe, please ensure you use the plastic pipe insert provided for by the manufacturer of the pipe you are using.

PATENT PENDING

3-pieces fitting

3-pieces fittings for PE-X and Multilayer pipe



Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Adapter in brass UNI EN 12164 CW617N
- 3 Washer in PTFE, dielectric
- 4 Serrated hose-clamp in brass UNI EN 12164 CW614N
- 5 O-ring seals EPDM

Maximum torque:
 Ø 12 - Ø 17: 30÷35 Nm

For the conditions of use of the seal (pressure and temperature), refer to the application classes of the pipe combined with it (ref. UNI EN ISO 21003-1 for pipes type Multi-layer and PE-Xc PENTA; UNI EN ISO 15875-1 for pipes type PE-Xc and PE-Xa).



3-pieces fittings 24x19 for PE-X, PE-RT and Multilayer pipe

Dimension	Thread	Pcs. pack	Code
12 x 2	24x19	20	28110502
14 x 2	24x19	20	28110504
17 x 2	24x19	20	28110508



3-pieces fittings 3/4" Eurocone for PE-X, PE-RT and Multilayer pipe

Dimension	Thread	Pcs. pack	Code
12 x 2	3/4" Eurocone	10	28110788
14 x 2	3/4" Eurocone	10	28110790
16 x 2 (*)	3/4" Eurocone	10	28110792
17 x 2	3/4" Eurocone	10	28110794

(*) Item to be out of stock

Accessories for Monoblocco



Polygonal spanner, open type CH 27 - 30

Dimension	Pcs. pack	Code
CH 27-30	1	01306058



Spanner for tightening derivations CH 27 usable for pipes up to DN 18

Dimension	Pcs. pack	Code
CH 27	1	01306054



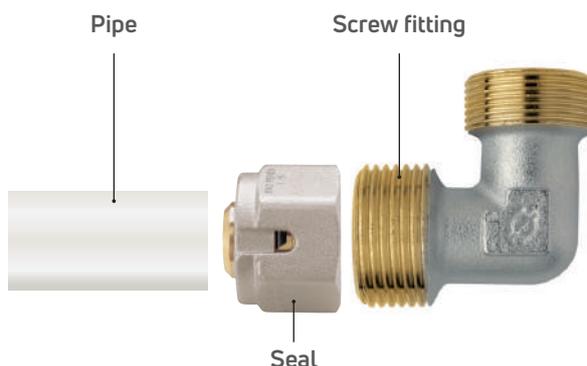
CH 38 spanner for multilayer Monoblocco fittings 26x3

Dimension	Pcs. pack	Code
	1	28171002

To be used for the tightening of the single-piece fittings for multilayer pipe 26x3 on the branches of manifolds with interval of 50 mm

Fittings to be tightened

Screw fittings for copper, plastic and multilayer pipes



PATENT PENDING

Uses

The use of the screw-together pipe fittings makes installing the multi-layer pipe very easy, and moreover it requires very few tools. The 24x19 and M32x1,5 threading allows for a single type of fitting which can be matched with Emmeti seals 24x19 and M32x1,5 Emmeti, for copper pipe, multi-layer pipe or PE-X, PE-RT, PP, PB, rationalizing the warehouse.

Construction

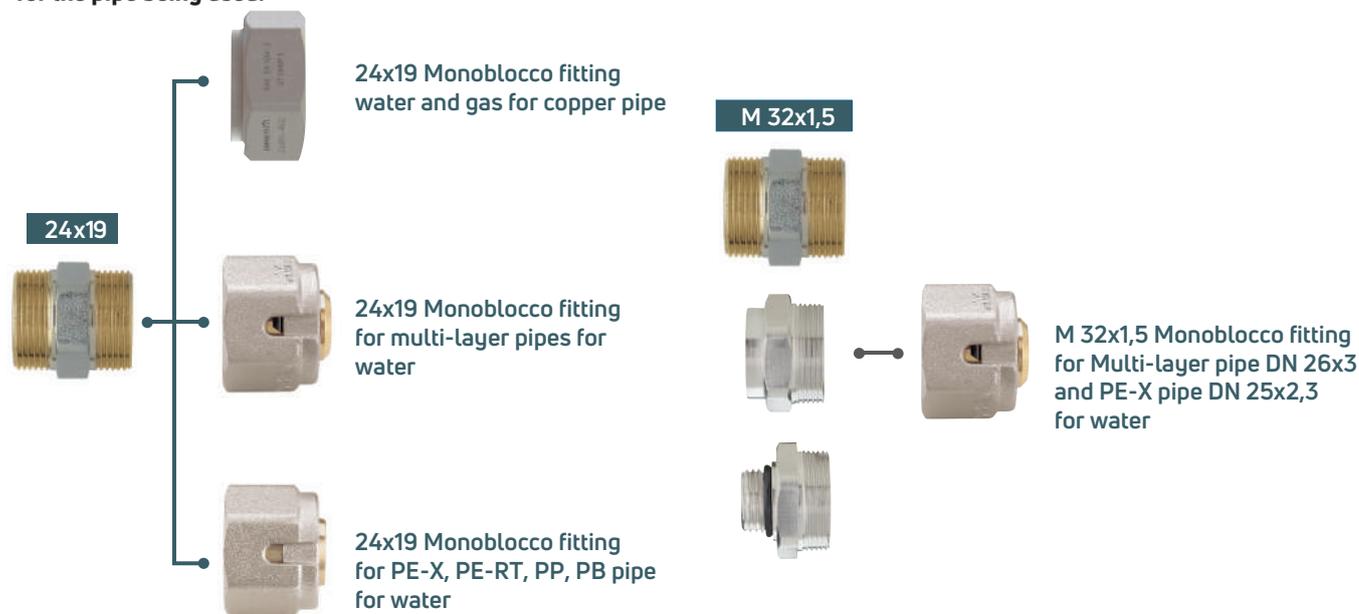
Body UNI EN 12165 CW617N**

Female - Male connection

Thread gas ISO 228/1 (DIN 259)

** Nickel-plated only on surface non in contact with fluides; availability after exaustion of totally nickel-plated version.

24x19 and M32x1,5 thread connect copper pipe, plastic or multilayer, using a standard fitting that is mated to the specific seal for the pipe being used.



The seals for multilayer pipes, PE-X, PP, PB are equipped with an opening on the nut to check the correct insertion of the pipe up to the stop point.



PATENT PENDING

Straight female joint, nickel -plated

Dimension	Thread	Pcs. pack	Code
1/2"	24x19	20	28103000
3/4"	24x19	14	28103010
3/4"	M32x1,5	10	28103020
1"	M32x1,5	8	28103030



PATENT PENDING

Straight male joint, nickel-plated

Dimension	Thread	Pcs. pack	Code
1/2"	24x19	20	28103040
3/4"	24x19	14	28103050
3/4"	M32x1,5	10	28103060
1"	M32x1,5	10	28103070

Fittings



Straight joint double jointed nickel-plated

Dimension	Pcs. pack	Code
24 x 19	20	28103080
M32 x 1,5	10	28103090

PATENT PENDING



Fitting Female 24x19 - Male M32x1,5

Dimension	Pcs. pack	Code
24x19 - M32x1,5	10	01306252

Complete with O-Ring and adapter female side



Straight Male fitting 1/2" - M32x1,5

Dimension	Pcs. pack	Code
1/2" - M32x1,5	10	01306250

Complete with O-Ring



Female elbow joint nickel-plated

Dimension	Thread	Pcs. pack	Code
1/2"	24x19	10	28103100
3/4"	24x19	8	28103110
3/4"	M32x1,5	6	28103120
1"	M32x1,5	4	28103130

PATENT PENDING



Male elbow joint nickel-plated

Dimension	Thread	Pcs. pack	Code
1/2"	24x19	10	28103140
3/4"	24x19	10	28103150
3/4"	M32x1,5	8	28103160
1"	M32x1,5	5	28103170

PATENT PENDING



Double-jointed elbow nickel-plated

Dimension	Pcs. pack	Code
24 x 19	10	28103180
M32 x 1,5	6	28103190

PATENT PENDING

Fittings



PATENT PENDING

TEE joint female nickel-plated

Dimension	Thread	Pcs. pack	Code
1/2"	24x19	8	28103200
3/4"	24x19	5	28103210



PATENT PENDING

TEE-joint male nickel-plated

Dimension	Thread	Pcs. pack	Code
1/2"	24x19	8	28103240
3/4"	24x19	6	28103250



PATENT PENDING

TEE-joint three-piece nickel-plated

Dimension	Pcs. pack	Code
24x19	8	28103280

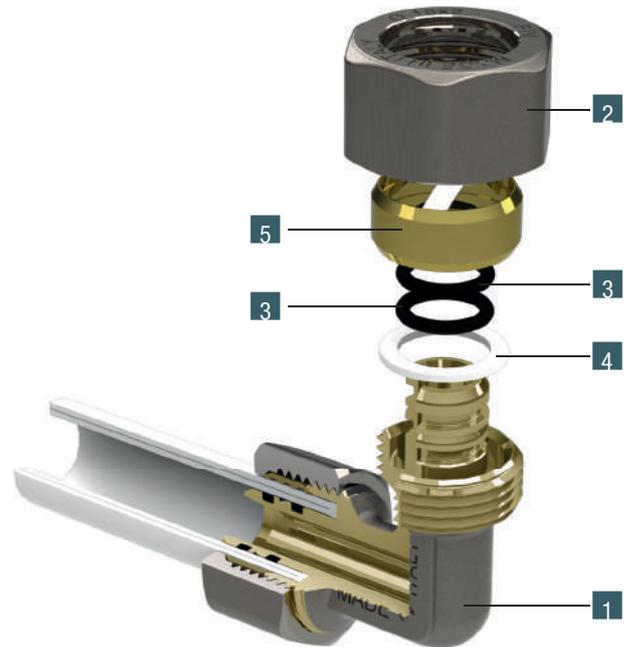


PATENT PENDING

Elbow joint female with flange nickel-plated

Dimension	Thread	Pcs. pack	Code
1/2"	24x19	6	28103300

Screw compression fitting



Construction

- 1 CW617N (UNI EN 12165) and CW614N (UNI EN 12164) brass body*
- 2 Nut in nickel plated brass UNI EN 12165 CW617N
- 3 EPDM peroxide 70 SH double o-ring
- 4 Washer PTFE
- 5 Ogive

* Nickel-plating only on surfaces non in contact with transported fluids.

Technical data

"Eco" fittings allow quick, safe installation with less equipment. The items are equipped with two o-rings in EPDM that ensure the seal along with the sawtooth profile on the hose connection itself, plus a ring in PTFE to eliminate any stray currents.

Suitability for potable water

"Eco" screw compression fittings comply with Italian Ministry of Health Decree no. 174 dated 06/04/2004.



Straight female joint, nickel-plated

Dimension	Pcs. pack	Code
1/2" x 16	150	27180500
1/2" x 20	100	27180502
3/4" x 20	60	27180504
3/4" x 26	50	27180570
1" x 26	50	27180572



Straight male joint, nickel-plated

Dimension	Pcs. pack	Code
1/2" x 16	150	27180506
1/2" x 20	100	27180508
3/4" x 20	100	27180510
3/4" x 26	50	27180578
1" x 26	50	27180580

Screw compression fittings



Elbow female joint, nickel-plated

Dimension	Pcs. pack	Code
1/2" x 16	100	27180512
1/2" x 20	60	27180514
3/4" x 20	60	27180516
3/4" x 26	40	27180582



Elbow male joint, nickel-plated

Dimension	Pcs. pack	Code
1/2" x 16	100	27180518
1/2" x 20	60	27180520
3/4" x 20	60	27180522
3/4" x 26	40	27180584



Female elbow joint with flange, nickel-plated

Dimension	Pcs. pack	Code
1/2" x 16	50	27180524
1/2" x 20	30	27180526



Intermediate Tee joint with female branching, nickel-plated

Dimension	Pcs. pack	Code
16 x 1/2" x 16	50	27180530
20 x 1/2" x 20	30	27180532
20 x 3/4" x 20	30	27180534
26 x 3/4" x 26	20	27180588



Straight intermediate joint, nickel-plated

Dimension	Pcs. pack	Code
16 x 16	100	27180536
20 x 20	50	27180538
26 x 26	30	27180574



Straight intermediate reduced joint, nickel-plated

Dimension	Pcs. pack	Code
16 x 20	70	27180540
20 x 26	50	27180576

Screw compression fittings



Intermediate elbow joint, nickel-plated

Dimension	Pcs. pack	Code
16 x 16	100	27180542
20 x 20	60	27180544
26 x 26	30	27180586



Intermediate Tee joint, nickel-plated

Dimension	Pcs. pack	Code
16 x 16 x 16	50	27180546
20 x 20 x 20	30	27180548
26 x 26 x 26	20	27180590



Intermediate reduced Tee joint, nickel-plated

Dimension	Pcs. pack	Code
16 x 20 x 16	30	27180550
16 x 20 x 20	30	27180552
26 x 20 x 26	20	27180592



Intermediate Tee joint with male branching, nickel-plated

Dimension	Pcs. pack	Code
16 x 1/2" x 16	50	27180554
20 x 1/2" x 20	30	27180556
20 x 3/4" x 20	30	27180558



105° female joint, nickel-plated

Dimension	Pcs. pack	Code
1/2" x 16	50	27180560



105° long female joint, nickel-plated

Dimension	Pcs. pack	Code
1/2" x 16	50	27180562

Screw compression fittings

Spare parts for screw compression fittings Eco



Nut with 1/2" connection, nickel-plated

Dimension	Pcs. pack	Code
16	5	27180600
20	10	27180602
26	5	27180603



Ogive

Dimension	Pcs. pack	Code
16	20	27180604
20	10	27180606
26	5	27180607



Valves, bibcocks, detectors and accessories for gas



SCAN

> Ball valves for gas



337

> GasBox



342

> Controlgas 4
gas leak detector



344

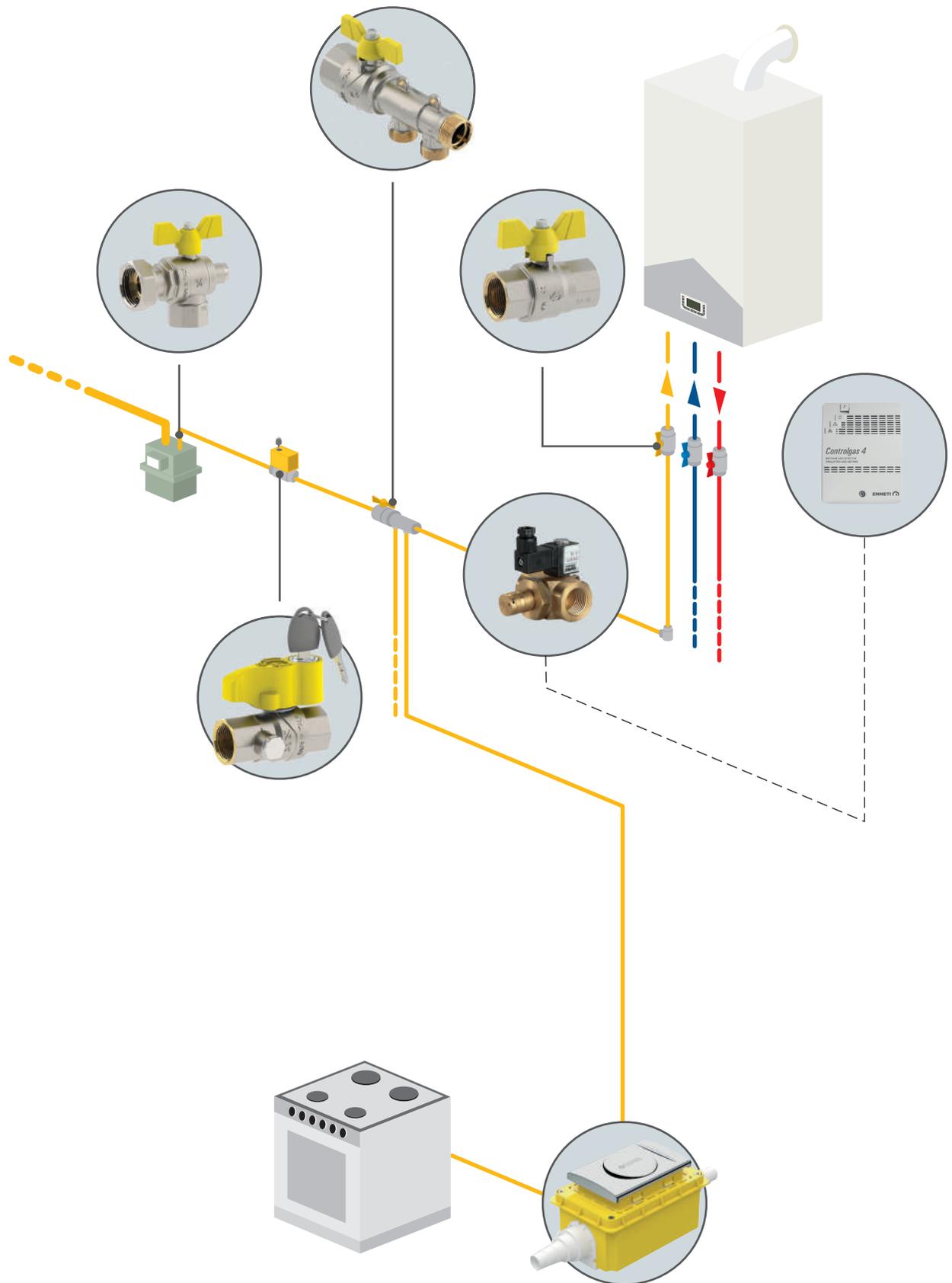
> Solenoid valves for gas



345

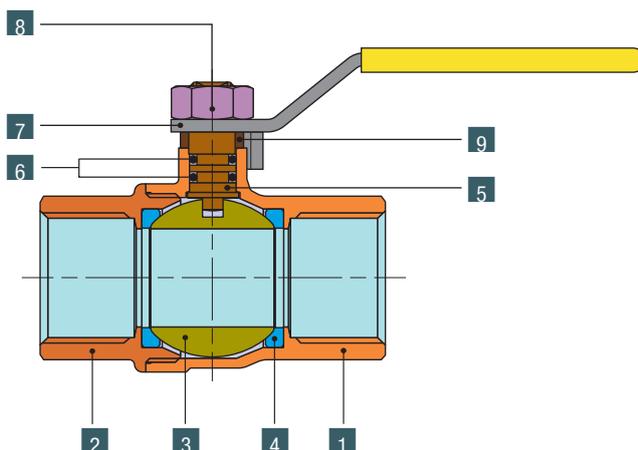


Example of installation



Futurgas

Ball valves for gas



Construction

- 1 Valve body made brass UNI EN 12165 CW617N nickel finish
- 2 End connection nickel-plated brass UNI EN 12165 CW617N
- 3 Ball hard chromed brass UNI EN 12165 CW617N
- 4 Ball seal in pure P.T.F.E.
- 5 Stem brass UNI EN 12164 CW617N
- 6 Rod seal o-ring NBR 70 Sh A (AS™D 2240)
- 7 Handle zinc-plated steel, plastified
- 8 Nut zinc-plated steel
- 9 Anti-friction ring P.T.F.E.

Technical data

Male - Female thread UNI EN 10226-1 (ISO 7/1:1994)
 Nut, tang and pressure connection thread UNI EN ISO 228-1
 Max operating pressure MOP 5
 Class of resistance to high temperatures: B0,1
 Temperature range: from -20 to +60 °C
 Ball valves must be used in fully open or fully close position.



Futurgas Female-Female lever handle

Dimension	Pcs. pack	Code
1/2"	16	09813500
3/4"	12	09813502
1"	6	09813504
1"1/4	4	09813506
1"1/2	1	09813508
2"	3	09813510



Futurgas Male-Female lever handle

Dimension	Pcs. pack	Code
1/2"	16	09813512
3/4"	12	09813514
1"	6	09813516
1"1/4	4	09813518
1"1/2	1	09813520
2"	3	09813522



Futurgas Female-Female butterfly handle

Dimension	Pcs. pack	Code
1/2"	16	09813524
3/4"	12	09813526
1"	6	09813528
1"1/4	4	09813530



Futurgas - Ball valves for gas



Futurgas Male-Female butterfly handle

Dimension	Pcs. pack	Code
1/2"	16	09813532
3/4"	12	09813534
1"	6	09813536
1 1/4"	4	09813538



UNI EN 331



Futurgas Female-Revolving nut butterfly handle

Dimension	Pcs. pack	Code
1/2" F x 3/4" G	16	09813540
3/4" F x 3/4" G	12	09813542



UNI EN 331



Futurgas Female-Female with pressure connection G 1/4 and butterfly handle

Dimension	Pcs. pack	Code
1/2"	6	09813544
3/4"	5	09813546
1"	6	09813548



UNI EN 331



Futurgas Female-Revolving nut with pressure connection G 1/4 and butterfly handle

Dimension	Pcs. pack	Code
3/4" F x 1" G	2	09813550
1" F x 1 1/4" G	1	09813552



UNI EN 331



Right-angle Futurgas Female Female butterfly handle

Dimension	Pcs. pack	Code
1/2"	18	09813000
3/4"	12	09813002
1"	6	09813004



UNI EN 331

Futurgas - Ball valves for gas



Right-angle Futurgas Female Male butterfly handle

Dimension	Pcs. pack	Code
1/2"	18	09813006
3/4"	12	09813008
1"	6	09813010



UNI EN 331



Right-angle Futurgas Male Male butterfly handle

Dimension	Pcs. pack	Code
1/2"	18	09813012
3/4"	12	09813014



UNI EN 331



Right-angle Futurgas Female Swivel union butterfly handle

Dimension	Pcs. pack	Code
1/2" F x 3/4" G	14	09813016
3/4" F x 3/4" G	10	09813018



UNI EN 331



Right-angle Futurgas Male Swivel union butterfly handle

Dimension	Pcs. pack	Code
1/2" M x 3/4" G	14	09813020
3/4" M x 1" G	8	09813022
1" M x 1 1/4" G	4	09813024



UNI EN 331



Right-angle Futurgas Female-Female with pressure connection G 1/4 and butterfly handle

Dimension	Pcs. pack	Code
3/4"	2	09813026
1"	1	09813028



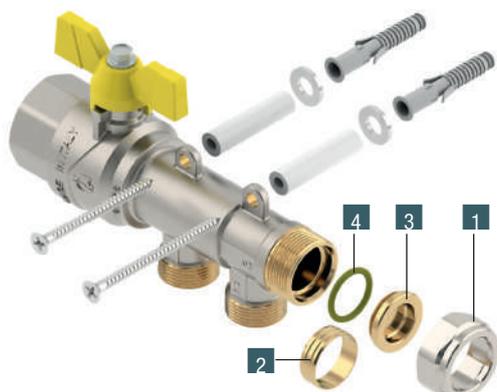
UNI EN 331

Futurgas - Ball valves for gas



Right-angle Futurgas Female-Revolving nut with pressure connection G 1/4 and butterfly handle

Dimension	Pcs. pack	Code
3/4" F x 1" G	2	09813030
1" F x 1" 1/4 G	1	09813032



UNI EN 331

Valve with manifold first inlet

Collector with integrated shut-off valve with 1" F inlet / two 24x 19M branches / one M28x1.5 branch, suited for creating joints inside the rooms, which can be exposed and have a shut-off, in compliance with UNI 7129.

The pack includes:

- Screws, plugs and spacers for wall-mounted installation.
- Nut M28x1.5 (1) that can be used with the brass ogive (2) supplied for connection to copper piping Ø22 mm, or with the blind adapter D22 (3) and relative o-ring in HNBR 18x2.5 (4) provided in order to seal the outlet if not used.

Note: fitting seals, see gas monobloc section

Dimension	Pcs. pack	Code
1" F	1	09812566

Lateral branches: 24x19 Male
Head branch: M28 x 1.5

Threads 1": Rp (UNI EN 10226-1)



Female cap 24x19 for gas

Dimension	Pcs. pack	Code
Female cap 24x19	20	01321460

Fitting to be used to plug the 24x19 male branches of the valve with first inlet manifold.



Straight with female swivel nut, o-ring fitting

Dimension	Profile	Pcs. pack	Code
Ø 26 - M 28 x 1,5	B (KSP1) / TH (KSP11)	2	28125250

Fitting accessory for derivation M28x1,5 alve with manifold first inlet



Built-in box for valve with gas manifold first inlet

Dimension	Pcs. pack	Code
264x164x110	1	13010000

Items inside the package:

- 4 adjustable extension cables for DN16 - DN18 - DN20 - DN26 - DN32 pipes
- 2 M4x50 screws with relative washers and nuts

Dimensions: see section Technical Attachments page 502

Futurgas - Ball valves for gas

Ball valves for gas with safety locks

These valves, normally usable for the application to the counter, are equipped with a safety lock with keys for the exclusive use of the user as required by UNI 7129-1:2015 Paragraph 4.1, and a key (sold separately) for use by the manager/administrator. In case of emergency, it's possible close the gas flow without the use of the key ensuring a locking in closing. It's possible, with the key to the manager/administrator, to prevent any action by the user.



UNI EN 331

Futurgas Female-Female with safety lock and pressure connection G 1/4

Dimension	Pcs. pack	Code
3/4"	1	09813554
1"	1	09813556

Dimensions: see section Technical Attachments page 501



UNI EN 331

Right-angle Futurgas Female-Female with safety lock and pressure connection G 1/4

Dimension	Pcs. pack	Code
3/4"	1	09813042
1"	1	09813036

Dimensions: see section Technical Attachments page 501



UNI EN 331

Right-angle Futurgas Female-Revolving nut with safety lock and pressure connection G 1/4

Dimension	Pcs. pack	Code
3/4" F x 1" G	1	09813038
1" F x 1" 1/4 G	1	09813040

Dimensions: see section Technical Attachments page 501



Master key

Dimension	Pcs. pack	Code
	1	09008680

Dimensions: see section Technical Attachments page 501



UNI 10284

Dielectric joints for gas

Electrical resistance in dry air > 5 MOhm - Insulation voltage in dry air > 3000 V - Operating pressure 10 bar - Operating temperature -10÷70 °C - Certified for operating at 15 bar

Dimension	Pcs. pack	Code
1/2"	5	02460012
3/4"	6	02460020
1"	3	02460025
1"1/4	2	02460032
1"1/2	1	02460040
2"	1	02460050

Gas Box 2.0

Recessed ball valve for gas with retractable handle

NEW



Uses

It is suitable to be used with methane gas, city gas, Lpg.

Technical data

Size: DN15
 Threaded connections: R 3/4" UNI EN 10226-1 (ISO 7-1:1994)
 Opening and closing with 90° knob rotation
 Operating temperature: -20°C to +60°C
 O-ring stem seal NBR 70 Sh A (ASTM D 2240)
 Operating pressure: MOP 5
 High temperature resistance class: B0,1

Application

To cut off supply to the hob.
 To cut off supply to gas boiler or water heaters.
 As main gas cut-off valve, in an easily accessible place.

Conformity

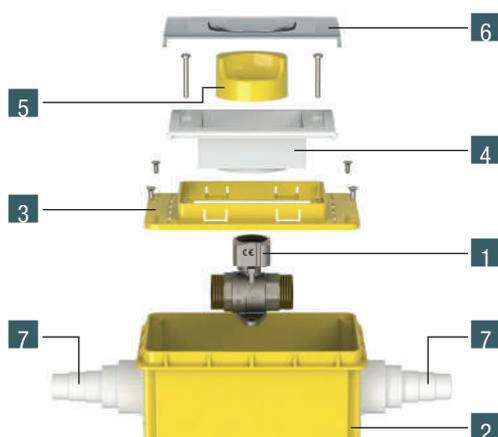


refer to the valve only.

It meets the specifications contained in the UNI 7129-1 standard.

The valve must be used in the fully open or fully closed position.

Dimensions: see section Technical Attachments page 502



Recessed ball valve for gas with retractable handle Gas Box 2.0 NEW

Construction

- 1 Body valve in brass 3/4" M-M UNI EN 12165 CW617N, sandblasted, nickel plated
- 2 Box in yellow ABS
- 3 Base housing support in yellow ABS
- 4 Support in shockproof PS
- 5 Handle in yellow shockproof PS
- 6 Door in ABS (standar chromed)
- 7 Coupling for sheath in PP

Dimension	Pcs. pack	Code
Gas Box 2.0 R 3/4"	1	09812620
Gas Box R 3/4" (*)	1	09812610

(*) Item to be out of stock

Recessed ball valve for gas

Accessories for Gas Box 2.0



Kit chromed door Gas Box 2.0

Dimension	Pcs. pack	Code
	1	90033780

Composed of: chromed door + white support + yellow knob



Kit white door Gas Box 2.0

Dimension	Pcs. pack	Code
	1	90033770

Composed of: white door + white support + yellow knob



Kit anthracite door Gas Box 2.0

Dimension	Pcs. pack	Code
	1	90033790

Composed of: anthracite door + white support + yellow knob



Straight with female swivel nut, flat seal in NBR

Dimension	Profile	Pcs. pack	Code
16 x 3/4"	B (KSP1) / TH (KSP11)	1	28125402
20 x 3/4"	B (KSP1) / TH (KSP11)	1	28125406
26 x 3/4"	B (KSP1) / TH (KSP11)	1	28125408



Welding kit nut, tang in brass and gasket

Dimension	Pcs. pack	Code
Ø 12 x 3/4"	10	90031050
Ø 14 x 3/4"	10	90031060
Ø 16 x 3/4"	10	90031070
Ø 18 x 3/4"	10	90031080

Composed of: nickel-plated nut + brass tang + aluminium gasket.

Terminals suitable for welding or brazing capillary according to UNI EN 1254-1



Aluminium gasket for gas

Dimension	Pcs. pack	Code
3/4"	10	4964X004

Controlgas 4

Gas leak detection systems

NEW



Methane gas leak detector for domestic use with the possibility of directly controlling a 230 Vac solenoid valve. Equipped with test button.

CEI UNI EN 50194

Compliance with CEI UNI EN 50194 standard
Compliance Directive 2014/30/EU (electromagnetic compatibility)
Compliance Directive 2014/35/EU (low voltage)

Technical data

Power supply: 230 Vac -15/+10% 50/60Hz
Sensor type: SnO2 Semiconductor
Tripping threshold: 10% L.E.L.
Output (relay): 5(2)A 250 Vac SPDT
Sensor useful life: 5 years
Green LED signalling: Detector active
Yellow LED indication: Detector faulty
Red LED signalling: Alarm
Degree of protection: IP42
Dimension (LxHxP): 85x107x38 mm

Note:

before starting to use Controlgas 4, please refer to the regulations in force in your specific Country to check the effective applicability.



Controlgas 4 gas leak detector

NEW

Model	Pcs. pack	Code
Methane	1	02204138

Wiring diagrams for connection with 230 Vac gas solenoid valve: see Complete Technical Attachments.

Solenoid valves for gas

Solenoid valves

Technical data

Supply voltage 230 Vac / 50-60 Hz
 Thread connection in according to UNI EN 10226
 Maximum operating pressure: 500 mbar
 Ambient temperature: -15 ÷ 60 °C
 Maximum surface temperature 80 °C
 Closing time: < 1 s
 Degree of protection: IP65



Manually-reset solenoid gas valve Normally Closed

Dimension	Type	Pcs. pack	Code
F-F 1/2"	N.C. OT	1	00309050
F-F 3/4"	N.C. OT	1	00309052
F-F 1"	N.C. OT	1	00309057
F-F 1"	N.C. AL	1	00309056
F-F 1 1/4"	N.C. AL	1	00309058
F-F 1 1/2"	N.C. AL	1	00309060
F-F 2"	N.C. AL	1	00309062

N.C. = normally closed - OT = brass - AL = aluminium / Power absorbed: 9 W
 CE homologation according to UNI EN 161
 Conforms Gas Directive 2009/142/CE
 Conforms Low Voltage Directive 2014/35/UE
 Conforms Electromagnetic Compatibility Directive 2014/30/UE



Manually-reset solenoid gas valve Normally Opened

Dimension	Type	Pcs. pack	Code
F-F 1/2"	N.A. OT	1	00308500
F-F 3/4"	N.A. OT	1	00308502
F-F 1"	N.A. OT	1	00308504
F-F 3/4"	N.A. AL	1	00308034
F-F 1"	N.A. AL	1	00308100
F-F 1 1/4"	N.A. AL	1	00308114
F-F 1 1/2"	N.A. AL	1	00308112
F-F 2"	N.A. AL	1	00308200

N.A. = normally opened - OT = brass - AL = aluminium / Power absorbed: 24 W
 Conforms Gas Directive 2009/142/CE
 Conforms Low Voltage Directive 2014/35/UE
 Conforms Electromagnetic Compatibility Directive 2014/30/UE



Manually-reset solenoid gas valve with flange Normally Closed

Dimension	Type	Pcs. pack	Code
2 1/2 DN 65	N.C. AL	1	00309064
3" DN 80	N.C. AL	1	00309066
4" DN 100	N.C. AL	1	00309068

N.C. = normally closed - OT = brass - AL = aluminium / Power absorbed: 18 W
 Thread connection in according to ISO 7005
 CE homologation according to UNI EN 161
 Conforms Gas Directive 2009/142/CE
 Conforms Low Voltage Directive 2014/35/UE
 Conforms Electromagnetic Compatibility Directive 2014/30/UE



Manually-reset solenoid gas valve with flange Normally Opened

Dimension	Type	Pcs. pack	Code
2 1/2 DN 65	N.A. AL	1	00308212
3" DN 80	N.A. AL	1	00308300
4" DN 100	N.A. AL	1	00308400

N.A. = normally opened - OT = brass - AL = aluminium / Power absorbed: 23 W
 Thread connection in according to ISO 7005
 Conforms Gas Directive 2009/142/CE
 Conforms Low Voltage Directive 2014/35/UE
 Conforms Electromagnetic Compatibility Directive 2014/30/UE



Tanks, solar panels and accessories for solar systems

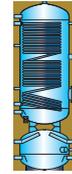


> Boilers and storage tanks for DHW and heating



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> HYBV1S - Double tank for DHW and technical water



355

> EB - Heating water storage for integrated systems



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> Accessories for tanks
and Anodo elettronico
Boguard



357

> Thermostatic mixers



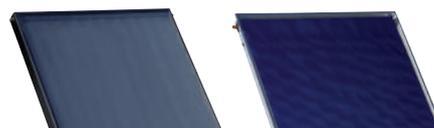
360

> HEVSN- Solar kit



363

> Arcobaleno - Solar panels



367

> Accessories for solar panels



370

> NVSN - natural circulation solar kit



382

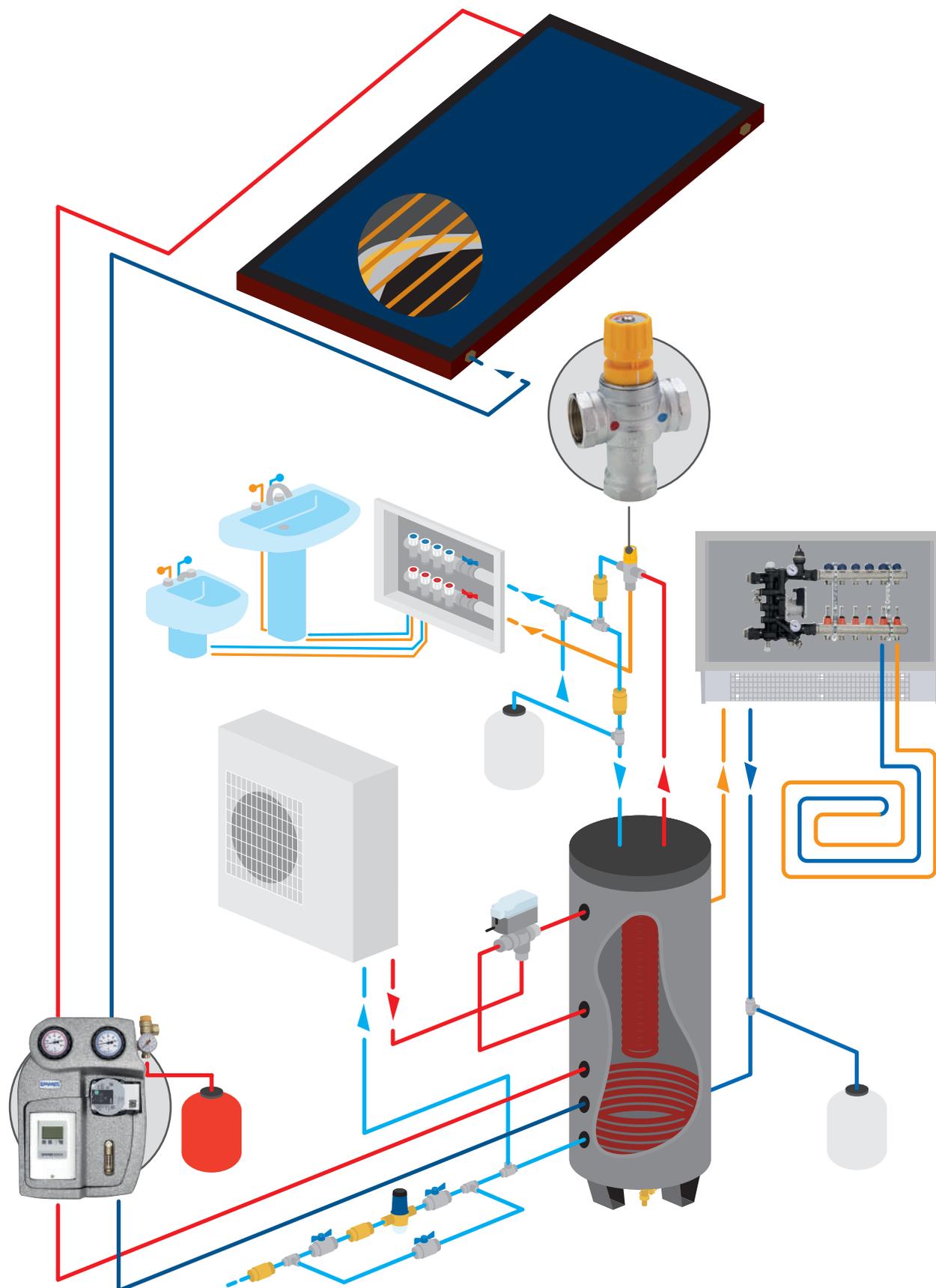
> Solar system accessories



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Example of installation



Tanks

Tanks for domestic and heating water



Construction

Emmeti tanks are manufactured in carbon steel S235JR with bottom surface rounded through deep-drawing. The tanks are assembled with precision automatic equipment and welded with continuous thread in Argon atmosphere and CO₂ with head coupling. Insulation dark grey colour.

Technical data

Enamelled tanks (organic enamelling):

- Maximum operating pressure: 6 bar
- Maximum continuous operating temperature: 70 °C (95 °C peak for max 20 hours per year)

Vitrified tanks (inorganic enamelling):

- Maximum operating pressure: 10 bar (8 bar for models from 1500, 2000 and 3000)
- Maximum continuous operating temperature: 95 °C

For ETW Inox tanks:

- maximum working pressure: 5 bar
- maximum accumulation temperature in continuous operation: 95 °C

Conformity

Emmeti tanks and coils satisfy the requirements requested by the directive 2014/68/UE "Pressure equipment" in appliance to art. 4 codicil 3 of the above mentioned directive, to be used with warm or cool water.

Fire reaction class

- For foamed tanks: class F (UNI EN 13501-1)
- For tanks with polyester insulation: class B-s2, d0 (UNI EN 13501-1)

Threads

G (ISO 228-1)

Dimensions and technical datas and diagrams: see section technical attachments from page 503 and following.

Resistance to corrosion

The corrosion protection and suitability for drinking water are obtained by:

- glazed tanks: inorganic enamelling (glazing) in accordance with current regulations (DIN 4753-3 and UNI 10025);
- enamel tanks: organic enamelling (treatment with thermosetting resins).

The insertion of the anode electronic Boguard (1/2" M) provides further protection of the metal surfaces.

To prevent the perforation of the tank, avoid the presence of stray currents from external parts.

In this sense, connect with suitable dielectric joints and in the case of a tank equipped with a magnesium anode, prepare the ground circuit effectively and make sure that it does not determine parasitic currents from entering the metal mass of the tank.

The warranty of the domestic tanks is bound by the value of the electrical conductivity of the water should not be less than 150 µS or above 1000 µS.

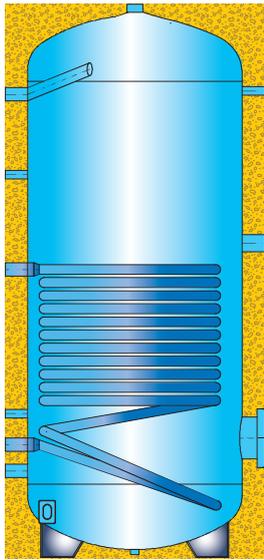
The failure to comply with the requirements will result in the invalidation of the warranty



Potable suitability

The products used for the vitrification and enamelling surface treatment of the internal surfaces of Emmeti boilers and storage tanks do not contain lead compounds in their formulation, pursuant to the Ministerial Decree 174 of 6 April 2004 "Regulation concerning the materials and objects that can be used in fixed systems for the collection, treatment, adduction and distribution of water intended for human consumption".

Tanks



Potable suitability



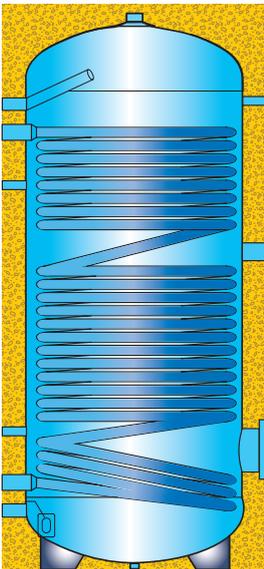
Warranty

Euro V vitrified tanks for domestic hot water with fixed coil

Models	Class of energy efficiency	Pcs. pack	Code
150	B	1	02769110
200	C	1	02769120
300	C	1	02769130
500	C	1	02769141

Euro V tanks are supplied with closing flange DN180 installed, thermal insulation and an electronic anode.

Dimensions and technical data: see section Technical Attachments page 504



Potable suitability



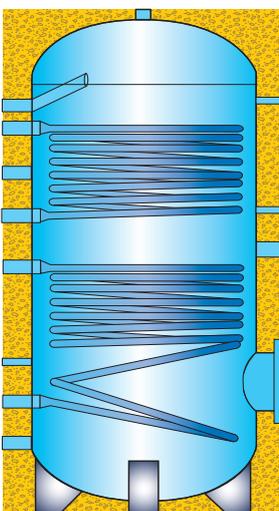
Warranty

Euro HPV vitrified tanks for sanitary hot water production, with fixed coil, suitable for the use with heat pumps

Models	Class of energy efficiency	Pcs. pack	Code
200	C	1	02769230
300	C	1	02769240
500	C	1	02769251
1000	-	1	02769542

Euro HPV tanks are supplied with closing flange DN180 installed and equipped with thermal insulation and electronic anode.

Dimensions and technical data: see section Technical Attachments page 505-506



Models 200 ÷ 1000



Models 1500 ÷ 2000



Potable suitability



Warranty

HE2V vitrified tanks for domestic hot water

Models	Class of energy efficiency	Pcs. pack	Code
200	C	1	02703400
300	C	1	02703410
500	C	1	02703420
750	-	1	02769500
1000	-	1	02769502
1500 (*)	-	1	02769504
2000 (*)	-	1	02769506

HE2V tanks are supplied with closing flange installed and equipped with thermal insulation and electronic anode (**).

Flange DN180 up to 1000; DN290 for models 1500 and 2000.

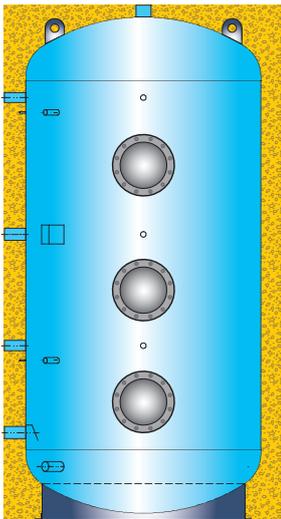
Possibility to insert coil kit LS (not included) in models from 200 to 1000.

(*) Items on request

(**) Single for models from 200 to 1000, double for 1500 and 2000 models.

Dimensions and technical data: see section Technical Attachments page 507-508

Tanks



Models 200 ÷ 1000



Models 1500 ÷ 3000



Potable suitability



Warranty

Comfort V vitrified tanks for domestic hot water (without coils)

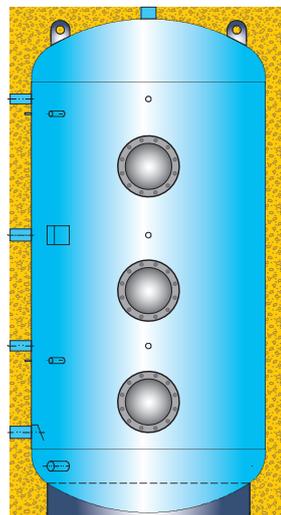
Models	Nr. flanges	Class of energy efficiency	Pcs. pack	Code
200	2	C	1	02769508
300	2	C	1	02769510
500	2	C	1	02769512
750	3	-	1	02769514
1000	3	-	1	02769516
1500	3	-	1	02769518
2000	3	-	1	02769520
3000	3	-	1	02769522

Comfort V tanks are supplied with closing flanges DN290 installed and equipped with thermal insulation and electronic anodes (*). To complete the tank, the coil must be ordered.

COILS ARE NOT INCLUDED].

(*) single for models from 200 to 1000; double for models from 1500 to 3000.

Dimensions and technical data: see section Technical Attachments page 509-510



Potable suitability



Warranty

Comfort S enamelled tanks for domestic hot water (without coils)

Models	Nr. flanges	Pcs. pack	Code
1500	3	1	02769536
2000	3	1	02769538
3000	3	1	02769540

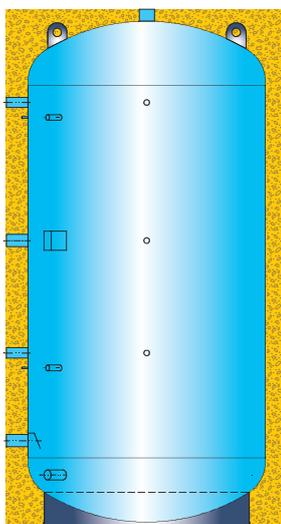
The Comfort S tanks are supplied with closing flanges DN290 installed and equipped with thermal insulation and double electronic anode.

Their completion requires the insertion of the coil chosen.

COILS ARE NOT INCLUDED

Tank not suitable for solar panels

Dimensions and technical data: see section Technical Attachments page 504



Models 200 ÷ 1000



Models 1500 ÷ 2000



Potable suitability



Warranty

Vitrified tanks for domestic hot water (without coils)

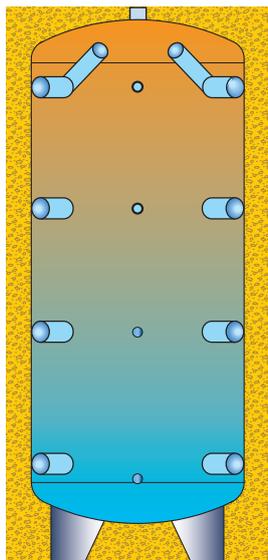
Models	Nr. Flanges	Class of energy efficiency	Pcs. pack	Code
300	-	C	1	02769524
500	-	C	1	02769526
750	-	-	1	02769528
1000	-	-	1	02769530
1500	-	-	1	02769532
2000	1	-	1	02769534

Vitrified tanks are supplied with thermal insulation and electronic anode (single for models from 300 to 1000 and double for models from 1500 to 2000).

Only on the model 2000 is supplied with DN290 flange with sealing flange mounted.

Dimensions and technical data: see section Technical Attachments page 512

Tanks

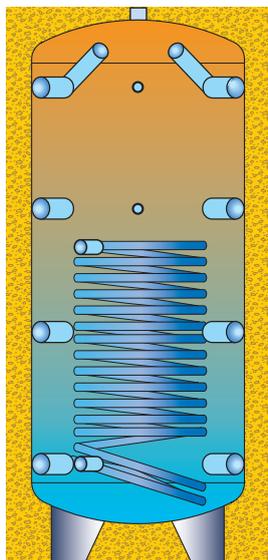


Puffer for heating water

Liters	Class of energy efficiency	Pcs. pack	Code
300 N	C	1	02704603
500 N	C	1	02704623
1000 N	-	1	02704643
1500 N	-	1	02704663
2000 N	-	1	02704673

Supplied with thermal insulation.
 Available on request: 30 days to order confirm.

Dimensions and technical data: see section Technical Attachments page 513

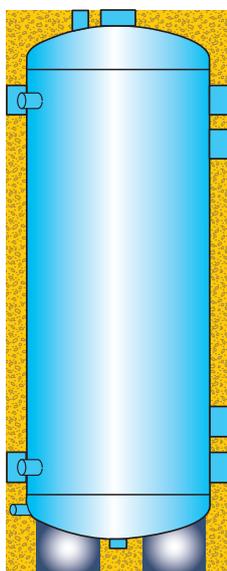


Puffer for heating water with coil

Liters	Class of energy efficiency	Pcs. pack	Code
300 N 1S	C	1	02704803
500 N 1S	C	1	02704823
1000 N 1S	-	1	02704843
1500 N 1S	-	1	02704863
2000 N 1S	-	1	02704873

Supplied with thermal insulation.
 Available on request: 30 days to order confirm.

Dimensions and technical data: see section Technical Attachments page 513

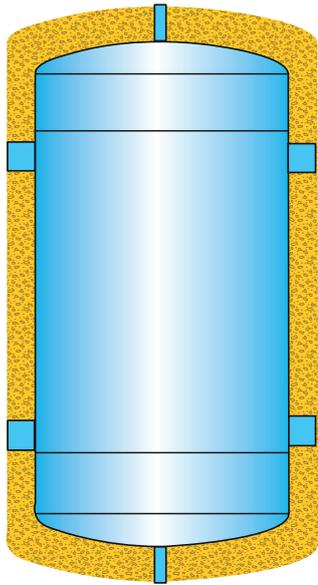


ETW tanks for hot and cold technical water

Models	Class of energy efficiency	Pcs. pack	Code
ETW 25	A	1	02704240
ETW 60	B	1	02704250
ETW 120	B	1	02704260
ETW 200	C	1	02704270
ETW 280	C	1	02704274

Supplied with thermal insulation.

Dimensions and technical data: see section Technical Attachments page 514



ETW Inox storage tank for hot and cold technical water

NEW

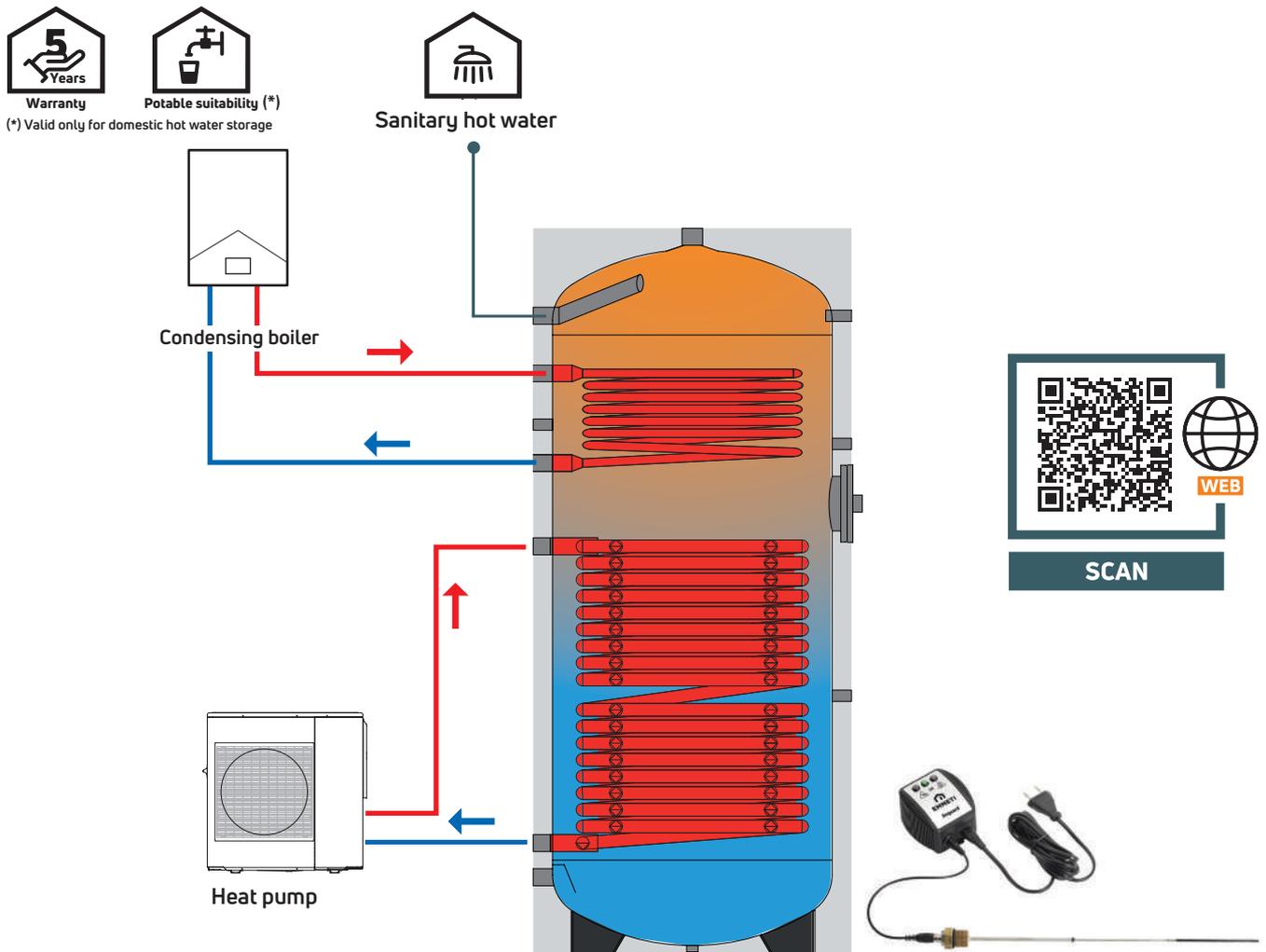
Model	Class of energy efficiency	Pcs. pack	Code
ETW 26	C	1	02705240
ETW 51	C	1	02705250

Supplied with thermal insulation.

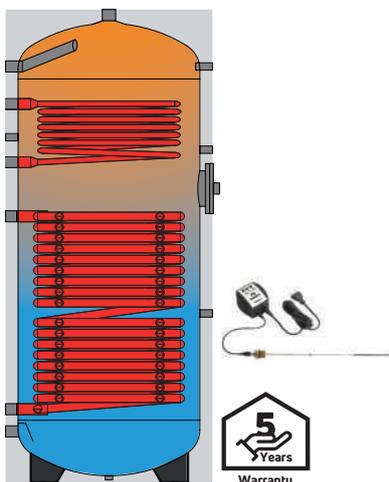
Dimensions and technical data: see section Technical Attachments page 515

HP2V

Storage tanks for the production of domestic hot water with use of heat pump and boiler



The HP2V series storage tanks are suitable for the production of domestic hot water using a heat pump and boiler. They are supplied with the closing flange mounted and provided with thermal insulation and nr. 1 electronic anode.



HP2V storage tank for the production of domestic hot water with the use of a heat pump and boiler

Model	Pcs. pack	Code
HP2V 300	1	02763990
HP2V 500	1	02763992
HP2V 750	1	02763994
HP2V 1000	1	02763996

The price includes the mounted closing flange, thermal insulation and electronic anode.

Dimensions and technical data: see section Technical Attachments page 503 and 516

HYBV1S

Combined tank, double tank for the production of domestic hot water and heat pump system

NEW



Warranty



Potable suitability
Valid only for domestic hot water storage



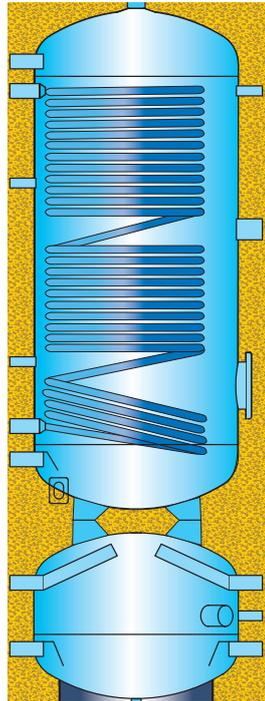
Cooling Function



Heating Function



Sanitary hot water



The HYBV1S series storage tanks consist of a double storage tank for the production of domestic hot water from a heat pump with thermal flywheel for hot or chilled technical water.

The HYBV1S storage tanks are supplied with a DN180 closing flange mounted (for possible integration with solar thermal through an additional coil to be purchased separately), equipped with thermal insulation and nr. 1 electronic anode.

Double tank for sanitary water and technical water

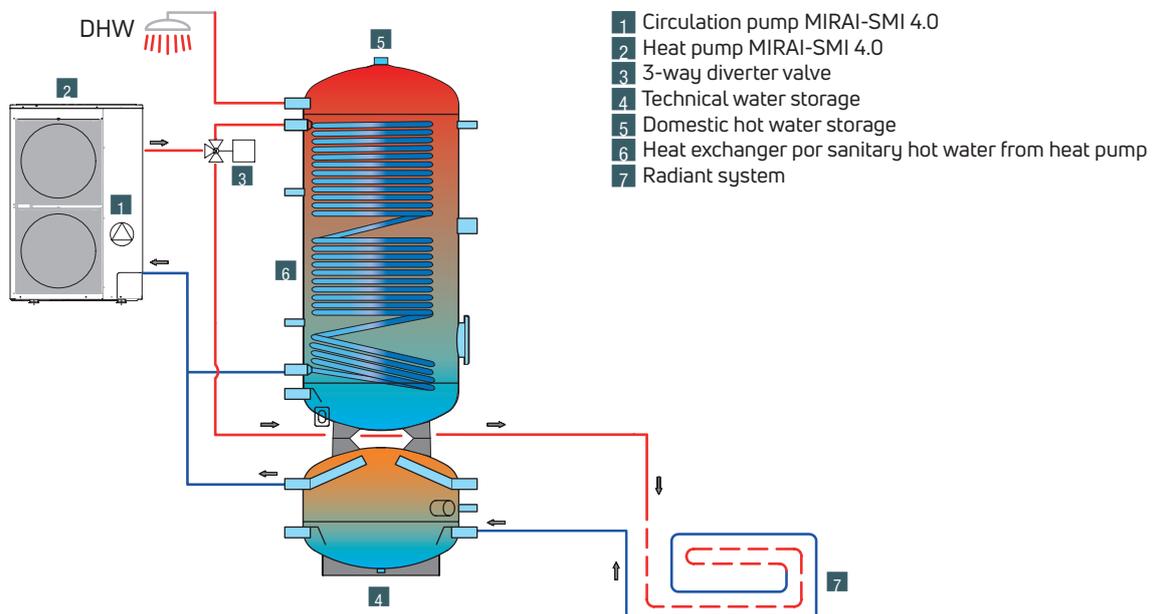
NEW

Models	Energy efficiency class	Pcs. pack	Code
HYBV1S 300	B	1	02769282
HYBV1S 500	B	1	02769292

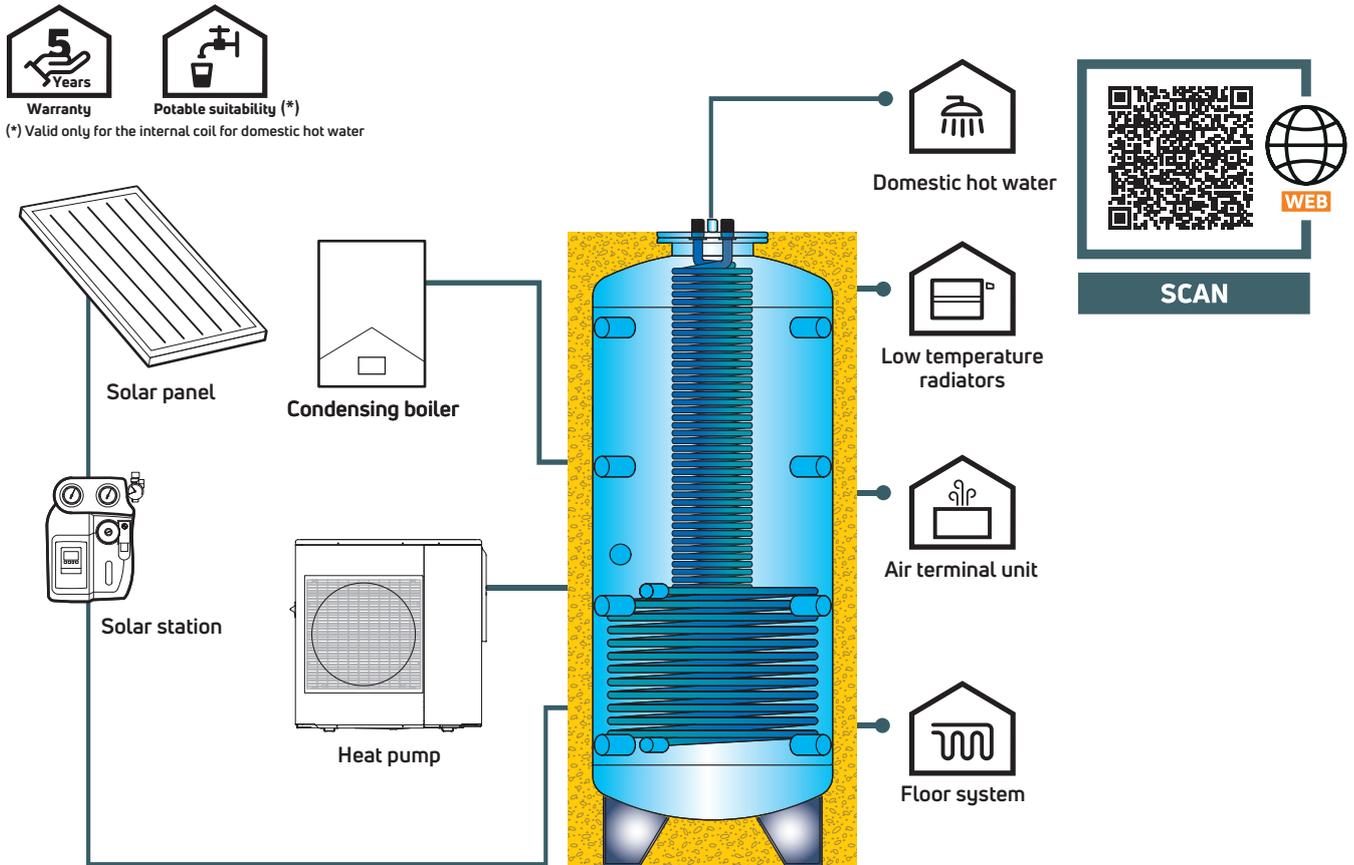
The price includes thermal insulation.

Dimensions and technical data: see section Technical Attachments page 503 and 518-519

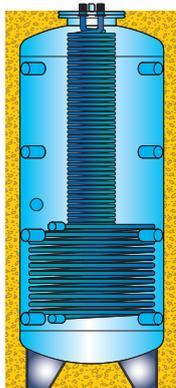
Example of HYBV1S installation with radiant panels and domestic hot water production.



Heating water tank for integrated systems



EBN300-500 and EB1000-1500 tanks have been designed to integrate more energy sources existing in the heating system, for example: heat pumps, solar panels, gas boiler, thermo fireplaces, etc.



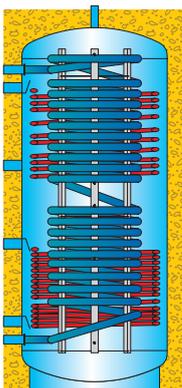
Tank of water heating EBN300 and EBN500

NEW

Models	Class of energy efficiency	Pcs. pack	Code
EBN300	B	1	02704331
EBN500	C	1	02704333

The price includes thermal insulation.

Dimensions and technical data: see section Technical Attachments page 503 and 520-521



Tank of water heating EB1000-S30-AS76-AUX20 and EB1500-S35-AS50-AUX30

Models	Class of energy efficiency	Pcs. pack	Code
EB1000-S30-AS76-AUX20	-	1	02704304
EB1500-S35-AS89-AUX30	-	1	02704306

The price includes thermal insulation.

Dimensions and technical data: see section Technical Attachments page 503 and 522-523

Accessories for tanks



Coils kit LS in tinned finned copper suitable for HE2V, HEVSN, HEVSN, Euro V, Euro HPV, HYBV1S tanks

Dimension	Pcs. pack	Code
LS 08 (*)	1	02792030
LS 12 (**)	1	02792040

Including flange DN180 and gasket, flange cover and washers and dielectric joints.

(*) Application with tanks HE2V 200, 300, 500, 750, 1000 - HEVSN 300, 500 - Euro V 150, 200, 300, 500 - Euro HPV 200, 300, 500, 1000 - HYBV1S 300, 500 - HP2V 300, 500, 750, 1000.

(**) Application with tanks HE2V 500, 750, 1000 - Euro V 500 - Euro HPV 500, 1000 - HYBV1S 500 - HEVSN 500 - HP2V 500, 750, 1000.

Dimensions: see section [Technical Attachments page 525](#)



Coils kit LN in finned copper suitable for Comfort V, Comfort S, HE2V models 1500 and 2000 and vitrified accumulation 2000

Dimension	Capacity (l)	Pcs. pack	Code
LN 12	200÷3000	1	02790580
LN 18	200÷3000	1	02790585
LN 26	500÷3000	1	02790590
LN 32	750÷3000	1	02790595
LN 45	750÷3000	1	02790600
LN 63	1500÷3000	1	02790605

Including flange DN290 and gasket, flange cover, washers and dielectric joints.

Dimensions: see section [Technical Attachments page 525](#)



Electric resistance for tanks

Model	Power (kW)	Length (mm)	Pcs. pack	Code
SH-1,5 (*)	1,50	320	1	02702900
SH-2,0 (**)	2,00	320	1	02702902
SH-2,5 (**)	2,50	390	1	02702904
SH-3,0 (**)	3,00	390	1	02702906
SH-3,8 (***)	3,75	430	1	02702908
SH-4,5 (***)	4,50	470	1	02702910
SH-6,0 (***)	6,00	620	1	02702912
SH-7,5 (***)	7,50	720	1	02702914
SH-9,0 (***)	9,00	780	1	02702916

Heating surface electrically isolated by threaded connection.

Suitable for horizontal installation on tanks having manifolds not longer than 100 mm.

Connection: 1" 1/2 M (UNI EN ISO 228-1)

Voltage (V): (*) ~ 230 - (**) ~ 230 / 3 - 400 - (***) 3 ~ 400.

Degree of protection: IP44

Range of thermostat regulation: 30 ÷ 75 °C

Safety thermostat: 98 °C (-10°)

Unheated zone (from threaded fitting): 120 mm

Available on request: 21 days to order confirm

Compatibility: see section [Technical Attachments page 524](#)

Accessories



Predisposition kit for electric resistance 1"1/2 for tanks

Dimension	Pcs. pack	Code
KRE 180 (*)	1	02792020
KRE 180A (**)	1	02792018
KRE 290 (***)	1	02792022

Including flange DN 180/290 with sleeve F 1"1/2, gasket and flange cover (resistance not included).

(*) Application with tanks HE2V 200, 300, 500 - HEVSN 300, 500 - Euro V 150, 200, 300, 500 - Euro HPV 200, 300, 500 - HYBV1S 300, 500 - HP2V 300, 500 (only as a spare part).

(**) Application with tanks HE2V 750, 1000 - Euro HPV 1000 - HP2V 750, 1000 (only as a spare part).

(***) Application with storage tanks Comfort V 200, 300, 500, 750, 1000, 2000, 3000 - Comfort S 1500, 2000, 3000 - Accumulation tank V2000 - HE2V 1500, 2000.



Immersion sleeves for thermometer in confirm to ISPESL norm, connection M 1/2"

Dimension	Pcs. pack	Code
Ø 7 L 50 mm (A)	1	00510682
Ø 9 L 50 mm (A)	20	00510012
Ø 10 L 50 mm (A)	12	00510684
Ø 10 L 100 mm (B)	12	00510686
Ø 10 L 302 mm (B)	1	00510690
Ø 15 L 110 mm (B)	12	00510688

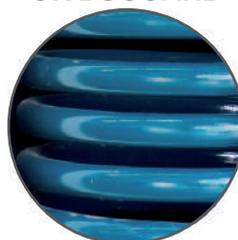
Thread: G (UNI EN ISO 228-1)

Boguard

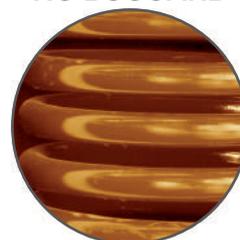
Electronic anode



OK BOGUARD



NO BOGUARD



The Boguard impressed-current electronic anodes, fitted with a system that automatically adjusts the protection potential, protect exposed surfaces from corrosion – as specified in DIN 4753 Part 3, para. 4.2.3, up to 100 cm² of the inner surface of tanks made of steel and enamelled with plastic resins or vitrified, within the 5000 liters of capacity. Unlike any other electronic anodes types on the market, Boguard contrasts any corrosion phenomena without producing a significant quantity of hydrogen into the tank; this gas besides being flammable, if in a not minimum quantity, might give rise to degradation of some types of internal covering of the tank.

Boguard has a series of new functions that make it a unique product on the market:

- 1) "Booster" function upon start-up that releases the maximum potential for a limited amount of time in order to accelerate the process to ensure protection for the tank.
- 2) Reports optimal operation.
- 3) Reports excessive tank absorption.
- 4) Reports when the tank absorption is under the threshold, indicates when there is a poor electric contact between the equipment and the activated titanium anode or water with extremely low electric conductivity.
- 5) Reports if the electric circuit is open, for instance a disconnected cable between the equipment and the activated titanium anode.
- 6) Reports a short-circuit between the positive pole and negative pole of the activated titanium anode.

7) Count of the anode's operating time under optimal conditions (no faults), expressed in years and months, it is shown upon start-up and cannot be changed.

8) Detection of electric leakage and stray currents (both direct current and alternated current) affecting the tank and that might significantly contribute to corroding the inside of the tank itself. These can be minor currents and therefore, although they do not trigger the system's electrical safety devices, they can cause considerable corrosive phenomena.

9) Reports installation faults, for instance exchangers with ineffective or missing dielectric joints.

Boguard is covered by a European patent application.

Technical data

Power supply: 230 Vac ± 10%, 50/60 Hz

Control voltage: 2,75 ÷ 3,8 Vdc

Protection level: IP55

Ambient operating temperature: 0 ÷ 45 °C

Electrode-holder cap threaded coupling: G 1/2" Male

Electrode with rod, diameter 3 mm and activated titanium prod

Maximum power consumption: 2,7 VA

Dimensions: see section Technical Attachments page 525

Boguard electronic anode

Tank capacity	Nr. of equipments	Nr. of electrodes for system	Electrode length	Code
150-500	1	1	380 mm	02791201
750-1000	1	1	430 mm	02791206
1500-5000	1	2	430 mm	02791211

Supplied as standard with an RCA connection cable, 30 cm long.

Accessories



RCA anode connection cable

Dimension	Pcs. pack	Code
2 m M/F	1	92797550

Thermostatic mixers



Thermostatic mixer for domestic hot water

Thread G (UNI EN ISO 228-1)
 Body made of brass UNI EN 12165 CW617N
 Shutter in brass UNI EN 12165 CW614N
 Maximum operating pressure 10 bar
 Maximum differential pressure 3 bar
 Maximum temperature hot water 85 °C
 Range of temperature from 30 °C to 65 °C

Dimension	Kv	Pcs. pack	Code
1/2" F	1,6	1	09089400
3/4" F	1,8	1	09089402
1" F	3,2	1	09089404

For connections with pipe unions, see the following codes:
 90027800 for 1/2" F model, 90027810 for 3/4" F model, 90028290 for 1" F model



1"1/2 - 1"1/2 M

Thermostatic mixer for domestic hot water

Thread G (UNI EN ISO 228-1)
 Body made of brass UNI EN 12165 CW617N (chromed finish for sizes 1"1/4 and 1"1/2)
 Shutter in UNI EN 12165 CW614N
 Maximum operating pressure: 10 bar (up to size 1"1/2); 14 bar (model 2")
 Maximum differential pressure: 3 bar (up to size 1"1/2); 5 bar (model 2")
 Maximum temperature hot water: 85 °C (up to size 1"1/2); 110 °C (model 2")
 Range of temperature: from 30 °C to 65 °C

Dimension	Kv	Pcs. pack	Code
1"1/4 M	7,4	1	09089414
1"1/2 M	7,6	1	09089416

2" M (*)	18	1	09089418
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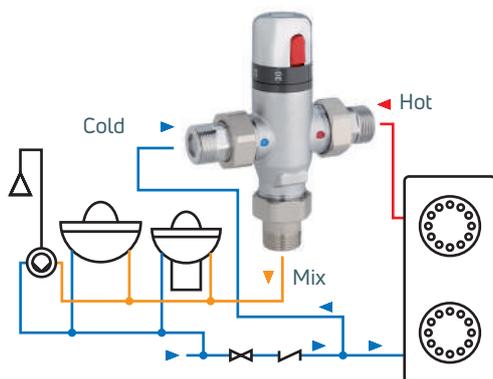
Items on request: 10 days from order confirmation

(*) size 2" is supplied complete with a shell for thermal insulation.

For connection with unions, use the following codes (3 pieces for each code):
 1"1/4: 09208910, 4874R006, 4974G006;
 1"1/2: 09208914, 4874R007, 4974G007.



2" M



Thermostatic mixer for domestic hot water with stop bottom and pipe union connection

Thread G (UNI EN ISO 228-1)
 Body made of chromed brass UNI EN 12165 CW617N
 Shutter UNI EN 12165 CW614N
 Stop bottom at 38 °C
 Supplied with tang 3/4" Male with check valves and nuts 1"
 Maximum operating pressure 10 bar
 Differential pressure 2 bar
 Maximum temperature hot water 85 °C
 Range of temperature from 20 °C to 65 °C
 Range of knob from 20 °C to 50 °C

Dimension	Kv	Pcs. pack	Code
3/4"	1,70	1	09089406

Thermostatic mixers



Thermostatic mixer for domestic hot water for solar installation

Thread G (UNI EN ISO 228-1)
 Body made of chromed brass UNI EN 12165 CW617N
 Shutter UNI EN 12165 CW614N
 Max pressure: 10 bar
 Max input temperature: 100° C
 Regulation range: 30-65 °C

Dimension	Kv	Pcs. pack	Code
1/2" F	1,7	1	09089412
3/4" F	1,8	1	09089410
1" F	3,2	1	09089408

For connections with pipe unions, see the following codes:
 90027800 for 1/2" F model, 90027810 for 3/4" F model, 90028290 for 1" F model



Self-actuated thermostatic diverter valve for domestic hot water and solar systems

Thread: G (UNI EN ISO 228-1)
 Body made of chromed brass UNI EN 12165 CW617N
 Shutter in UNI EN 12165 CW614N
 Diverting temp. T = 45°C (T > 45°C, fluid outlet side 1; T > 45°C, fluid outlet side 2)
 Max operating pressure 10 bar - Recommended operating pressure 1-5 bar
 Max inlet water temperature 100 °C - ΔT for deviator changeover 4.5 °C

Dimension	Kv	Pcs. pack	Code
1" M	1,9	1	02710560

For connections with union connections, see code 90027810



Solar kit adjustable diverter valve + mixing valve (to connect a thermal solar circuit with the boiler)

Maximum static pressure: 10 bar
 Maximum dynamic pressure: 5 bar
 Maximum input temperature: 100 °C (short period 120 °C per 20 sec.)
 Field of regulation of the temperature-diverter: 38÷54 °C
 Field of regulation of the temperature-mixer: 35÷60 °C (accuracy ± 1 °C)
 Kv: 1,7 (for utilities up to 49 l/min, 3 bar)
 Connections 3/4" M (swivel tang)
 With retainer valve on cold water inlet and ACS inlet from solar storage tank
 Tekeoffs 163 mm (95 mm tank)
 Material: brass CW617N-DW (UNI EN 12164 e 12165)
 Insulation box in EPP (Dimensions: 255 x 125 x 100 mm)

Inlet:

- 1" M diverter thermostatic valve with adjustable diverting temperature setting 38 ÷ 54 °C through graduated knob. Kv: 3,5.
- Solar non-return valve and filter fitted in the connection tang of the solar tank.
- T-shaped swivel fitting to connect the boiler with tank.

Output:

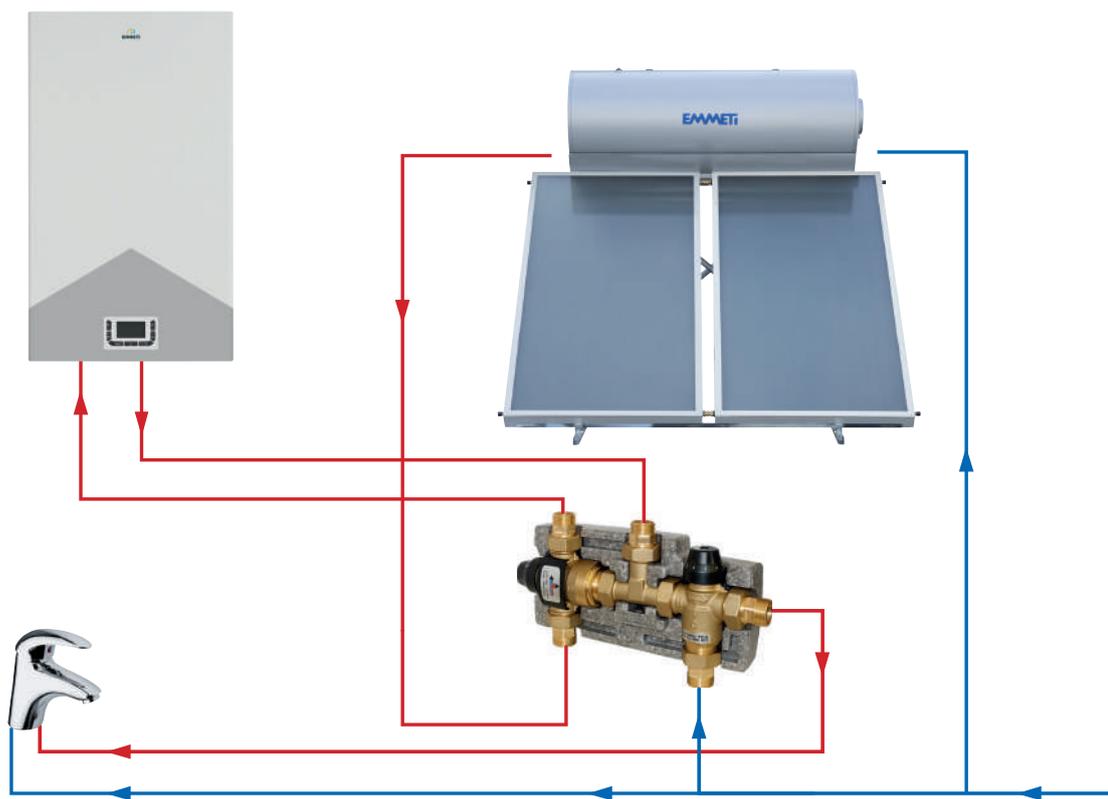
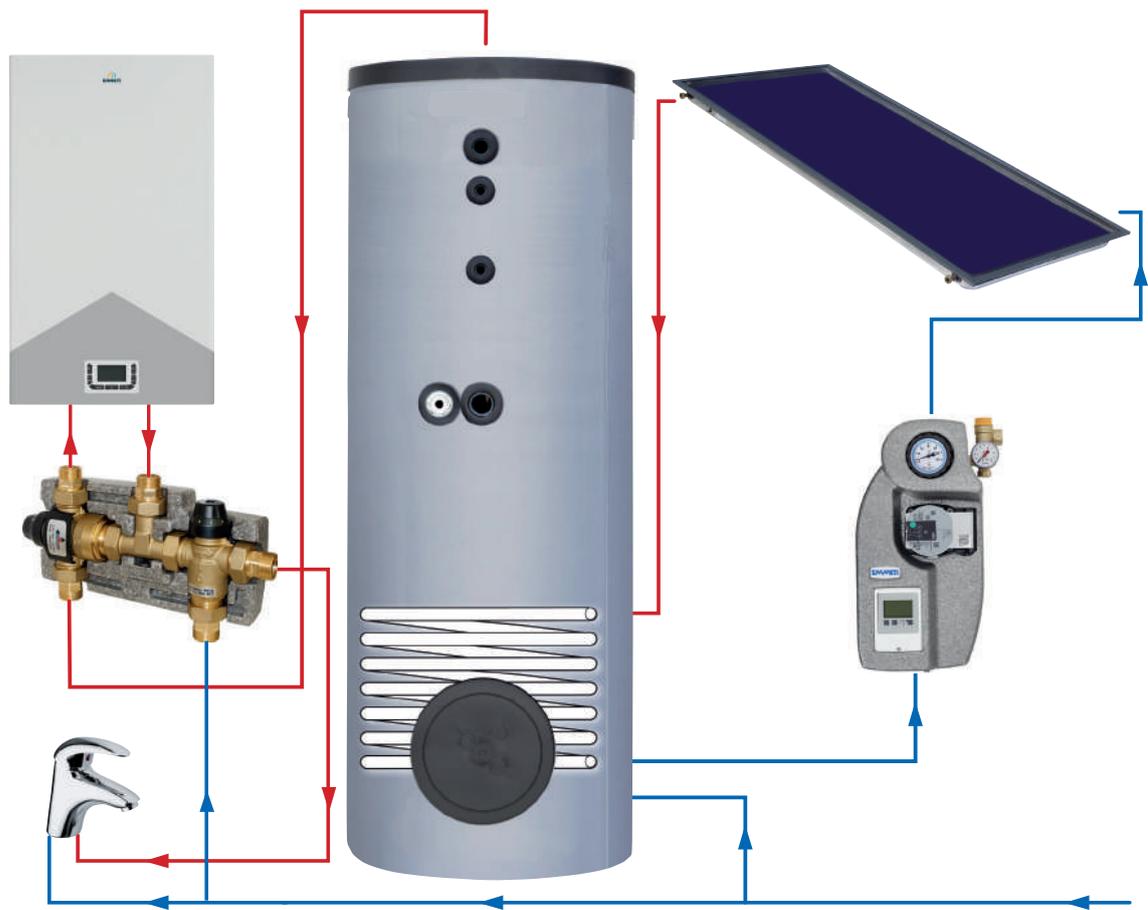
- 1" M thermostatic mixing valve anti-burn, with adjustable mixing temperature setting 35 ÷ 60 °C through graduated knob. Kv: 2,5.
- Solar non-return valve and filter inserted in the shank of cold water connection.

Dimension	Pcs. pack	Code
3/4"	1	02716860

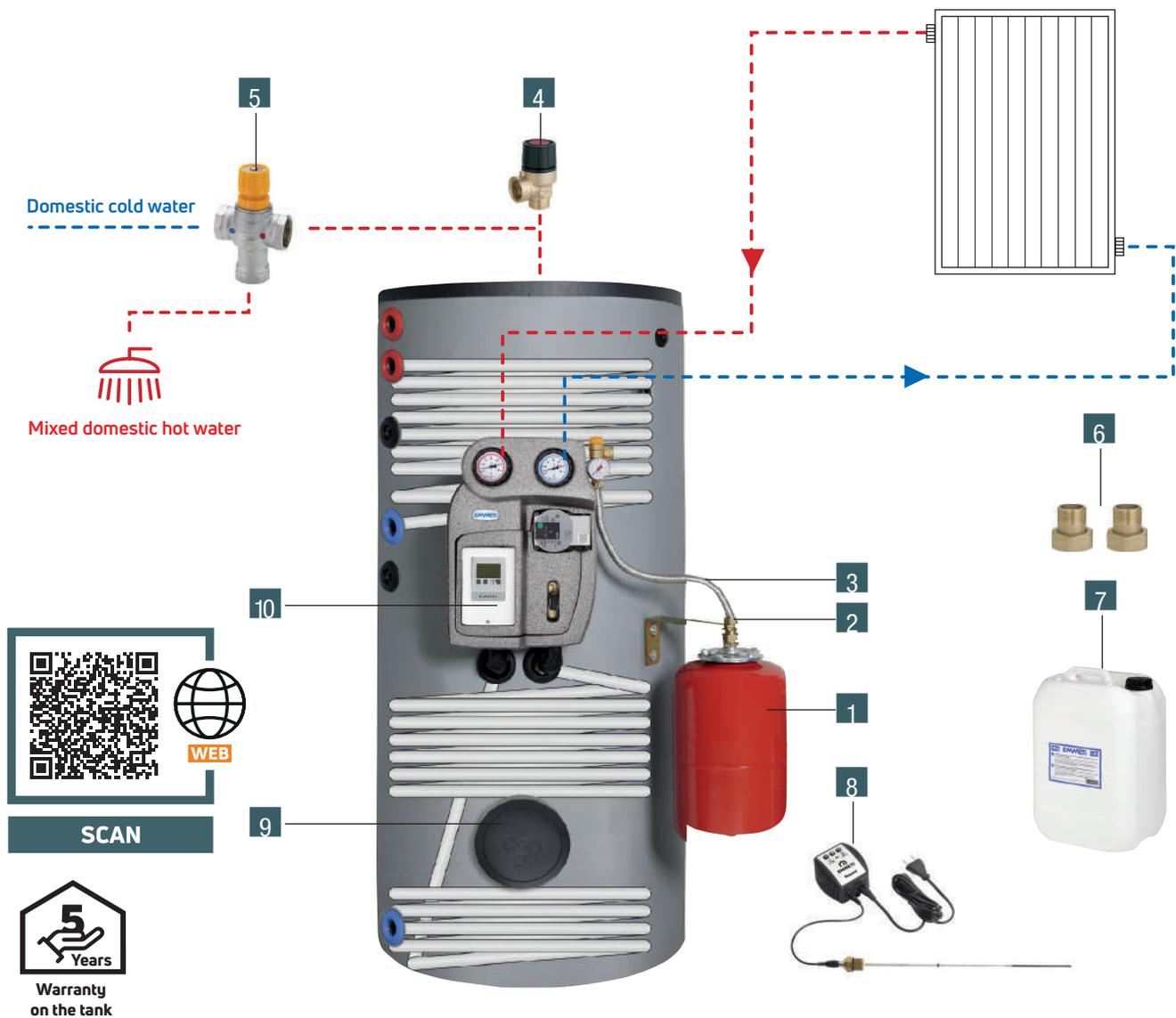
To connect a thermal solar circuit with the tank
 Threads: G (ISO 228-1)

Thermostatic mixers

Examples solar Kit application



Solar kit HEVSN



Composition

- 1 24 L solar expansion vessel
- 2 Bracket for fastening expansion vessel
- 3 Flexible hose kit
- 4 6-bar safety valve for domestic circuit
- 5 3/4" F thermostatic solar mixer
- 6 Pair of 3/4" M x 1" F fittings
- 7 Premixed protective non-toxic antifreeze (three packs of 5 kg for the 300 L kit and one pack of 25 kg for the 500 L kit)
- 8 Electronic anode
- 9 Auxiliary DN 180 flange
- 10 SSX 12 NW solar station

Dimensions and technical data: see section Technical Attachments page 517

HEVSN solar kit



Solar kit HEVSN 300

Consisting of: HEVSN solar tank, preassembled built-in SSX 12 NW solar station on the tank, expansion vessel and related accessories, electronic anode, three packs of propylene glycols of 5 kg, thermostatic solar mixer and safety valve for hydraulic circuit.

The HEVSN solar tanks are glazed and have two fixed coils.

The solar coil is positioned in the lower part and is an anti-stratification type. In addition, an auxiliary DN180 flange is present, which permits insertion of an electric resistance or removable coil (LS 08).

Tank:

Useful volume: 273 liters

Dispersion: 63 W

Class Energy efficiency: B

Dimension of boiler	Pcs. pack	Code
300 L	1	02770001

Vitrified, complete with accessories (preassembled solar station and expansion vessel for solar circuit)



Solar kit HEVSN 500

Consisting of: HEVSN solar tank, preassembled built-in SSX 12 NW solar station on the tank, expansion vessel and related accessories, electronic anode, one pack of propylene glycol of 25 kg, thermostatic solar mixer and safety valve for hydraulic circuit.

The HEVSN solar tanks are glazed and have two fixed coils.

The solar coil is positioned in the lower part and is an anti-stratification type. In addition, an auxiliary DN180 flange is present, which permits insertion of an electric resistance or removable coil (LS 08 or LS 12).

Tank:

Useful volume: 475 liters

Dispersion: 80 W

Class Energy efficiency: B

Dimension of boiler	Pcs. pack	Code
500 L	1	02770011

Vitrified, complete with accessories (preassembled solar station and expansion vessel for solar circuit)

Accessories for HEVSN solar tank kit



Coil kit LS for HE2V, HEVSN, Euro V, Euro HPV, HYBV1S tanks

Dimension	Pcs. pack	Code
LS 08 (*)	1	02792030
LS 12 (**)	1	02792040

Including flange DN 180 and gasket, flange cover and washers.

(*) Application with tanks HE2V 200, 300, 500, 750, 1000 - HEVSN 300, 500 - Euro V 150, 200, 300 - Euro HPV 200, 300, 500, 1000 - HYBV1S 300, 500.

(**) Application with tanks HE2V 500, 750, 1000 - HEVSN 500 - Euro V 500 - Euro HPV 500, 1000 - HYBV1S 500.

Dimensions: see section Technical Attachments page 525



Predisposition kit for electric resistance 1" 1/2 for HE2V, HEVSN, Euro V, Euro HPV, HYBV1S tanks

Dimension	Pcs. pack	Code
KRE 180 (*)	1	02792020

Including flange DN 180 with sleeve F 1"1/2, gasket and flange cover (resistance not included).

(*) Application with tanks HE2V 200, 300, 500 - HEVSN 300, 500 - Euro V 150, 200, 300, 500 - Euro HPV 200, 300, 500 - HYBV1S 300, 500.

Rapid domestic hot water production module

Rapid domestic hot water production module



Rapid domestic hot water production module

For power up to 100 kW with ACS flow rates up to 40 l/min
 Maximum allowable pressure: 6 bar
 Operating pressure: 2÷95 °C
 Rated temperature of domestic hot water 45 °C adjustable from 30 to 70 °C
 Recirculation temperature adjustable up to 40 °C
 Recirculation programmable on three time slots for each day of the week
 Flow rate of domestic hot water variable 2÷40 l/min
 Unit EHWS 3 2015 pre-wired and featuring 3 Pt1000 probes.
 Anti-legionella and function and detailed metering (*) of the power used thanks to the digital sensor.
 Brazed plate exchanger made of stainless steel AISI 316 with 40 plates.
 Pipe couplings 3/4" M. With check valve on cold water and recirculation input (3 and 5 points).
 Minimum diameters of the pipes: DN20 (Cu 22x1); DN15 for the recirculation line.
 Circulation pump Yonos Para RS 15/7.5 PWM for the primary circuit.
 Circulation pump ECO CIRC PRO 15-3/65 for recirculation.

Equipped with rear metal plate for mounting.

Insulation box in EPP (Dimensions: 398x500x207 mm)

(*) The instrument is not certified in compliance with Directive 2004/22/EC - MID.

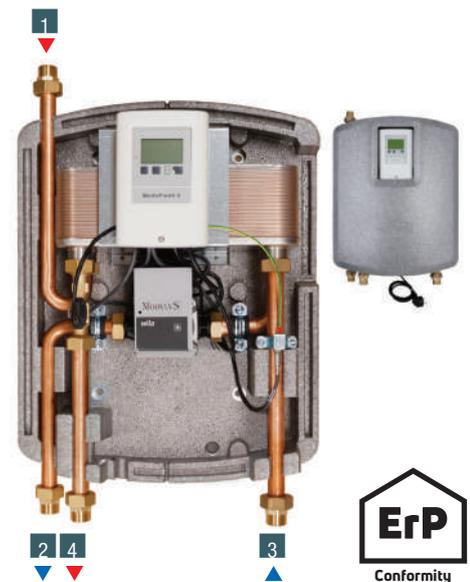
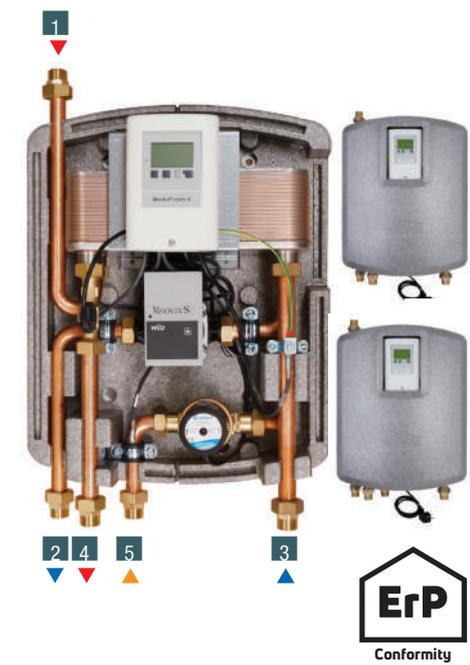
- 1 Puffer flow
- 2 Puffer Return
- 3 Water supply (10 °C)
- 4 Hot water
- 5 Recirculation

Model	Nr. plates	Pcs. pack	Code
SSHWR 40 N (**)	40	1	02716830
SSHNR 40 N (***)	40	1	02716878

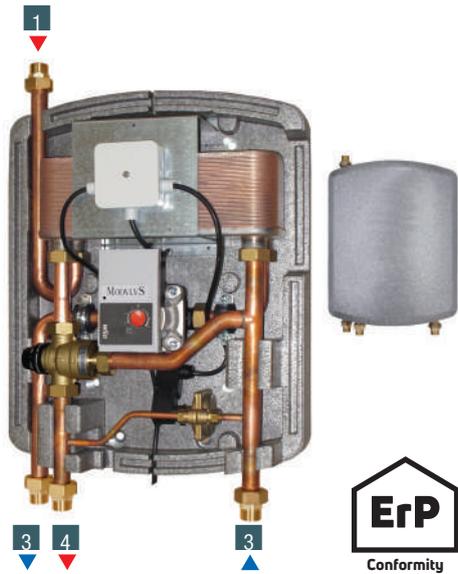
(**) With recirculation
 (***) Without recirculation

Applications: on inertial accumulators connected to thermal solar circuits, wood, pellet, biomass boilers, etc.
 The device ensures the production of instantaneous domestic hot water avoiding bacterial pollution (such as legionella) due to the stagnation of heated water in the tank.

Items available on request



Rapid domestic hot water production module



Thermostatic module SSHNT 40 N to produce rapid domestic hot water

For power up to 100 kW with DHW up to 40 l/min
 Maximum allowable pressure: 6 bar - Operating temperature: 2-95°C
 Rated domestic hot water temperature 45 °C, adjustable up to 70 °C with a thermostatic mixing valve
 Differential pressure switch for activation of the circulator pump (already with flow rates less than 1 l/min)
 Braze-welded plate heat exchanger made of AISI 316 stainless steel with 24 or 40 plates
 Wilo Yonos Para RS 15/7.5 RKC circulator pump
 3/4" M pipe couplings
 With check valve on cold water input (3 points)
 Minimum pipe diameters: DN20 (Cu 22x1)
 Provided with rear metal plate for mounting

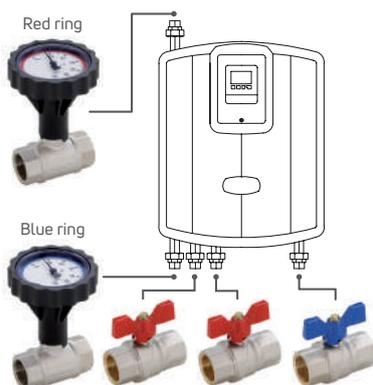
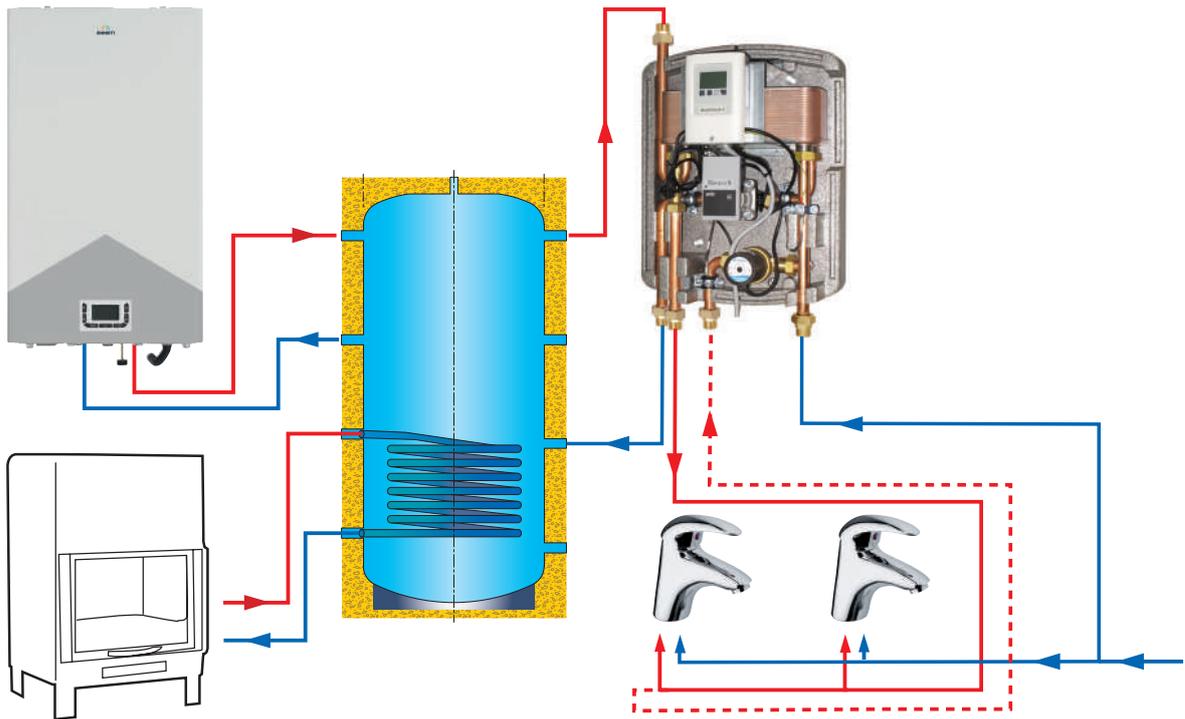
- 1 Puffer Flow
- 2 Return to Puffer
- 3 Water mains supply 10°C
- 4 Domestic hot water

Option of installing several modules upon request.

Dimension	Nr. plates	Pcs. pack	Code
SSHNT 40 N	40	1	02716880

Application on puffer tanks connected to traditional thermal circuits, wood, pellet, biomass, etc.
 The device guarantees the production of instant domestic hot water and prevents the occurrence of bacterial pollution phenomena (such as legionellosis) caused by stagnation of the water heated in the tank.
 Possibility of installing multiple modules in cascade.
 Available on request: 30 days from order confirmation

Installation example of a thermostatic module to produce rapid domestic hot water



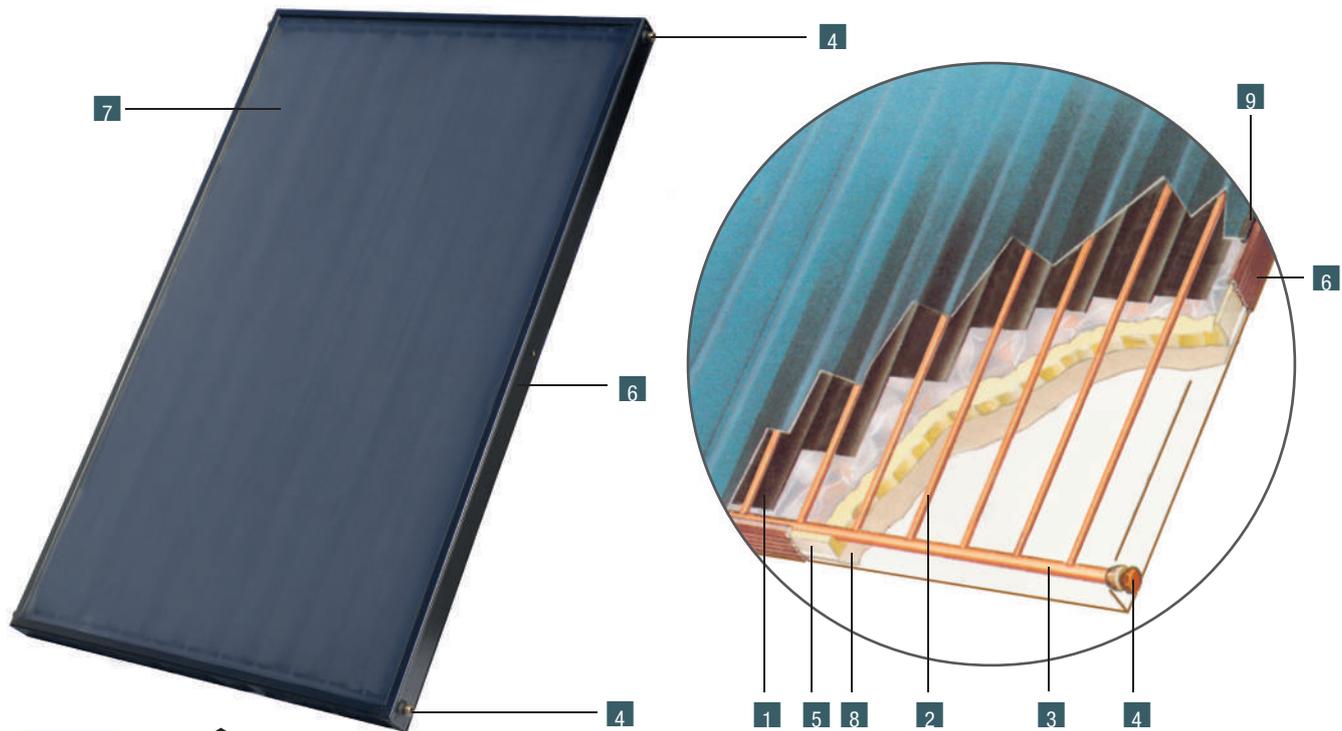
Kit valves for rapid domestic hot water production module

Dimension	Pcs. pack	Code
3/4" F-F (*)	1	02707900
3/4" F-F (**)	1	02707902
3/4" F-F (***)	1	02707904

(*) For models SSHWR 40 N, SSHNR 40 N, SSHNT 40 N.
 Composed of 2 valves with thermometer, 2 ball valves with red handle and 1 ball valve with blue handle.
 (**) For SSHNR 40 N model when used in cascade installations.
 Composed of 2 valves with thermometer and 1 ball valve with red handle.
 (***) For SSHWR 40 N model when used in cascade installations.
 Composed of 2 valves with thermometer and 2 ball valves with red handle.

Arcobaleno

Solar panels



Uses

The Arcobaleno solar panels can be used in closed circuit hot water production systems for sanitary use, for heating swimming pools, as well as for pre-heating or completion of room heating, for example in the case of the use of radiating panels. The fields of use in construction, both public and private, run the range from wellings to common areas, from the tourism/lodging sector to manufacturing activities. For temperatures below 0 °C, as a heat-carrying fluid in the solar panels a water-antifreeze solution must be used with a concentration that is suitable to prevent damage from freezing. The solar collectors must be firmly attached and installed in compliance with current standards.

Optimal inclination varies depending on use.

The orientation of the collectors must be towards the equator (southeast since the afternoon hours are the warmest).

Utility

The initial investment for the creation of a solar energy system is rewarded by the fact that there are practically no operating costs. The only energy expenses are the electrical energy used by the circulating pump (if there is one).

Considering the current costs and the continuing increases in traditional energy sources (methane, LPG, fuel oil), the use of a solar energy system is fully justified, now more than ever.

Norms

Arcobaleno solar panel type "NS", "SRTO", "SRTV" and "SXM" complies to UNI EN 12975-1 and UNI EN ISO 9806 and is certified Solar Keymark.

UNI EN 12975-1
UNI EN ISO 9806

Dimensions, technical data and diagrams:
see section technical attachments from page 526 and following

Solar panels

Arcobaleno construction type SRTV

- 1 Capturing surface: single aluminium plate, thickness 0.4 mm with highly selective covering with laser welding
 - 2 Pipes: 14 copper pipes, Ø 8 mm, thickness 0.4 mm
 - 3 Collector: copper pipe Ø 22 mm, thickness 0.8 mm
 - 4 Fittings: 4 (2 pieces size 1" M and 2 pieces size 1" F with swivel joint)
 - 5 Insulation: rock wool panel, thickness 50 mm, density 50 kg/m³
 - 6 Collector housing: pressed aluminium tank with four inserts for fastening, anodized aluminium frame, dark grey colour
 - 7 Covering: "low ironed" tempered glass, transparent, thickness 3.2 mm
-

Arcobaleno construction type SRT0

- 1 Capturing surface: single aluminium plate, thickness 0.4 mm with highly selective covering with laser welding
 - 2 Pipes: 14 copper pipes, Ø 8 mm, thickness 0.4 mm
 - 3 Collector: copper pipe Ø 22 mm, thickness 0.8 mm
 - 4 Fittings: 2 (1 piece size 1" M and 1 piece size 1" F with swivel joint)
 - 5 Insulation: rock wool panel, thickness 50 mm, density 50 kg/m³
 - 6 Collector housing: pressed aluminium tank with four inserts for fastening, anodized aluminium frame, dark grey colour
 - 7 Covering: "low ironed" tempered glass, transparent, thickness 3.2 mm
-

Arcobaleno construction type SXM

- 1 Capturing surface: single aluminium plate, thickness 0.3 mm with highly selective covering with laser welding
 - 2 Pipes: 12 copper pipes, Ø 8 mm, thickness 0.4 mm
 - 3 Collector: copper pipe Ø 22 mm, thickness 0.8 mm
 - 4 Fittings: copper pipe Ø 22 mm
 - 5 Insulation: rock wool panel, thickness 30 mm, density 25 kg/m³
 - 6 Collector housing: aluminium frame
 - 7 Covering: "low ironed" tempered glass, transparent, thickness 3.2 mm
 - 8 Bottom: aluminium sheet metal
 - 9 Gasket: bi-component silicone
-

Arcobaleno construction type NS

- 1 Capturing surface: single aluminium plate, thickness 0.3 mm with highly selective covering with laser welding
- 2 Pipes: 10 copper pipes, Ø 12 mm, thickness 0.45 mm
- 3 Collector: copper pipe Ø 18 mm, thickness 0.7 mm
- 4 Fittings: 3/4" M wrench socket
- 5 Insulation: rock wool panel thickness 50 mm, density 52 kg/m³
- 6 Collector housing: dark brown painted aluminium frame
- 7 Covering: "low ironed" tempered glass, prismatic, thickness 4 mm
- 8 Bottom: embossed aluminium sheet metal
- 9 Gasket: EPDM rubber and silicone

Solar panels



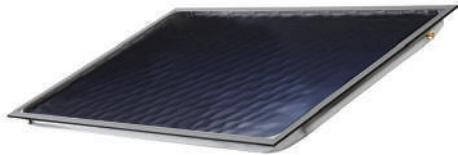
Solar tray collector Arcobaleno SRTV with selective surface

Dimension	Pcs.pack	Code
H 2081 x L 1242 x P 96	14	02710307
H 2081 x L 1242 x P 96 (*)	1	02710308

(*) Single pack

With "quick" connections 1" (with a swivel joint on one end and a male fitting on the other).

Dimensions: see section Technical Attachments page 526



Horizontal solar tray collector Arcobaleno SRT0 with selective surface

Dimension	Pcs.pack	Code
H 1242 x L 2081 x P 96	14	02710317
H 1242 x L 2081 x P 96 (*)	1	02710318

(*) Single pack

With "quick" connections 1" (with a swivel joint on one end and a male fitting on the other).

Dimensions: see section Technical Attachments page 526



Solar collector Arcobaleno SXM with selective surface

Dimension	Pcs.pack	Code
H 2000 x L 1170 x P 73	9	02710440
H 2000 x L 1170 x P 73 (*)	1	02710441

(*) Single pack

With probe holder and copper connections \varnothing 22 mm

Dimensions: see section Technical Attachments page 527



Solar collector Arcobaleno NS with selective surface

Dimension	Pcs.pack	Code
H 1988 x L 1218 x P 90	10	02710105
H 1988 x L 1218 x P 90 (*)	1	02710106

(*) Single pack.

With probe holder and connections 3/4" M.

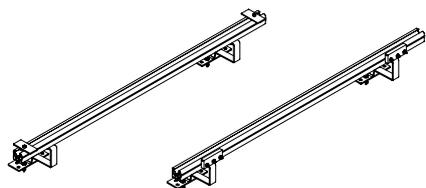
It includes two flexible joints swiveling for the connection between two solar collectors NS.

Dimensions: see section Technical Attachments page 527



Solar panels

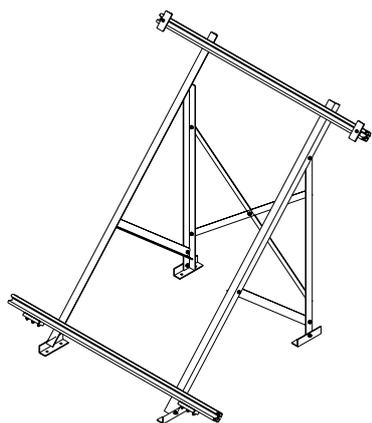
Installation Arcobaleno NS



Parallel roof assembly set on roofs/bent tiles

Dimension	Pcs. pack	Code
1 NS	1	02710242
2 NS	1	02710244

In aluminum and galvanized steel



Flat roof 45° assembly set

Dimension	Pcs. pack	Code
1 NS	1	02710172
2 NS	1	02710182

In aluminium



Flexible connector for Arcobaleno NS solar collector

Dimension	Pcs. pack	Code
3/4" F with swivel union	1	02710110



Connector with initial length of 65 mm extensible to 125 mm

Dimension	Pcs. pack	Code
M 3/4" x F 3/4"	12	02412620



Plugs kit for Arcobaleno NS

Dimension	Pcs. pack	Code
3/4"	1	02717130

Supplied with gaskets

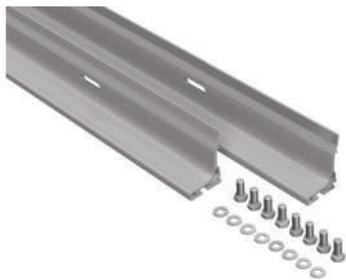
Installation Arcobaleno SRTV and SRT0



Couple of fixing guides for 1 SRTV and SRT0

Dimension	Pcs. pack	Code
L = 1270 mm (*)	1	02710311
L = 2110 mm (**)	1	02710642

(*) For SRTV
(**) For SRT0



Couple of fixing guides for 2 SRTV

Dimension	Pcs. pack	Code
L = 2550 mm	1	02710321



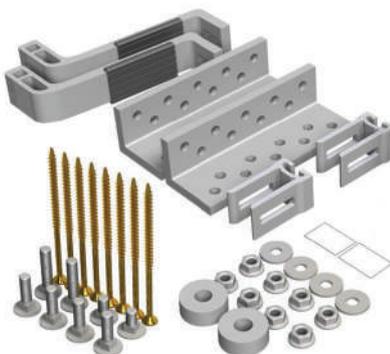
Connection kit for fixing guides for SRTV and SRT0

Dimension	Pcs. pack	Code
	1	02710331



Single fixing set with wheel studs (parallel to the roof) for SRTV and SRT0

Dimension	Pcs. pack	Code
	1	02710341



Single fixing set with bracket (*) (parallel to the roof) for SRTV and SRT0

Dimension	Pcs. pack	Code
	1	02710351

(*) For bent tiles: bent tile maximum height 60 mm

Solar panels



Single fixing set for flat roof 35 ° - 50 ° with wheel studs for SRTV and SRT0

Dimension	Pcs. pack	Code
	1	02710371



Supporting profiles for installation parallel to the roof for SRTV and SRT0

Dimension	Pcs. pack	Code
SRTV	1	02710361
SRT0	1	02710644



Triangular profile support for installation on flat roof 35 ° - 50 ° for SRTV and SRT0

Dimension	Pcs. pack	Code
SRTV	1	02710381
SRT0	1	02710646



Set of 4 PVC corner for SRTV and SRT0

Dimension	Pcs. pack	Code
	1	02710392



Tee fitting kit with probe holder for SRTV and SRT0

Dimension	Pcs. pack	Code
1" M	1	02710401

Diameter probe holder: 6.5 mm

Solar panels



Plugs kit for Arcobaleno SRTV

Dimension	Pcs. pack	Code
1"	1	02717110

Supplied with gaskets

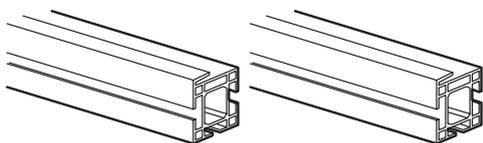


Connection kit for solar collector SRTV and SRT0

Dimension	Pcs. pack	Code
1" (M or F) x 3/4" M	1	01270128

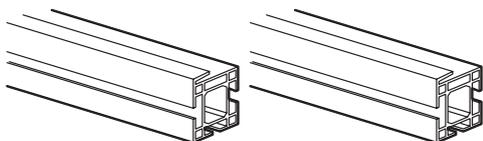
Supplied with gaskets

Installation Arcobaleno SXM



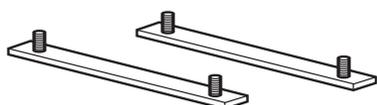
Couple of fixing guides for 1 SXM

Dimension	Pcs. pack	Code
L= 1225 mm	1	02710450



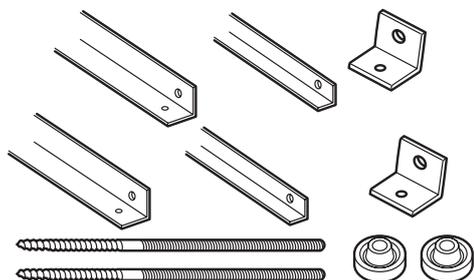
Couple of fixing guides for 2 SXM

Dimension	Pcs. pack	Code
L= 2455 mm	1	02710460



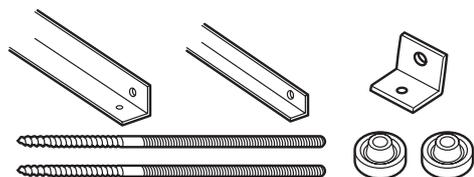
Connection kit for fixing guides for SXM

Dimension	Pcs. pack	Code
	1	02710470



Double flat roof 45° installation set with fixing screws for SXM

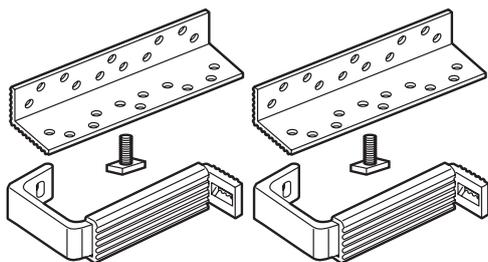
Dimension	Pcs. pack	Code
45°	1	02710480



Single flat roof 20° and 45° installation set with fixing screws for SXM

Dimension	Pcs. pack	Code
45°	1	02710490

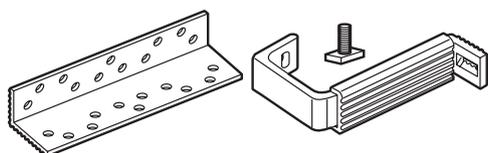
Solar panels



Double tile roofs/bent tiles (*) installation set of brackets (2 pieces) for SXM

Dimension	Pcs. pack	Code
	1	02710500

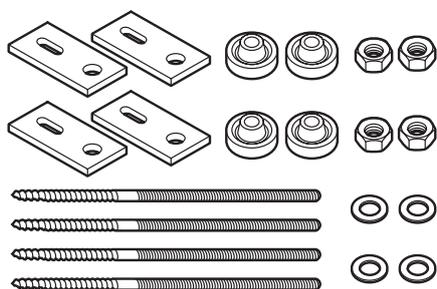
(*) For bent tiles: bent tile maximum height 60 mm



Single tile roofs/bent tiles (*) installation set of brackets (1 piece) for SXM

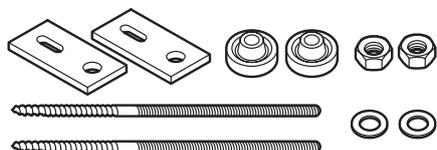
Dimension	Pcs. pack	Code
	1	02710510

(*) For bent tiles: bent tile maximum height 60 mm



Double tile roof set of brackets with fixing screws for SXM

Dimension	Pcs. pack	Code
	1	02710520



Single tile roof set of brackets with fixing screws for SXM

Dimension	Pcs. pack	Code
	1	02710530



D22 x D22 dry fitting for Arcobaleno SXM solar collector

Dimension	Pcs. pack	Code
D22 x D22	1	02710540

In rows of Arcobaleno SXM solar collectors, there must be two fittings for the connection between two collectors



Metallic seal fitting with male thread for copper pipes

Dimension	Pcs. pack	Code
3/4" M x DN 22 copper	5	02707874
1" M x DN 22 copper	5	02707876



Plugs kit for Arcobaleno SXM

Dimension	Pcs. pack	Code
D22	1	02717120

Solar panels

Selection guide

Installation on bent tile and tile roofs with stud bolts for Arcobaleno SRTV

	02710311	02710321	02710331	02710341	02710361	02710392	02710401
(02710307 - 02710308) Arcobaleno SRTV							
	1			2	2	1	1
		1		2	2	2	1
	1	1	1	3	3	3	1
		2	1	4	4	4	1
	1	2	2	5	5	5	1
		3	2	6	6	6	1
	1	3	3	8	8	7	1
		4	3	8	8	8	1
	1	4	4			9	1
		5	4				1

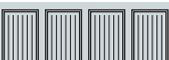
NOTE

you can mount up to 6 solar collectors SRTV in row. Beyond this number must be provided adequate compensator length (not supplied).

Provide no. 1 plug kit code 02717110 for each group of SRTV solar panels.
Provide no. 1 fittings kit code 01270128 for each group of SRTV solar panels.

Solar panels

Installation on bent tile and tile roofs with a bracket for Arcobaleno SRTV

	02710311	02710321	02710331	02710351	02710361	02710392	02710401
(02710307 - 02710308) Arcobaleno SRTV							
	1			2	2	1	1
		1		2	2	2	1
	1	1	1	3	3	3	1
		2	1	4	4	4	1
	1	2	2	5	5	5	1
		3	2	6	6	6	1
	1	3	3	8	8	7	1
		4	3	8	8	8	1
	1	4	4			9	1
		5	4				1

NOTE

you can mount up to 6 solar collectors SRTV in row. Beyond this number must be provided adequate compensator length (not supplied).

Provide no. 1 plug kit code 02717110 for each group of SRTV solar panels.

Provide no. 1 fittings kit code 01270128 for each group of SRTV solar panels.

Solar panels

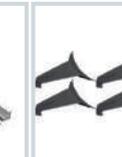
Installation on a 35° - 50° flat roof with stud bolts for Arcobaleno SRTV

	02710311	02710321	02710331	02710371	02710381	02710392	02710401
(02710307 - 02710308) Arcobaleno SRTV							
	1			2	2	1	1
		1		2	2	2	1
	1	1	1	3	3	3	1
		2	1	4	4	4	1
	1	2	2	5	5	5	1
		3	2	6	6	6	1
	1	3	3	8	8	7	1
		4	3	8	8	8	1
	1	4	4			9	1
		5	4				1

NOTE

you can mount up to 6 solar collectors SRTV in row. Beyond this number must be provided adequate compensator length (not supplied).
Provide no. 1 plug kit code 02717110 for each group of SRTV solar panels.
Provide no. 1 fittings kit code 01270128 for each group of SRTV solar panels.

Installation on bent tile and tile roofs with stud bolts for Arcobaleno SRTO

	02710642	02710331	02710341	02710644	02710392	02710401
(02710317 - 02710318) Arcobaleno SRTO						
	1		2	2	1	1
	2	1	4	4	2	1
	3	2	5	5	3	1
	4	3	7	7	4	1

NOTE

Provide no. 1 fittings kit code 01270128 each group of SRTO solar manifolds.

Solar panels

Installation on bent tile and tile roofs with stud bolts for Arcobaleno SRT0

	02710642	02710331	02710351	02710644	02710392	02710401
(02710317 - 02710318) Arcobaleno SRT0						
	1		2	2	1	1
	2	1	4	4	2	1
	3	2	5	5	3	1
	4	3	7	7	4	1

NOTE

Provide no. 1 fittings kit code 01270128 each group of SRT0 solar manifolds.

Installation on a 35° - 50° flat roof with stud bolts for Arcobaleno SRT0

	02710642	02710331	02710371	02710646	02710392	02710401
(02710317 - 02710318) Arcobaleno SRT0						
	1		2	2	1	1
	2	1	4	4	2	1
	3	2	5	5	3	1
	4	3	7	7	4	1

NOTE

Provide no. 1 fittings kit code 01270128 each group of SRT0 solar manifolds.

Solar panels

Installation on bent tile and tile roofs with stud bolts for Arcobaleno SXM

	02710450	02710460	02710470	02710520	02710530
(02710440 - 02710441) Arcobaleno SXM					
	1			1	
		1		1	
	1	1	1	1	1
		2	1	1	2
	1	2	2	1	3

Provide nr. 2 fittings code 02710540 for the connection between two SXM solar collectors.
 Provide nr. 1 kit plugs code 02717120 for each group of SXM solar collectors.
 Provide nr. 2 fittings code 02707874 or 02707876 for each group of SXM solar collectors.

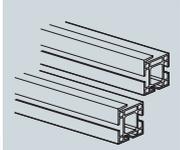
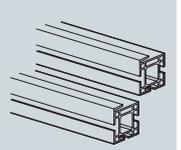
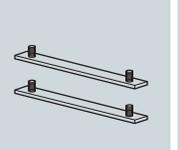
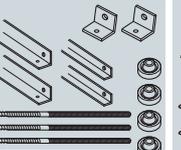
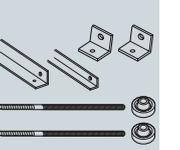
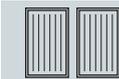
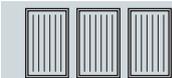
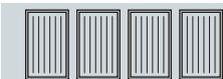
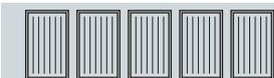
Installation on bent tile and tile roofs with a bracket for Arcobaleno SXM

	02710450	02710460	02710470	02710500	02710510
(02710440 - 02710441) Arcobaleno SXM					
	1			1	
		1		1	
	1	1	1	1	1
		2	1	1	2
	1	2	2	1	3

Provide nr. 2 fittings code 02710540 for the connection between two SXM solar collectors.
 Provide nr. 1 kit plugs code 02717120 for each group of SXM solar collectors.
 Provide nr. 2 fittings code 02707874 or 02707876 for each group of SXM solar collectors.

Solar panels

Installation on a 45° flat roof for Arcobaleno SXM

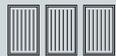
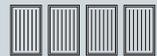
	02710450	02710460	02710470	02710480 (45°)	02710490 (45°)
(02710440 - 02710441) Arcobaleno SXM					
	1			1	
		1		1	
	1	1	1	1	1
		2	1	1	2
	1	2	2	1	3

Provide nr. 2 fittings code 02710540 for the connection between two SXM solar collectors.

Provide nr. 1 kit plugs code 02717120 for each group of SXM solar collectors.

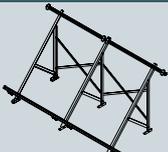
Provide nr. 2 fittings code 02707874 or 02707876 for each group of SXM solar collectors.

Installation on bent tile and tile roof for Arcobaleno NS

	(02710105 - 02710106) Arcobaleno NS				
					
02710242 	1		1		1
02710244 		1	1	2	2
02717130 	1	1	1	1	1

Solar panels

Installation on a 45° flat roof for Arcobaleno NS

(02710105 - 02710106) Arcobaleno NS					
					
02710172 	1		1		1
02710182 		1	1	2	2
02717130 	1	1	1	1	1

NVSN natural circulation solar kit



Model NVSN1S 150

Composition

- N° 1 solar thermal collector;
- Tank with cavity in vitrified steel;
- Universal fixing system for installation on a flat roof (inclination approximately 45°)
- Installation kit comprising: 15 liter pack of propylene glycol; 3 bar safety valve solar circuit; 6 bar safety valve (sanitary circuit); insulated stainless steel pipes for manifold-storage tank connection; hydraulic fittings and mounting screws.

Solar collector technical data

- Absorber: aluminum with 0.5 mm thick selective surface
- Cover: 4 mm thick tempered glass
- Dimensions: (WxHxD) 2040 x 1040 x 88 mm
- Gross surface area: 2.11 m²
- Open surface area (net): 1.91 m²
- Fittings (4 copper pipes): Ø 22 mm
- Maximum operating pressure: 10 bar
- Stagnation temperature: 195 °C
- Contents: 1,40 liters
- Weight when empty: 38 kg

$n_{0a}=0,777$
 $a_{1a}=4,350$
 $a_{2a}=0,0073$
 $K_e(50^\circ)=0,910$

Tank technical data

- Dimensions: (L x diameter) 1055 x Ø 580 mm
- Material: vitrified steel
- Usefull volume: 152 l
- Protection: 2 manesium anodes
- Equipped with electrical resistance 1,5 W
- Equipped with side inspection flange
- Max pressure of sanitary circuit: 6 bar
- Max pressure of solar circuit: 3 bar
- Connections: G 3/4" F
- Dispersion: 54 W
- Energy efficiency class: B
- Weight when empty: 67 kg

Complete system technical data

- Heat carrier fluid content: 9,45 l
- In confirm to UNI EN 12976 norm
- Solar Keymark certification

Dimension	Pcs. pack	Code
NVSN1S 150	1	02717200

Dimensions: see section Technical Attachments page 528



Model NVSN1S 200

Composition

- N ° 1 solar thermal collector;
- Tank with cavity in vitrified steel;
- Universal fixing system for installation on a flat roof (inclination approximately 45 °)
- Installation kit comprising: 15 liter pack of propylene glycol; 3 bar safety valve (solar circuit); 6 bar safety valve (sanitary circuit); insulated stainless steel pipes for manifold-storage tank connection; hydraulic fittings and mounting screws.

Solar collector technical data

- Absorber: aluminum with 0.5 mm thick selective surface
- Cover: 4 mm thick tempered glass
- Dimensions: (WxHxD) 2040 x 1040 x 88 mm
- Gross surface area: 2.11 m²
- Open surface area (net): 1.91 m²
- Fittings (4 copper pipes): Ø 22 mm
- Maximum operating pressure: 10 bar
- Stagnation temperature: 195 °C
- Contents: 1,40 liters
- Weight when empty: 38 kg

$n0a=0,777$

$a1a = 4,350$

$a2a = 0,0073$

$Ke (50^\circ) = 0,910$

Tank technical data

- Dimensions: (L x diameter) 1325 x Ø 580 mm
- Material: vitrified steel
- Usefull volume: 198 l
- Protection: 2 manesium anodes
- Equipped with electrical resistance 1,5 W
- Equipped with side inspection flange
- Max pressure of sanitary circuit: 6 bar
- Max pressure of solar circuit: 3 bar
- Connections: G 3/4" F
- Dispersion: 60 W
- Energy efficiency class: B
- Weight when empty: 85 kg

Complete system technical data

- Heat carrier fluid content: 12,60 l
- In confirm to UNI EN 12976 norm
- Solar Keymark certification

Dimension	Pcs. pack	Code
NVSN1S 200	1	02717210

Dimensions: see section Technical Attachments page 528

NVSN solar kit



Model NVSN2S 200

Composition

- N° 2 solar thermal collectors;
- Tank with cavity in vitrified steel;
- Universal fixing system for installation on a flat roof (inclination approximately 45°)
- Installation kit comprising: 15 liter pack of propylene glycol; 3 bar safety valve (solar circuit); 6 bar safety valve (sanitary circuit); insulated stainless steel pipes for manifold-storage tank connection; hydraulic fittings and mounting screws.

Solar collector technical data

- Absorber: aluminum with 0.5 mm thick selective surface
- Cover: 4 mm thick tempered glass
- Dimensions: (WxHxD) 2040 x 1040 x 88 mm
- Gross surface area: 2.11 m²
- Open surface area (net): 1.91 m²
- Fittings (4 copper pipes): Ø 22 mm
- Maximum operating pressure: 10 bar
- Stagnation temperature: 195 °C
- Contents: 1,40 liters
- Weight when empty: 38 kg

n0a=0,777
a1a = 4,350
a2a = 0,0073
Ke (50°) = 0,910

Tank technical data

- Dimensions: (L x diameter) 1325 x Ø 580 mm
- Material: vetrified steel
- Usefull volume: 198 l
- Protection: 2 manesium anodes
- Equipped with electrical resistance 1,5 W
- Equipped with side inspection flange
- Max pressure of sanitary circuit: 6 bar
- Max pressure of solar circuit: 3 bar
- Connections: G 3/4" F
- Dispersion: 60 W
- Energy efficiency class: B
- Weight when empty: 85 kg

Complete system technical data

- Heat carrier fluid content: 14,20 l
- In confirm to UNI EN 12976 norm
- Solar Keymark certification

Dimension	Pcs. pack	Code
NVSN2S 200	1	02717220

Dimensions: see section Technical Attachments page 528



Model NVSN2S 280

Composition

- N ° 2 solar thermal collectors;
- Tank with cavity in vitrified steel;
- Universal fixing system for installation on a flat roof (inclination approximately 45 °)
- Installation kit comprising: 15 liter pack of propylene glycol; 3 bar safety valve (solar circuit); 6 bar safety valve (sanitary circuit); insulated stainless steel pipes for manifold-storage tank connection; hydraulic fittings and mounting screws.

Solar collector technical data

- Absorber: aluminum with 0.5 mm thick selective surface
- Cover: 4 mm thick tempered glass
- Dimensions: (WxHxD) 2040 x 1040 x 88 mm
- Gross surface area: 2.11 m²
- Open surface area (net): 1.91 m²
- Fittings (4 copper pipes): Ø 22 mm
- Maximum operating pressure: 10 bar
- Stagnation temperature: 195 °C
- Contents: 1,40 liters
- Weight when empty: 38 kg

$n_{0a} = 0,777$

$a_{1a} = 4,350$

$a_{2a} = 0,0073$

$K_e (50^\circ) = 0,910$

Tank technical data

- Dimensions: (L x diameter) 1765 x Ø 580 mm
- Material: vetrified steel
- Usefull volume: 272 l
- Protection: 2 manesium anodes
- Equipped with electrical resistance 1,5 W
- Equipped with side inspection flange
- Max pressure of sanitary circuit: 6 bar
- Max pressure of solar circuit: 3 bar
- Connections: G 3/4" F
- Dispersion: 75 W
- Energy efficiency class: C
- Weight when empty: 107 kg

Complete system technical data

- Heat carrier fluid content: 19,80 l
- In confirm to UNI EN 12976 norm
- Solar Keymark certification

Dimension	Pcs. pack	Code
NVSN2S 280	1	02717230

Dimensions: see section Technical Attachments page 528

Accessories for NVSN natural circulation solar kit



Assembly set on roofs and bent tiles with studs

Dimension	Pcs. pack	Code
SFTC200 (*)	1	02717240
SFTC300 (**)	1	02717242

(*) For models NVSN1S 150, NVSN1S 200, NVSN2S 200

(**) For model NVSN2S 280



Side cover profile

Dimension	Pcs. pack	Code
70x80x2050 mm (LxHxP)	1	02717244

To hide the insulated pipe on the side of the panel



Front cover for solar collector

Dimension	Pcs. pack	Code
1060x2000	1	02717070

Solar stations and groups



ErP compliant solar circulation stations and groups



Solar circulation group GSN1V 38 NP

Nominal pressure: PN 10 - - Continuous temperature 120°C (brief period: 160°C for 20 sec.)
External connections 1" M - Threads: G (ISO 228-1)

Return

- Flow rate adjuster measuring device with system fill and discharge valves
- Flanged ball valve, 3-way, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with connection 3/4" M for expansion vessel
- Circulation pump Para STG 25/7 (fixed speed, constant Delta p, adjustment via signal PWM1 (heating) or PWM2 (solar))

Supplied with metal plate rear fixing.
Insulation box in EPP (Dimension 155 x 425 x 150 mm).
Group dimensions (WxHxD): 200 x 450 x 150 mm.

Power supply: 230 Vac + 10% / -15%, 50/60 Hz
Power consumption in stand-by:
- Circulator pump: 0.8 W

Dimension	Flow rate L/min	Pcs. pack	Code
38	8-38	1	02716922

Dimensions: see section Technical Attachments page 528



One way solar group SS1V 12 NP

Nominal pressure: PN 10 - Continuous temperature 120 °C (brief period: 160°C for 20 sec.)
External connections 1" M

Return

- Flow rate adjuster measuring device with system fill and discharge valves
- Flanged ball valve, 3-way, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with 3/4" M connection for expansion vessel
- Circulation pump Para STG 25/7 (with PWM2 (solar) signal adjustment via STDC controller 2015, fixed speed, constant Delta p, PWM1 (heating)).

Solar unit STDC 2015, pre-wired, includes 2 probes PT1000 with silicone cable; third probe optional only for visualization.

Supplied with metal plate rear fixing.

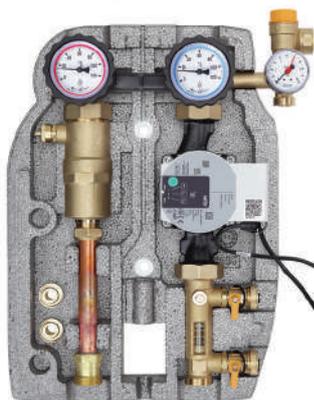
Insulation box in EPP (Dimension 215 x 440 x 150 mm).

Power supply: 230 Vac + 10% / -15%, 50/60 Hz
Power consumption in stand-by:
- Circulator pump: 0.8 W
- Solar control unit: 1.5 W

Dimension	Flow rate L/min	Pcs. pack	Code
12	2 - 12	1	02716924

Dimensions: see section Technical Attachments page 528





Complete solar group SSX 12-38 NP

Nominal pressure: PN 10 - Continuous temperature 120°C (brief period: 160°C for 20 sec.)
Takeoffs: 125 mm - External connections 1" M - Threads: G (ISO 228-1)

Return

- Flow rate adjuster measuring device with system fill and discharge valves
- Flanged ball valve, 3-way, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with 3/4" M connection for expansion vessel
- Circulation pump Para STG 25/7 (with control signal PWM2 (solar) via EMCS controller 2015, fixed speed, constant Delta p, PWM1 (heating)).

Flow

- Flanged ball valve, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with red ring; 0 °C - 120 °C)
- Brass de-aeration with manually air valve
- Connexion and fitting pipe

Pre-cabled EMCS 2015 solar wiring box with 3 probes PT1000 with silicone cable.

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimension 308 x 434 x 169 mm).

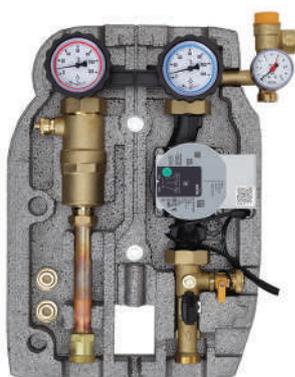
Power supply: 230 Vac + 10% / -15%, 50/60 Hz

Power consumption in stand-by:

- Circulator pump: 0.8 W
- Solar control unit: 0.5 W

Dimension	Flow rate lt/min	Pcs. pack	Code
12	2 - 12	1	02716930
38	8 - 38	1	02716932

Dimensions: see section Technical Attachments page 528



Complete solar group SSC 40 NP with function of measuring consumption

Nominal pressure: PN 10 - Continuous temperature on flow copper 120 °C (short term: 160 °C for 20 sec.) - Return branch: the measurement is made between 0 °C and 100 °C
Takeoffs: 125 mm - External connections 1" M - Threads: G (ISO 228-1)

Return

- Combined measurement device of flow rate and temperature VFS with system discharge valve
- Flanged ball valve, 3-way, DN20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45 °) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with connection 3/4" M for expansion vessel
- Circulator pump Para STG 25/7 (with PWM2 (solar) via ELCS 2016 signal adjustment unit, fixed speed, constant Delta p, PWM1 (heating)).
- Pipe fitting of 3/4" with system fill valve (provide flexible hose code 02706836 not supplied).

Flow

- Flanged ball valve, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with red ring; 0 °C - 120 °C)
- Brass de-aeration device with manual bleed valve
- Fitting and connection tube
- Temperature probe in contact with the connection tube

Solar unit ELCS 2016, pre-wired, includes 4 probes (3 immersion, 1 in contact) PT1000 with silicone cable with heat accounting function (*)

(*) Instrument non certified in confirm to directive 2004/22/CE - MID.

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimensions 308 x 434 x 169 mm).

Power supply: 230 Vac + 10% / -15%, 50/60 Hz

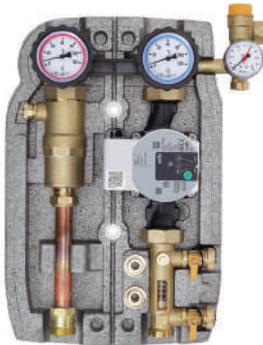
Power consumption in stand-by:

- Circulator pump: 0.8 W
- Solar control unit: 0.5 W

Dimension	Flow rate lt/min	Pcs. pack	Code
40	2 - 40	1	02716934

With drain kit

Dimensions: see section Technical Attachments page 528



Solar circulation group GSN 12-38 NP

Nominal pressure: PN 10
 Continuous temperature 120°C (brief period: 160°C for 20 sec.)
 Takeoffs: 125 mm
 External connections 1" M - Threads: G (ISO 228-1)

Return

- Flow rate adjuster measuring device with system fill and discharge valves
- Flanged ball valve, 3-way, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with 3/4" M connection for expansion vessel
- Circulation pump Para STG 25/7 (fixed speed, constant Delta p, adjustment with PWM1 (heating signal) or PWM2 (solar))

Flow

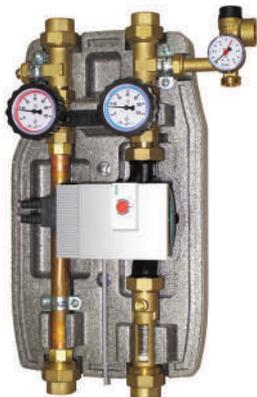
- Flanged ball valve, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with red ring; 0 °C - 120 °C)
- Brass de-aeration with manually air valve
- Connexion and fitting pipe

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimension 280 x 425 x 150 mm).
 Group dimensions (WxHxD): 325 x 460 x 150 mm
 Power supply: 230 Vac + 10% / -15%, 50/60 Hz
 Power consumption in stand-by:
 - Circulator pump: 0.8 W

Dimension	Flow rate lt/min	Pcs. pack	Code
12	2 - 12	1	02716926
38	8 - 38	1	02716928

Dimensions: see section Technical Attachments page 528



Solar circulation group for high flow rate GSA 42-70 N

Nominal pressure: PN 10
 Continuous temperature 120°C (brief period: 160°C for 20 sec.)
 Takeoffs: 125 mm
 External connections 1" 1/4 M - Threads: G (ISO 228-1)

Return

- Flow rate adjuster measuring device 5/42 l/min or 20/70 l/min
- Ball valve with non-return valve 18 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- "T" fitting for safety group
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with 3/4" M connection for expansion vessel
- Circulation pump Stratos Para 25 / 1-8 (ΔP const, ΔP variable or adjustment by external signal 0-10 V)

Flow

- Ball valve with non-return valve 18 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with red ring; 0 °C - 120 °C)
- "T" fitting with probe holder socket Ø 6 mm
- Connexion and fitting pipe

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimension 285 x 500 x 170 mm).
 Power consumption in stand-by:
 - Circulator pump: 1.44 W

Dimension	Flow rate l/min	Pcs. pack	Code
42	5-42	1	02716760
70	20-70	1	02716770

Provide valve for fill/discharge system code 02707898

Dimensions: see section Technical Attachments page 528

Accessories for solar systems

Accessories for solar stations and units



Pipe unions couple for solar groups

Dimension	Pcs. pack	Code
1" F x 3/4" M	1	90027810
1" F x 3/4" F	1	90027850
1" 1/4 F x 1" M	1	90028290



Bracket for fixing expansion tank with fitting up to 24 liters

L-bracket for wall mounting of expansion vessel.
The 3/4" M x 3/4" F fitting is equipped with a non-return valve.
Gasket and wall plugs included.

Dimension	Pcs. pack	Code
	1	02706834



Stainless steel flexible hose kit for connection to expansion vessel

Flexible tube in stainless steel AISI 304 for connection of the expansion vessel to the safety group - Threading 3/4" - Includes hose, fittings and gaskets.

Dimension	Pcs. pack	Code
L 500	1	02706836
L 1000	1	02706838



Flow regulator/flowmeter

Connection DN15: 1" M - 1" cap, Connection DN20: 1" 1/4 M - 1" 1/4 cap - Nominal pressure: PN 10 - Continuous temperature 120 °C (brief period: 160 °C for 20 sec.)

Dimension	Flow rate l/min	Pcs. pack	Code
DN15	2-12	1	02716644
DN15	8-38	1	02707750
DN20	5-42	1	02716648
DN20	20-70	1	02716650

Option of horizontal or vertical installation with any direction of flow



Differential thermostat

Model	Pcs. pack	Code
Differential thermostat TD1 (*)	1	02708010
Differential thermostat TD2 (**)	1	02706840
Sensor PTC +125 °C for TD1	1	02708012
Sensor PT 1000 +160 °C for TD2	1	02706844
Sensor PT 1000 +200 °C for TD2	1	02706842
Feeler trap	1	00510686

(*) Complete with three probes PTC +125 °C. Equipped with 1 differential thermostat and 1 adjustment thermostat.

(**) Complete with two probes PT 1000 +160 °C and 1 probe PT 1000 +200 °C. Equipped with 2 differential thermostats, one of which can be configured for integration/overheat discharge

Accessories for solar systems



Temperature differential controller EMCS 2015

Temperature differential controller for systems with solar manifolds or solid fuel tanks, equipped with 4 inputs for temperature probes PT1000, 2 on/off outputs with live relay, 1 PWM/0-10V output to control high efficiency circulators, external connection via CAN-Bus or Ethernet for the management of the system even at a distance via local network or internet.

27 different hydraulic diagrams selectable with the possibility to activate additional functions for any unused relays.

Display of the measured temperatures and of the status of the relays.

Complete with clock and reserve battery (autonomy 24 h).

Simple heat metering function*. Functions protecting the system, the solar manifold and the tank. Anti-legionella function. Anti-freeze function. Offset correction of temperature sensors.

* Instrument not certified according to Directive 2004/22/CE - MID

Model	Pcs. pack	Code
EMCS 2015	1	02716711

Supplied with 3 immersion sensor PT1000 + 180 °C with silicone cable



Over voltage kit protection

Dimension	Pcs. pack	Code
	1	02716616



Temperature sensors

Sensors PT1000 + 180 °C with silicone cable

Dimension	Pcs. pack	Code
Immersion sensor with cable 2 m, Ø 5,5 mm	1	02716612
Contact sensor with cable 1,5 m	1	02716614



Vent valve for high temperature solar

Body and cover in brass ST UNI EN 12165CW617N - Polyethylene float - Max. temperature: 150 °C -Max. pressure: 10 bar

Dimension	Pcs. pack	Code
1/2" M	10	28140020



Valve for fill and discharge system

Technical data

Continuous temperature 120 °C (brief period 160 °C for 20 sec.)

Nominal pressure: PN 10

Connections: 1" F

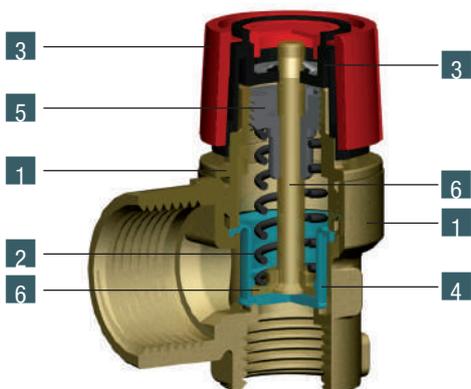
Lateral bibcocks 3/4" for hose connection

Flow rate up to 70 l / min

Kvs: 17,0

Dimension	Pcs. pack	Code
1"	1	02707898

Accessories for solar systems



Sicura HT, Safety valve for high temperature solar

Membrane valve, with fixed high-lift calibration and direct reaction spring. The calibration screw cannot be tampered with, without causing irretrievable damage to the valve. The shutter membrane is guaranteed non-stick type and will not alter shape after prolonged utilisation. The calibration pressure is stamped in relief on the plug placed on top of the valve. The possibility of the valve being opened accidentally is prevented by a protection cap. In order to turn the knob, it is necessary to remove the cap. The addition of a pressure gauge is already foreseen. Max. temperature: 160 °C Suitable for use with glycol mixtures of up to 50%

Construction

- 1 Body and ring nut in UNI EN 12165 CW617N brass
- 2 AISI stainless steel spring
- 3 Handle and cap in PA6
- 4 Silicone membrane
- 5 Adjustment ring nut in PPS
- 6 Rod and disc in UNI EN 12164 CW614N brass

Note:
intended use with pressure equipment as per art. 4 paragraph 3 PED directive 2014/68/EU or art. 3 paragraph 3 PED directive 97/23/EC.

Dimension	Pressure	Pcs. pack	Code
1/2" F x 3/4" F	4 bar	12	00206122
1/2" F x 3/4" F	6 bar	12	00206124
1/2" F x 3/4" F	3 bar	12	00206120

Product 100% tested



Expansion vessel for solar

Special membrane for solar in confirm to DIN 4807 - Precharge pressure: 2,5 bar - Maximum pressure: 10 bar - Temperature: -10÷+100 °C

Liters	Connection	H (mm)	Ø (mm)	Pcs. pack	Code
18	M 3/4" Gas	380	260	1	00104200
24	M 3/4" Gas	490	260	1	00104205
35	M 3/4" Gas	435	380	1	00104210
50	M 3/4" Gas	565	380	1	00104215

CE marking in compliance with the directive PED 2014/68/UE
Model from 35 to 50 litres with support feet



Progress for Solar Male-Female

Temperature of use: -20 ÷ +180 C
Nominal pressure: 50 bar for size 1/2", 40 bar for size 3/4"

Dimension	Pcs. pack	Code
1/2"	18	09815370
3/4"	12	09815372



Vertical de-aeration device

Maximum operating temperature: 140 °C - Maximum operating pressure: 10 bar
Kv: 6,5 - Employment fluid: water, glicole

Dimension	Pcs. pack	Code
DN 15 - G 1" M x G 3/4" F	1	02707822
Extension 50 mm (*)	1	02707820

(*) for air vent valve - items to be out of range

Accessories for solar systems



Tank of premixed protective non-toxic antifreeze for solar systems

* Propylene glycol content: 25-28% - pH of the solution: 9.2-10 - Minimum alkalinity reserve: ml HCl 0.1 N:15 - Freezing point: -12 C - density: 1,0 kg/l

** Propylene glycol content: 42-45% - pH of the solution: 9.2-10 - Minimum alkalinity reserve: ml HCl 0.1 N: 20 - Freezing point: -28 C - density: 1,0-1,1 kg/l

Dimension	Pcs. pack	Kg/pack	Code
T ≥ - 12 °C*	1	5 kg	02706372
T ≥ - 12 °C*	1	25 kg	02706376
T ≥ - 28 °C**	1	5 kg	02706382
T ≥ - 28 °C**	1	25 kg	02706386

Liquid with disappearing red-violet colour, indicative of the pH, non-toxic and ready to use, protects against corrosion of the metal surfaces, prevents the formation of salt encrustation, allows to reach stagnation temperatures up to 300 ° C.

Boiling point: 102 °C for codes 02706372 - 02706376, 105 °C for codes 02706382 - 02706386.



System loading station

Delivery capacity: 5,2 - 50 litres/min - Static pressure H: 5 - 52 m. c. H₂O - Power supply: 230 V - 50 Hz - Current = 2,6 A - Electric power absorbed: 500 W max - Spin speed: 2900 rpm - Protection: IP44 - Tank volume: 50 litres

Dimension	Pcs. pack	Code
50 litres	1	02706862

Fitted with two connection pipes L = 3 m

Pipes and fittings for solar panels

System of pipes, fittings and accessories for solar panels



Insulating material in EPDM, resistant to UV rays.
 Thermal conductivity:
 λ (0 °C) = 0.033 W/mK,
 λ (40 °C) = 0.037 W/mK,
 Class of construction material: B2 (DIN 4102)
 Max. operating temperature: 150 °C
 Max. peak temperature: 175 °C

Pipe material:
 corrugated stainless steel AISI 316 L with temperature range between
 -270 °C and +600 °C
 Copper pipe DIN EN 12249 (R220) resistant to temperatures that reach 180 °C
 Maximum operating pressure of corrugate stainless steel pipe:
 20°C: DN16=11 bar; DN20=11 bar; DN25=10 bar
 200 °C: DN16=7,5 bar; DN20=7,5 bar; DN25=6,9 bar



Single flexible pre-insulated stainless steel hose

Dimension	Insulating thickness	Pcs. pack	Code
DN 16 - L= 15 m	13 mm	1	02706402
DN 20 - L= 15 m	13 mm	1	02706412
DN 25 - L= 15 m	13 mm	1	02706422



Double flexible pre-insulated stainless steel hose - separable

Dimension	Insulating thickness	Pcs. pack	Code
DN 16 - L=15 m	13 mm	1	02706502
DN 20 - L=15 m	13 mm	1	02706522
DN 25 - L=15 m	13 mm	1	02706462

Sensor cable: 2x0,75 mm²



Double pre-insulated copper pipe - separable

Dimension	Insulating thickness	Pcs. pack	Code
15x0,8 - L=15 m	13 mm	1	02707841
18x0,8 - L=20 m	13 mm	1	02707845

Sensor cable: 2x0,75 mm²



Pipe connection kit with screws for inox pipes

Dimension	Pcs. pack	Code
DN 16 mm (3/4")	1 kit	02706552
DN 20 mm (1")	1 kit	02706602
DN 25 mm (1" 1/2)	1 kit	02706610

The kit consists of: 4 connecting nuts, 4 fixing rings, 4 flat gaskets, 1 nipple and 1 stainless steel washer (the nipple and washer must be used to form the flat seal housing on the pipe).



Double male nipple for inox pipes

Dimension	Pcs. pack	Code
3/4" M - 3/4" M	1	02706730
1" M - 1" M	1	02706740
1"1/4 M - 1"1/4 M	1	02706750

Pipes and fittings for solar panels



Reduction ring monopiece for copper pipes

Dimension	Pcs. pack	Code
DN 18 copper x DN 15 copper	10	02707850
DN 22 copper x DN 18 copper	10	02707852



Kit fast connection copper-copper

Dimension	Pcs. pack	Code
DN 15 copper x DN 15 copper	5	02707860
DN 18 copper x DN 18 copper	5	02707862



Metallic seal fitting with male head thread for copper pipes

Dimension	Pcs. pack	Code
3/4" M x DN 15 copper	5	02707870
3/4" M x DN 18 copper	5	02707872
3/4" M x DN 22 copper	5	02707874
1" M x DN 22 copper	5	02707876



Kit of 4 brackets for installation of single pipe

Dimension	Pcs. pack	Code
DN 16 for inox	1	02706430

Items to be out of range



Kit of 4 brackets for installation of coupled and pre-insulated pipes

Dimension	Pcs. pack	Code
DN 16÷20 mm for inox	1	02706540
DN 15÷18 mm for copper	1	02707848



Adhesive insulating tape 3 mm

Dimension	Pcs. pack	Code
5 cm x 15 m	1	02706802



Black adhesive tape in aluminium

Dimension	Pcs. pack	Code
5 cm x 50 m	1	01516040



Heating unit components



> Eco+
pressure
reducer



..... **399**

> Tecno-Varia and Varia
automatic
air valve



..... **401**

> Safety
group



..... **403**

> Sicura
safety
valve



..... **404**

> Alimatic
automatic
feeder



..... **406**

> Circulator pumps



..... **408**

> Expansion
vessel



..... **409**

> Mesh
filter



..... **411**

> Dirt separator
and Deareator



..... **411**

> Overpressure
valve



..... **412**

> Mixing
valves
and servomotors



..... **412**

> Servomotors and
balancing valves



..... **414**

> Plate heat
exchangers



..... **415**

> Autoclavas,
pressure switch
and instruments
for regulation



..... **416**

> Open manifolds



..... **417**

> Fuel
cut-off
valve



..... **421**

> Insulation



..... **422**

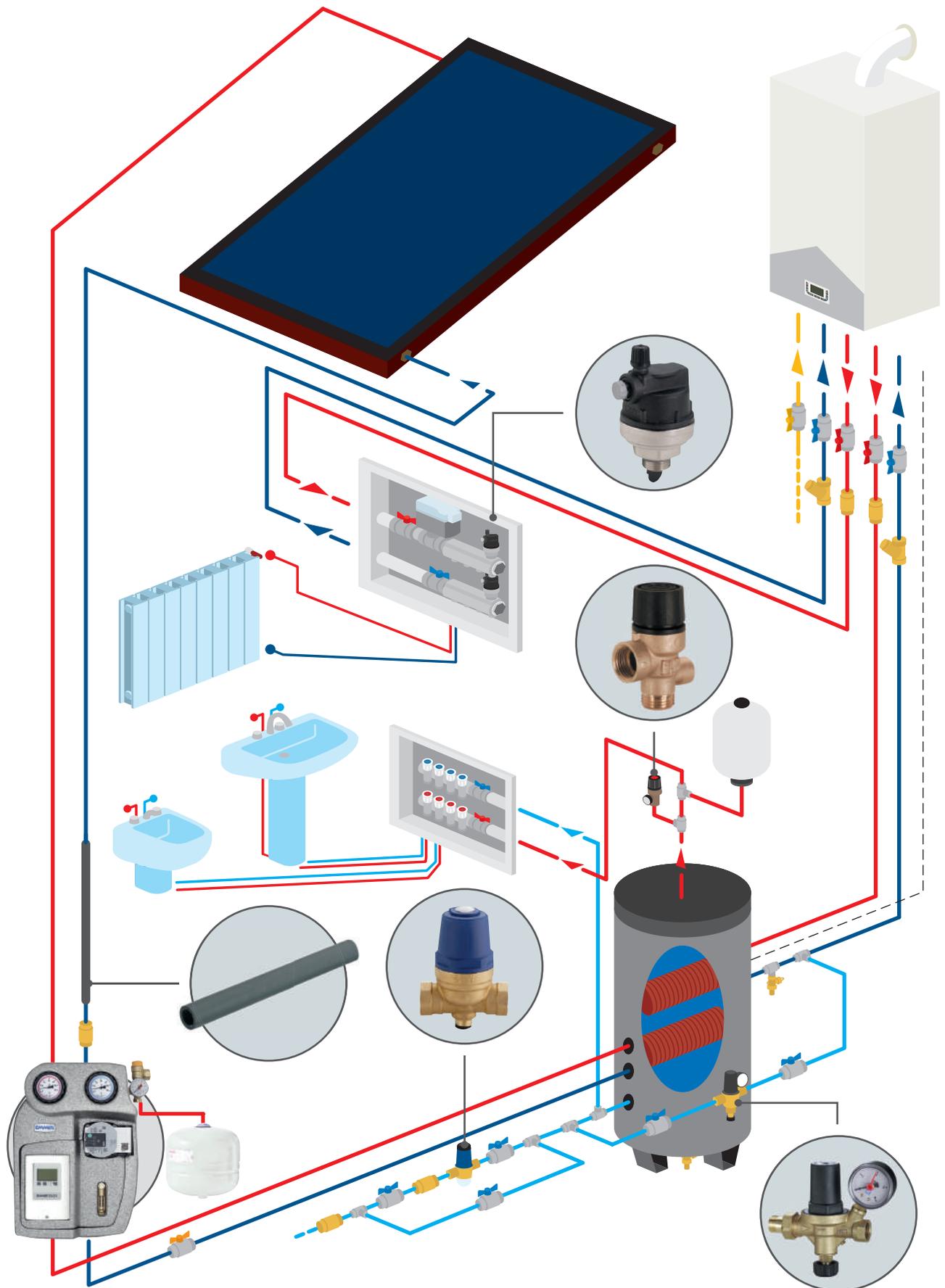
> Filters, water
meters and
solenoid valves



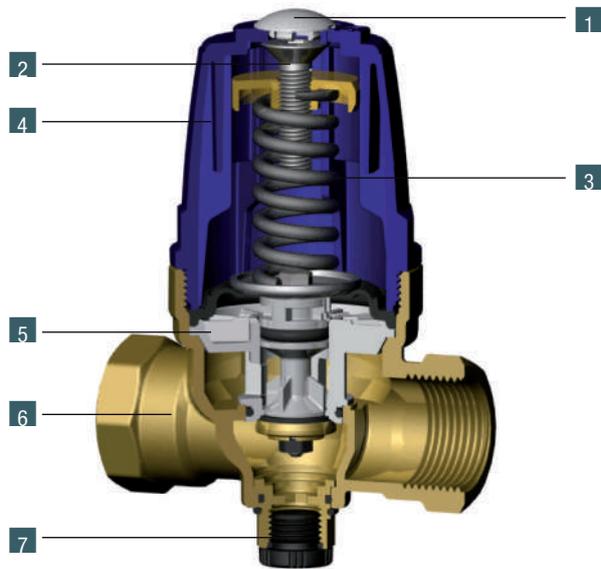
..... **425**



Example of installation



Pressure Reducer Eco+



Membrane pressure reducer.

The stopper cartridge is located around a stainless steel bolt, guaranteeing mechanical resistance and easy maintenance: the cartridge can always be replaced by removing it from the reducer without the need to remove the latter from the system.

The stopper is coupled with a piston, whose surface compensates for the force exercised by the pressure upstream of the stopper itself, thereby guaranteeing the stability of the delivered pressure independently of fluctuations in supply pressure.

The sliding surfaces of the seal elements are made with synthetic components with a low friction coefficient, which reduces the formation of deposits and the onset of malfunctions

The maximum inlet pressure is 25 bar, and the outlet pressure can be regulated between 1 and 6 bar.

All reducers are bench tested and calibrated to a delivery pressure of 3 bar, this setting can be changed using the adjustment screw, screwing it in to increase the output pressure and unscrewing it to decrease it.

The reducer is available with connections with female, male threading or pipe connections

It is recommended to place a silt filter upstream of the reducer, which retains any impurities in the water. This will extend the life of the reducer itself.

Construction

- 1 Protection cap in PA 6 (15% GF)
- 2 Adjustment mechanism in brass UNI EN 12164 CW614N
- 3 Spring in stainless steel AISI 302
- 4 Cap in PA 66 (30% GF)
- 5 Stopper cartridge: plastics in Hostaform - gasket and membrane in EPDM 70 WRAS - shaft and washers in stainless steel AISI 304
- 6 Brass body UNI EN 12165 CW617N
- 7 G 1/4" pressure gauge fittings in brass UNI EN 12164 CW617N

Technical data

Thread UNI EN 10226-1
Max upstream pressure: 25 bar
Adjustable field: 1÷6 bar
Max temperature: 70 °C

Compliant with 4MS Common Composition List requirements

Membrane pressure reducer Eco+



Eco+ pressure reducer Female - Female, without pipe unions, sandy

Dimension	Pcs. pack	Code
DN15 (G 1/2" F)	1	28104220
DN20 (G 3/4" F)	1	28104222
DN25 (G 1" F) (*)	1	28104224

(*) Use the pressure gauge with rear connection



Eco+ pressure reducer Male - Male, without pipe unions, sandy

Dimension	Pcs. pack	Code
DN 15 (G 3/4" M)	1	28104340
DN 20 (G 1" M)	1	28104342



Pipe unions couple for pressure reducer Male - Male without pipe unions

Dimension	Pcs. pack	Code
3/4" F x 1/2" M	1	90027800
1" F x 3/4" M	1	90027810
3/4" F x 1/2" F	1	90027840
1" F x 3/4" F	1	90027850

Thread UNI EN ISO 228-1



Pressure gauge radial attachment Ø 63 for pressure reducer DN15 and DN20

NEW

Dimension	Pressure	Pcs. pack	Code
1/4" x 63 mm	10 bar	10	00622006
1/4" x 63 mm	6 bar	10	00622010

Thread UNI EN ISO 228-1



Pressure gauge Ø 50 side back connection for pressure reducer Female - Female DN25

NEW

Size	Pressure	Pcs. pack	Code
1/4"	10 bar	10	00612442

Thread UNI EN ISO 228-1

Emmeti Pressure reducer



Emmeti Pressure reducer

Max upstream pressure: 25 bar

Adjustable field: 0,5÷6 bar

Max temperature: 80 °C

Body and internal components in UBA compliant brass alloy

Threads: G (UNI EN ISO 228-1)

Dimension	Connections	Pcs. pack	Code
1" with pipe unions	F-F	1	01060100
1"1/4 with pipe unions	F-F	1	01060114
1"1/2 with pipe unions	F-F	1	01060150
2" with pipe unions	F-F	1	01060200
2"1/2 without pipe unions	F-F	1	01060212

Tecno-Varia

Automatic air valve with plastic cover and anti-dirt air chamber



Construction

- 1 Casing in Zytel (HTN51)
- 2 Cup in brass UNI EN 12165 CW617N
- 3 Black cap manual venting PA 6 stiffened
- 4 Grey cap automatic venting PA 6 stiffened
- 5 Floater in PP
- 6 Splingle in PA 6
- 7 Ring in PPO
- 8 Spring in steel inox
- 9 Shutter in silicone rubber
- 10 O-ring in NBR
- 11 Bubble-breaker in PA 6 stiffened
- 12 Gasket in NBR

Technical data

Thread UNI EN ISO 228-1
 Maximum pressure 10 bar
 Maximum temperature +110 °C

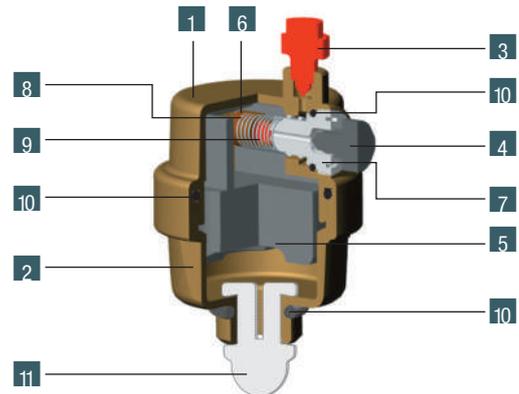


Tecno-Varia

Dimension	Pcs. pack	Code
3/8" reduced + bubble-breaker	12	00400000
3/8" standard + bubble-breaker	12	00400002
1/2" standard	12	00400004

Varia

Automatic air valve



Construction

- 1 Casing in brass UNI EN 12165 CW617N
- 2 Cup in brass UNI EN 12165 CW617N
- 3 Red cap manual venting PA 6 stiffened
- 4 Black cap automatic venting PA 6 stiffened
- 5 Floater in PP
- 6 Splingle in PA 6
- 7 Ring in PPO
- 8 Spring in steel inox
- 9 Shutter in silicone rubber
- 10 O-ring in NBR
- 11 Bubble-breaker in PA 6 stiffened

Technical data

Thread UNI EN ISO 228-1
 Maximum pressure 10 bar
 Maximum temperature +120 °C

Product 100% tested



Emmeti patented

Varia reduced with bubble-breaker

Dimension	Pcs. pack	Code
3/8"	16	00400620



Varia standard with bleed-nipple at top and without bubble-breaker

Dimension	Pcs. pack	Code
1/2"	12	00400660



Varia maxi automatic air vent valve 3/4"

Dimension	Pcs. pack	Code
3/4"	10	00400340

Thread UNI EN ISO 228-1

Varia and Tecno-Varia accessories



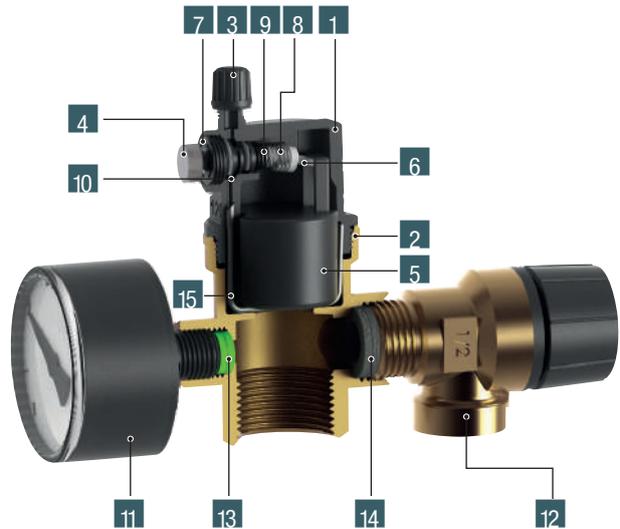
Check valve

Dimension	Pcs. pack	Code
3/8" M x 3/8" F	12	00402060
1/2" M x 3/8" F	12	00402080
1/2" M x 1/2" F	12	00402100

Thread UNI EN ISO 228-1

System safety unit

Heat generator safety unit



Uses

Heat generating units

Technical data

Thread UNI EN ISO 228-1

Maximum operating pressure: 3 bar

Maximum operating temperature: 95 °C

Construction

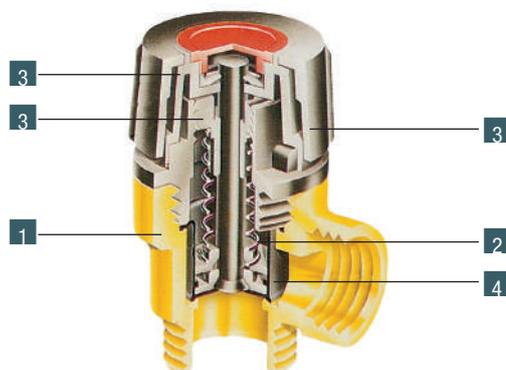
- 1 Cup in Zytel (HTN51)
- 2 Body in brass UNI EN 12165 CW617N
- 3 Black cap manual venting PA 6 stiffened
- 4 Grey cap automatic venting PA 6 stiffened
- 5 Floater in PP
- 6 Splingle in PA 6
- 7 Ring in PPO
- 8 Spring in steel inox
- 9 Shutter in silicone rubber
- 10 O-ring in NBR
- 11 Pressure gauge Ø 50 / 4 bar
- 12 Safety relief valve 3 bar size 1/2" M-F
- 13 Gaskets in fiber
- 14 Gaskets in EPDM
- 15 Float support in Inox Steel AISI 304



System safety unit

Dimension	Pcs. pack	Code
3/4" F	1	00200700

Safety relief valves



Construction

- 1 Body in brass ST UNI EN 12165 CW617N
- 2 Spring in stainless steel AISI
- 3 Ring nut, knob and cap in nylon
- 4 Membrane in ethylpropylene rubber

Technical data

Membrane valve, with fixed high-lift calibration and direct reaction spring.

The calibration screw cannot be tampered with, without causing irretrievable damage to the valve.

The shutter membrane is guaranteed non-stick type and will not alter shape after prolonged utilisation.

The calibration pressure is stamped in relief on the plug placed on top of the valve.

The possibility of the valve being opened accidentally is prevented by a protection cap. In order to turn the knob, it is necessary to remove the cap.

Maximum operating temperature: 110 °C

All the valves are subjected to a hydraulic and functional test after calibration.

Thread UNI EN ISO 228-1

Note

intended use with pressure equipment referred to art. 4 paragraph 3 of directive PED 2014/68 /UE or art. 3 paragraph 3 of the directive PED 97/23 /EC

Product 100% tested



Safety valve

Dimension	Pressure	Pcs. pack	Code
1/2" F-F	3 bar	12	00205030
1/2" F-F	6 bar	12	00205060
3/4" F-F	3 bar	10	00202334
3/4" F-F	6 bar	10	00202634
1/2" M-F	3 bar	12	00206030
1/2" M-F	6 bar	12	00206060

Safety relief valves



Safety valve with special regulation

Dimension	Pressure	Pcs. pack	Code
1/2" F-F	1,5 bar	12	00205015
1/2" F-F	1,8 bar	12	00205018
1/2" F-F	2 bar	12	00205020
1/2" F-F	2,5 bar	12	00205025
1/2" F-F	4 bar	12	00205035
1/2" F-F (*)	7 bar	10	00201270
1/2" F-F (*)	8 bar	10	00201282
1/2" F-F (*)	9 bar	10	00201292
3/4" F-F	2,5 bar	10	00203425
1/2" F-F	8 bar	12	00205082
1/2" M-F	2 bar	12	00206020
1/2" M-F	4 bar	12	00206040

(*) Item on request: 30 days from order confirmation



With gauge fitting

Dimension	Pressure	Pcs. Pack	Code
1/2" F-F	3 bar	10	00206080
1/2" F-F	6 bar	10	00206082
1/2" M-F	3 bar	10	00206090
1/2" M-F	6 bar	10	00206092



With pressure gauge Ø 50

Dimension	Pressure	Pcs./pack	Code
1/2" F-F	3 bar	2	00206100
1/2" F-F	8 bar	8	00206114
1/2" F-F	3 bar	1	00206110
1/2" F-F	6 bar	1	00206112

For export market settings different from standard can be required

Alimatic

Automatic feeder



Technical data

Max upstream pressure: 10 bar
Adjustable field: 0,3÷4 bar
Max temperature: 40 °C
Pressure gauge: Ø 5,2 cm

Product 100% tested



Automatic filling valve

Dimension	Pcs. pack	Code
1/2" without pressure gauge	1	00200514
1/2" with pressure gauge	1	00200614

Para SCV

Electronic circulators pumps for heating systems



In conform to ErP directive

Modes of operation

n. 9 fixed speed curves

Technical data

Fluid temperature: from -10 °C to +95 °C

Voltage: 1-230 Vac +10/-15%, 50/60 Hz

Index of protection: IP X4D

Insulating class: F

Maximum operating pressure: 10 bar

Absorption: 8-50 W (model 25/6-130), 6-75 W (model 25/7-130)

Minimum pressure at suction: 0,5 mCA (at 50 °C), 4,5 mCA (at 70 °C)

Connection: 1"1/2 Male

Interaxis connection: 130 mm

EEL≤0,20

Supplied complete with gaskets and cable length 1m.



Electronic circulator pump for heating systems Shark E

Model	Connections	Pcs. Pack	Code
25/6-130	1"1/2	1	00710372
15/4-130	1"1/2	1	00710374

Circulator pumps



Domestic circulator for the recirculation of domestic hot water

Temperature range for the fluid: from 2 to 95 °C
 Adjustment range: from 40 to 70 °C - Max ambient temperature: 40 °C
 Max pressure: 10 bar
 Power supply: 230 V / 50 Hz - Insulation class: F (155 °C)
 Attachment distance: 138 mm - Absorption: 6 W
 Degree of protection: IP42

Size	Connections	Pcs. pack	Code
STAR Z NOVAT	1"	1	00710398

Application: domestic hot water recirculation. Three programmable operating times per day. Setting the minimum operating temperature. Thermal disinfection function. Anti-lock protection. Complete with check valve and shut-off valve and gaskets.



Pipe union manufactured in brass for circulator pump

Dimension	Pcs. pack	Code
3/4" F x 1"1/2 F	1	00801034
1" F x 1"1/2 F	1	00801100
1"1/4 M x 1"1/2 F	1	00801114
1"1/4 F x 2" F	1	00801130
1" F x 1"1/2" F	1	28130312

Supplied with gasket.

Threads: G (UNI EN ISO 228-1)

Heating unit components

Heating unit components



Warranty

Multifunctional expansion vessels with fixed membrane and protective sleeve

NEW

Uses: heating, cooling and sanitary water systems.
Fixed membrane and protective sheath in BUTYL rubber
Operating temperature: $-10^{\circ}\text{C} \div +99^{\circ}\text{C}$
Max working pressure: 10 bar - Precharge pressure: 2.5 bar
Attack in stainless steel

Liters	Connection	H (mm)	Ø (mm)	Pcs. pack	Code
5	M 3/4" Gas	225	205	1	00820000
8	M 3/4" Gas	285	205	1	00820002
11	M 3/4" Gas	305	270	1	00820004
18	M 3/4" Gas	400	270	1	00820006
24	M 1" Gas	355	320	1	00820008

Conformi alla direttiva 2014/68/UE
Filettature: G (UNI EN ISO 10226)



Expansion vessels with fixed membrane

Uses: heating and cooling systems.
Fixed diaphragm in SBR
Operating temperature: $-10 \div +100^{\circ}\text{C}$
Max working pressure: 5 bar (35 litres), 6 bar (50 ÷ 300 litres)
Precharge pressure: 1.5 bar

Liters	Connection	H (mm)	Ø (mm)	Pcs. pack	Code
6	M 3/4" Gas	250	245	1	00103006
8	M 3/4" Gas	280	245	1	00103008
10	M 3/4" Gas	330	245	1	00103010
12	M 3/4" Gas	325	285	1	00103012
18	M 3/4" Gas	395	285	1	00103018
24	M 3/4" Gas	420	325	1	00103024
35	M 3/4" Gas	455	380	1	00102400
50	M 3/4" Gas	590	380	1	00102405
80	M 3/4" Gas	690	460	1	00102410
100	M 3/4" Gas	810	460	1	00102415
150	M 1" Gas	970	510	1	00102420
200	M 1" Gas	985	590	1	00102425
250	M 1" Gas	1230	590	1	00102430
300	M 1" Gas	1220	650	1	00102435

In compliance with directive 2014/68/UE. From 80 to 300 litres equipped with support base.
Threads: G (UNI EN ISO 10226)



Bracket for fixing expansion tank with fitting up to 24 liters

L-bracket for wall mounting of expansion vessel. The 3/4" M x 3/4" F fitting is equipped with a non-return valve. Gasket and wall plugs included.

Dimension	Pcs. pack	Code
	1	02706834



Stainless steel flexible hose kit for connection to expansion vessel

Flexible tube in stainless steel AISI 304 for connection of the expansion vessel to the safety group. Threading 3/4". Includes hose, fittings and gaskets.

Dimension	Pcs. pack	Code
L 500	1	02706836
L 1000	1	02706838

Threads: G (UNI EN ISO 10226)



Expansion vessels for sanitary water with interchangeable membrane

Uses: hot and cold water, heating and cooling system circuits.
Interchangeable membrane in BUTYL
Operating temperature: $-10 \div +100$ °C
Max operating pressure: 10 bar -
Precharge pressure: 3,5 bar (2 liters), 2,5 bar (5 ÷ 8 liters)

Liters	Connection	H (mm)	Ø (mm)	Pcs. pack	Code
2	M 1/2" Gas	240	120	4	00800002
5 (*)	M 3/4" Gas	275	170	1	00800005
8 (*)	M 3/4" Gas	305	220	1	00800008

In compliance with directive 2014/68/UE
Threads: G (UNI EN ISO 10226)

(*) Items to be out of stock



Expansion vessels for sanitary water with interchangeable membrane

Uses: hot and cold water, heating and cooling system circuits.
Interchangeable membrane in EPDM
Operating temperature: $-10 \div +100$ °C
Max operating pressure: 10 bar (12 liters), 8 bar (18 and 24 liters)
Precharge pressure: 2,5 bar

Liters	Connection	H (mm)	Ø (mm)	Pcs. pack	Code
12	M 3/4" Gas	315	260	1	00800012
18	M 3/4" Gas	420	260	1	00800119
24	M 3/4" Gas	515	260	1	00800121

In compliance with directive 2014/68/UE
Threads: G (UNI EN ISO 10226)



Expansion vessels for sanitary water

Uses: domestic hot and cold water circuit, pressurization autoclave, heating and cooling system circuits.
Interchangeable membrane in EPDM - Operating temperature: $-10 \div +100$ °C
Max operating pressure: 8 bar
Precharge pressure: 1,5 bar

Liters	Connection	H (mm)	Ø (mm)	Pcs. pack	Code
24	M 1" Gas	365	350	1	00800026

In compliance with directive 2014/68/UE
Threads: G (UNI EN ISO 10226)



Expansion vessels for sanitary water

Uses: domestic hot and cold water circuit, pressurization autoclave, heating and cooling system circuits.
Interchangeable membrane in EPDM - Operating temperature: $-10 \div +100$ °C
Max operating pressure: 10 bar
Precharge pressure: 1,5 bar (35 ÷ 80 liters), 2,5 bar (100 ÷ 300 liters)

Liters	Connection	H (mm)	Ø (mm)	Pcs. pack	Code
35 *	M 1" Gas	475	380	1	00800595
35	M 1" Gas	560	380	1	00800590
50	M 1" Gas	720	380	1	00800600
80	M 1" Gas	760	460	1	00800610
100	M 1" Gas	880	460	1	00800615
150	M 1" Gas	1030	510	1	00800620
200	M 1"1/4 Gas	1100	590	1	00800625
300	M 1"1/4 Gas	1250	650	1	00800630

In compliance with directive 2014/68/UE
*L35 without feet.
Threads: G (UNI EN ISO 10226)



ISPEL qualified and calibrated safety valve. Compliant with directive PED 97/23/EC

Dimension	Pressure	kcal/h	Pcs. pack	Code
1/2" x 3/4" Ø 15	3 bar	126.873	1	00208030
1/2" x 3/4" Ø 15	6 bar	221.407	1	00208060
3/4" x 1" Ø 20	3 bar	254.151	1	00209030
3/4" x 1" Ø 20	6 bar	443.520	1	00209060

Threads: G (UNI EN ISO 228-1)



F F sandblasted filter with inox steel filter

- Brass cap UNI EN 12165 CW617N;
- Body: brass UNI EN 12165 CW617N (from 1/2" to 1") - brass Delta C EN 1982 CB 7455 (from 1"1/4 to 2") - bronze SN UNI EN 1982 DIN 50930/6 (2"1/2);
- Female thread G (UNI EN ISO 228-1)
- Sieve filter in stainless steel.

Dimension	Pcs. pack	Code
1/2"	6	01005012
3/4"	7	01005034
1"	4	01005100
1"1/4	2	01005114
1"1/2	1	01005112
2"	1	01005200
2"1/2	1	01005205



Magnetic dirt separator for heating and cooling circuits

Technopolymer dirt separators with magnet are used to continuously eliminate the impurities contained in the hydraulic circuits.

They separate the impurities, even ferrous ones, found in the circuit water, collecting them at the bottom (collection pit).

Made of a composite material specifically for use in air conditioning systems, this dirt separator is particularly versatile because it can be installed on both horizontal and vertical pipes.

Technical data

Dirt separator body: PA66G30

Brass components: UNI EN 12165 CW 617 N or UNI EN 12164 CW 614 N

Elastomers used: EPDM and Viton

Magnet: Samarium - cobalt - Fluid used: Water, Water + Glycol (max 30%)

Maximum fluid temperature: 90°C

Maximum operating pressure: 3 bar

Magnetic field: 2 x 10000 G

Kvs: 10.4 (3/4") - 10.6 (1")

Dimension	Pcs. pack	Code
3/4" F	1	09089500
1" F	1	09089502



Vertical de-aeration device

Maximum operating temperature: 140 °C - Maximum operating pressure: 10 bar
Kv: 6,5 - Employment fluid: water, glicole

Dimension	Pcs. pack	Code
DN 15 - G 1" M x G 3/4" F	1	02707822
Extension 50 mm for air vent valve (*)	1	02707820

(*) Item to be out of range

Components



Deaerator for installation in heating and conditioning circuits, with horizontal disposition on supply.

Construction

Body: brass CW 617N EN 12165 - Elastomer used: EPDM and NBR
 Float: lever, in polypropylene resinin - Cartridge: Stainless steel AISI 302
 Spring: Stainless steel AISI 302 - Connections: F UNI-EN-ISO-228
 Usable fluid: Water + Glycol (max 30%) - Fluid maximum temperature: 110 °C
 Maximum operating pressure: 10 bar - Maximum discharge pressure: 10 bar
 Kv: 12,66 (3/4") - 20,44 (1") - 28,14 (1"1/4)

Dimension	Pcs. pack	Code
3/4"	1	00406010
1"	1	00406020
1"1/4	1	00406030



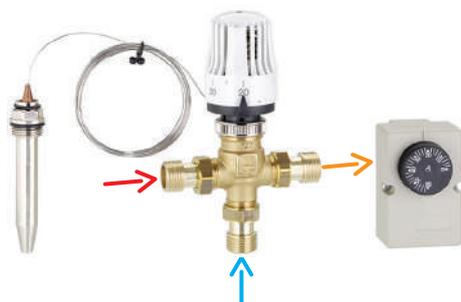
Overpressure valve

NEW

Maximum pressure: 6 bar
 Maximum temperature: 110 °C
 Calibration range: 0.03÷0.50 bar

Dimension	Pcs. pack	Code
3/4"	1	90000064

Mixing valves and accessories

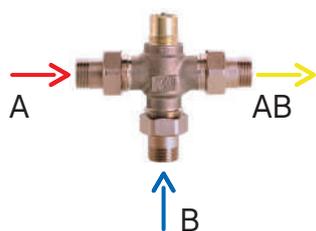


Thermostatic regulation kit

Dimension	Pcs. pack	Code
1/2"	1	28130054
3/4"	1	28130056
1"	1	28130058

Consisting of: liquid-expansion thermostatic probe head (range of adjustment 20÷65°C) with remote immersion probe holder, safety contact thermostat. Mixing valve class PN 16, body in brass, spindle in chemically nickel-plated brass, shutter in MDPE. Complete with unions.

Threads: G (UNI EN ISO 228-1)
 Threads for thermostatic head: M30x1,5



Three-ways mixing valve for electronic kit regulation

Dimension-Kvs (m ³ /h)	Pipe union connection	Pcs. pack	Code
DN 10 - 1,6 (*) (***)	G 3/8" M	1	28130210
DN 20 - 4 (*)	G 1/2" F	1	28130214
DN 25 - 6,3 (*)	G 3/4" F	1	28130316
DN 25 - 10 (**)	G 1" F	1	28130218
DN 32 - 16 (**)	G 1"1/4 F	1	28130220
DN 40 - 25 (**)	G 1"1/2 F	1	28130222

PN 16 class, body in bronze, spindle in steel and o-rings in PDPE. Complete with unions.

(*) Can be used in conjunction with electric servo-motors code 28130314 - 28130208 - 28130316

() Can be used in conjunction with electric servo-motors code 28130208 - 28130316**

(*)** Items to be out of stock

Stem BELOW: AB open, A open, B closed
 Stem ABOVE: AB open, A closed, B open

Threads: F (UNI EN ISO 228-1)
 Threads for servomotor: G 3/4"



3 points servomotor for three-ways mixing valve

Type of operation: 3-position control
 Nominal voltage: 230 Vac ($\pm 15\%$)
 Nominal frequency: 50/60 Hz
 Maximum consumption: 6 VA
 Permissible room temperature: from 1 to 50 °C
 Maximum permissible fluid temperature: 110 °C
 Nominal stroke: 5.5 mm
 Stroke time (at 50/60 Hz): 150 s
 Nominal force: 300 N
 Degree of protection: IP40 according to EN 60529
 Insulation class: II according to EN 60730 - Threaded fitting size: G 3/4"

Dimension	Pcs. pack	Code
3 points	1	28130208



0-10 V DC servomotor for 3-ways mixing valves until DN25 - Kvs 6,3

NEW

Type of operation: 0-10 V DC control
 Nominal voltage: AC/DC 24 V ($\pm 15\%$ / $\pm 20\%$)
 Nominal frequency: 50/60 Hz
 Maximum consumption: 3 VA
 Permissible room temperature: from 1 to 50 °C
 Maximum permissible fluid temperature: 120 °C
 Nominal stroke: 1,2 - 6,5 mm
 Stroke speed: 5 mm/s ($\pm 25\%$)
 Nominal force: 200 N
 Degree of protection: IP54 according to EN 60529
 Insulation class: III according to EN 60730
 Threaded fitting size: G 3/4"

Dimension	Pcs. pack	Code
0-10 V DC	1	28130314

To be combined with PCO and RCE regulators
 0 VDC = pusher UP (AB open, A closed, B open)
 10 VDC = pusher DOWN (AB open, A open, B closed)



Servomotor 0-10 V DC for 3-ways mixing valves from DN25 - Kvs 10

NEW

Type of operation: 0-10 V DC control
 Nominal voltage: AC/DC 24 V ($\pm 15\%$ / $\pm 20\%$)
 Nominal frequency: 50/60 Hz
 Maximum consumption: 3 VA
 Permissible room temperature: from 1 to 50 °C
 Maximum permissible fluid temperature: 120 °C
 Nominal stroke: 1,2 - 6,5 mm
 Stroke speed: 5 mm/s ($\pm 25\%$)
 Nominal force: 300 N
 Degree of protection: IP54 according to EN 60529
 Insulation class: III according to EN 60730
 Threaded fitting size: G 3/4"

Dimension	Pcs. pack	Code
0-10 V DC	1	28130316

To be combined with PCO and RCE regulators
 0 VDC = pusher UP (AB open, A closed, B open)
 10 VDC = pusher DOWN (AB open, A open, B closed)



Adjusting lockshield

Dimension	Pcs. pack	Code
1"	1	28130084

Body in nickel-plated brass, sealing parts in MPDE. Connection for steel pipe.
 Female thread G (UNI EN ISO 228-1); Male thread R (UNI EN 10226)

Components

Dynamic balancing kit



Dynamic balancing kit

The dynamic balancing kits are composed of:

- 1 Balancing valve
- 2 Capillary tube
- 3 Differential pressure valve
- 4 T-fitting with measuring and drainage socket

They allow to distribute the flow that serves a circuit, maintaining the constant differential pressure.

The differential pressure value can be adjusted within a given range to ensure the required flow rate within the circuit.

Technical data

Nominal pressure: PN20
 Minimum operating temperature: -10 ° C
 Maximum working temperature: 120 ° C
 Maximum differential pressure: 450kPa

Construction

DZR brass, stainless steel, greyron, PPS with glass fiber - Seals: EPDM, HNBR

Size	Differential pressure regulation range		Pcs. pack	Code
1/2" F	20-60 kPa	DN15 - PVM15	1	01406296
3/4" F	20-60 kPa	DN20 - PVM20	1	01406298
1" F	20-80 kPa	DN25 - PVM25	1	01406300
1"1/4 F	20-80 kPa	DN32 - PVM30	1	01406302
1"1/2 F	20-80 kPa	DN40 - PVM40	1	01406304
2" F	20-80 kPa	DN50 - PVM50	1	01406306

Threads: G (UNI EN 10226)



Balance valve

Balancing valves for the correct calibration and adjustment of heating, conditioning and sanitary.

They are equipped as standard with two pressure inlets, quick coupler, for connection to an electronic differential pressure gauge.

Technical data

Maximum operating pressure: 20 bar
 Minimum operating temperature: - 20 ° C (for water and glycol solutions)
 Max operating temperature: 120 ° C (for water solutions and additives anti-boiling)
 Minimal pressure drop: 2 kPa

Construction

Body: DZR brass - Seals in EPDM

Dimension	Kv	Pcs. pack	Code
3/4" F F - DN20	0.34÷5.10	1	01406290
1" F F - DN25	0.48÷8.8	1	01406292
1"1/4 F F - DN32	0.79÷13.10	1	01406294

Threads: 3/4" G (UNI EN ISO 228-1), 1" and 1"1/4 Rp (UNI EN 10226)



Differential pressure gauge

Instrument for measuring differential pressure, for dynamic balancing valve kit. Supplied with two rechargeable NiMH AA batteries, carrying case, flexible hoses complete with needles for grafts on pressure taps.

Technical data

Error margin for pressure: 0.15%
 Error margin for temperature: 1.5%
 Fluid temperature: from -5 ° C to 90 ° C
 Battery powered: 2xAA
 Display: illuminated 128x64 pixels
 Dimensions: 94x218x40 mm
 Degree of protection: IP65

Size	Pcs. pack	Code
	1	01406314

Heat exchangers



SPES 210 heat exchangers with braze-welded heat exchangers

Plates material: stainless steel 316L - Brazing material: pure copper - Min. operating temperature: 0 °C - Max. operating temperature: 100 °C - Maximum operating pressure: 10 bar a 100 °C - Fittings: 3/4" M primary - 1/2" M secondary - Threads: G (UNI EN ISO 228-1)

Dimension	CSA (*)	Pcs. pack	Code
10 plates	5	1	02709200
12 plates	6	1	02709202
14 plates	8	1	02709204
16 plates	10	1	02709206
20 plates	14	1	02709208
24 plates	18	1	02709210
30 plates	20	1	02709212
34 plates	24	1	02709214
40 plates	28	1	02709216
Insulating shell for SPES 210 24 plates		1	01306508

Dimensions: see section Technical Attachments page 532



SPES 315 heat exchangers with braze-welded heat exchangers

Plates material: stainless steel 316L - Brazing material: pure copper - Min. operating temperature: 0 °C - Max. operating temperature: 100 °C - Maximum operating pressure: 10 bar a 100 °C - Fittings: 3/4" M primary - 3/4" M secondary - Threads: G (UNI EN ISO 228-1)

Dimension	CSA (*)	Pcs. pack	Code
20 plates	20	1	02709220
24 plates	24	1	02709222
30 plates	30	1	02709224
34 plates	36	1	02709226
40 plates	40	1	02709228

Dimensions: see section Technical Attachments page 532



SPES 524 heat exchangers with braze-welded heat exchangers

Plates material: stainless steel 316L - Brazing material: pure copper - Min. operating temperature: -196 °C - Max. operating temperature: 225 °C - Maximum operating pressure a 135 °C: 17 bar - Maximum operating pressure a 225 °C: 12 bar - Fittings: 1" M primary - 1" M secondary - Threads: G (UNI EN ISO 228-1)

Dimension	CSA (*)	Pcs. pack	Code
20 plates	42	1	02709231
30 plates	60	1	02709233
40 plates	80	1	02709235
50 plates	100	1	02709237
60 plates	120	1	02709239
80 plates	140	1	02709241

Dimensions: see section Technical Attachments page 532

Controlpump



Electric controller

Dimension		Pcs. pack	Code
Adjustable setting	1,5÷3 bar	1	00700004

Threads: G (UNI EN ISO 228-1)

Components

Autoclaves



Horizontal autoclave with brackets

Certified 97/23/CEE - Temperature from -10 °C to +100 °C - Maximum pressure: 8 bar - Precharge pressure: 1,5 bar - For sanitary water - EPDM membrane
Threads: G (UNI EN ISO 228-1)

Dimension	L (mm)	H (mm)	Ø (mm)	Pcs. pack	Code
24 lt	520	280	260	1	00802034

Spare membrane for autoclave

Dimension	Pcs. pack	Code
24 liters	1	00806024

For cylindrical and spherical models



5-ways fitting

Dimension	Pcs. pack	Code
1"	10	00810010

Threads: G (UNI EN ISO 228-1)



Automatic pressure switch for autoclave

Range of adjustment: from 1 to 5 bar - Factory calibration: 1.4-2.8 bar -
Minimum differential: 0.6 bar - Maximum differential: 2.3 bar
Connection: 1/4" F swivel - Nominal current: 16A (10)A -
Nominal voltage: 250 V - Threads: G (UNI EN ISO 228-1)

Dimension	Pcs. pack	Code
	1	00300004

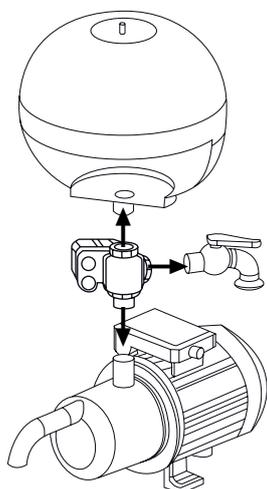


Pressure switch for autoclave with integrated pressure gauge and 3-ways fitting

Pressure switch, with integrated pressure gauge and 3-ways fitting, to be used with water in autoclave systems. The switch automatically adjust the start and stop of electric-pump in according to set pressure value.

Range of adjustment: from 1 to 15 bar - Factory calibration: 1,4-2,8 bar -
Minimum differential: 0,6 bar - Maximum differential: 2,3 bar -
Nominal current: 16 A (10 A) - Nominal voltage: 250 Vac -
International protection: IP44 - Maximum environmental temperature: 55 °C -
Threads: G (UNI EN ISO 228-1)

Dimension	Pcs. pack	Code
1" M x 1" F x 1" F	1	00300008



Open manifolds

Open manifolds



Open manifold 2+2

Dimension	Ways	Pcs. pack	Code
2"	2+2+5	1	07400170
3"	2+2+5	1	07400174

Made in zinc-plated steel welding UNI EN 13134.
Lateral connections Female 1".
Auxiliar connection Female 1/2".
Max operating pressure: 8 bar.
Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 533

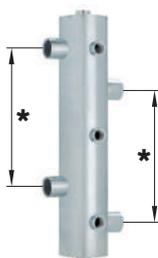


Open manifold 2+2 S

Dimension	Ways	Pcs. pack	Code
3"	2+2+5 S	1	07400182

Made in zinc-plated steel welding UNI EN 13134.
Lateral connections Female 1".
Auxiliar connection Female 1/2".
Max operating pressure: 8 bar.
Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 533



Open manifold 2+2 S, takeoff Firstbox

Dimension	Ways	Pcs. pack	Code
3"	2+2+5 S	1	07400284

Made in zinc-plated steel welding UNI EN13134.
Lateral connections Female 1"1/4
Auxiliar connection Female 1/2".
Max operating pressure: 8 bar.
Threads: G (UNI EN ISO 228-1)

(*) Takeoff Firstbox 159 mm

Dimensions: see section Technical Attachments page 533



Open manifold 4+2

Dimension	Ways	Pcs. pack	Code
3"	4+2+5	1	07400176

Made in zinc-plated steel welding UNI EN 13134.
Lateral connections Female 1".
Auxiliar connection Female 1/2".
Max operating pressure: 8 bar.
Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 533



Open manifold 4+2, takeoff Firstbox

Dimension	Ways	Pcs. pack	Code
3"	4+2+5	1	07400286

Made in zinc-plated steel welding UNI EN13134.
Lateral connections Female 1"1/4.
Auxiliar connection Female 1/2".
Max operating pressure: 8 bar.
Threads: G (UNI EN ISO 228-1)

(*) Takeoff Firstbox 159 mm.

Dimensions: see section Technical Attachments page 533

Open manifolds



Open manifold 6+4

Dimension	Ways	Pcs. pack	Code
3"	6+4+5	1	07400186

Made in zinc-plated steel welding UNI EN 13134.
Lateral connections Female 1".
Auxiliar connection Female 1/2".
Max operating pressure: 8 bar.
Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments page 533



Insulating shells for open manifolds

Dimension	Pcs. pack	Code
2"	1	01306504

In extruded polyethylene.
Suitable for installation with open manifolds code 07400170 and 07400172

Adjustment and accessories



CE 0497
ENEC 03
According to ISPESL

Immersion thermostat

Connection: M 1/2" - Bulb length: 90 mm - Setting: from 30÷90 °C ± 3
Max temperature: 105 °C - Contacts: 250 V 10(2) A
Security temperature: 100 +0 -6 - Differential: 6 °C
Threads: R (UNI EN 10226)

Dimension	Pcs. pack	Code
Thermostat for adjustment (*)	1	02012050
NEW Thermostat for adjustment	1	02012052
NEW Regulation and safety bi-thermostat with manual reset	1	02012060

(*) Item to be out of stock



Contact thermostat

Setting 30÷90 °C ± 3 / 0÷60 °C ± 3 - Max temperature: 105 °C -
Contacts: 250 V 10(2) A - Differential: 6 °C

Dimension	Pcs. pack	Code
30÷90 °C	1	02012040
0÷60 °C	1	02012038



CE 0497
ENEC 03
According to ISPESL

Adjustment capillary thermostat

Bulb length: 65 mm - Ø bulb: 7 mm - Setting: 30÷90 °C ± 3 -
Contacts: 400 V 16(4) A - Differential: 4 °C

Dimension	Pcs. pack	Code
Capillar 1000 mm 30÷90 °C	10	02016014
Capillar 1500 mm 30÷90 °C	10	02016016



CE 0497
ENEC 03
According to ISPESL

Safety capillary thermostat

Temperature: 100 °C +0 -6 - Bulb length: 70 mm - Ø bulb: 6,5 mm -
Contacts P1: 250 V 10(2,5) A - Contacts P1: 250 V 2 A

Dimension	Pcs. pack	Code
Capillar 1000 mm	10	02018095
Capillar 1500 mm	10	02018097



Safety pressure switch with manual reset, in confirm to directive 2014/68/UE.

Maximum pressure switch for heating systems to automatically stop the heat generator once a preset maximum water pressure limit has been reached.

Range of adjustment: from 2 to 4,5 bar - Factory calibration: 3 bar -
Nominal current: 16A (10)A - Nominal voltage: 250 V -
Max fluid temperature: from 20°C to 110 °C - Max room temperature: 50°C -
Connection: 1/4" F - Type of contact: NC - Threads: G (UNI EN ISO 228-1)

Dimension	Pcs. pack	Code
1/4"	1	00300006



Minimum pressure switch with manual reset, in confirm to directive 2014/68/UE.

Protection rating: IP44 - Type of contact: N.O. - Adjustment range: 0.5 ÷ 1.7 bar -
Default setting: 0.9 bar - Nominal current: 16 (10)A - Nominal voltage: 250V -
Max fluid temperature: from 20 °C to 110 °C - Max room temperature: 50 °C -
NBR rubber membrane with fabric insert - Threads: G (UNI EN ISO 228-1)

Dimension	Pcs. pack	Code
1/4" F	1	00300010

Minimum pressure switch for heating systems to automatically stop the heat generator once a preset minimum water pressure limit has been reached.

Accessories for adjustment



Flow switch for liquids

Max. admissible fluid temperature: $-40 \div +120$ °C -
 Max. admissible pressure: 11 bar -
 Contacts: dust-proof microswitch, contacts in commutation (n.c./n.o.) -
 Contacts capacity: 24...250 V AC 15 (8) A -
 Blades: stainless steel AISI 316L, 1", 2", 3", 8" - Cover: in ABS -
 Threads: R (UNI EN 10226)

Connection	Pcs. pack	Code
1"	1	01200700



Pressure gauge compliant with EN837.1 radial connection ABS case

Dimension	Pressure	Pcs. pack	Code
1/8" x 50 mm (*)	25 bar	10	00612444
3/8" x 80 mm (*)	25 bar	1	00614025

Threads: G (UNI EN ISO 228-1)

(*) Items to be out of stock



Pressure gauge according to EN837.1 with radial connection and casing in ABS

NEW

Dimension	Pressure	Pcs. pack	Code
1/4" x 63 mm	2,5 bar	10	00622003
1/4" x 63 mm	4 bar	10	00622004
1/4" x 63 mm	6 bar	10	00622006
1/4" x 63 mm	10 bar	10	00622010
1/4" x 63 mm	16 bar	10	00622016
1/4" x 63 mm	25 bar	10	00622025
3/8" x 80 mm	4 bar	1	00624004
3/8" x 80 mm	6 bar	1	00624006
3/8" x 80 mm	10 bar	1	00624010
3/8" x 80 mm	16 bar	1	00624016

Threads: G (UNI EN ISO 228-1)



Pressure gauge according to EN837.1 with side back connection and casing in ABS

NEW

Dimension	Pressure	Pcs. pack	Code
1/4" x 63 mm	4 bar	10	00626004
1/4" x 63 mm	6 bar	10	00626006
1/4" x 63 mm	10 bar	10	00626010

Threads: G (UNI EN ISO 228-1)



Immersion thermometer according to EN 13190 complete with trap

NEW

Temperature $0 \div 120$ °C

Dimension	L bulb	Pcs. pack	Code
1/2" x 63 mm	50 mm	10	00620612
1/2" x 80 mm	50 mm	4	00620812
1/2" x 80 mm	100 mm	2	00621812

Threads: G (UNI EN ISO 228-1)



Capillary thermometer Ø 52

Temperature $0 \div 120$ °C - Bulb length 25 mm - Ø bulb 6,5 mm - Ø cassa: 52 mm

Capillar Dimension	Pcs. pack	Code
1000 mm	10	00622056

Accessories for adjustment



Thermo-manometer

NEW

Pressure 0÷4 bar - Temperature 0÷120 °C - Ø casing 80 mm - Fitting 1/4" M complete with check valve 1/2" M

Dimension	Pcs. pack	Code
Back connection	1	00620012
Radial connection	1	00622012



Capillary thermo-manometer

Pressure 0÷4 bar - Temperature 0÷120 °C - Capillar lenght 1 mt - Lenght bulb temperature 19 mm - Ø bulb temperature 6,5 mm - Pressure outlet connection M 14x1 - Ø casing 52 mm

Dimension	Pcs. pack	Code
	6	00622052



Check valve for capillary thermo-manometer

Dimension	Pcs. pack	Code
M 14 x 1 F x 1" M	6	00600010

To use only for Capillary themomanometer code 00622052
Male thread: R (UNI EN 10226)

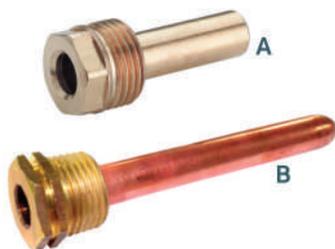


Bibcock with pressure gauge union according to ISPEL standards

Pressure: 0÷4 bar - Temperature: 0÷120 °C

Dimension	Pcs. pack	Code
1/4"	10	00508014
3/8"	10	00508038

Female thread: Rp (UNI EN 10226);
Male thread: R (UNI EN 10226).



Socket for thermometer according to ISPEL standards, connection M 1/2"

Dimension	Pcs. pack	Code
Ø 7 L 50 mm (A)	1	00510682
Ø 9 L 50 mm (A)	20	00510012
Ø 10 L 50 mm (A)	12	00510684
Ø 10 L 100 mm (B)	12	00510686
Ø 10 L 302 mm (B)	1	00510690
Ø 15 L 110 mm (B)	12	00510688

Threads: G (UNI EN ISO 228-1)



Elastic connection for pressure gauge

Dimension	Pcs. pack	Code
1/4"	10	00512008
3/8"	10	00512010

Female thread: G (UNI EN ISO 228-1);
Male thread: R (UNI EN 10226).



Fuel cut-off valve ISPEL qualified and calibrated, ATEX approved. Compliant with directive PED 97/23/EC

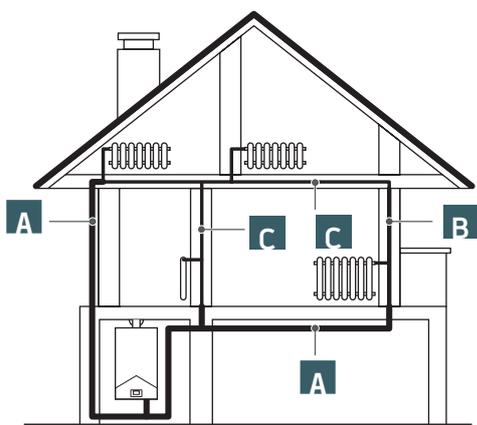
Manual reset and positive action - Calibration temperature 97 ± 3°C
Capillar lenght 5 m - Reset 85 °C - For use with liquids and gaseous combustibles

Dimension	Pcs. pack	Code
1/2" - P max 6 bar	1	00504010
3/4" - P max 6 bar	1	00504012
1" - P max 6 bar	1	00504014
1"1/4 - P max 1 bar	1	00504016
1"1/2 - P max 1 bar	1	00504018
2" - P max 1 bar	1	00504020

Threads: G (UNI EN ISO 228-1)

Insulation

Thermic insulation



External Ø of pipe (mm)

(W/m °C)	<20	20-39	40-59	60-79	80-90	>100
0,030	13	19	26	33	37	40
0,032	14	21	29	36	40	44
0,034	15	23	31	39	44	48
0,036	17	25	34	43	47	52
0,038	18	28	37	46	51	56
0,040	20	30	40	50	55	60
0,042	22	32	43	54	59	64
0,044	24	35	46	58	63	69
0,046	26	38	50	62	68	74
0,048	28	41	54	66	72	79
0,050	30	44	58	71	77	84

Thermal conductivity

Reference for the calculation example

Compliance with Italian regulation

The principal regulation on the subject is contained in Annex B of Presidential Decree 412/93.

Note: the useful thermal conductivity for each diameter of pipe can be derived from the minimum thickness of the insulation in relation to the pipe to be insulated with respect to the outside, multiplying the thickness indicated in the table in Appendix B below by 0.3, 0.5 or 1.0.

Example of calculation

Thermal conductivity of material = 0.040 W/m °C

External diameter of pipe / 22 mm

Position (see drawing) C

Calculation $30 \times 0.3 = 9$ mm

where 30 = thickness from table; 0.3 coefficient for category.

Emmeti insulating pipes, in accordance with Statute 549 of 28/12/1993, do not contain CFCs and are composed of non-toxic materials.

Insulation of heat distribution networks within thermic plants

Installation type A (A symbol)

The piping in the distribution networks for warm fluids, whether in liquid form or steam, of thermic power plants, must be insulated with a special insulating material, where the minimum required thickness determined by the following table, in relation to the diameter of the piping given in mm and the useful thermic conductivity of the insulating material shown in W/m °C at a temperature of 40 °C.

Installation type B (B symbol)

The vertical mounting of the piping is to be placed on the other side of the building's heat insulation, towards the inside of the building, and the relevant minimum required thicknesses for the insulation, as resulting from the table, must be multiplied by 0,5.

Installation type C (C symbol)

For pipes running inside structures which do not face either outside or unheated rooms, the thicknesses indicated in the table just be multiplied by 0,3.

Law 10/91

Ecological

Insulation

ISO GUM



EN 14304

Uses

Thermic insulation for both hot and cold water piping. Features a steam barrier to prevent the formation of condensation on cold piping. Supplied in 2-metre-long bars.

For external installation, provide suitable protection against bad weather and UV rays.

For underground installations, provide suitable protection against humidity and direct contact with the ground (the use of an external sheath is recommended).

Construction

Obtained by extrusion of elastomer (expanded synthetic rubber) with closed cell.

Technical data

Operating temperature range: + 110°C/- 40°C

Thermic conductivity at 40 °C: 0.040 W/m °C

Density: 60 ± 20 kg/m³

Reaction class to fire: 1 (UNI 9177) - BL-s3-d0 (EN 13501-1)

Resistance to diffusion of water vapour: (μ) = 7000

Designation code (EN 14304): FEF - EN 14304-ST(+)-110-ST(-)-40-MU10000-WS01-CL500-pH7

Installation

In consideration of the possible variations in length related to the fluid temperature fluctuations, it is advisable to compress the insulating pipe by about 5 cm per metre and either glue or tape the junctions between two sections.



Thermic insulation



Reading example

C 18 - 3/8" - DN 10 - 16x2

C	Type of installation
18	Ø copper pipe
3/8"	Ø steel pipe
DN 10	Ø nominal
16x2	Ø multi-layer pipe



EN 14304

ISO GUM in expanded elastomer

Dimensions	Thickness	Mts. pack	Code
C 18 - 3/8" - DN 10 - 16x2 - 18x2	9 mm	166	02967748
C 22 - 1/2" - DN 15 - 20x2	9 mm	136	02967724
C 28 - 3/4" - DN 20 - 26x3	9 mm	98	02967726
C 35 - 1" - DN 25 - 32x3	9 mm	76	02967728
42 - 1"1/4 - DN 32 - 40x3,5	9 mm	60	02967730
48 - 1"1/2 - DN 40 - 50x4	9 mm	50	02967732
54 - 1"1/2 - DN 40 - 50x4	9 mm	46	02967734
60 - 2" - DN 50 - 63x4,5	9 mm	46	02967736
76 - 2"1/2 - DN 60-65 - 75x5	9 mm	40	02967738
B 18 - 3/8" - DN 10 - 16x2 - 18x2	13 mm	118	02967756
C 22 - 1/2" - DN 15 - 20x2	13 mm	98	02967758
C 28 - 3/4" - DN 20 - 26x3	13 mm	78	02967760
C 35 - 1" - DN 25 - 32x3	13 mm	58	02967762
C 42 - 1"1/4 - DN 32 - 40x3,5	13 mm	48	02967764
C 48 - 1"1/2 - DN 40 - 50x4	13 mm	40	02967766
C 54 - 50x4	13 mm	34	02967768
60 - 2" - DN 50 - 63x4,5	13 mm	32	02967770
76 - 2"1/2 - DN 60-65 - 75x5	13 mm	26	02967772
89 - 3" - DN 80	13 mm	24	02967774
B 22 - 1/2" - DN 15 - 20x2	19 mm	64	02967782
B 28 - 3/4" - DN 20 - 26x3	19 mm	48	02967784
B 35 - 1" - DN 25 - 32x3	19 mm	36	02967786
B 54 - 50x4	19 mm	24	02967788
C 42 - 1"1/4 - DN 32 - 40x3,5	19 mm	32	02967802
C 48 - 1"1/2 - DN 40 - 50x4	19 mm	24	02967804
C 60 - 2" - DN 50 - 63x4,5	19 mm	22	02967790
C 76 - 2"1/2 - DN 60-65 - 75x5	19 mm	18	02967792
C 89 - 3" - DN 80	19 mm	14	02967794
C 114 - 4" - DN 100	19 mm	12	02967806
C 140 - 5" - DN 125	19 mm	08	02967796

ISO GUM accessories

Description	Dimension	Pcs. pack	Code
Glue	0,75 lts can	1	02965900
Adhesive tape	10 mts roll	1	02965950

Filters



Water filter 9"

Head in polypropylene - Max operating pressure 8 bar
 Burst pressure 28 bar - Max continuous operating temperature 40 °C
 Diameter 178 mm
 Threads: G (UNI EN ISO 228-1)

Dimension	Pcs. pack	Code
3/4" 3 pieces	1	15460004
1" 3 pieces	1	15460006

Suitable for use in water treatment plants intended for human consumption and compliant with the Italian D.M. 174/2004 and subsequent amendments



Water filter 5"

Head in polypropylene - Max operating pressure: 8 bar
 Burst pressure: 28 bar - Max operating temperature: 40 °C
 Diameter: 178 mm
 Threads: G (UNI EN ISO 228-1)

Dimension	Pcs. pack	Code
3/4" 3 pieces	1	15460028

Suitable for use in water treatment plants intended for human consumption and compliant with the Italian D.M. 174/2004 and subsequent amendments



Cartridge 5" and 9"

Nominal delivery 3.500 l/h

- 1 - Nylon: filtration 60 micron
- 2 - Polypropylene: filtration 10 micron

Dimension	Pcs. pack	Code
5" Nylon	1	15460018
5" Polypropylene	2	15100005
9" Nylon	1	15120110
9" Polypropylene	1	15100010

Suitable for use in water treatment plants intended for human consumption and compliant with the Italian D.M. 174/2004 and subsequent amendments



Cartridge 9" with polyphosphates

Dimension	Pcs. pack	Code
	1	15120112

Suitable for use in water treatment plants intended for human consumption and compliant with the Italian D.M. 174/2004 and subsequent amendments



Polyphosphates

Dimension	Kg pack	Code
	20	15500000

Suitable for use in the food industry according to D.M. 443 dated 21/12/1990 under normal usage conditions.



Spreader pipe

Dimension	Pcs. pack	Code
5"	6	15410550
9"	6	15140010

Devices for clean drinking water



Spreader

Dimension	Pcs. pack	Code
For 3 pieces	6	15140012



Spanner for filter

Dimension	Pcs. pack	Code
For 3 pieces	1	15460012

Suitable for use in water treatment plants intended for human consumption and compliant with the Italian D.M. 174/2004 and subsequent amendments
Item to be out of range



Metal bracket for filter without by-pass

Dimension	Pcs. pack	Code
	1	15460014



Square water filter for 5" cartridge

Max operating pressure: 6 bar - Burst pressure: 25 bar
Max continuous operating temperature: 40 °C - Diameter: 90 mm
Threads: G (UNI EN ISO 228-1)

Dimension	Pcs. pack	Code
1/2" 3 pieces	1	15400012

Suitable for use in water treatment plants intended for human consumption and compliant with the Italian D.M. 174/2004 and subsequent amendments



5" cartridge for square filter

- 1 - Nylon: filtration 60 micron
- 2 - Polypropylene: filtration 10 micron

Dimension	Pcs. pack	Code
Nylon	1	15410520
Polypropylene	2	15410510

Suitable for use in water treatment plants intended for human consumption and compliant with the Italian D.M. 174/2004 and subsequent amendments



Spreader pipe 5" for square water filter

Dimension	Pz. conf.	Code
	6	15410550



Spanner for square filter 5"

Dimension	Pcs. pack	Code
For 3 pieces	1	15350001



Anti-scaling filter for washmachine

Dimension	Pcs. pack	Code
	12	15500034

Water meters and solenoid valves

Water meters



Water meter model with wet dial

Dimension	Water	Pcs. pack	Code
1/2"	Cold	1	01138000
3/4"	Cold	1	01138002
1"	Cold	1	01138004
1"1/4	Cold	1	01138006
1/2"	Hot	1	01138020

Complies with Leg. Dec. no. 84 dated 19/05/2016 (implementation of European directive 2014/32/EU MID)

Cold water maximum temperature 30 °C. Hot water maximum temperature 90 °C

Threads: G (UNI EN ISO 228-1)



Water meter models with dry dial

Dimension	Water	Pcs. pack	Code
1/2"	Cold	1	01138040
1"	Cold	1	01138044
1"1/4	Cold	1	01138046
1"1/2	Cold	1	01138048
2"	Cold	1	01138050

Complies with Leg. Dec. no. 84 dated 19/05/2016 (implementation of European directive 2014/32/EU MID)

Cold water maximum temperature 30 °C

Threads: G (UNI EN ISO 228-1)



Water meter model with dry dial

Dimension	Water	Pcs. pack	Code
1/2"	Cold	1	01138080
3/4"	Cold	1	01138082
1/2"	Hot	1	01138084
3/4"	Hot	1	01138086

Complies with Leg. Dec. no. 84 dated 19/05/2016 (implementation of European directive 2014/32/EU MID).

Cold water maximum temperature 30 °C.

Hot water maximum temperature 90 °C. CEE metering class:

horizontal display installation: class B, vertical display installation: class A

Threads: G (UNI EN ISO 228-1)

Solenoid valves for water and air



Solenoid valve for water and air - Normally Closed type

Dimension	Type	Pcs. pack	Code
1/2" F	N.C. 230 V	1	00306200
3/4" F	N.C. 230 V	1	00306202
1" F	N.C. 230 V	1	00306204
1/2" F	N.C. 24 V	1	00306206
3/4" F	N.C. 24 V	1	00306208

Membrane in NBR

Body in brass CW617N (EN 12165)

Operating temperature: -10 °C ÷ +90 °C

Thread: G (UNI EN ISO 228-1)



Spare parts and accessories



Spare parts and accessories

Spare parts and accessories



Replacement bush + bush holder kit for Gerpex and Gerpex LBP fittings

Size	Pcs. pack	Code
16	10	09009000
20	10	09009002
26	5	09009004
32	5	09009006
40	5	09009008
50	4	09009010
63	2	09009012
75	1	09009014

Spare part only for water fittings. Not usable for gas.
The product warranty is conditioned by the integrity of the original fitting.

Spare part for pressing machine UAP2 (12V)

Model	Pcs. pack	Code
Battery 12V	1	28101804

Spare part for bending pipe

Dimension	Pcs. pack	Code
Bending pipe tool Ø 16	1	28104002
Bending pipe tool Ø 20	1	28104006
Bending pipe tool Ø 26	1	28100922
Bending pipe tool Ø 32	1	28100924
Counterform Ø 14-16	1	28104010
Counterform Ø 18-20	1	28104012
Counterform Ø 26	1	28100926
Counterform Ø 32	1	28100928

Spare parts for Emmeti Plasterboard - plasterboard system

Dimension	Pcs. pack	Code
Quick connector replacement kit 8x1	1	28134318
Quick connector replacement kit 20x2	1	28134319



Lockshield kit for Topway and Floor Mixing Unit

Dimension	Thread	Pcs. pack	Code
For 1" collector (*)	24x19	4	01306116
For 1"1/4 collector (*)	24x19	4	01306124
1" cut-off seat	24x19	1	90038600
1" 1/4 cut-off seat	24x19	1	90038610
1" cut-off seat	3/4" Eurocone	1	90038620
1" 1/4 cut-off seat	3/4" Eurocone	1	90038630
1/2" thermometer well		1	90026530

(*) It is suitable for Floor Mixing Unit

Screw kit for Multiplex manifold

Dimension	Pcs. pack	Code
	1	01307220

Screw kit for Topsan and Topway M manifold

Dimension	Pcs. pack	Code
3/4"	1	01306838
1"	1	01306840

Spare parts and accessories

Spare parts for metal boxes Metalbox and Metalbox Plus with lock in PLASTIC

Dimension	Pcs. pack	Code
Guide for box H 600 - H 700 - H 850 with 2 screws M8 x 13 (*)	1	90069270
Guide for box H 600 - H 700 - H 850 with 4 screwsx M8 x 13	1	90069280
Screwdriver lock in plastic (*)	1	90065030
Screwdriver lock in metal	1	90067990
Key lock in plastic (*)	1	90065020
Frame / Door for Metalbox Plus L 1200 with lock with screwdriver cut in plastic (*)	1	01301360
Frame / Door for metal box H 850 / L 500 with lock with screwdriver cut in plastic (*)	1	01301362
Frame / Door for metal box H 850 / L 700 with lock with screwdriver cut in plastic (*)	1	01301364
Door for external metal box H 700 / L 1000 with lock with screwdriver cut in plastic (*)	1	01301380

(*) Items to be out of stock

Spare parts for metal boxes Metalbox and Metalbox Plus with lock in METAL

Size	Pcs. pack	Code
Guide for box H 600 - H 700 - H 850 with 2 screws M8 x 13 (*)	1	90069270
Guide for box H 600 - H 700 - H 850 with 4 screwsx M8 x 13	1	90069280
Frame/Door for Metalbox Plus L 500 with screwdriver lock in metal code 01301450	1	01301500
Frame/Door for Metalbox Plus L 600 with screwdriver lock in metal code 01301452	1	01301502
Frame/Door for Metalbox Plus L 700 with screwdriver lock in metal code 01301454	1	01301504
Frame/Door for Metalbox Plus L 850 with screwdriver lock in metal code 01301456	1	01301506
Frame/Door for Metalbox Plus L 1000 with screwdriver lock in metal code 01301458	1	01301508
Frame/Door for Metalbox Plus L 1200 with screwdriver lock in metal code 01301460	1	01301510
Frame/Door for Metalbox H 850 / L 500 with screwdriver lock in metal code 01301470	1	01301512
Frame/Door for Metalbox H 850 / L 700 with screwdriver lock in metal code 01301472	1	01301514
Frame/Door for Metalbox H 850 / L 850 with screwdriver lock in metal code 01301474	1	01301516
Frame/Door for Metalbox H 850 / L 1000 with screwdriver lock in metal code 01301476	1	01301518
Frame/Door for Metalbox H 850 / L 1200 with screwdriver lock in metal code 01301478	1	01301520
Door for external Metalbox H 700 / L 500 with screwdriver lock in metal code 01301480	1	01301522
Door for external Metalbox H 700 / L 700 with screwdriver lock in metal code 01301482	1	01301524
Door for external Metalbox H 700 / L 850 with screwdriver lock in metal code 01301484	1	01301526
Door for external Metalbox H 700 / L 1000 with screwdriver lock in metal code 01301486	1	01301528
Door for external Metalbox H 700 / L 1200 with screwdriver lock in metal code 01301488	1	01301530
Metal key lock	1	90067980
Metal screwdriver lock	1	90067990

Spare parts for Metalbox metal cabinets

Description	Pcs. pack	Code
Guide for box H630 with 2 screws M8x25 (Floor Controlbox, Floor Control Unit, Firstbox)	1	90020200
Guide for box H630 with 4 screws M8x14 (Energy Box e Energy First Box)	1	90041250
Guide for box H900 with 2 screws M8x25 (Energy Combibox e Energy Tankbox)	1	90043480
Guide for box H900 with 6 screws M8x14	1	01301150
For metal cabinets H630/P90 Opening 450 for Topway manifolds up to 1"		
Frame/door key lock for metal cabinet L 500 code 01301040 (*)	1	01301060
For metal cabinets H630/P110 Openin 450 for Floor Controbox-Floor Control Unit-Topway up to 1"1/4		
Frame/door key lock for metal cabinet L 500 code 01301030 (*)	1	01301060
For metal cabinet H630/P110 Opening 505 for Energy Box-Energy Firstbox-Firstbox		
Frame/door key lock flush with wall for cabinet L 600 code 01301110 (*)	1	01301140
For metal box H900/P110 Opening720 for all mixing groups		
Frame/door lock with screwdriver flush with wall for cabinet L 700 code 01301192 (*)	1	01301182

(*) Flush with wall

Spare parts for Termobox plastic boxes

Dimension	Pcs. pack	Code
Cover for cabinet 310 x 310 x 90	1	90019410
Cover for cabinet 460 x 310 x 90	1	90019470
Cover for cabinet 610 x 310 x 90	1	90019530

Spare parts and accessories

Spare parts for motorized valves

Spare parts for motorized ball valves Modulo Compact and Modulo Plus

Dimension	Pcs. pack	Code
Nut nickel p. 3/4" ch.30 for val. mot. 1/2"	1	09208901
Nut nickel p. 1" ch.37 for mot. val. 3/4"	1	09208903
Nut nickel p. 1"1/4 ch.52 for mot. val. 1"	1	09208910
Nut nickel p. 1"1/2 ch.47 for mot. val. 1"1/4	1	09208914
Nut nickel p. 2" ch.64 for mot. val. 1"1/2	1	09208916
Nut nickel p. 2"1/2 ch.80 for mot. val. 2"	1	09208918
Tang nickel p. 1/2" flat seat for mot. val. 1/2"	1	4874R004
Tang nickel p. 3/4" flat seat for mot. val. 3/4"	1	4874R005
Tang nickel p. 1" flat seat for mot. val. 1"	1	4874R006
Tang nickel p. 1"1/4 flat seat for mot. val. 1"1/4	1	4874R007
Tang nickel p. 1"1/2 flat seat for mot. val. 1"1/2	1	4874R008
Tangnickel p. 2" flat seat for mot. val. 2"	1	4874R009
Flat seat 24 x 18,5 x 2	1	4974G004
Flat seat 30 x 22 x 2	1	4974G005
Flat seat 38 x 30 x 2	1	4974G006
Flat seat 44 x 36 x 2	1	4974G007
Flat seat 56 x 46 x 2	1	4974G008
Flat seat 70 x 60 x 2	1	4974G009



Flange and rod for motorized ball valves

Dimension	Pcs. pack	Code
1/2" - 3/4"	1	01306330
1" - 1"1/4	1	01306332
1"1/2 - 2"	1	01306334

Flange and rod for valve ISO 5211

Dimension	Pcs. pack	Code
1/2" - 3/4"	1	01306340
1" - 1"1/4	1	01306342
1"1/2 - 2"	1	01306344

Circulator pumps spare parts for mixing and regulation groups

Variable speed circulator spare part, for Floor Controlbox, TM3-R and Modular Firstbox groups

Dimension	Pcs. pack	Code
Circulator pump Para 25-130/7-50/SC h 12	1	00710550

Circulator pump spare part for Floor Control Unit Plus / HE groups

Dimension	Pcs. pack	Code
Circulator Wilo Para HU 15/7	1	00710190

Spare parts for consumption measuring instruments

Spare part for volumetric counters DN15-DN20

Dimension	Pcs. pack	Code
Pulse emitter for volumetric counters DN15-DN20	1	02709168

Spare part for energy meters DN15 and DN20

Dimension	Pcs. pack	Code
O-Ring for flow sensor energy meters DN15 and DN20	1	90041140
Communication module M-Bus for energy meter EVO	1	02709574
Module 3 impulse inlet for energy meter EVO	1	02709576
Spare battery for energy meter	1	02709578

Spare parts and accessories

Poker tooling



Shutter for thermostatic valve

Dimension	Pcs. pack	Code
	20	01306094

For conversion from Poker manual to Thermostatic



"Rapido" tool box for conversion and maintenance of Poker valves

Dimension	Pcs. pack	Code
Tool box "Rapido"	1	01306066



Spanner kit 3/8"-1/2"-3/4"-1"

Dimension	Pcs. pack	Code
	1	01306056

Item to be out of stock



Kit exagonal keys 10 - 12

Dimension	Pcs. pack	Code
	1	01306048

Item to be out of stock

Spare parts for Poker / Full valves and lockshields

Dimension	Pcs. pack	Code
Manually valve handle	10	90003680
Thermostizable handle valve	10	01306092
Cap for thermostizable valve	10	90067520
Cap for lockshield	10	90003690
Kit nut for long tang 1/2" for straight angle Poker	20	01306076
Kit nut and tang 3/8" (*)	20	01306562
Kit nut and tang 3/8" + O-ring (*)	20	01306079
Kit nut and tang 1/2" (*)	20	01306560
Kit nut and tang 1/2" + O-ring (*)	20	01306081
Kit nut 24x19 and reduced tang 3/8" (**)	20	01306556
Kit nut 24x19 and reduced tang 3/8" + O-ring (**)	20	01306558
Kit nut / tang 3/4" + O-Ring for Full 3/4"	5	01306606

(*) Poker - Full

(**) Full only

Spare parts for Tris valves and lockshields

Dimension	Pcs. pack	Code
Handle for Tris 2 (thermostizable) (*)	1	90004250
White pressure reducer handle (*)	1	90000991
Kit nut and tang for 3/8" (*)	24	01306070
Kit nut and tang for 3/8" o-ring (*)	20	01306350
Adapter for Sensor head assembly on Tris 2 Thermostatic valves	1	90001716

(*) Items to be out of stock

Spare parts for Progress ball valves

Dimension	Pcs. pack	Code
Black lever handle 1/4" - 3/4"	1	09008901
Black lever handle 1" - 1 1/4"	1	09008902
Black lever handle 1 1/2" - 2"	1	09008903
Black butterfly handle 1/4" - 3/4"	1	09008215
Black butterfly handle 1" - 1 1/4"	1	09008225

Spare parts and accessories

Spare parts for Pesante and Export ball valves

Dimension	Pcs. pack	Code
Lever for Pesante valve 3/8" and Export 1/2" - 3/4"	1	09008961
Lever for Pesante valve 1/2" - 3/4"	1	09008081
Lever for Pesante valve 1" - 1"1/4	1	09008082
Lever for Export valve 1"1/2 - 2"	1	09008963
Lever for valve 2"1/2 - 3"	1	09008212
Butterfly for Pesante valve 3/8" - 3/4" and Export 1/2" - 3/4"	1	09008216
Butterfly for Pesante valve 1" - 1"1/4 and Export 1" - 1"1/4	1	09008226

Accessories for Progress, Pesante and Export ball valves

Dimension	Pcs. pack	Code
Extension kit 1/2" - 3/4"	20	09815190
Extension kit 1" - 1"1/4	15	09815192
Extension kit 1" 1/2 - 2"	10	09815194
Extension kit 2"1/2 - 3"	10	09815196

Spare parts for with hose-end bibcocks

Dimension	Pcs. pack	Code
Swivel union 1/2"	1	09214012
Swivel union 3/4"	1	09214034
Hose-end 1/2"	1	09211012
Hose-end 3/4"	1	09211034
Gasket 1/2"	1	09003104
Gasket 3/4"	1	09013034

Spare parts for built-in bibcocks

Dimension	Pcs. pack	Code
Hand wheel	1	4433C004
Chromed plate for hand wheel	1	5543C004
Blue ring for hand wheel	1	5541P004
Red ring for hand wheel	1	5542P004
Lever screw	1	4761Z504
Bell for socket tap	1	09215014
Cap for socket tap	1	5534C004
Chromed lever for socket tap	1	99800198
Rosette for socket tap	1	09215015
Kit extension for Gas Box 1/2" CE	1	6250R504

Spare parts for Futurgas ball valves

Dimension	Pcs. pack	Code
Lever handle 1" ÷ 1"1/4	1	4324T006
Lever handle 1"1/2 ÷ 2"	1	4324T008
Butterfly handle 1/4" ÷ 3/4"	1	4605T004
Butterfly handle 1" ÷ 1"1/4	1	4605T006

Coils for solenoid valves with manual re-activation normally open and normally closed

Model	Solenoid valve code	Power supply voltage	Coil stamping	Pcs. pack	Spare coil code
M16/RM N.C. DN20÷DN50	00309054 / 00309056	230 Vac	BO-0050 220 V RAC	1	00308312
M16/RMO N.C. DN15÷DN25	00309058 / 00309060 00309062 / 00309050 00309052 / 00309057	230 Vac	BO-0325 V 196 DC W18	1	00308314
M16/RM N.C. DN65÷DN200	00309064 / 00309066 00309068	230 Vac	BO-0120 230 V 50÷60 Hz V	1	00308332
M16/RMO N.A. DN15÷DN25	00308504	230 Vac	BO-0830 230 V 50÷60 Hz	1	00308330
M16/RMO N.A. DN15÷DN20	00308500 / 00308502	230 Vac			

N.A. = Normally Open / N.C. = Normally Closed / RM = Aluminium Manual Reset / RMO = Brass Manual Reset

Connector for solenoid valve

Model	Pcs. pack	Code
Connector CN-0010 for solenoid valve RM/N.A.	1	00308307
Connector CN-0045 with rectifier for solenoid valve RM/N.C.	1	00308304

N.A.= Normally Open / N.C. = Normally Closed / RM = Aluminium Manually Re-activation / RMO = Brass Manually Re-activation

Spare parts and accessories

Components for tanks ETW - HEVS - HEVSN - HYBV - HE2V - Euro V - EURO HPV - Comfort V - Storage tanks V - EB - Puffer - Tank in Tank (covers)

Dimension	Pcs. pack	Code
Cover for ETW 25, ETW 50, ETW 60 (*)	1	92891182
Cover for ETW 100, ETW 120 (*)	1	92891184
Cover for ETW 200	1	92891388
Cover for HEVS 300, HEVSN 300	1	92891170
Cover for HYBV 300	1	92891186
Cover for Puffer 300 N, Puffer 300 N 1S	1	92891470
Cover for HE2V 200/300 - Euro V 150/200/300 - Euro HPV 200/300 - Comfort V 200/300 - Accumulation tank V 300 - EB 300 S15 A50	1	92891086
Cover for HEVS 500, HYBV 500, HEVSN 500, EB 500 S18 AS50 2016	1	92891084
Cover for HE2V 500 - Euro V 500 - Euro HPV 500 - Comfort V 500 - Accumulation tank V 500 - EB 500 S18 A50	1	92891172
Cover for 500 N, Puffer 500 N 1S	1	92891472
Cover for Tank in Tank 600 N 1S, Tank in Tank 600 N 2S	1	92891436
Cover for HE2V 750/1000 - Euro HPV 1000 - Comfort V 750/1000 - Accumulation tank V 750/1000, Tank in Tank 1000 N, Tank in Tank 1000 N 1S, Puffer 1000 N, Puffer 1000 N 1S	1	92891144
Cover for HE2V 1500 - Comfort V 1500 - Comfort S 1500 - Accumulation tank V 1500, Puffer 1500 N, Puffer 1500 N 1S	1	92891174
Cover for HE2V 2000 - Comfort V 2000 - Comfort S 2000 - Accumulation tank V 2000, Puffer 2000 N, Puffer 2000 N 1S	1	92891176
Cover for Comfort V 3000 - Comfort S 3000	1	92891346
Flange cover for HEVS 300 / 500 - HE2V 200 / 300 / 500 - Euro V 150 / 200 / 300 / 500 - Euro HPV 200 / 300 / 500 - HYBV 300 / 500	1	92891300
Flange cover for HE2V 750 / 1000 - Euro HPV 1000	1	92891302
Flange cover for HE2V 1500 / 2000 - Comfort V 200 / 300 / 500 - Comfort V 750 / 1000 / 1500 / 2000 / 3000 - Comfort S 1500 / 2000 / 3000 - Accumulation tank V 2000	1	92891304

(*) Specify whether for 50/100 or 60/120 models.

Components for tanks ETW - HEVS - HEVSN - HYBV - HE2V - Euro V - EURO HPV - Comfort V - Accumulation tank V - EB - Puffer - Tank in Tank (gaskets, serpentine kit removable, flanges, anode, stainless steel pipe, rosettes, brackets)

Size	Pcs. pack	Code
Gasket for flange HEVS 300 / 500 - HE2V 200 / 300 / 500 - HYBV 300 / 500 - Euro V 150 / 200 / 300 / 500 - Euro HPV 200 / 300 / 500 - LS 08 - LS 12 - KRE 180A	1	02791502
Gasket for flange HE2V 750 / 1000 - Euro HPV 1000 - KRE 180	1	02791512
Gasket for flange HE2V 1500 / 2000 - Comfort V 200 / 300 / 500 - Comfort V 750 / 1000 / 1500 / 2000 / 3000 - Comfort S 1500 / 2000 / 3000 - EB 300 S15 A50 - EB 500 S18 A50 - KRE 290 - LN 12, 18, 26, 32, 45, 63	1	02791514
Removable coil kit for EB 300 S15 A50 - EB 500 S18 A50 (*)	1	02791522
Upper flange D. 290 for Tank in Tank	1	92891438
Upper flange for EB 300 S15 A50 - EB 500 S18 A50	1	02791518
Blind flange kit for HEVS 300 / 500 - HE2V 200 / 300 / 500 - HYBV 300/500 - Euro HPV 200 / 300 / 500 - Euro V 150 / 200 / 300 / 500	1	02791504
Blind flange kit for HE2V 750 / 1000 - Euro HPV 1000	1	02791506
Blind flange kit for HE2V 1500 / 2000 - Comfort C2F V 200 / 300 / 500 - Comfort C3F V 750 / 1000 / 1500 / 2000 / 3000 - Comfort C3F S 1500 / 2000 / 3000	1	02791508
Magnesium anode D. 32 x 400 - 1"1/4 for Tank in Tank	1	92891444
Stainless steel tube D. 20 x 0,4 x 350 for Tank in Tank	1	92891446
Stainless steel tube D. 20 x 0,4 x 1320 for Tank in Tank	1	92891448
Black rosette for connections 1/2"	1	92891306
Black rosette for connections 3/4"	1	92891308
Black rosette for connections 1"	1	92891310
Black rosette for connections 1"1/4	1	92891312
Black rosette for connections 1"1/2	1	92891314
Blind black rosette for connection anode 1"1/4	1	92891316
Blind black rosette for connection anode 1"1/2	1	92891318
Red rosette for connections 3/4"	1	92891324
Red rosette for connections 1"	1	92891320
Blue rosette for connections 3/4"	1	92891326
Blue rosette for connections 1"	1	92891322
External bracket for ETW (for models up to 120)	1	92891476

(*) Supplied with gaskets, cover for flange, bolts and nuts.

Spare parts and accessories

Components for tanks ETW - HEVS - HEVSN - HYBV - HE2V - Euro V - EURO HPV - Comfort V - Accumulation tank V - EB - Puffer - Tank in Tank (casing)

Size	Pcs. pack	Code
Casing for ETW 25 (coating only)	1	92891474
Casing for ETW 50, ETW 60 (coating only)	1	92891164
Casing for ETW 100, ETW 120 (coating only)	1	92891166
Casing for Euro V 150 (coating only)	1	92891330
Casing for ETW 200 (coating only)	1	92891390
Casing for ETW 280 (coating only)	1	92891478
Casing for HE2V 200 - Euro V 200 - Euro HPV 200 (coating only)	1	92891036
Polyester casing for Comfort V 200, Comfort V 200 2018 (insulation + coating)	1	92891508
Casing for HEVS 300 (coating only)	1	92891092
Casing for HEVSN 300 (coating only)	1	92891382
Casing for HYBV 300 (coating only)	1	92891372
Casing for HE2V 300 - Euro V 300 - Euro HPV 300 (coating only)	1	92891034
Polyester casing for Comfort V 300, Comfort V 300 2018 (insulation + coating)	1	92891510
Polyester casing for accumulation tank V 300, V 300 2018 (insulation + coating)	1	92891522
Casing for EB 300 S15 A50 (coating only)	1	92891160
Casing for EB 300 S15 A50 2018 (coating only)	1	92891426
Polyester casing for Puffer 300 N (insulation + coating)	1	92891450
Polyester casing for Puffer 300 N 1S (insulation + coating)	1	92891460
Casing for HEVS 500 (coating only)	1	92891094
Casing for HEVSN 500 (coating only)	1	92891384
Casing for HYBV 500 (coating only)	1	92891374
Casing for HE2V 500 - Euro V 500 - Euro HPV 500 (coating only)	1	92891038
Casing for Comfort V 500, V 500 2017, V 500 2018 (insulation + coating)	1	92891512
Polyester casing for accumulation tank V 500, V 500 2017, V 500 2018 (insulation + coating)	1	92891524
Casing for EB 500 S18 A50 (coating only)	1	92891162
Casing for EB500 S18 AS50 2016 (coating only)	1	92891386
Casing for Puffer 500 N (insulation + coating)	1	92891452
Polyester casing for Puffer 500 N 1S (insulation + coating)	1	92891462
Polyester casing for Tank in Tank 600 N 1S (insulation + coating)	1	92891428
Polyester casing for Tank in Tank 600 N 2 S (insulation + coating)	1	92891432

Spare parts and accessories

Components for tanks ETW - HEVS - HEVSN - HYBV - HE2V - Euro V - EURO HPV - Comfort V - Accumulation tank V - EB - Puffer - Tank in Tank (casing)

Size	Pcs. pack	Code
Polyester casing for HE2V, HE2V 750 2017, HE2V 750 2018 (insulation + coating)	1	92891500
Polyester casing for Comfort V 750, V 750 2017, V 750 2018 (insulation + coating)	1	92891514
Polyester casing for Accumulation tank V 750, V 750 2017, V 750 2018 (insulation + coating)	1	92891526
Polyester casing for HE2V 1000, HE2V 1000 2017, HE2V 1000 2018 (*) (insulation + coating)	1	92891502
Polyester casing for Comfort V 1000, V 1000 2017, V 1000 2018 (insulation + coating)	1	92891516
Polyester casing for Accumulation tank V 1000, V 1000 2017, V 1000 2018 (insulation + coating)	1	92891528
Polyester casing for Euro HPV 1000, HPV 1000 2017, HPV 1000 2018 (insulation + coating)	1	92891542
Polyester casing for Puffer 1000 N (insulation + coating)	1	92891454
Polyester casing for Puffer 1000 N 1S (insulation + coating)	1	92891464
Polyester casing for Tank in Tank 1000 N 1S (insulation + coating)	1	92891430
Polyester casing for Tank in Tank 1000 N 2S (insulation + coating)	1	92891434
Polyester casing for HE2V 1500, HE2V 1500 2017, HE2V 1500 2018 (*) (insulation + coating)	1	92891504
Polyester casing for Comfort V 1500, V 1500 2017, V 1500 2018 (insulation + coating)	1	92891518
Polyester casing for Comfort S 1500, S 1500 2017, S 1500 2018 (insulation + coating)	1	92891536
Polyester casing for Accumulation tank V 1500, V 1500 2017, V 1500 2018 (insulation + coating)	1	92891530
Polyester casing for Puffer 1500 N (insulation + coating)	1	92891456
Polyester casing for Puffer 1500 N 1S (insulation + coating)	1	92891466
Polyester casing for HE2V 2000, HE2V 2000 2017, HE2V 2018 (*) (insulation + coating)	1	92891506
Polyester casing for Comfort V 2000, V 2000 2017, V 2000 2018 (insulation + coating)	1	92891520
Polyester casing for Comfort S 2000, S 2000 2017, S 2000 2018 (insulation + coating)	1	92891538
Polyester casing for Accumulation tank V 2000, V 2000 2017, V 2000 2018 (insulation + coating)	1	92891532
Polyester casing for Puffer 2000 N (insulation + coating)	1	92891458
Polyester casing for Puffer 2000 N 1S (insulation + coating)	1	92891468
Polyester casing for Comfort V 3000, V 3000 2018 (insulation + coating)	1	92891534
Polyester casing for Comfort S 3000, S 3000 2018 (insulation + coating)	1	92891540
Polyester casing for EB 1000 (insulation + coating)	1	92891544
Polyester casing for EB 1500 (insulation + coating)	1	92891546

(*) Supplied with: cover, rosette and flange cover

Spare parts for exchanger kit model LN and LS

Dimension	Pcs. pack	Code
Kit electric joints for heat exchangers 3/4" F - 1" M (models LS 08 - LS 12 - LN 18 - LN 26 - LN 32)	1	02790700
Kit electric joints for heat exchangers 1" F - 1"1/4 M (models LN 45 - LN 63)	1	02790702

Supplied with reductions, rings for flange, nuts, brass washers and O-ring.

Spare parts and accessories

Components for Tanks Euro, HE1, Comfort, Accumulation tanks and Heating exchangers

Dimension	Pcs. pack	Code
Kit 2 fittings for L14 - L18 - L25 - L30 - S200 - D200	1	02790284
Fitting for coil 3/4" L 135 mm	1	92790184
Kit 2 fitting for L45 - L55	1	02790287
Coating coupled sky for lt. 150	1	92890760
Coating coupled sky for lt. 200	1	92890770
Coating coupled sky for lt. 300	1	92890780
Coating coupled sky for lt. 500	1	92890790
Kit 12 screws M12, washers and nut (galvanized)	1	02790282
Thermoformed lid D. 680 (lt. 300)	1	92790245
Headset with 3 bosses for Emmeti flange	1	92790154
Polyurethane disc for casing	1	92790153
Flange Emmeti perforated D. 30x90 enamelled for sleeve	1	02791145
Flange Emmeti perforated D. 30x90 with support enamelled for sleeve	1	02791151
Flange Emmeti perforated D. 48,5x90 with support enamelled for sleeve	1	02791156
Gasket for flange	1	02790300
Kit flexible insulation grey for 750 lt C3F	1	92890801
Kit flexible insulation grey for 1000 lt C3F	1	92890810
Kit flexible insulation grey for 1500 lt C3F	1	92890820
Kit flexible insulation grey for 2000 lt C3F	1	92890830
Kit flexible insulation grey for 3000 lt C3F	1	92890840
Kit flexible insulation grey for 750 lt S	1	92890871
Kit flexible insulation grey for 1000 lt S	1	92890880
Kit flexible insulation grey for 1500 lt S	1	92890891
Kit flexible insulation grey for 2000 lt S	1	92890901
Kit flexible insulation grey for 3000 lt S	1	92890911
Kit flexible insulation grey for Tank in Tank 600 lt with code 02704910	1	92891018
Kit flexible insulation grey for 600 with code 02704992	1	92891116
Kit flexible insulation grey for Tank in Tank 1000 lt with code 02704930	1	92891022
Kit flexible insulation grey for Tank in Tank 1000 lt with code 02704932 and 02704996	1	92891114

Spare parts for Top - Eco - Eco+ reducers

Dimension	Pcs. pack	Code
Kit pressure reducer mechanics 1/2" - 3/4" (*)	1	90038812
Kit pressure reducer collar without pipe union 1/2" - 3/4" (*)	1	90038816
Kit pressure reducer transparent tap with pie union 1/2" - 3/4" (*)	1	90038818
Kit pressure reducer brass tap without pipe union 1/2" - 3/4"	1	90038820
Kit pressure reducer mechanics Eco+	1	90032252

(*) Item to be out of stock

Controlpump spare parts

Dimension	Pcs. pack	Code
Electronic plate	1	90002160
Membrane group	1	90002170

Varia spare parts

Dimension	Pcs. pack	Code
Bubble-breaker	1	90000390

Spare parts and accessories

Tecno-Varia spare parts

Dimension	Pcs. pack	Code
Automatic vent gray cap	1	00400900
Automatic vent black cap	1	00400902

Spare cartridge for safety group

Dimension	Pcs. pack	Code
Cartridge	1	00200710

Membrane for expansion vessels

Dimension		Pcs. pack	Code
L. 8	EPDM	1	00806014
L. 16-18-24	EPDM	1	00806024
L. 35 ÷ 50	EPDM	1	00806050
L. 60 ÷ 80 ÷ 100	EPDM	1	00806100
L. 150-200	EPDM	1	00806200
L. 300	EPDM	1	00806210

Kit for thermostatic regulation

Dimension	Pcs. pack	Code
Thermostatic head	1	90046770
Socket 1/2"	1	90056420



Spare vacuum tube for Arcobaleno VP solar panel

Dimension	Type	Pcs.	Code
L = 1500 mm	single	1	02708971

Spare parts for water and air solenoid valves

Model	Solenoid valve code	Pcs. pack	Code
Coil EV NA/NC 1/2"-3/4"-1" 230 V/50 Hz	00306200 / 00306202 / 00306204 / 00306210 00306212 / 00306214 /	1	00306400
Coil EV NC 1/2"-3/4" 24 V/50 Hz	00306206 / 00306208	1	00306410
Membrane NBR EV NC 1/2"	00306200 / 00306206 / 00306210	1	00306300
Membrane NBR EV NC 3/4"	00306202 / 00306208 / 00306212	1	00306302
Membrane EPDM EV NC 1/2"	00306200 / 00306206 / 00306210	1	00306320
Membrane EPDM EV NC 3/4"	00306202 / 00306208 / 00306212	1	00306322
Membrane EPDM EV NC 1"	00306204 / 00306214	1	00306324
Membrane NBR EV NA 1/2"	00306200 / 00306206 / 00306210	1	00306310
Membrane NBR EV NA 3/4"	00306202 / 00306208 / 00306212	1	00306312
Membrane EPDM EV NA 1/2"	00306200 / 00306206 / 00306210	1	00306330
Membrane EPDM EV NA 3/4"	00306202 / 0306208 / 00306212	1	00306332
Membrane EPDM EV NA 1"	00306204 / 00306214	1	00306334

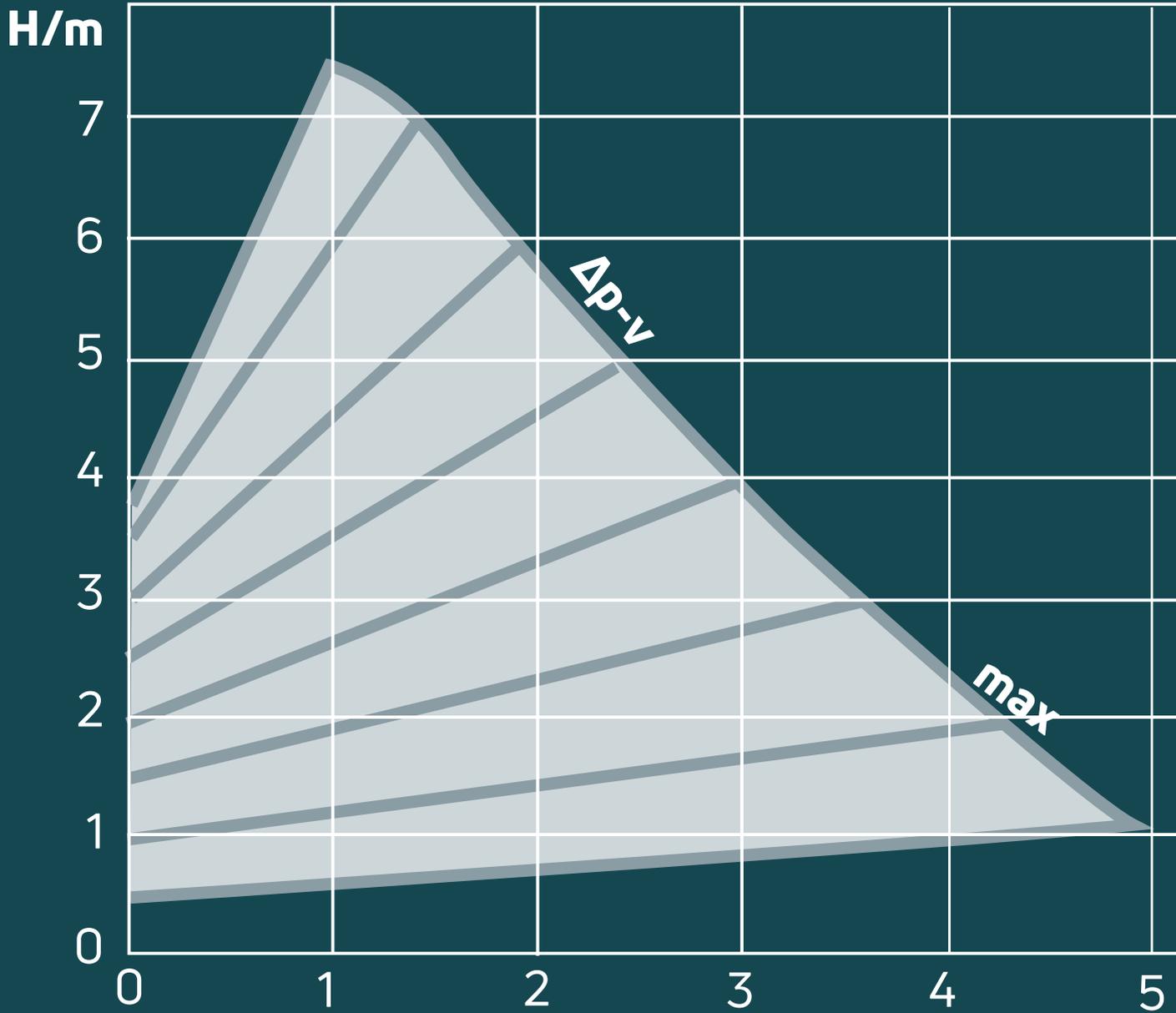
N.C. = solenoid valve normally closed

N.A. = solenoid valve normally open

Spare parts for 3/4" screw group

Dimension	Pcs. pack	Code
Screw for blind tube (*)	1	90008020
Screw for blind tube	1	90008022
Screw for perforated tube with con handwheel	1	90008030

(*) Item to be out of stock



Technical attachments

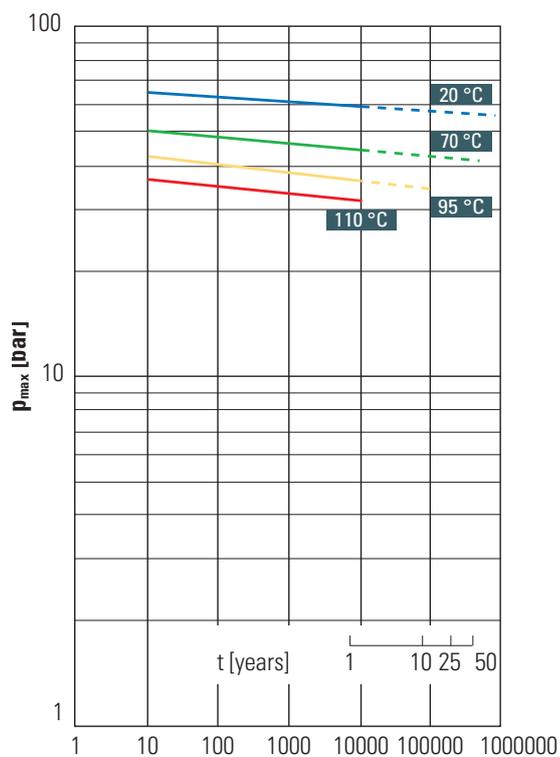


**Scan the QR code
to consult the Technical Attachments
in full version**

Gerpex - Multi-layer pipe

Regression curves

Gerpex - Gerpex RA pipe (16x2)



Regression curves reading example

The maximum pressure (P_{max}) for a period of 50 years at a set temperature can be identified by intersecting the vertical straight section relative to 50 years with the coloured straight section relative to that temperature.

Note the planned working pressure (P_{es}), the safety coefficient will be equal to $k_s = P_{max} / P_{es}$

Classification of conditions of use for Gerpex and Gerpex RA pipes (UNI EN ISO 21003-1)

Application class	Design Temperature T_D (°C)	Duration ^b at T_D (years)	T_{max} (°C)	Duration at T_{max} (years)	T_{mal} (°C)	Duration at T_{mal} (hours)	Field of use
1 ^a	60	49	80	1	95	100	Hot water (60 °C)
2 ^a	70	49	80	1	95	100	Hot water (70 °C)
4 ^b	20	2,5	70	2,5	100	100	Underfloor heating and low temperature radiators
	+						
	40	20					
5 ^b	+	14	90	1	100	100	High temperature radiators
	60	25					
	+	10					
	80						

Note:

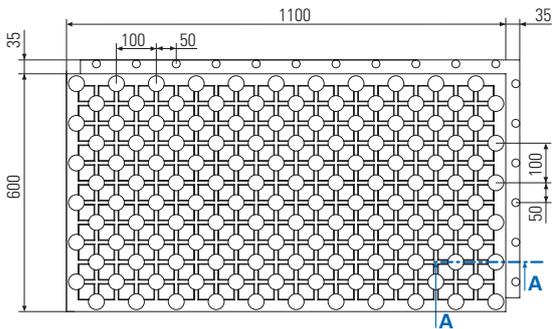
T_D design Temperature
 T_{max} maximum design temperature for short periods
 T_{mal} malfunction temperature

- a) A Country may select either class 1 or class 2 in conformity with its national regulations.
- b): Where more than one design temperature for time and associated temperature appears for any class, they should be aggregated. "Plus cumulative" in the table implies a temperature profile of the mentioned temperature over time (e. g. the design temperature profile for 50 years for class 5 is 20 °C for 14 years followed by 60 °C for 25 years, 80 °C for 10 years, 90 °C for 1 year and 100 °C for 100 h).

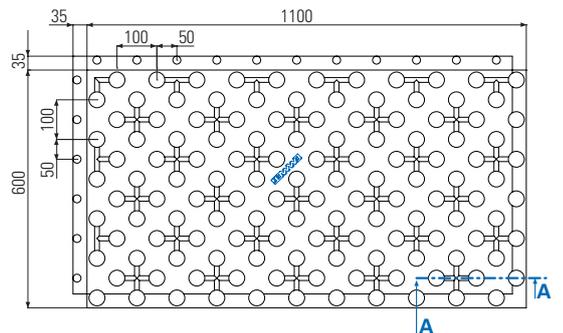
Emmeti Floor - Floor system

Standard Floor Insulating panel

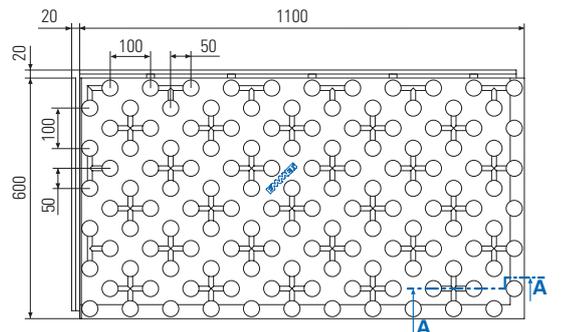
Model
H = 10



Models
H = 20/30



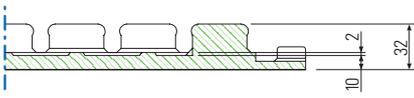
Model
H = 40/50/60



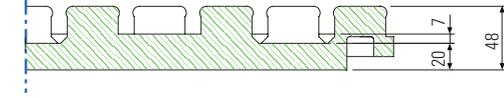
Emmeti Floor - Floor system

Standard Floor Insulating panel

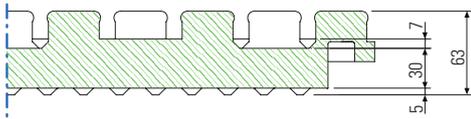
Pannello 1100 x 600 H 10
Section A-A



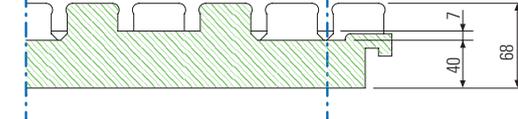
Panel 1100 x 600 H 20
Section A-A



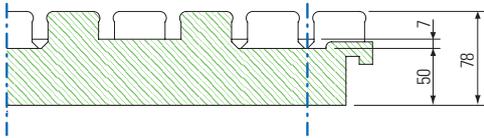
Panel 1100 x 600 H 30
Section A-A



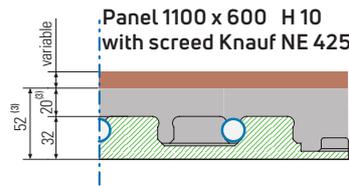
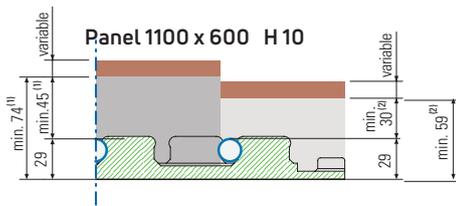
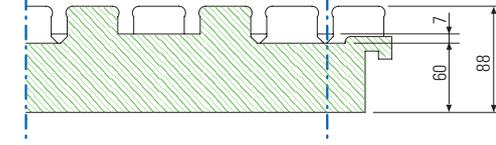
Panel 1100 x 600 H 40
Section A-A



Panel 1100 x 600 H 50
Section A-A

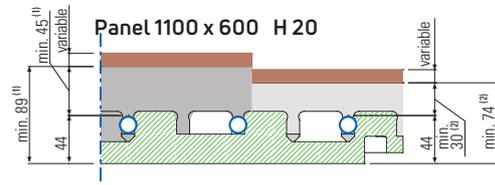
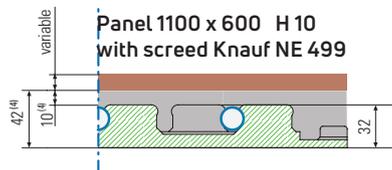


Panel 1100 x 600 H 60
Section A-A

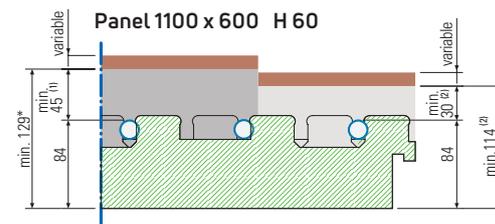
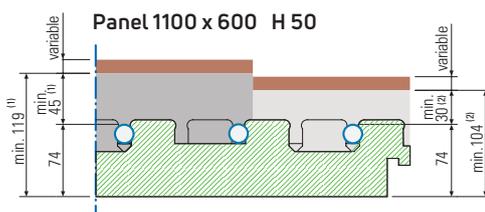
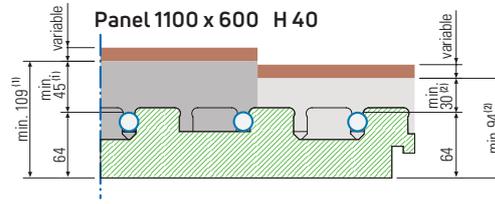
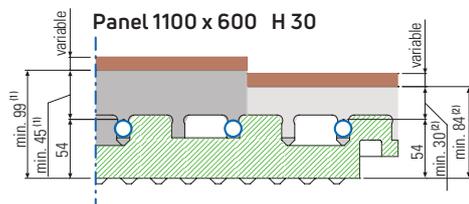


Minimum system clearances for civil buildings (mm)

- (1) Traditional cement screed*
- (2) Self-levelling screed*
- (3) Fluid screed with low thickness Knauf Self-levelling NE 425
- (4) Fluid screed with low thickness Knauf Super-levelling NE 499



Note
The screeds are **not** provided by Emmeti



The effective thickness of the screed and the mode of construction of the same are to be defined with the manufacturer / supplier of the same according to its specifications, depending on the conditions of installation (size and type of installation surface, type floor, etc.) and of the type of slab chosen.

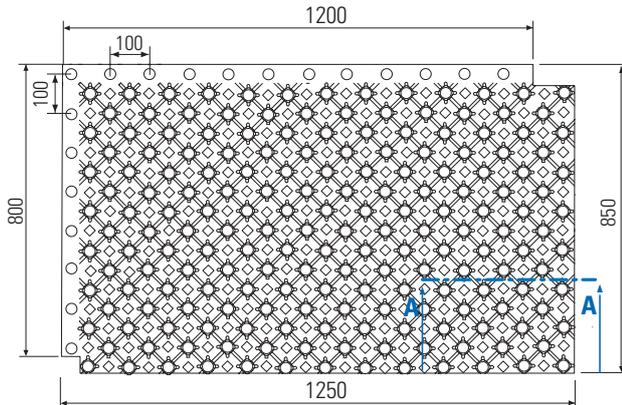
* If the Emmeti Floor system is combined with the Mirai SMI + Febos 4.0 heat pump, it is advisable to increase the thickness of the screed by about 1 cm from the minimum values.

Emmeti Floor - Floor system

Standard Combi Floor

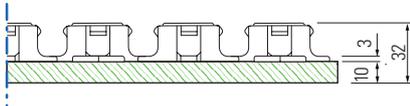
Insulating panel

Models H = 10/20/30



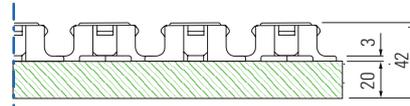
Panel 1200 x 800 H 10

Section A-A



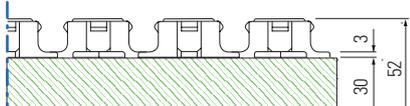
Panel 1200 x 800 H 20

Section A-A

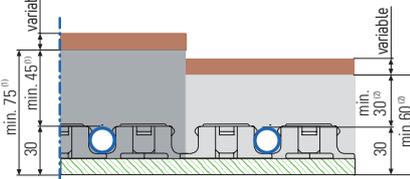


Panel 1200 x 800 H 30

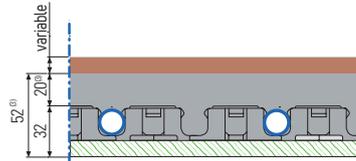
Section A-A



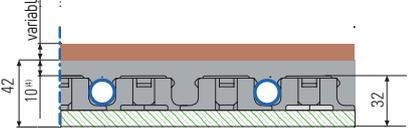
Panel 1200 x 800 H 10



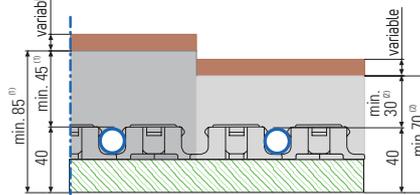
Panel 1200 x 800 H 10
with screed Knauf NE 425



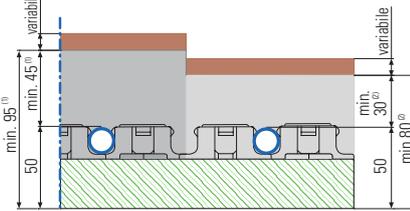
Panel 1200 x 800 H 10
with screed Knauf NE 499



Panel 1200 x 800 H 20



Panel 1200 x 800 H 30



Minimum system clearances for civil buildings (mm)

- (1) Traditional cement screed*
- (2) Self-levelling screed*
- (3) Fluid screed with low thickness Knauf Self-levelling NE 425
- (4) Fluid screed with low thickness Knauf Super-levelling NE 499

The effective thickness of the screed and the mode of construction of the same are to be defined with the manufacturer / supplier of the same according to its specifications, depending on the conditions of installation (size and type of installation surface, type floor, etc.) and of the type of slab chosen.

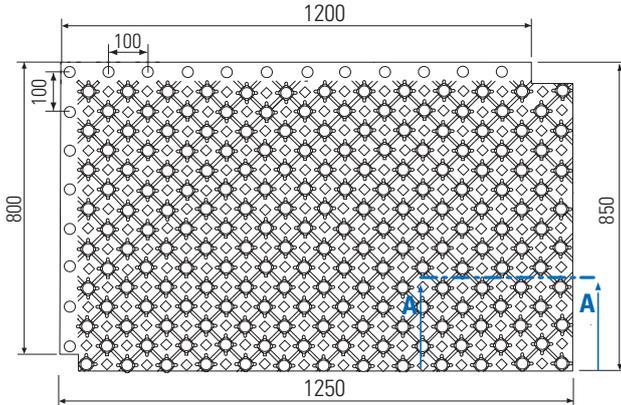
* If the Emmeti Floor system is combined with the Mirai SMI + Febos 4.0 heat pump, it is advisable to increase the thickness of the screed by about 1 cm from the minimum values.

Note: The screeds are **not** provided by Emmeti

Emmeti Floor - Floor system

Standard Combi Floor with graphite Insulating panel

Models H = 10/23/38/45/60

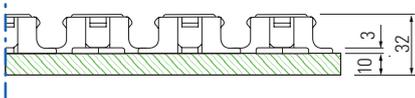


Minimum system clearances for civil buildings (mm)

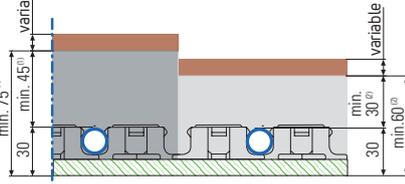
- (1) Traditional cement screed*
- (2) Self-levelling screed*
- (3) Fluid screed with low thickness Knauf Self-levelling NE 425
- (4) Fluid screed with low thickness Knauf Super-levelling NE 499

The effective thickness of the screed and the mode of construction of the same are to be defined with the manufacturer / supplier of the same according to its specifications, depending on the conditions of installation (size and type of installation surface, type floor, etc.) and of the type of slab chosen.

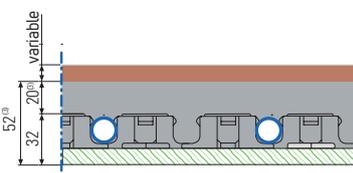
Panel 1200 x 800 H 10
Section A-A



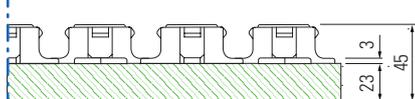
Panel 1200 x 800 H 10



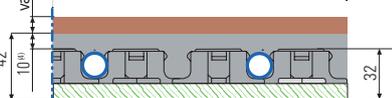
Panel 1200 x 800 H 10
with screed Knauf NE 425



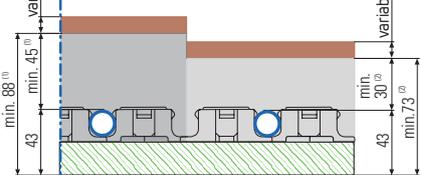
Panel 1200 x 800 H 23
Section A-A



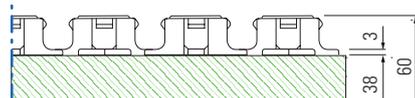
Panel 1200 x 800 H 10
with screed Knauf NE 499



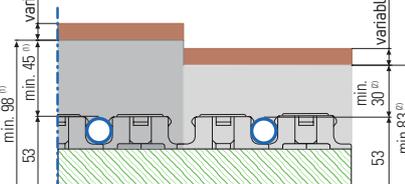
Panel 1200 x 800 H 23



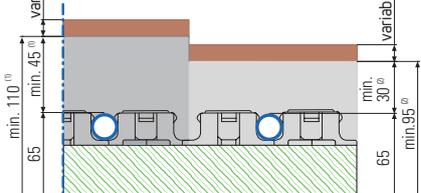
Panel 1200 x 800 H 38
Section A-A



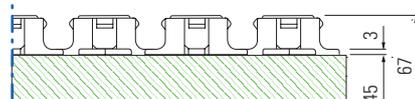
Panel 1200 x 800 H 38



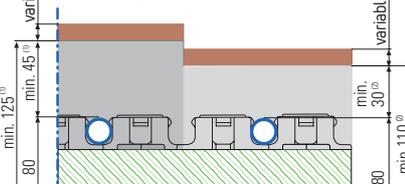
Panel 1200 x 800 H 45



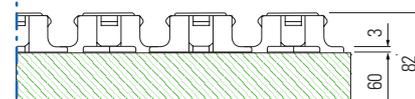
Panel 1200 x 800 H 45
Section A-A



Panel 1200 x 800 H 60



Panel 1200 x 800 H 60
Section A-A



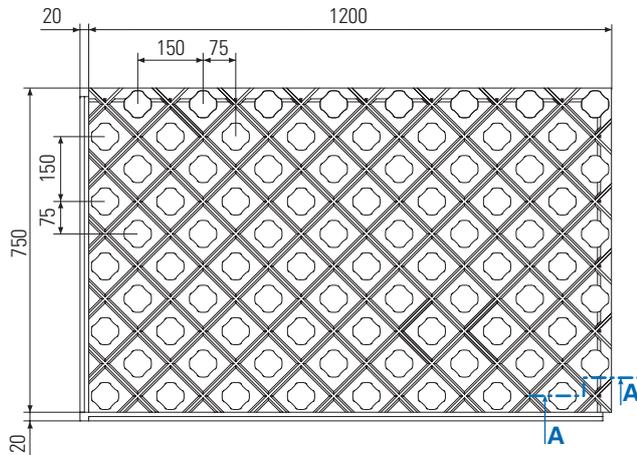
* If the Emmeti Floor system is combined with the Mirai SMI + Febos 4.0 heat pump, it is advisable to increase the thickness of the screed by about 1 cm from the minimum values.

Note: The screeds are not provided by Emmeti

Emmeti Floor - Floor system

Classic Floor Insulating panel

Models H = 20/30



Minimum system clearances for civil buildings (mm)

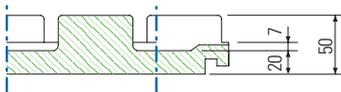
- * Traditional cement screed
- ** Self-levelling screed

If the Emmeti Floor system is combined with the Mirai SMI + Febos 4.0 heat pump, it is advisable to increase the thickness of the screed by about 1 cm from the minimum values.

Note: The screeds are **not** provided by Emmeti

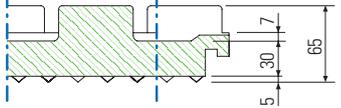
Panel 1200 x 750 H 20

Section A-A

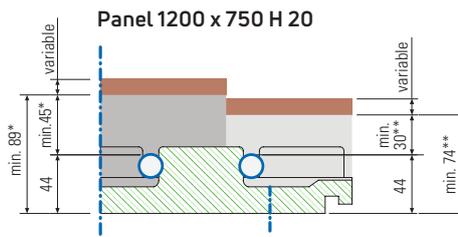


Panel 1200 x 750 H 30

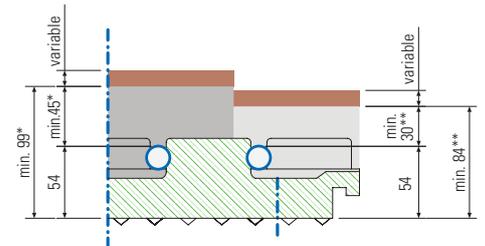
Section A-A



Panel 1200 x 750 H 20

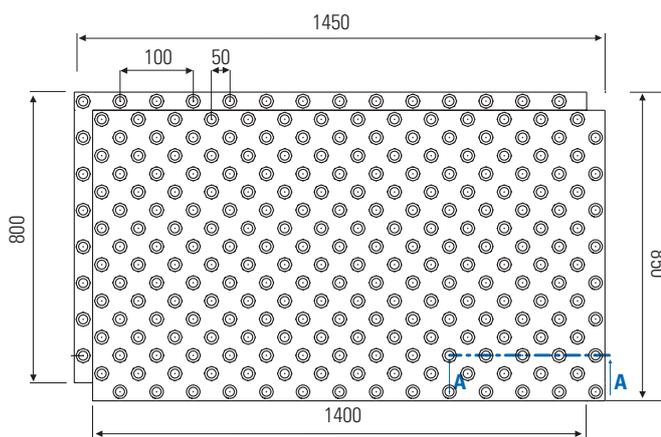


Panel 1200 x 750 H 30



Step Combi Floor - Step Combi Floor with graphite Sound insulation panel

Model H = 30-2



Minimum system clearances for civil buildings (mm)

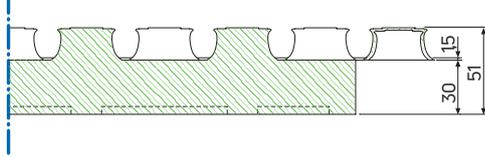
- * Traditional cement screed
- ** Self-levelling screed

If the Emmeti Floor system is combined with the Mirai SMI + Febos 4.0 heat pump, it is advisable to increase the thickness of the screed by about 1 cm from the minimum values.

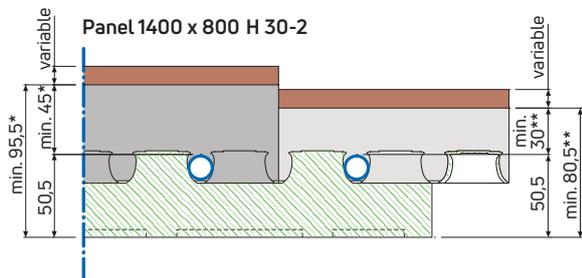
Note: The screeds are **not** provided by Emmeti

Panel 1400 x 800 H 30-2

Section A-A



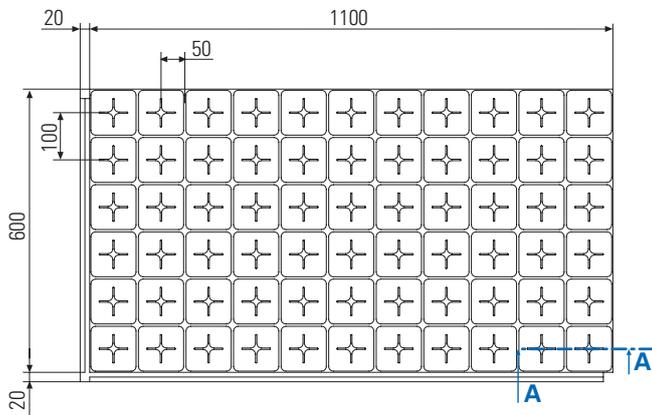
Panel 1400 x 800 H 30-2



Emmeti Floor - Floor system

Plan Floor Insulating panel

Model H = 30



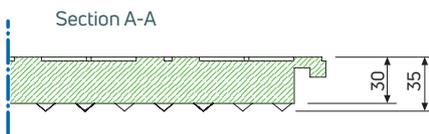
Minimum system clearances for civil buildings (mm)

- * Traditional cement screed
- ** Self-levelling screed

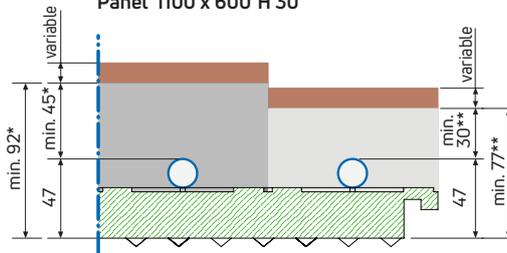
If the Emmeti Floor system is combined with the Mirai SMI + Febos 4.0 heat pump, it is advisable to increase the thickness of the screed by about 1 cm from the minimum values.

Note: The screeds are **not** provided by Emmeti

Panel 1100 x 600 H 30



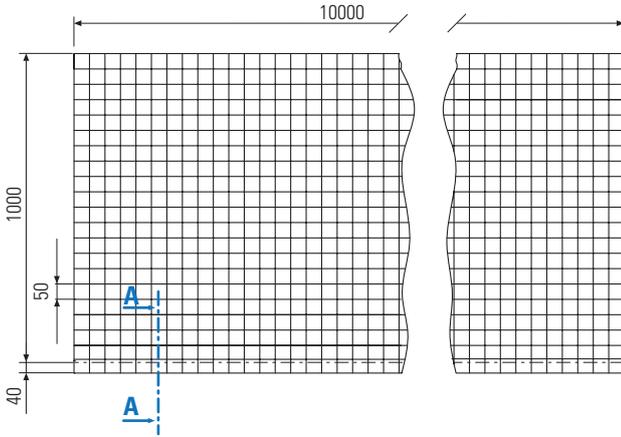
Panel 1100 x 600 H 30



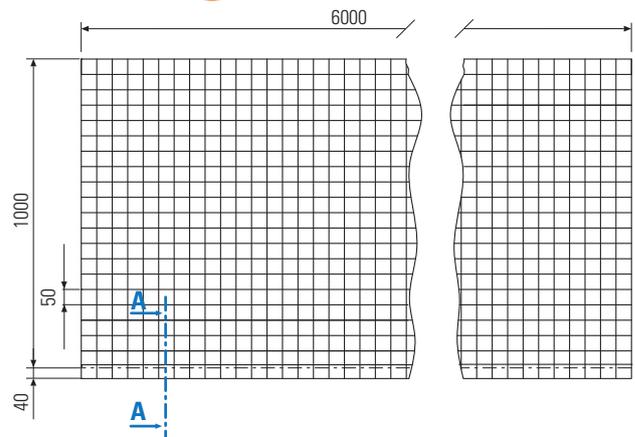
Emmeti Floor - Floor system

Roll Floor Insulating panel

Model H 20/30/40/50

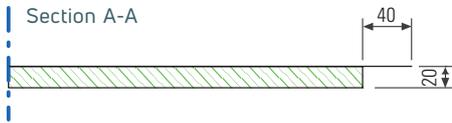


Model H 60 **NEW**



Panel 10000 x 1000 H 20

Section A-A



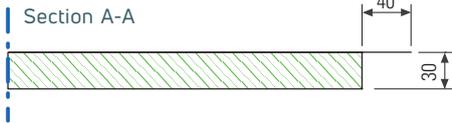
Panel 10000 x 1000 H 50

Section A-A



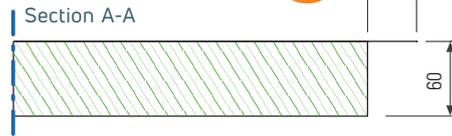
Panel 10000 x 1000 H 30

Section A-A



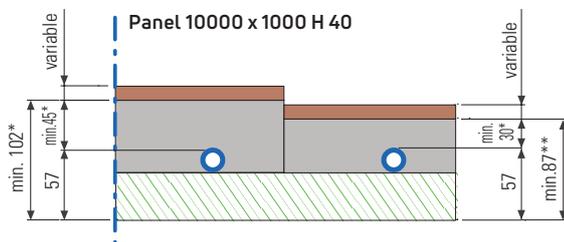
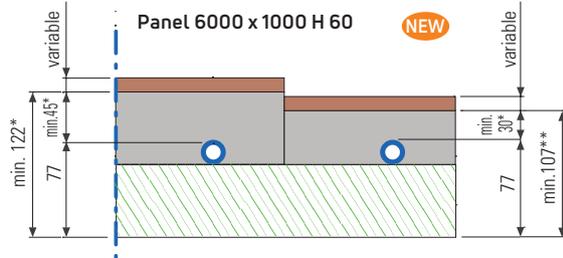
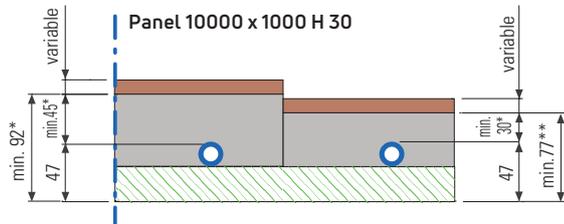
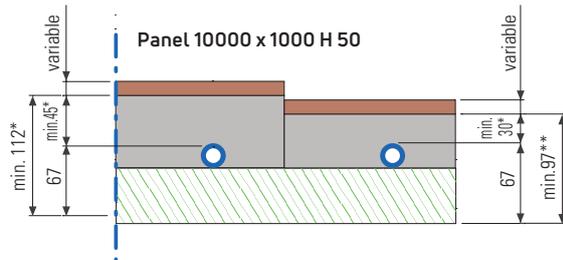
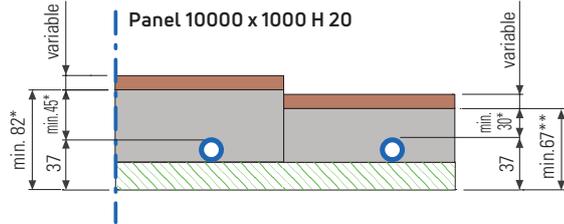
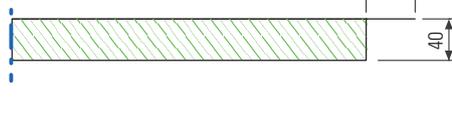
Panel 6000 x 1000 H 60 **NEW**

Section A-A



Panel 10000 x 1000 H 40

Section A-A



Minimum system clearances for civil buildings (mm)

* Traditional cement screed

** Self-levelling screed

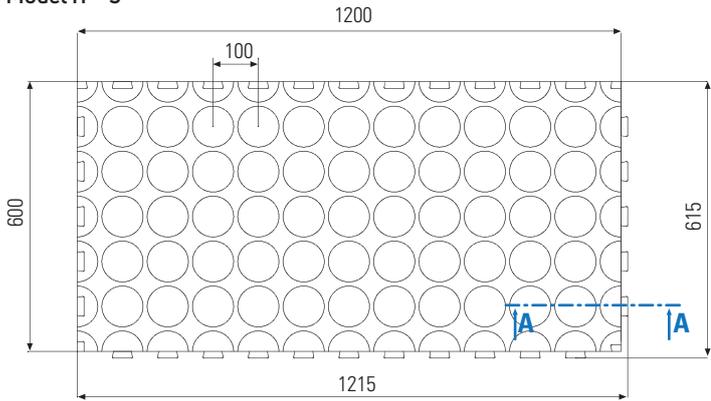
If the Emmeti Floor system is combined with the Mirai SMI + Febos 4.0 heat pump, it is advisable to increase the thickness of the screed by about 1 cm from the minimum values.

Note: The screeds are **not** provided by Emmeti

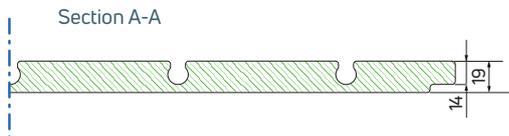
Emmeti Floor - Floor system

Thin Floor Insulating panel

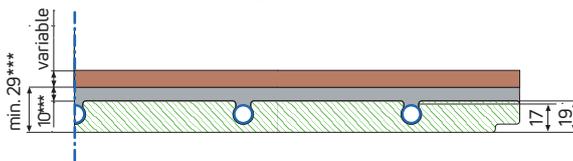
Model H = 5



Panel 1200 x 600 H 5



Panel 1200 x 600 H 5
with screed Knauf NE 499



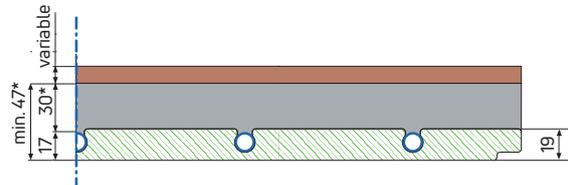
Minimum system clearances for civil buildings (mm)

- * Self-levelling screed
- ** Fluid screed with low thickness Knauf Self-levelling NE 425
- *** Fluid screed with low thickness Knauf Super-levelling NE 499

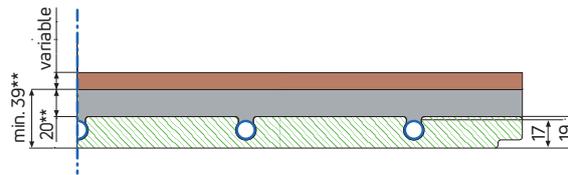
The effective thickness of the screed and the mode of construction of the same are to be defined with the manufacturer / supplier of the same according to its specifications, depending on the conditions of installation (size and type of installation surface, type floor, etc.) and of the type of slab chosen.

Note: The screeds are **not** provided by Emmeti

Panel 1200 x 600 H 5



Panel 1200 x 600 H 5
with screed Knauf NE 425

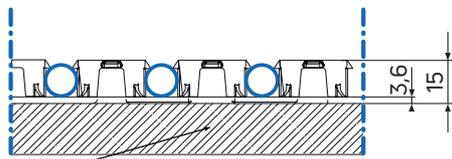


Grid Floor - Panels for radiant floor systems

Panel with self-adhesive base / with insulation for DN 12 pipe

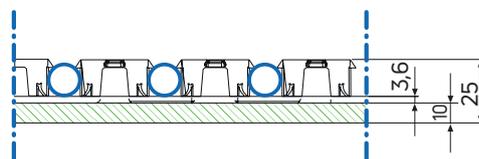
Sections

Panel 1200 x 600 H 0
with self-adhesive base

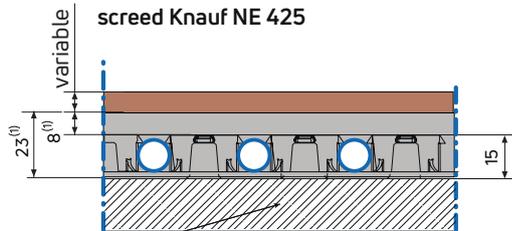


Screed or flooring
existing ceramic or
stone material ⁽³⁾

Panel 1200 x 600 H 10
with insulating panel

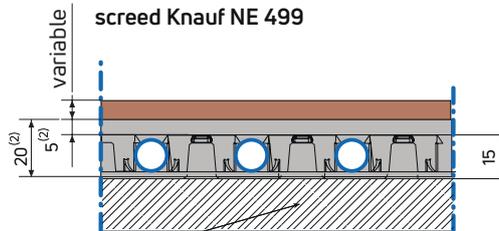


Panel 1200 x 600 H 0
with self-adhesive base and with
screed Knauf NE 425



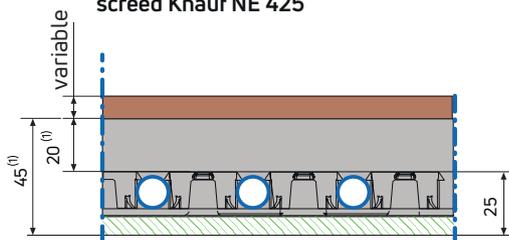
Screed or flooring
existing ceramic or
stone material ⁽³⁾

Pannello 1200 x 600 H 0
with self-adhesive base and with
screed Knauf NE 499

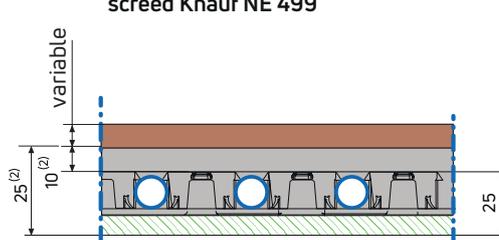


Screed or flooring
existing ceramic or
stone material ⁽³⁾

Panel 1200 x 600 H 10
with insulating panel and with
screed Knauf NE 425



Panel 1200 x 600 H 10
with insulating panel and with
screed Knauf NE 499



- (1) Knauf Autolivellina NE 425 low thickness fluid screed
- (2) Knauf Superlivellina NE 499 low thickness fluid screed
- (3) Existing screed or flooring in ceramic or stone material, the surfaces of which must be treated in accordance with the leveling supplier's instructions

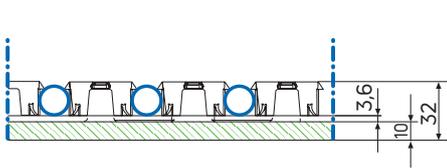
The effective thickness of the screed and the method of making it are to be defined with the manufacturer / supplier of the same according to his specifications, according to the installation conditions (size and type of laying surface, type of floor, etc.) and the type of chosen screed.

Grid Floor - Panels for radiant floor systems

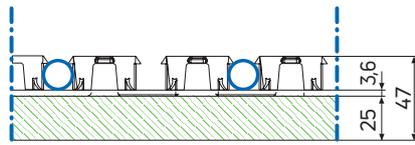
Insulating panel per tubo DN 16-17

Sections

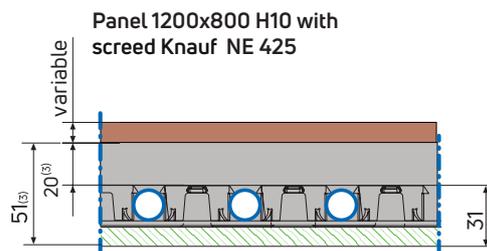
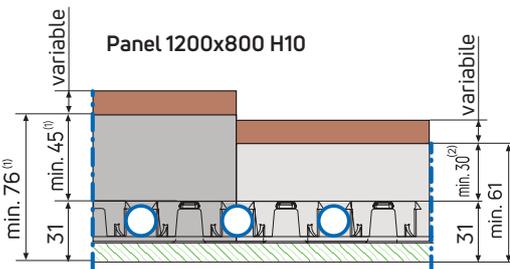
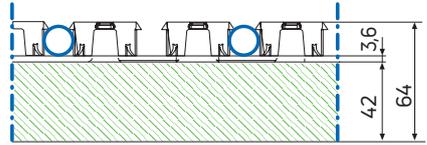
Panel 1200 x 800 H 10



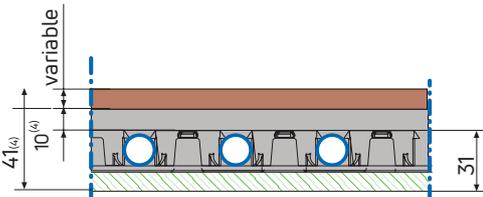
Panel 1200 x 800 H 25



Panel 1200 x 800 H 42



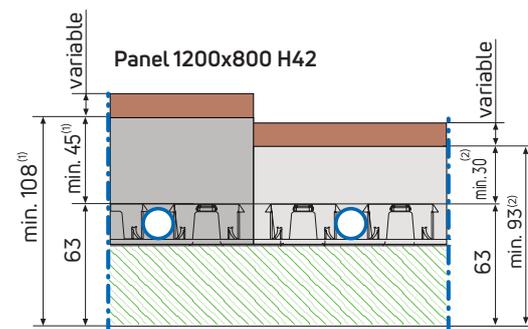
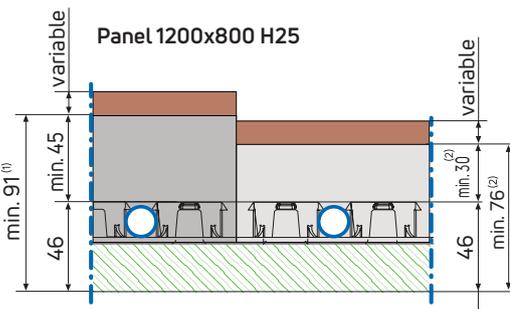
Panel 1200x800 H10 with screed Knauf NE 499



Minimum overall dimensions of the system for civil buildings (mm)

- (1) Traditional cement screed
- (2) Self-leveling screed
- (3) Knauf Autolivellina NE 425 low thickness fluid screed
- (4) Knauf Supertivellina NE 499 low thickness fluid screed

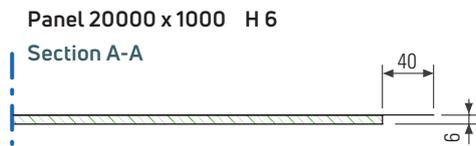
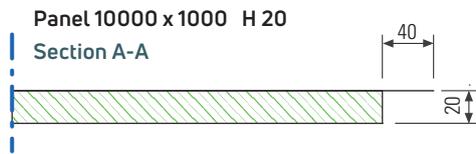
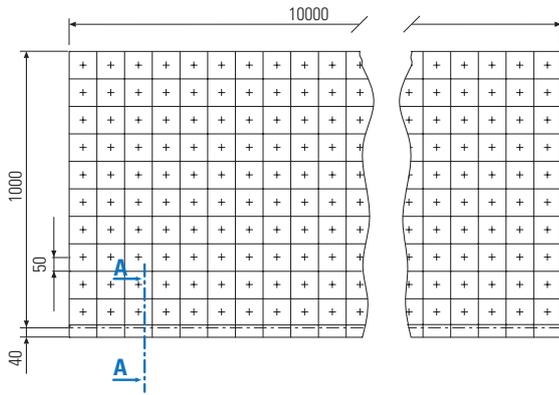
The effective thickness of the screed and the method of making it are to be defined with the manufacturer / supplier of the same according to his specifications, according to the installation conditions (size and type of laying surface, type of floor, etc.) and the type of chosen screed.



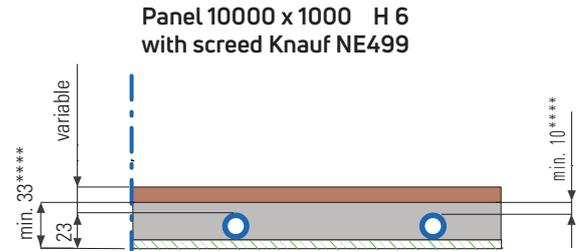
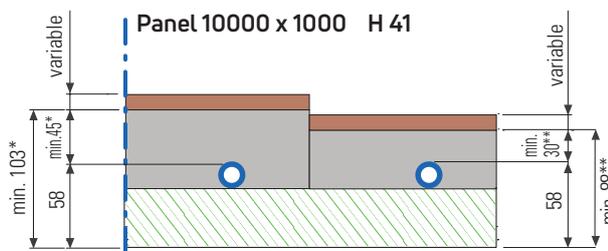
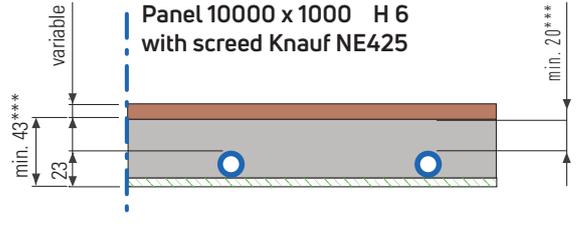
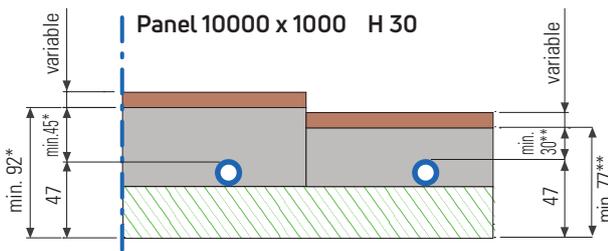
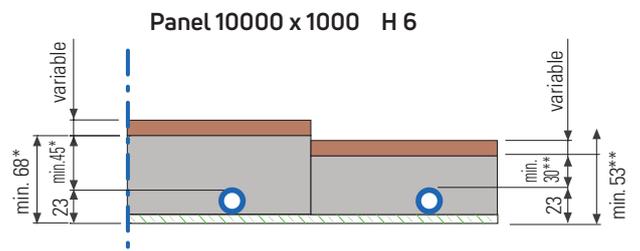
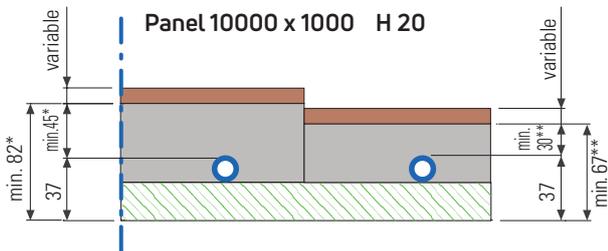
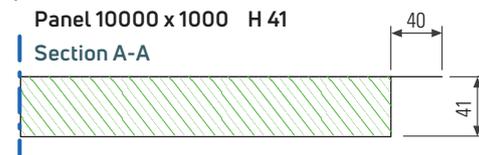
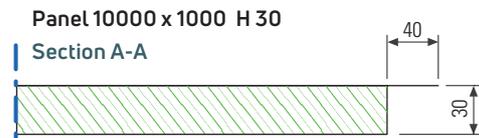
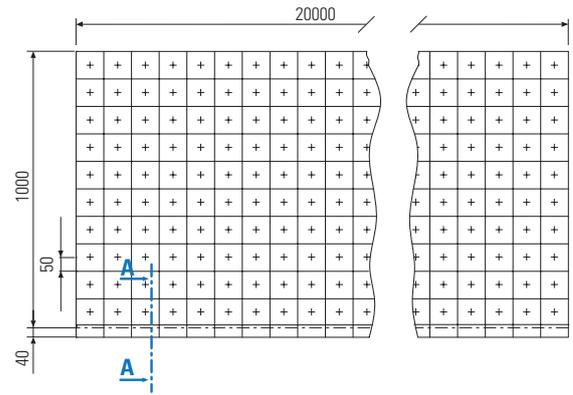
Emmeti Floor - Floor system

Klettjet

Insulating panel Klettjet EPS-150 Model H 20/30/41



Insulating panel PE Klettjet R Model H 6



Minimum system clearances for civil buildings (mm)

- (1) Traditional cement screed*
- (2) Self-levelling screed*
- (3) Fluid screed with low thickness Knauf Self-levelling NE 425
- (4) Fluid screed with low thickness Knauf Super-levelling NE 499

The effective thickness of the screed and the mode of construction of the same are to be defined with the manufacturer / supplier of the

same according to its specifications, depending on the conditions of installation (size and type of installation surface, type floor, etc.) and of the type of slab chosen.

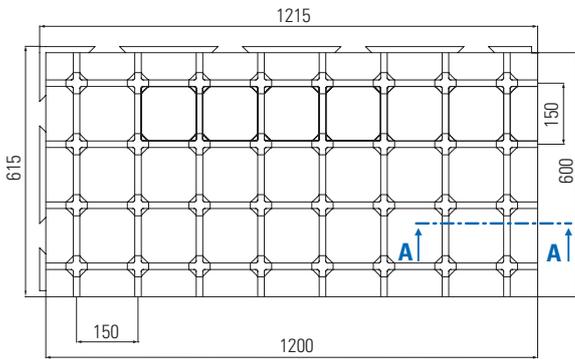
* If the Emmeti Floor system is combined with the Mirai SMI + Febos 4.0 heat pump, it is advisable to increase the thickness of the screed by about 1 cm from the minimum values.

Note: The screeds are not provided by Emmeti

Emmeti Floor - Floor system

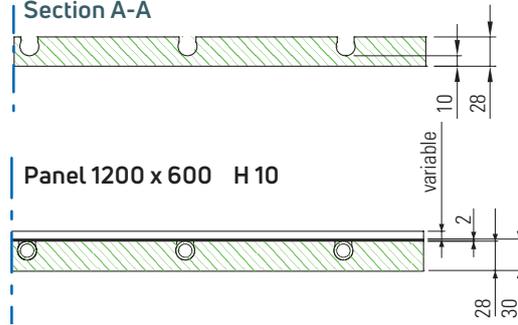
Dry Alu Floor

Insulating panel H = 10

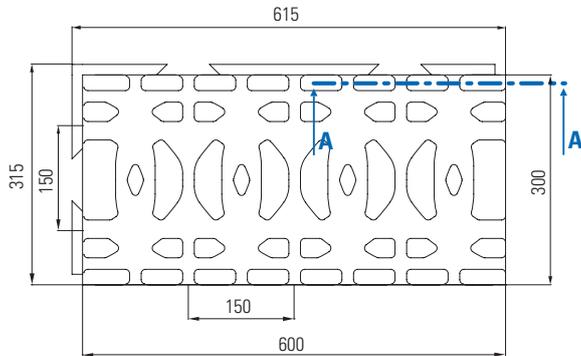


Panel 1200 x 600 H 10

Section A-A

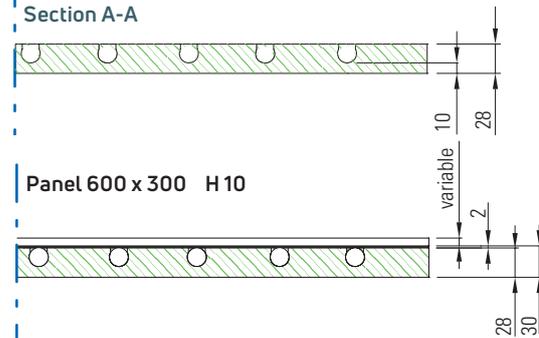


Head insulating panel H = 10



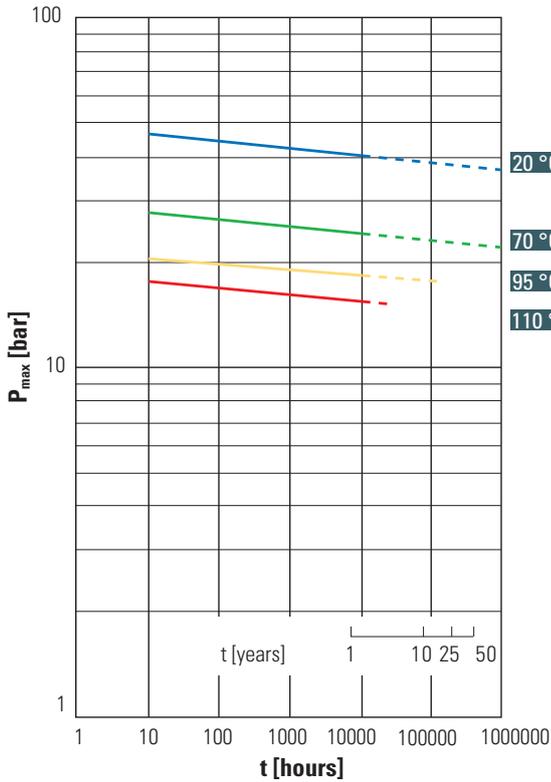
Panel 600 x 300 H 10

Section A-A



Emmeti Floor - Floor system

Regression curves Alpert pipe (16 x 2)



Regression curves reading example

The maximum pressure (P_{max}) for a period of 50 years at a set temperature can be identified by intersecting the vertical straight section relative to 50 years with the coloured straight section relative to that temperature. Note the planned working pressure (P_{es}), the safety coefficient will be equal to $k_s = P_{max} / P_{es}$

Classification of service conditions Alpert pipe (UNI EN ISO 21003-1)

Application class	Design Temperature T_D (°C)	Duration ^b at T_D (years)	T_{max} (°C)	Duration at T_{max} (years)	T_{mal} (°C)	Duration a T_{mal} (hours)	Field of use
1 ^a	60	49	80	1	95	100	Hot water (60 °C)
2 ^a	70	49	80	1	95	100	Hot water (70 °C)
4 ^b	20 +	2,5	70	2,5	100	100	Underfloor heating and low temperature radiators
	40 +	20					
	60	25					
5 ^b	20 +	14	90	1	100	100	High temperature radiators
	60 +	25					
	80	10					

Note:

T_D design Temperature
 T_{max} maximum design temperature for short periods
 T_{mal} malfunction temperature

- a) A Country may select either class 1 or class 2 in conformity with its national regulations.
- b): Where more than one design temperature for time and associated temperature appears for any class, they should be aggregated. "Plus cumulative" in the table implies a temperature profile of the mentioned temperature over time (e. g. the design temperature profile for 50 years for class 5 is 20 °C for 14 years followed by 60 °C for 25 years, 80 °C for 10 years, 90 °C for 1 year and 100 °C for 100 h).

Emmeti Floor - Floor system

Regression curves PE-Xc PENTA pipe

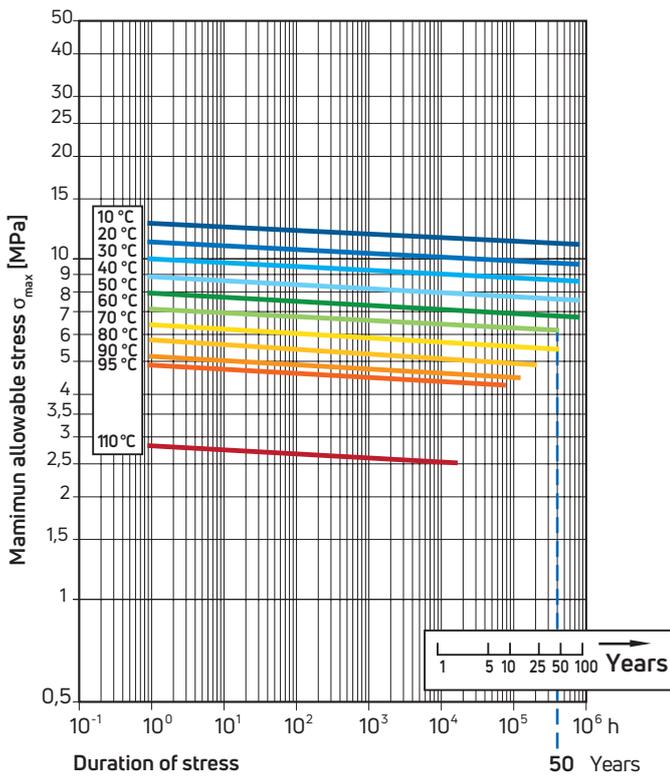


Diagram reading

The maximum allowable stress (σ_{max}) for a duration of 50 years at a certain temperature is identified by intersecting the line (vertical) relating to 50 years with the line relating to the temperature:

$$P_{max} [\text{bar}] = \frac{20 \times \sigma_{max} \times S_p}{D - S_p}$$

where:

σ_{max} = maximum allowable stress [MPa]

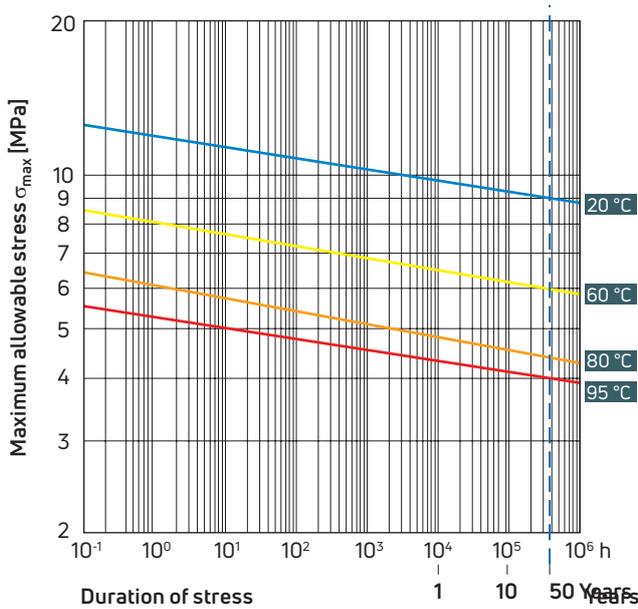
S_p = thickness of pipe [mm]

D = external \emptyset of pipe [mm]

Note the operating pressure (P_{es}), the safety coefficient will be equal to $K_s = P_{max} / P_{es}$

Emmeti Floor - Floor system

3-layer PE-Xa pipe regression curves



Example of reading Pipe regression curves PE-Xa, PE-Xa 5 layers and PE-RT

The maximum allowable stress (σ_{max}) for a duration of 50 years at a certain temperature is identified by intersecting the line (vertical) relating to 50 years with the line relating to the temperature:

$$p_{max} [\text{bar}] = \frac{20 \times \sigma_{max} \times S_p}{D - S_p}$$

where:

σ_{max} = maximum allowable stress [MPa]

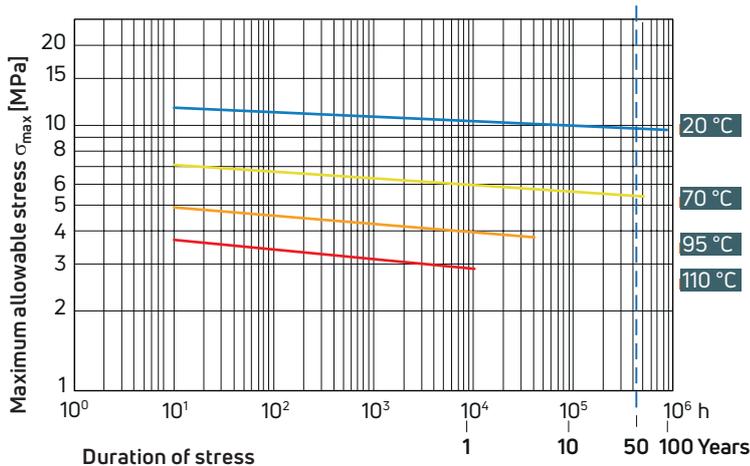
S_p = thickness of pipe [mm]

D = external \varnothing of pipe [mm]

Note the operating pressure (P_{es}), the safety coefficient will be equal to $K_s = P_{max} / P_{es}$

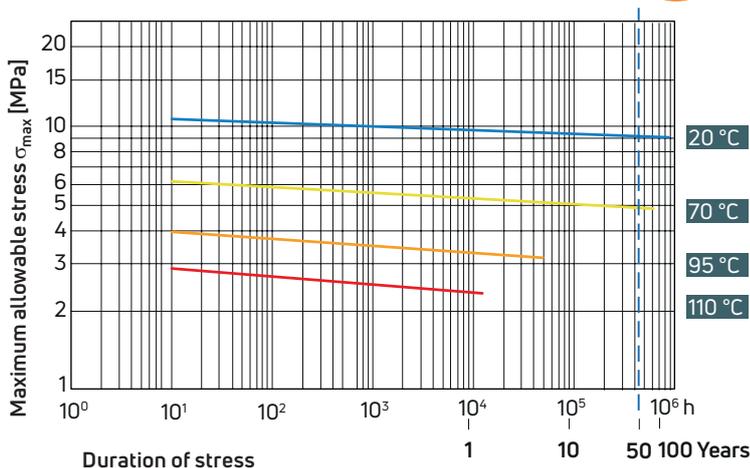
5-layer PE-Xa pipe regression curves

NEW



5-layer PE-RT pipe regression curves

NEW



Emmeti Floor - Floor system

Classification of conditions of use for PE-Xc PENTA (UNI EN ISO 21003-1), PE-Xc and PE-Xa (UNI EN ISO 15875-1) and PE-RT (UNI EN ISO 22391-1) pipes

Application class	Design Temperature T_D (°C)	Duration ^b at T_D (years)	T_{max} (°C)	Duration at T_{max} (years)	T_{mal} (°C)	Duration ^a at T_{mal} (hours)	Field of use
1 ^a	60	49	80	1	95	100	Hot water (60 °C)
2 ^a	70	49	80	1	95	100	Hot water (70 °C)
4 ^b	20 +	2,5	70	2,5	100	100	Underfloor heating and low temperature radiators
	40 +	20					
	60	25					
5 ^b	20 +	14	90	1	100	100	High temperature radiators
	60 +	25					
	80	10					

Note:

T_D design Temperature

T_{max} maximum design temperature for short periods

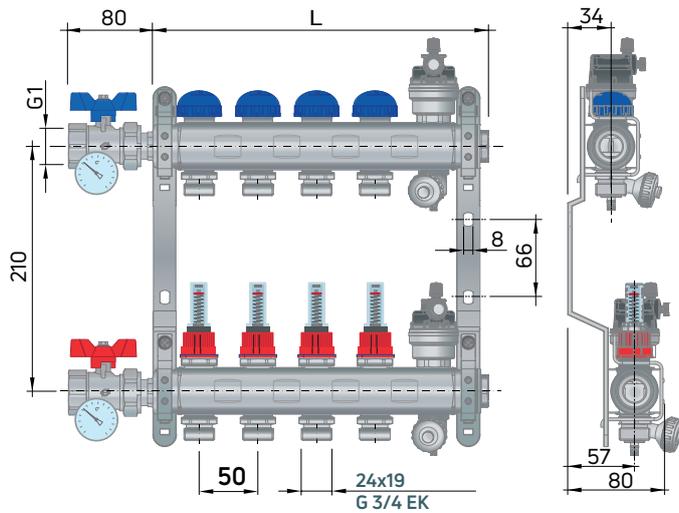
T_{mal} malfunction temperature

a) A Country may select either class 1 or class 2 in conformity with its national regulations.

b): Where more than one design temperature for time and associated temperature appears for any class, they should be aggregated. "Plus cumulative" in the table implies a temperature profile of the mentioned temperature over time (e. g. the design temperature profile for 50 years for class 5 is 20 °C for 14 years followed by 60 °C for 25 years, 80 °C for 10 years, 90 °C for 1 year and 100 °C for 100 h).

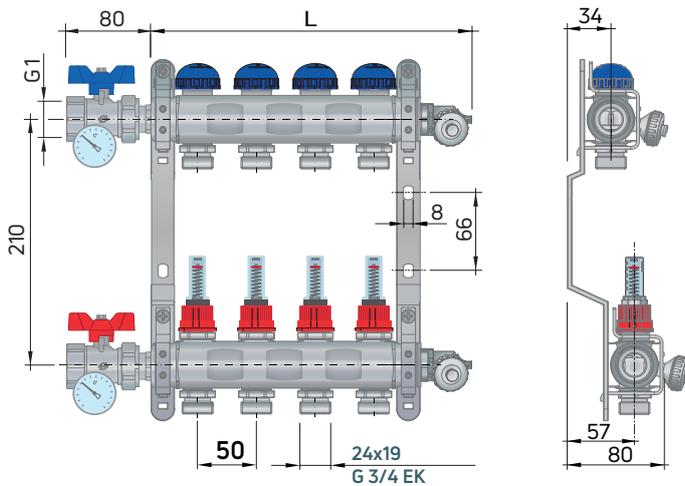
Topway S - Bars manifold in stainless steel

Topway S distribution manifold in stainless steel, with lockshields with flow meters included



Nr. ways	2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
L [mm]	185	235	285	355	385	435	485	535	585	635	685

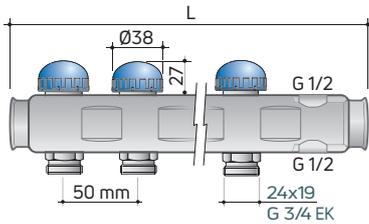
Topway S Compact distribution manifold in stainless steel, with lockshields with flow meters included



Nr. ways	2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
L [mm]	174	224	274	324	374	424	474	524	574	624	674

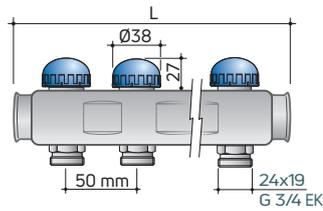
Topway S - Bars manifold in stainless steel

Topway S return manifold nickel-plated with valves



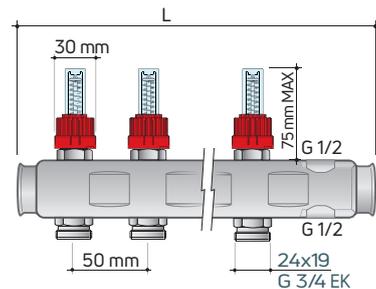
Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L [mm]	175	225	275	325	375	425	475	525	575	625	675

Topway S Compact return manifold nickel-plated, with valves, without additional way



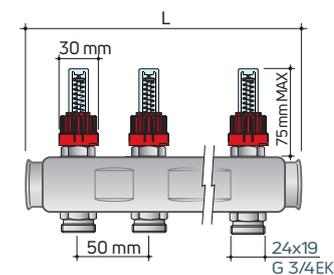
Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L [mm]	125	175	225	275	325	375	425	475	525	575	625

Topway S flow manifold nickel-plated, with flow meters



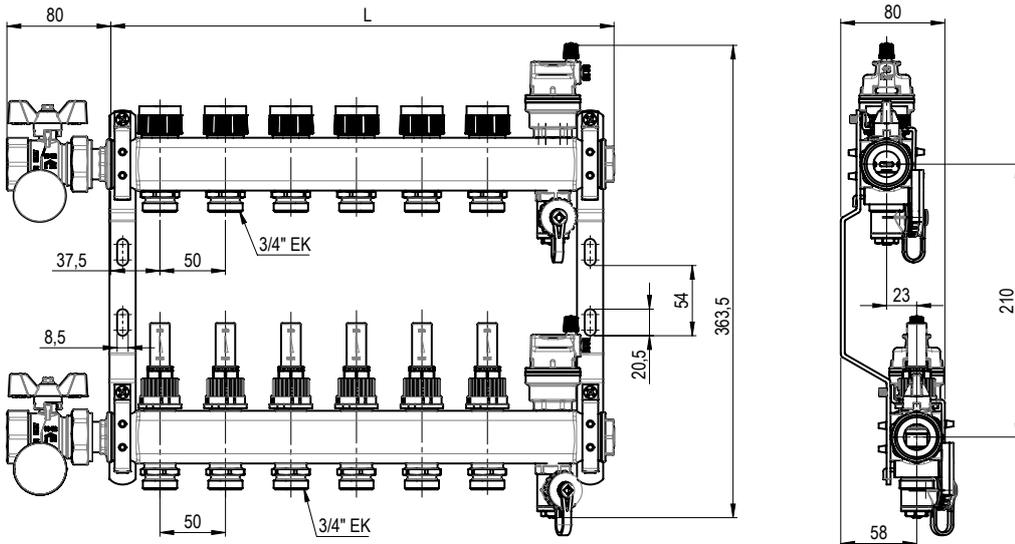
Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L [mm]	175	225	275	325	375	425	475	525	575	625	675

Topway S Compact flow manifold nickel-plated, with flow meters, without additional way



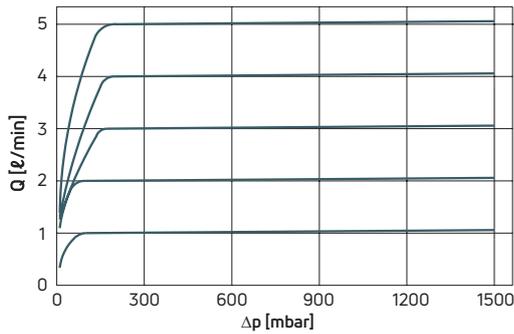
Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L [mm]	125	175	225	275	325	375	425	475	525	575	625

Topway S-D - Stainless steel manifold



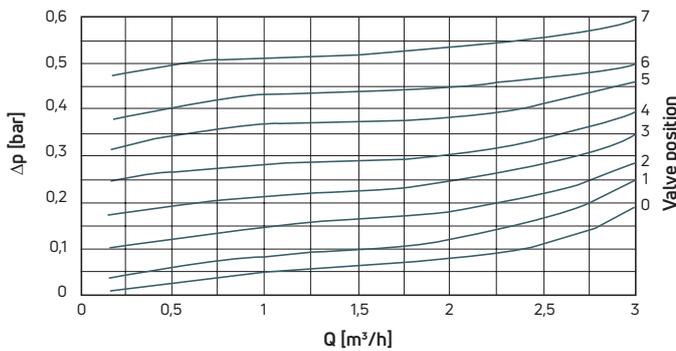
Model	2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways	
1"	L [mm]	184	234	284	334	384	343	484	534	584	634	684

Dynamic valve diagram

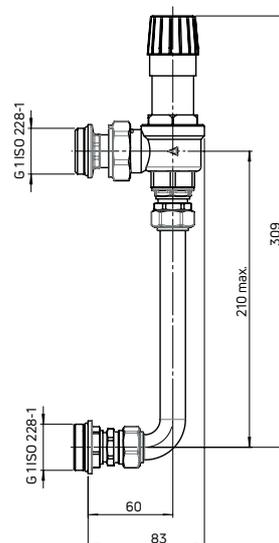


Terminal kit with by-pass

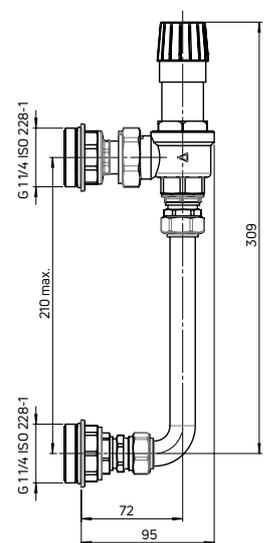
Overpressure valve graph



Size 1"

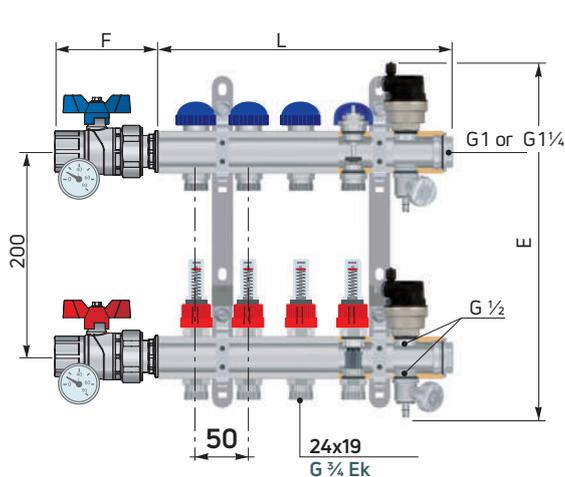


Size 1 1/4"



Topway - Brass manifold

Pre-assembled nickel-plated Topway manifold with lockshields with built-in flow meters

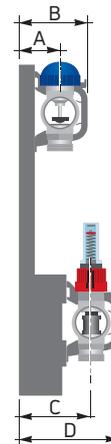
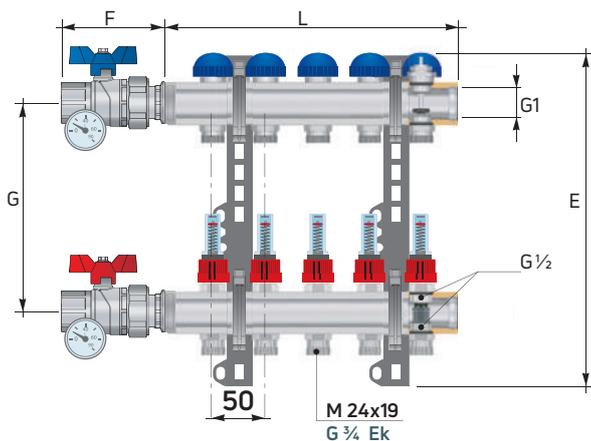


		1"	1 1/4"
A	mm	26,5	30,5
B	mm	51	58,5
C	mm	56,5	60,5
D	mm	81	89,5
E	mm	361,5	371,5
F	mm	97	135

Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L mm	174	224	274	324	374	424	474	524	574	624	674
1 1/4"	L mm	-	-	282	332	382	432	482	532	582	632	682

Topway Compact - Brass manifold

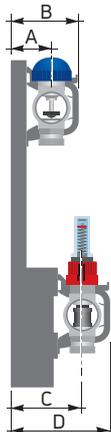
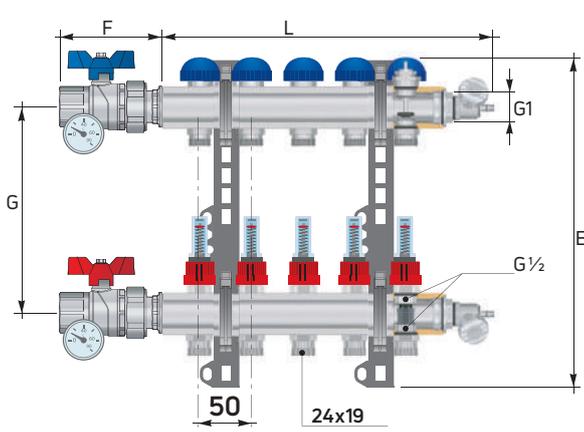
Nickel plated distribution manifold kit



		POSITION A-A	POSITION B-B
A	mm	39	39
B	mm	66	66
C	mm	69	65
D	mm	96	92
E	mm	320	320
F	mm	97	97
G	mm	200	210

Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L mm	114	164	214	264	314	364	414	464	514	564	614

Nickel plated distribution manifold kit with drain cocks

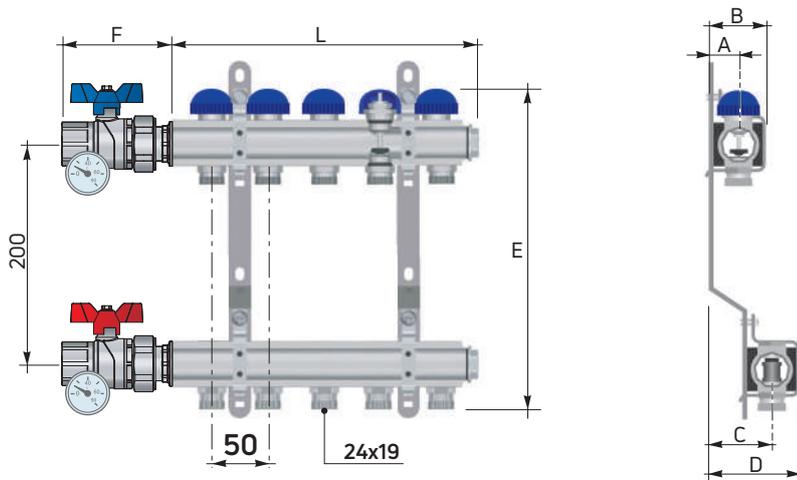


		POSITION A-A 1"	POSITION B-B 1"
A	mm	39	39
B	mm	66	66
C	mm	69	65
D	mm	96	92
E	mm	320	320
F	mm	97	97
G	mm	200	210

Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L mm	165,5	215,5	265,5	315,5	365,5	415,5	465,5	515,5	565,5	615,5	665,5

Topway R - Brass manifold for radiators

Topway R pre-assembled nickel plated

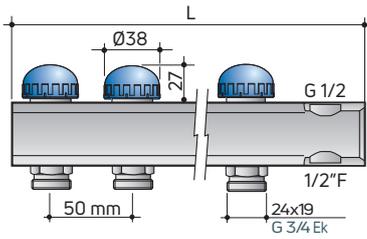


		1"	1"1/4
A	mm	26,5	30,5
B	mm	51	58,5
C	mm	56,5	60,5
D	mm	81	89,5
E	mm	323	364
F	mm	97	135

Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L mm	124	174	224	274	324	374	424	474	524	574	624
1"1/4	L mm	-	-	232	282	332	382	432	482	532	582	632

Topway - Brass manifolds, single bars

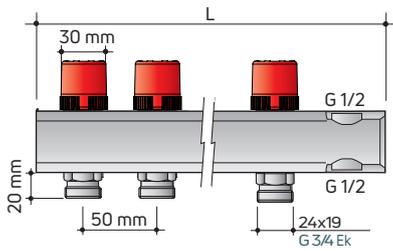
Topway return manifold nickel plated, with valves



Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L mm	164	214	264	314	364	414	464	514	564	614	664
1"1/4	L mm	170	220	270	320	370	420	470	520	570	620	670

Note: takeoff 50 mm

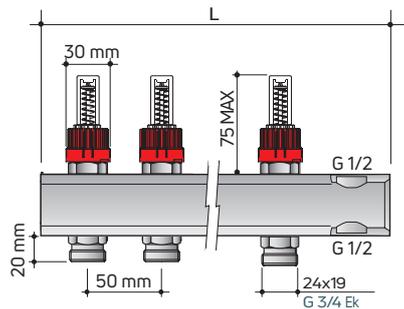
Topway nickel-plated flow manifold, with lockshields



Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L mm	164	214	264	314	364	414	464	514	564	614	664
1"1/4	L mm	170	220	270	320	370	420	470	520	570	620	670

Note: takeoff 50 mm

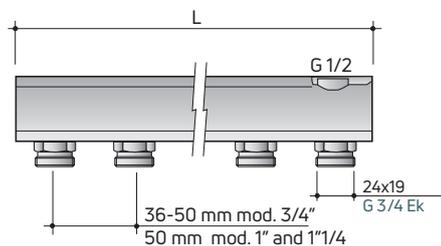
Topway nickel-plated flow manifold, with flow meters



Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
1"	L mm	164	214	264	314	364	414	464	514	564	614	664
1"1/4	L mm	170	220	270	320	370	420	470	520	570	620	670

Note: takeoff 50 mm

Topway nickel-plated distribution manifold, with takeoffs



Model		2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways
3/4"	L mm	85	121	157	193	229	265	301	337	373	409	445

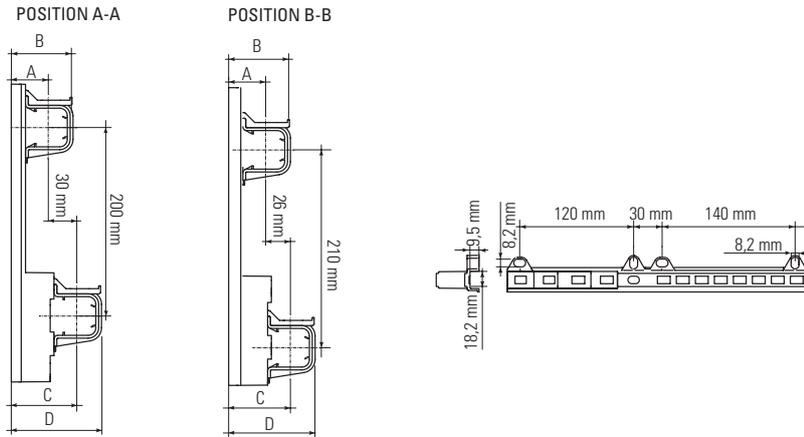
Note: takeoff 36 mm

3/4"	L mm	103	153	203	253	303	353	403	453	503	553	603
1"	L mm	114	164	214	264	314	364	414	464	514	564	614
1"1/4	L mm	-	-	220	270	320	370	420	470	520	570	620

Note: takeoff 50 mm

Topway - Brass manifolds

Pair of adjustable double supports



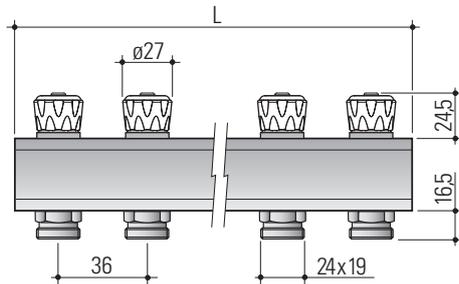
POSITION A-A	3/4" (mm)	1" (mm)	1 1/4" (mm)
A	39	39	44
B	62	66	76
C	69	69	74
D	92	96	106

POSITION B-B	3/4" (mm)	1" (mm)	1 1/4" (mm)
A	39	39	44
B	62	66	76
C	65	65	70
D	88	92	102

Topway M - Distribution manifold with taps

Topway M

Manifold with taps, nickel-plated, with 24x19 takeoffs



Model	4 ways	5 ways	6 ways
3/4" L mm	157	193	229

Note: takeoff 36 mm

Topway S / Topway - Distribution manifolds

Kit expansion vessel for connection to distribution manifolds Topway in Metalbox Plus cabinet

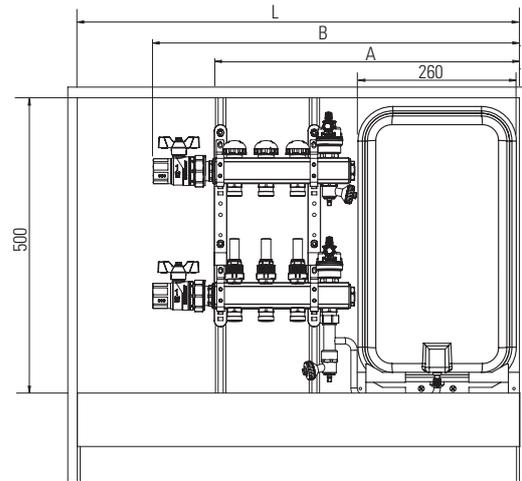
Distribution module in metal cabinet

No. of ways recommended of Topway manifolds 1":

- with expansion tank 8 liters in Metalbox Plus for 80 and 120 mm brick thickness
- with expansion tank 10 liters in Metalbox Plus for 120 mm brick thickness

L [mm]		N° Ways	A [mm]	B ₁ [mm]	B ₂ [mm]
500		2	430	-	-
600	1 2	2	430	530	540
700	1 2	2	430	530	540
700	1 2	3	480	580	590
850	1 2	4	530	630	640
850	1 2	5	580	680	690
850	1 2	6	630	730	740
1000	1 2	7	680	780	790
1000	1 2	8	730	830	840
1000	1 2	9	780	880	890
1200	1 2	10	830	930	940
1200	1 2	11	880	980	990
1200	1 2	12	930	1030	1040

- 1 With kit straight Progress ball valves 1"
- 2 With kit right-angle Progress ball valves 1"



No. of ways recommended of Topway manifolds 1 1/4":

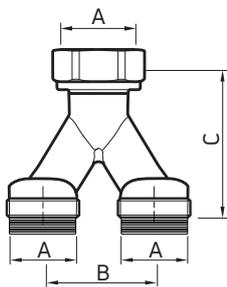
- with expansion tank 8 or 10 liters in Metalbox Plus for 120 mm brick thickness

L [mm]		N° Ways	A [mm]	B ₁ [mm]	B ₂ [mm]
500		2	430	-	-
600	1 2	2	430	565	550
700	1 2	2	430	565	550
850	1 2	3	480	615	600
850	1 2	4	530	665	650
850	1 2	5	580	715	700
1000	1 2	6	630	735	720
1000	1 2	7	680	815	800
1000	1 2	8	730	865	850
1200	1 2	9	780	915	900
1200	1 2	10	830	965	950
1200	1 2	11	880	1015	1000
1200	1 2	12	930	1065	1050

- 1 With kit straight Progress ball valves 1 1/4"
- 2 With kit right-angle Progress ball valves 1 1/4"

Splitter fitting

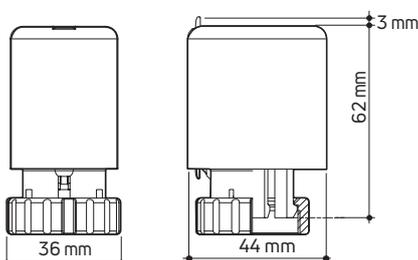
for Topway / Topway S manifolds with 24x19 or 3/4" Eurocone takeoffs



Model	A	B [mm]	C [mm]
24x19	24x19	36	58
3/4" Eurocone	3/4" Ek	36	49,5

Control T - Electrothermic head

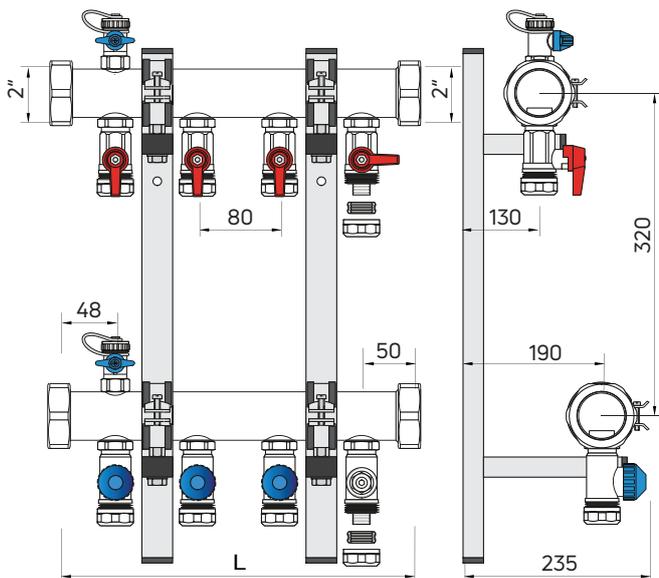
Dimensions



Emmeti Industrial Floor - Industrial Floor system

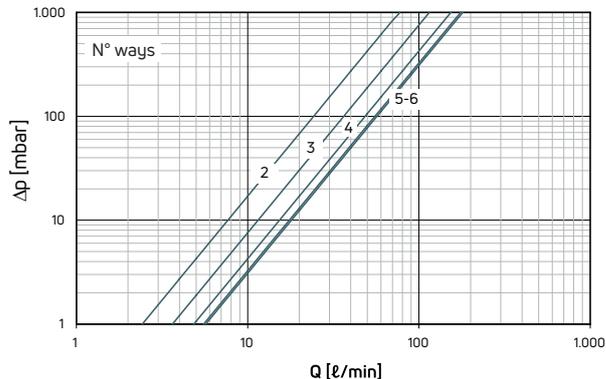
Industrial Floor distribution manifold

Dimensional and performance data

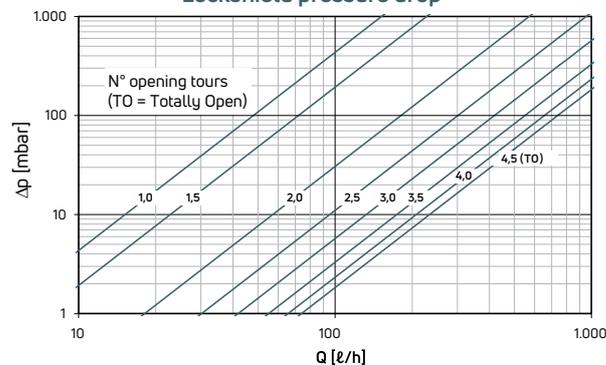


N° ways	L [mm]
3+3	258
4+4	338
5+5	418
6+6	498

Flow bar+ return bar pressure drop

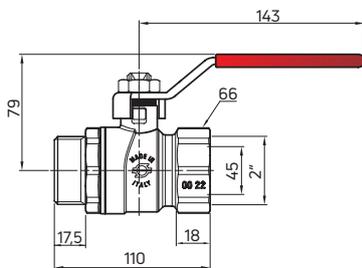


Lockshield pressure drop

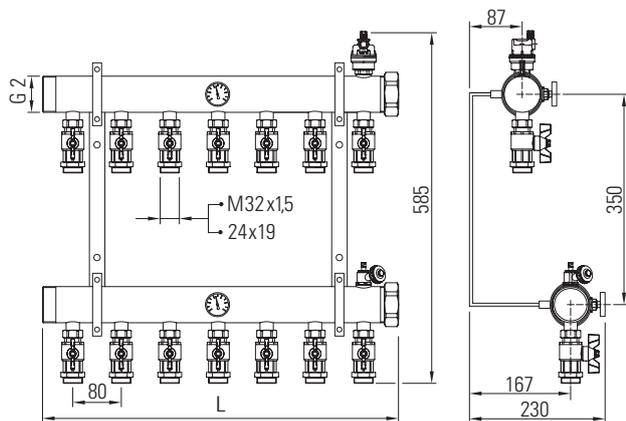


2" ball valve

Dimensional data



Industrial floor manifold

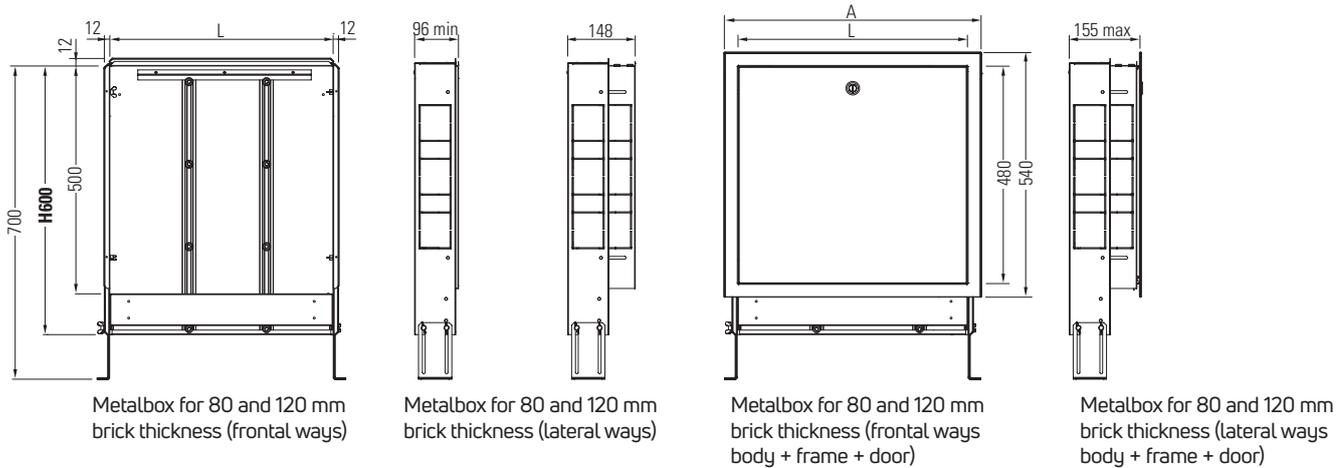


N. ways	5	6	7	8	9	10	11	12	13	14	15
L [mm]	430	510	590	670	750	830	910	990	1070	1150	1230

Metalbox Plus e Metalbox - Box for manifolds and distribution modules

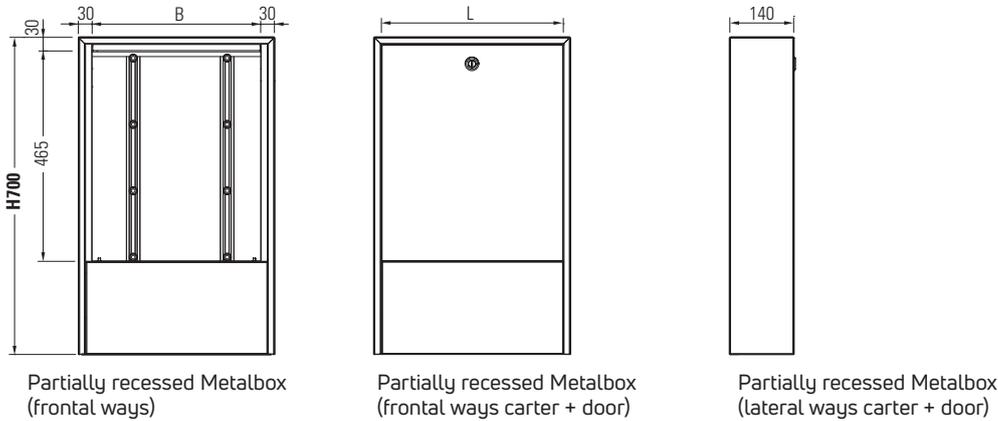
Metalbox Plus:

Built-in cabinet for manifolds, regulation groups, under boiler kit and accounting modules (H600)



Metalbox:

External manifolds cabinet (H700)



Metalbox:

Built-in cabinet for Modular Firstbox - Energy Combibox Floor (H850)

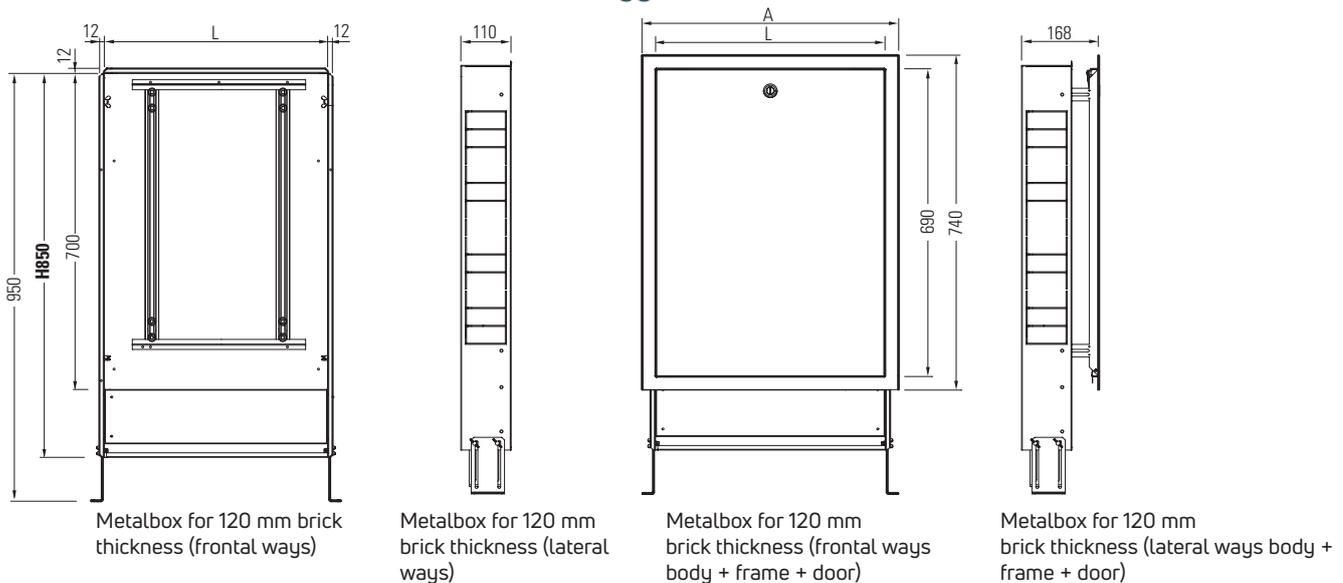


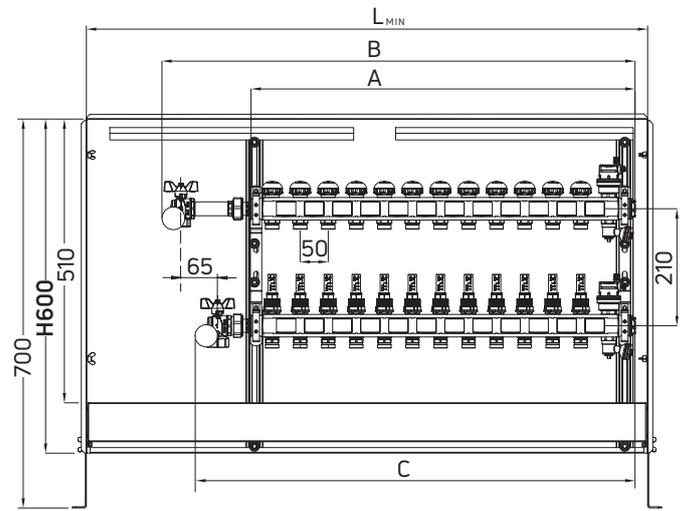
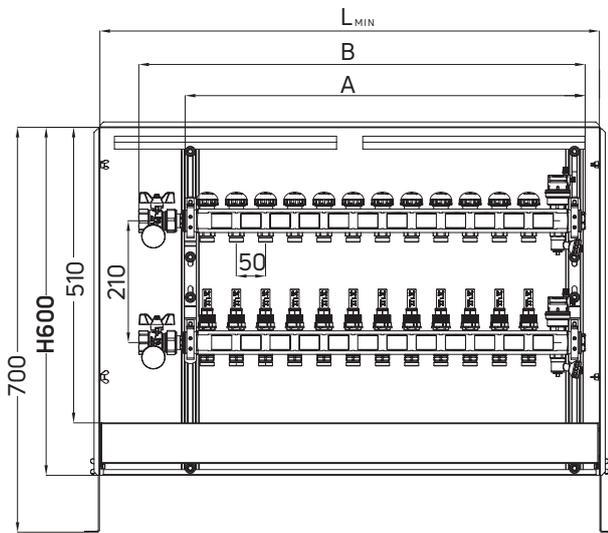
Table dimensions Metalbox Plus manifolds cabinet

Sizes [mm]	H 600/H700/H850	H 600	H 600/H700/H850	H 600/H700/H850	H 600/H700/H850	H 600/H700/H850
L	500	600	700	850	1000	1200
A	560	660	760	910	1060	1260
B	470	/	670	820	970	1170

Metalbox Plus e Metalbox - Box for manifolds and distribution modules

Topway S manifolds + accessories. Clearances in cabinet

With Progress valves + thermometers



In combination with Topway S manifolds in metal cabinet

N. ways	A [mm]	B [mm]	L _{MIN} [mm]
2	184	264	500
3	234	314	500
4	284	364	500
5	334	414	500
6	384	464	500
7	434	514	600
8	484	564	600
9	534	614	700
10	584	664	700
11	634	714	850
12	684	764	850

Note: L_{MIN} inclusive of fittings pressing dimensions:
 - with 1" straight Progress valve kit with unions;
 - with 1" straight Progress valves kit with thermometers and unions.

In combination with Topway S manifolds in metal cabinet

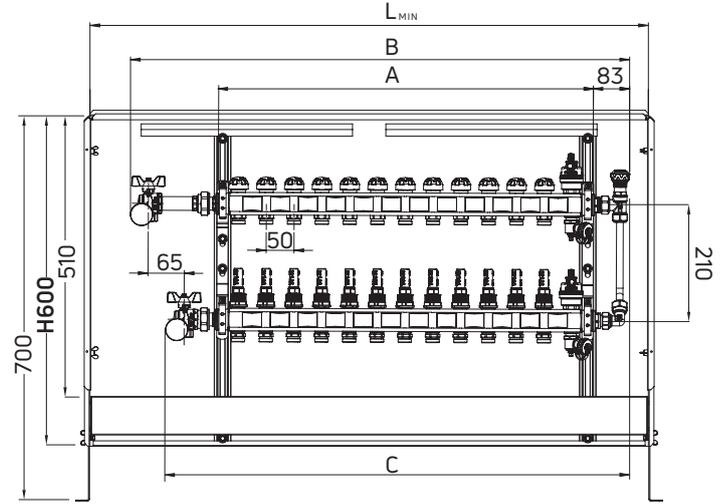
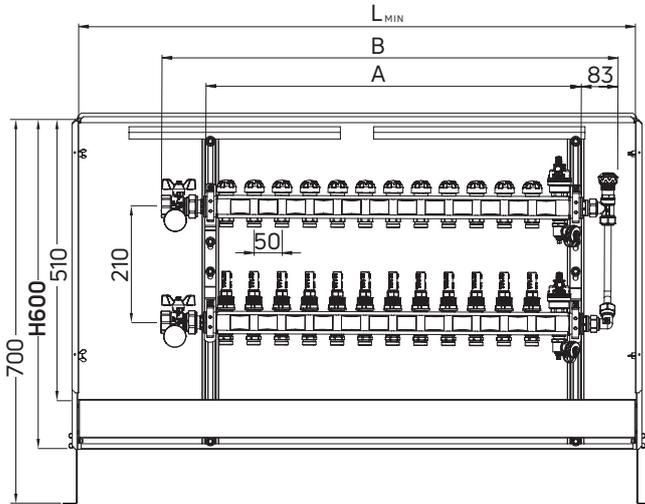
N. ways	A [mm]	B [mm]	C [mm]	L _{MIN} [mm]
2	184	344	279	500
3	234	394	329	500
4	284	444	379	500
5	334	494	429	600
6	384	544	479	600
7	434	594	529	700
8	484	644	579	700
9	534	694	629	850
10	584	744	679	850
11	634	794	729	850
12	684	844	779	1000

Note: L_{MIN} inclusive of fittings pressing dimensions:
 - with Progress angle valve kit with unions
 - with Progress angle valve kit with unions and thermometers

Metalbox Plus e Metalbox - Box for manifolds and distribution modules

Topway S manifolds + accessories. Clearances in cabinet

With Progress valves + thermometers and by-pass terminal kit



Topway S manifold combination in metal cabinet

N. ways	A [mm]	B [mm]	L _{MIN} [mm]
2	175	337	500
3	225	387	500
4	275	437	600
5	325	487	600
6	375	537	700
7	425	587	700
8	475	637	850
9	525	687	850
10	575	737	850
11	625	787	1000
12	675	837	1000

Note: L_{MIN} inclusive of fittings pressing dimensions:
 - with 1" straight Progress valve kit with unions
 - with 1" straight Progress valve kit with unions and thermometers

Topway S manifold combination in metal cabinet

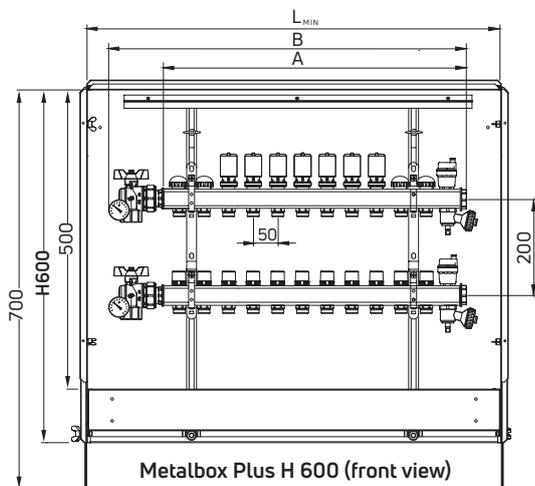
N. ways	A [mm]	B [mm]	C [mm]	L _{MIN} [mm]
2	174	415	350	500
3	224	465	400	600
4	274	515	450	600
5	324	565	500	700
6	374	615	550	700
7	424	665	600	850
8	474	715	650	850
9	524	765	700	850
10	574	815	750	1000
11	624	865	800	1000
12	674	915	850	1000

Note: L_{MIN} inclusive of fittings pressing dimensions:
 - with Progress angle valve kit 1" with unions
 - with Progress 1" angle valve kit with unions and thermometers

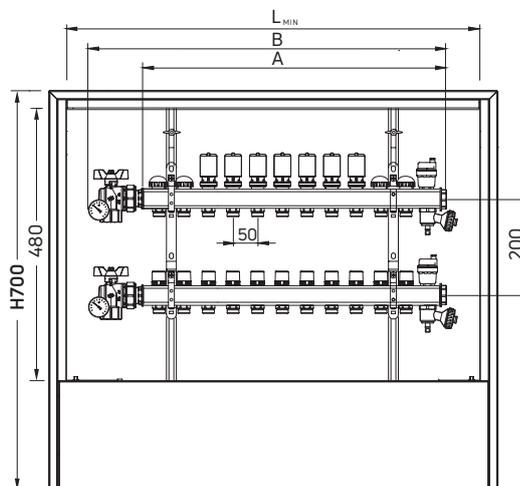
Metalbox Plus e Metalbox - Box for manifolds and distribution modules

Topway collectors (all versions) + accessories. Dimensions in cabinet

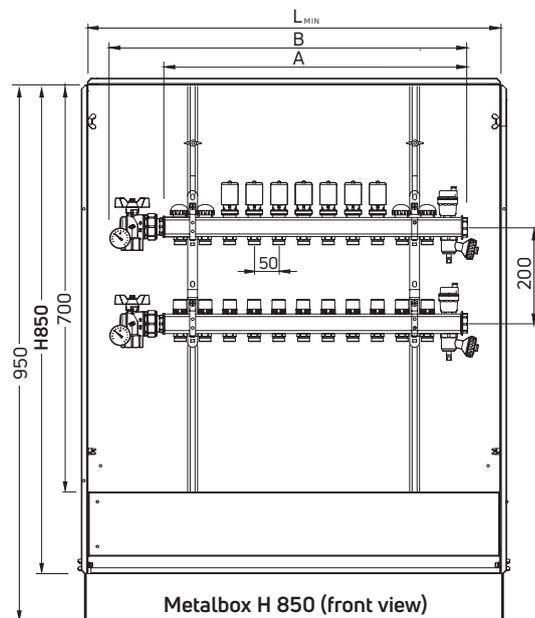
With Progress valves + thermometers



Metalbox Plus H 600 (front view)



External Metalbox H 700 (front view)



Metalbox H 850 (front view)

Combination of Topway 1" manifolds in metal cabinet

N. ways	A [mm]	B ¹ [mm]	B ² [mm]	L _{MIN} [mm]
2	172	270	280	500
3	222	320	330	500
4	272	370	380	500
5	322	420	430	500
6	372	470	480	600
7	422	520	530	600
8	472	570	580	700
9	522	620	630	700
10	572	670	680	850
11	622	720	730	850
12	672	770	780	1000

Note: L_{MIN} inclusive of fittings pressing overall dimensions

- ¹ With straight Progress valve kit 1" with thermometers and unions
- ² With angle Progress valve kit 1" with thermometers and unions

Combination of Topway 1 1/4" manifolds in metal cabinet

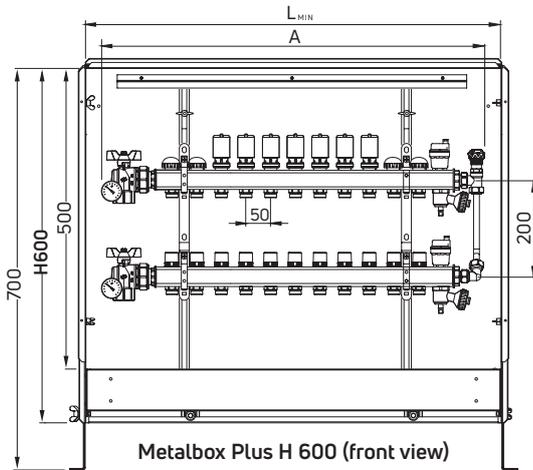
N. ways	A [mm]	B ¹ [mm]	B ² [mm]	L _{MIN} [mm]
2	182	316	300	500
3	232	366	350	600
4	282	416	400	600
5	332	466	450	700
6	382	516	500	700
7	432	566	550	850
8	482	616	600	850
9	532	666	650	850
10	582	716	700	1000
11	632	766	750	1000
12	682	816	800	1000

Note: L_{MIN} inclusive of fittings pressing overall dimensions

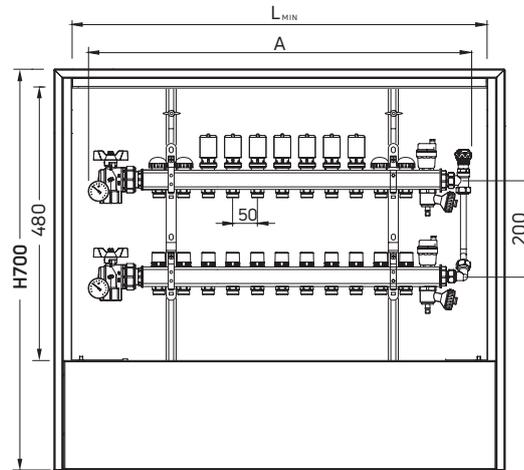
- ¹ With straight Progress valve kit 1 1/4" with thermometers and unions
- ² With angle Progress valve kit 1 1/4" with thermometers and unions

Metalbox Plus e Metalbox - Box for manifolds and distribution modules

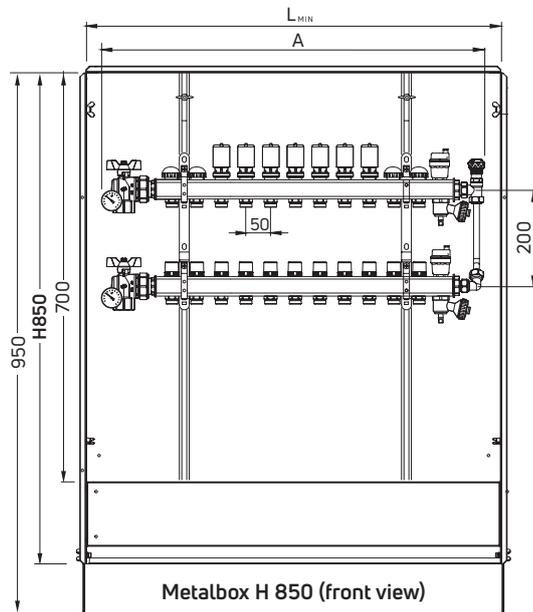
With Progress valves + thermometers and by-pass terminal kit



Metalbox Plus H 600 (front view)



External Metalbox H 700 (front view)



Metalbox H 850 (front view)

Combination of Topway 1" manifolds in metal cabinet

N. ways	A ₁ [mm]	A ₂ [mm]	L _{MIN 1} [mm]	L _{MIN 2} [mm]
2	357	367	500	500
3	407	417	500	500
4	457	467	600	600
5	507	517	600	600
6	557	567	700	700
7	607	617	700	700
8	657	667	850	850
9	707	717	850	850
10	757	757	850	850
11	807	817	1000	1000
12	857	867	1000	1000

Note: L_{MIN} inclusive of fittings pressing overall dimensions

- 1 With straight Progress valve kit 1" with thermometers and unions
- 2 With angle Progress valve kit 1" with thermometers and unions

Combination of Topway 1 1/4" manifolds in metal cabinet

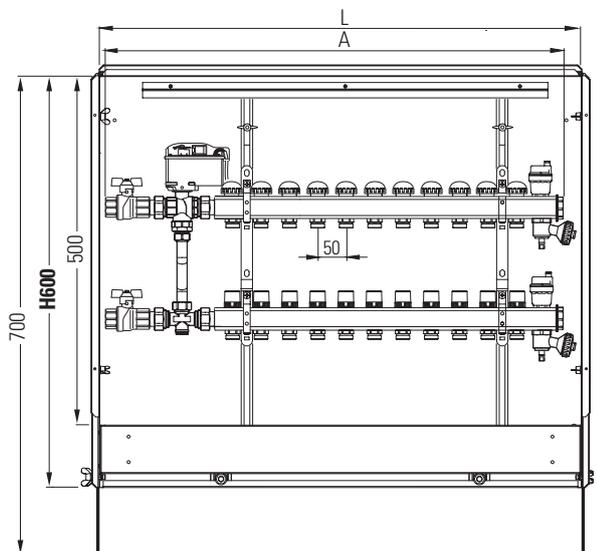
N. ways	A ₁ [mm]	A ₂ [mm]	L _{MIN 1} [mm]	L _{MIN 2} [mm]
2	415	395	600	500
3	465	445	600	600
4	515	495	700	600
5	565	545	850	700
6	615	595	850	700
7	665	645	850	850
8	715	695	850	850
9	765	745	1000	850
10	815	795	1000	850
11	865	845	1000	1000
12	915	895	1000	1000

Note: L_{MIN} inclusive of fittings pressing overall dimensions

- 1 With straight Progress valve kit 1 1/4" with thermometers and unions
- 2 With angle Progress valve kit 1 1/4" with thermometers and unions

Topway S manifolds + accessories. Clearances in cabinet

Topway manifold with 4-way Modulo Compact valve
+ straight F-F Progress valves

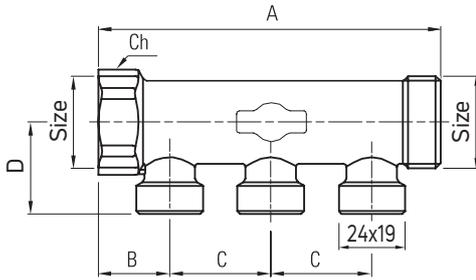


Combination of Topway 1" manifolds in metal cabinet

N. ways	A [mm]	L [mm]
3	432	500
7	632	700
10	782	850
12	882	1000

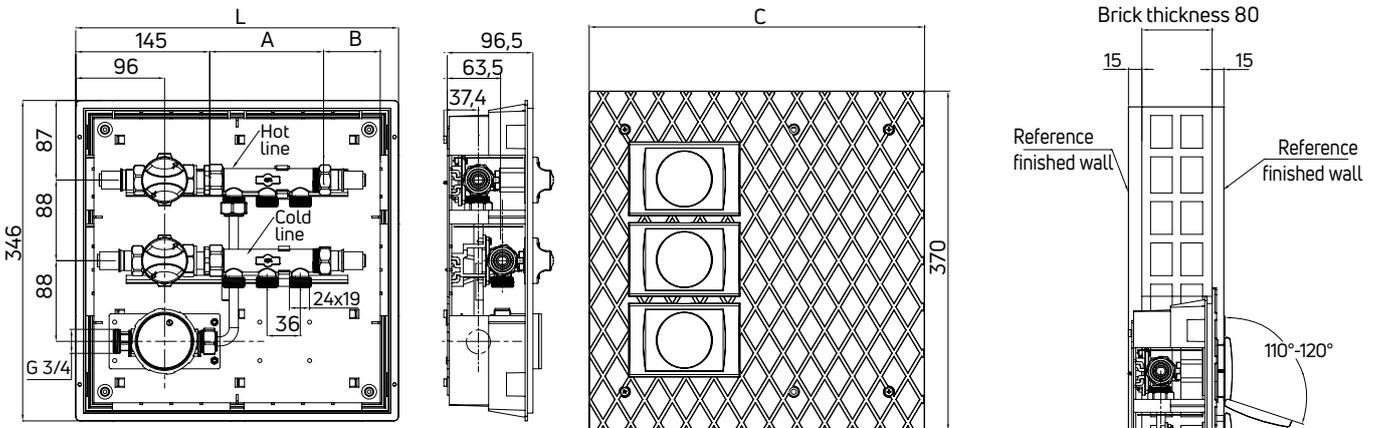
Modular - Brass manifold

Brass manifold takeoffs 36 mm



Size	N. ways	DN	A [mm]	B [mm]	C [mm]	D [mm]	CH [mm]	PN bar	g
G 3/4"	2	20	85	24,5	36	29	31	10	185
G 3/4"	3	20	121	24,5	36	29	31	10	230
G 3/4"	4	20	157	24,5	36	29	31	10	330
G 1"	2	25	86	25,5	36	33	38	10	240
G 1"	3	25	122	25,5	36	33	38	10	325
G 1"	4	25	158	25,5	36	33	38	10	410

Hydrobox - Recessed box for water



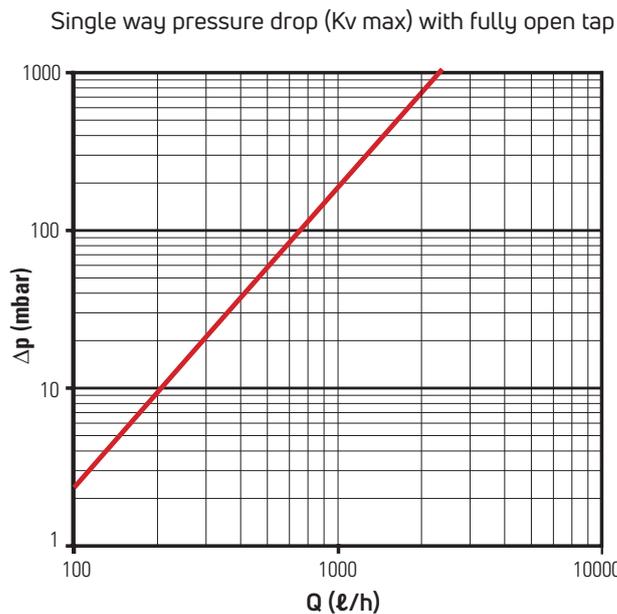
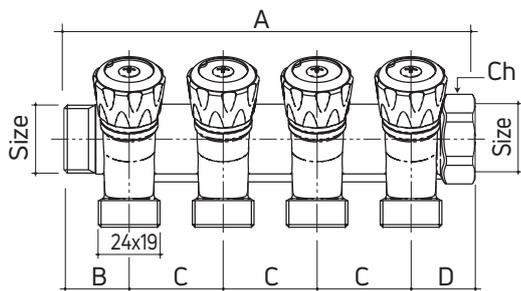
Hydrobox Basic

Recessed box for water with ball valves and retractable knobs

Box model	L mm	N. ways	A [mm]	B [mm]	C [mm]
310 x 310	350	2	85	100	363
		3	121	64	
		4	157	28	
460 x 310	500	2	85	252	513
		3	121	216	
		4	157	180	
		2 + 3	215	122	
		3 + 3	251	86	
		3 + 4	287	50	
		4 + 4	323	14	

Multiplex - Brass manifold with taps

Brass manifold with isolating taps

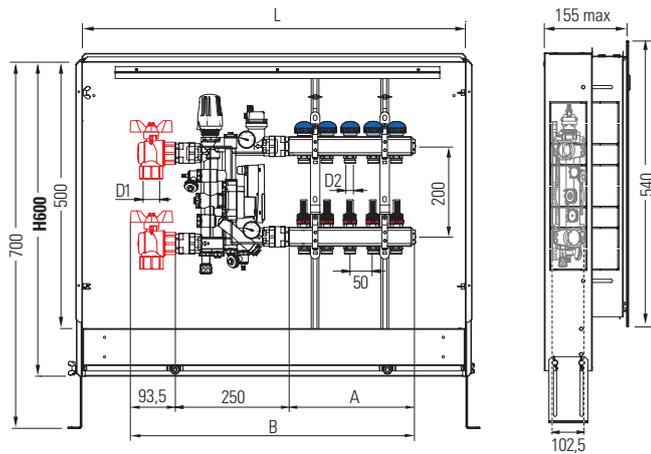


Size	N° ways	A [mm]	B [mm]	C [mm]	D [mm]	CH [mm]
G 3/4"	2	86	25	36	24,5	31
G 3/4"	3	122	25	36	24,5	31
G 3/4"	4	158	25	36	24,5	31
G 1"	2	92	27	36	27,5	37
G 1"	3	128	27	36	27,5	37
G 1"	4	164	27	36	27,5	37

Floor Control Unit HE - Regulation group

Floor Control Unit HE Low (L)

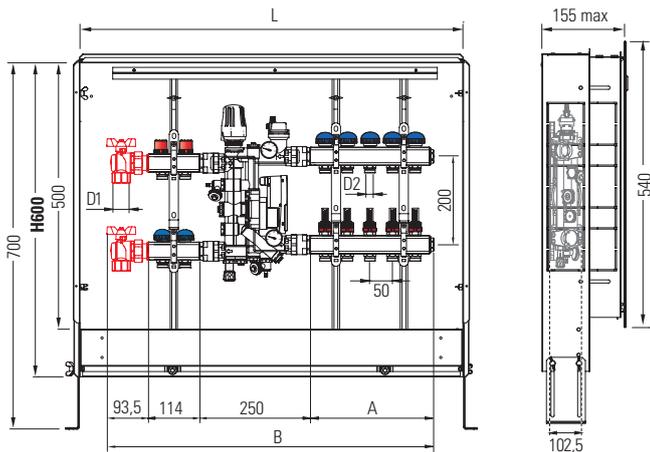
low Temperature Regulation and distribution group



Model	N. ways HIGH temp.	N. ways LOW temp.	A [mm]	B [mm]	L [mm]	D1	D2
3L	-	3	174	498	600	Rp 1	24x19
4L	-	4	224	548			
5L	-	5	274	598			
6L	-	6	324	648	850		
7L	-	7	374	698			
8L	-	8	424	748			
9L	-	9	474	798	1000		
10L	-	10	524	848			
11L	-	11	574	898			
12L	-	12	624	948	1200		
13L	-	13	674	998			

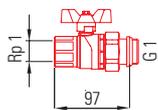
Floor Control Unit HE High + Low (2H + L)

Regulation and distribution group with 2 ways high temperature + low temperature



Model	N. ways HIGH temp.	N. ways LOW temp.	A [mm]	B [mm]	L [mm]	D1	D2
2H + 3L	2	3	174	633	700	Rp 1	24x19
2H + 4L	2	4	224	683	850		
2H + 5L	2	5	274	733			
2H + 6L	2	6	324	783			
2H + 7L	2	7	374	833			
2H + 8L	2	8	424	883			
2H + 9L	2	9	474	933	1200		
2H + 10L	2	10	524	983			
2H + 11L	2	11	574	1033			
2H + 12L	2	12	624	1083	1200		
2H + 13L	2	13	674	1133			

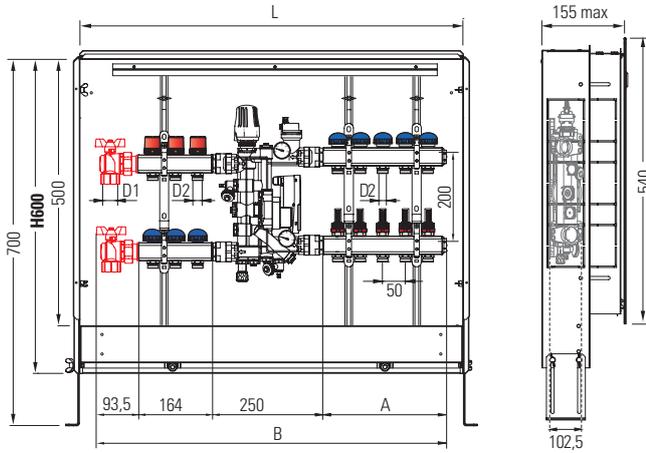
Straight 1" Progress valve kit with union



Floor Control Unit HE - Regulation group

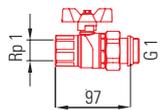
Floor Control Unit HE High+Low (3H + L)

Regulation and distribution group with 3 ways high temperature + low temperature



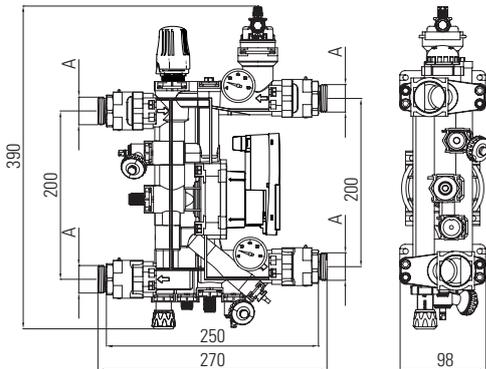
Model	N. ways HIGH temp.	N. ways LOW temp.	A [mm]	B [mm]	L [mm]	D1	D2
3H + 3L	3	3	174	683	850	Rp 1	24x19
3H + 4L	3	4	224	733			
3H + 5L	3	5	274	783			
3H + 6L	3	6	324	833	1000		
3H + 7L	3	7	374	883			
3H + 8L	3	8	424	933			
3H + 9L	3	9	474	983	1200		
3H + 10L	3	10	524	1033			
3H + 11L	3	11	574	1083			
3H + 12L	3	12	624	1133			

Straight 1" Progress valve kit with union



Mixing Unit M3V HE-V

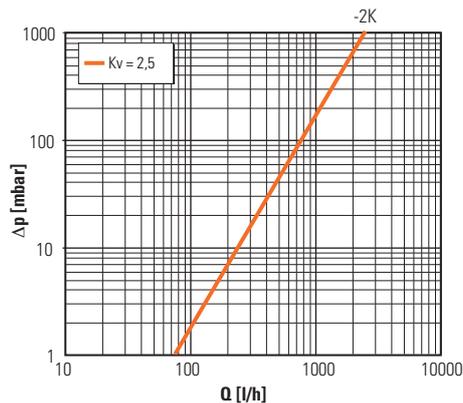
Mixing unit for low temperature systems



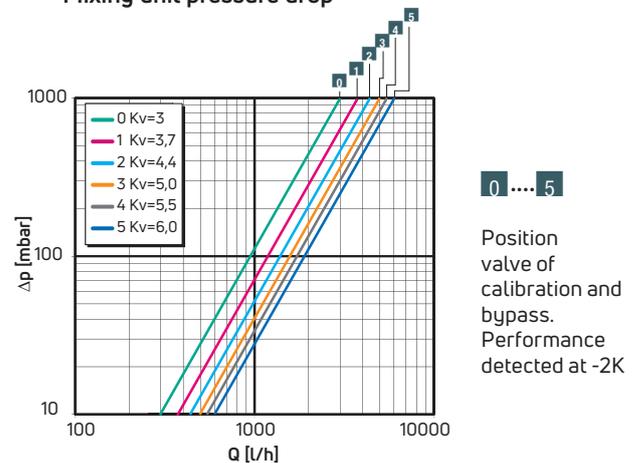
Model	A
1"	G 1
1" 1/4	G 1 1/4

Mixing unit pressure drop

Mixing valve pressure drops present in the Floor Control Unit HE and Mixing Unit M3V HE-V groups

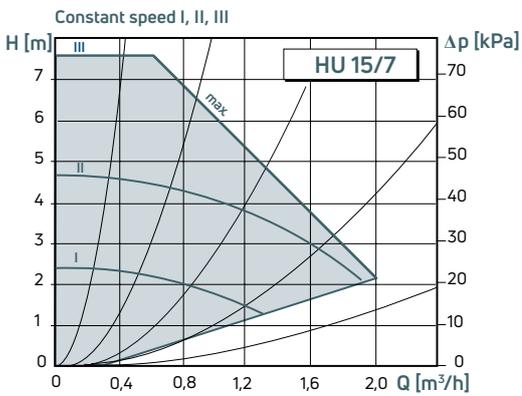
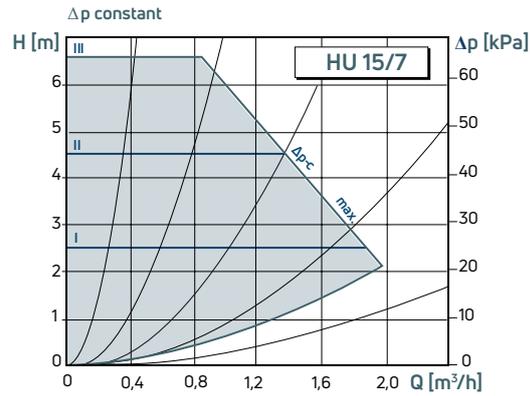
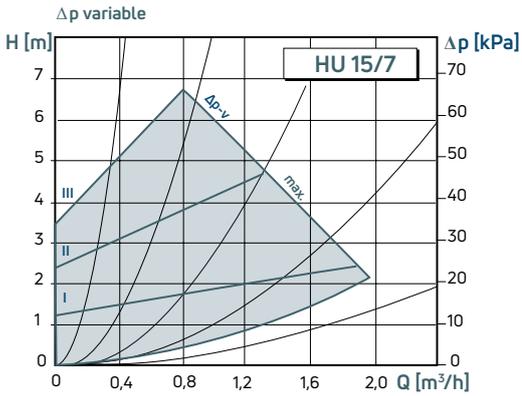


Mixing unit pressure drop

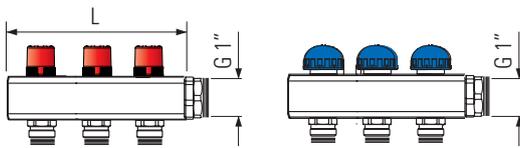


Floor Control Unit HE - Regulation group

Wilo Para HU 15/7 Circulator Diagram



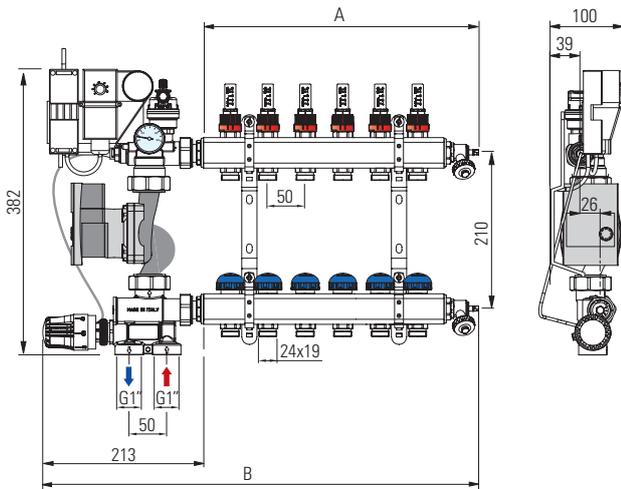
High temperature accessory kit



Model	2H	3H	4A	5A	6A
L [mm]	130	180	230	280	330

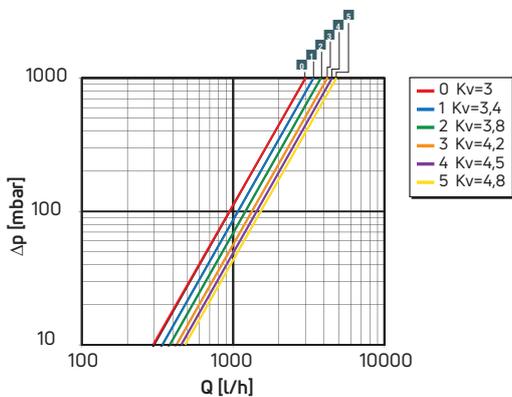
TM3-R Mixing Unit - Regulation group

TM3-R Mixing Unit Regulation group



Model	A [mm]	B [mm]
2 ways	160	373
3 ways	210	423
4 ways	260	473
5 ways	310	523
6 ways	360	573
7 ways	410	623
8 ways	460	673
9 ways	510	723
10 ways	560	773
11 ways	610	823
12 ways	660	873

Mixing unit pressure drop



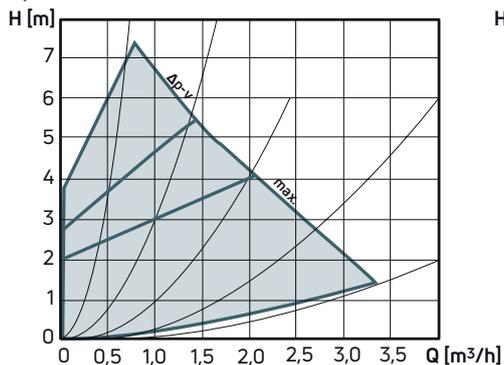
0 ... 5

Setting valve and by-pass position.

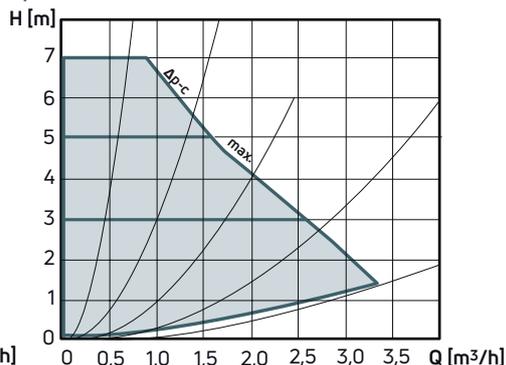
Performance measured at -2K

Wilco Para 25/7 circulator hydraulic performance diagrams

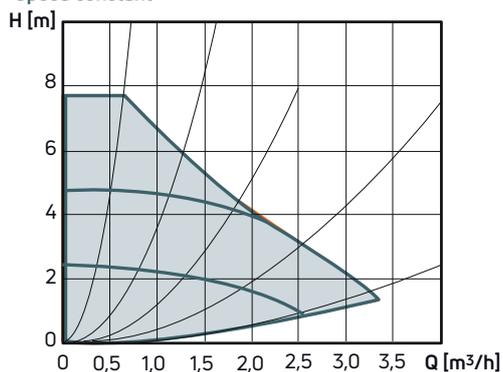
Δp-v Variable



Δp-c Constant



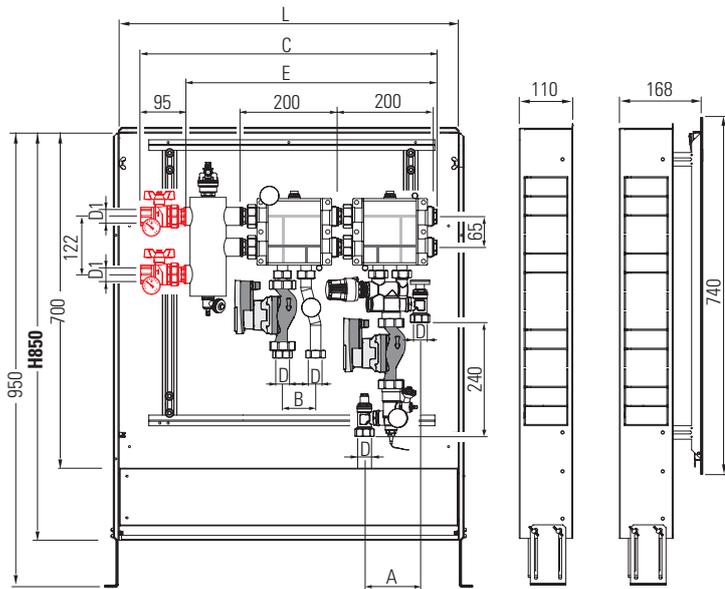
Speed constant



Modular Firstbox - For High-Low temperature systems

Modular Firstbox

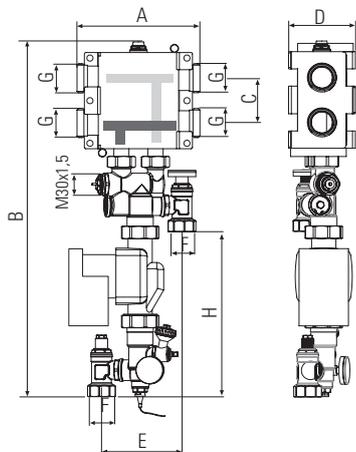
Recessed distribution modules
for High / Low temperature systems



Model	A [mm]	B [mm]	C [mm]	D	D1	E [mm]	L [mm]
1A	min 110 max 120	min 60 max 70	420	G 1	Rp 1	325	500
2H	min 110 max 120	min 60 max 70	620	G 1	Rp 1	525	700
3H	min 110 max 120	min 60 max 70	820	G 1	Rp 1	725	1000
1B	min 110 max 120	min 60 max 70	420	G 1	Rp 1	325	500
2B	min 110 max 120	min 60 max 70	620	G 1	Rp 1	525	700
3L	min 110 max 120	min 60 max 70	820	G 1	Rp 1	725	1000
1A + 1B	min 110 max 120	min 60 max 70	620	G 1	Rp 1	525	700
1A + 2B	min 110 max 120	min 60 max 70	820	G 1	Rp 1	725	1000
2H + 1B	min 110 max 120	min 60 max 70	820	G 1	Rp 1	725	1000

Modular Firstbox

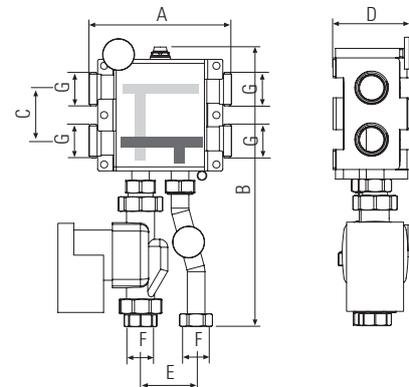
Single distribution modules for low temperature systems



Model	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F	G	H [mm]
1B	178	516	65	96	min 110 max 120	G 1 F	G 1 ¼ M G 1 F	240

Modular Firstbox

Single distribution modules for high temperature systems

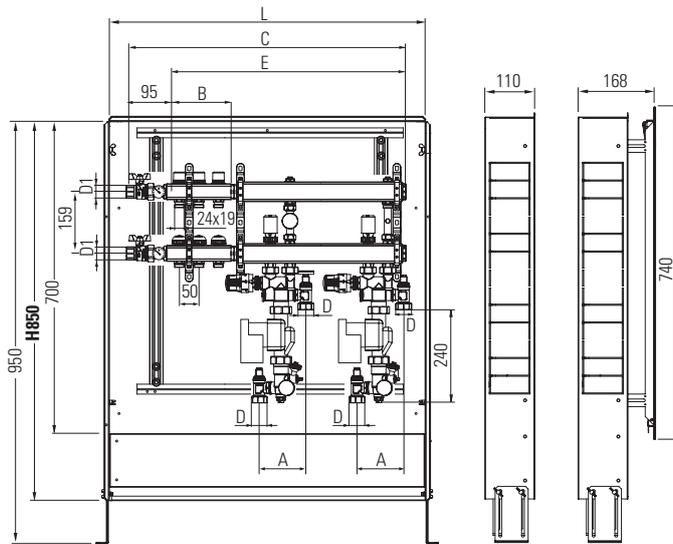


Model	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F	G
1A	178	351	65	96	min 60 max 70	G 1 F	G 1 ¼ M G 1 F

Modular Firstbox - For Low temperature systems

Modular Firstbox

Recessed distribution system for low temperature systems with connections for high temperature terminals

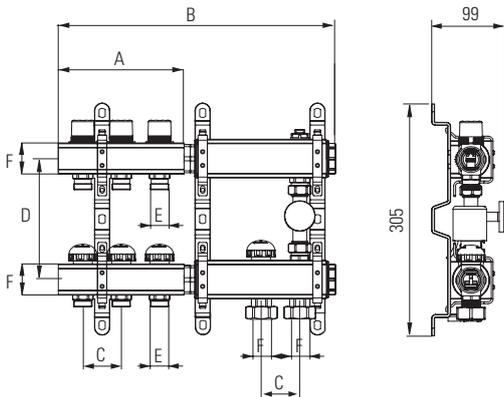


Model	A [mm]	B [mm]	C [mm]	D	D1	E [mm]	L [mm]
2H + 1B	min 110 max 120	114	420	G 1	Rp 1	325	500
3H + 1B	min 110 max 120	164	470	G 1	Rp 1	375	700
2H + 2B	min 110 max 120	114	670	G 1	Rp 1	565	850
3H + 2B	min 110 max 120	164	720	G 1	Rp 1	625	850

Modular Firstbox

Distribution system single module

Single distribution module for low temperature systems, with auxiliary connections for high temperature terminals

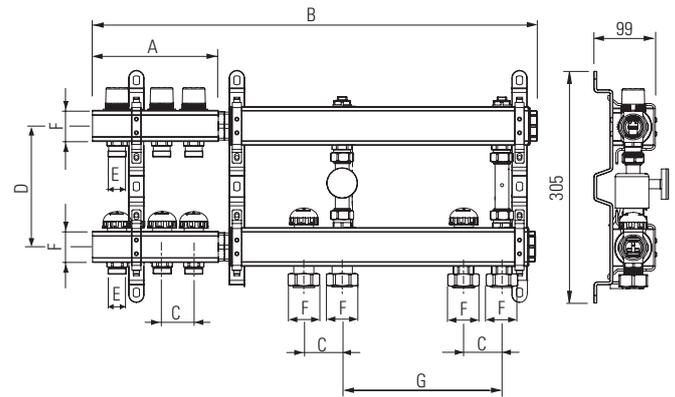


Model	A [mm]	B [mm]	C [mm]	D [mm]	E	F
2H	114	325	50	159	24x19	G 1
3H	164	375	50	159	24x19	G 1

Modular Firstbox

Distribution system double module

Double distribution module for low temperature systems, with auxiliary connections for high temperature terminals

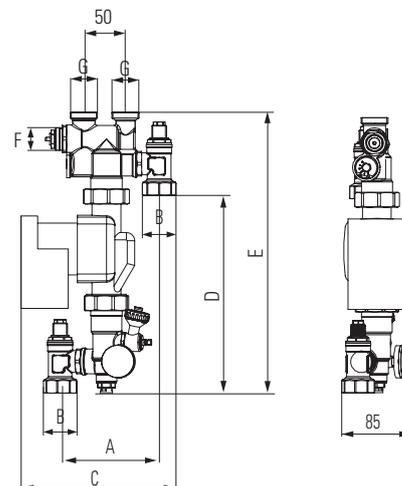


Model	A [mm]	B [mm]	C [mm]	D [mm]	E	F	G [mm]
2H	114	565	50	159	24x19	G 1	250
3H	164	625	50	159	24x19	G 1	250

Modular Firstbox

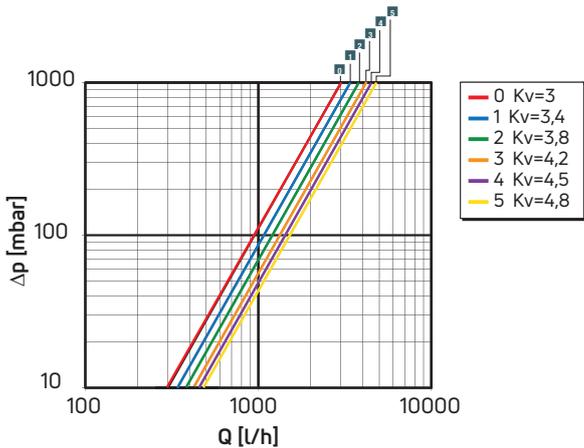
Regulation group with electronic circulator pump

Model	A [mm]	B	C [mm]	D [mm]	E [mm]	F	G
1B	min 110 max 120	G 1	190	240	340	M30x1,5	G 1



Modular Firstbox - Underboiler Kit

Mixing unit pressure drop

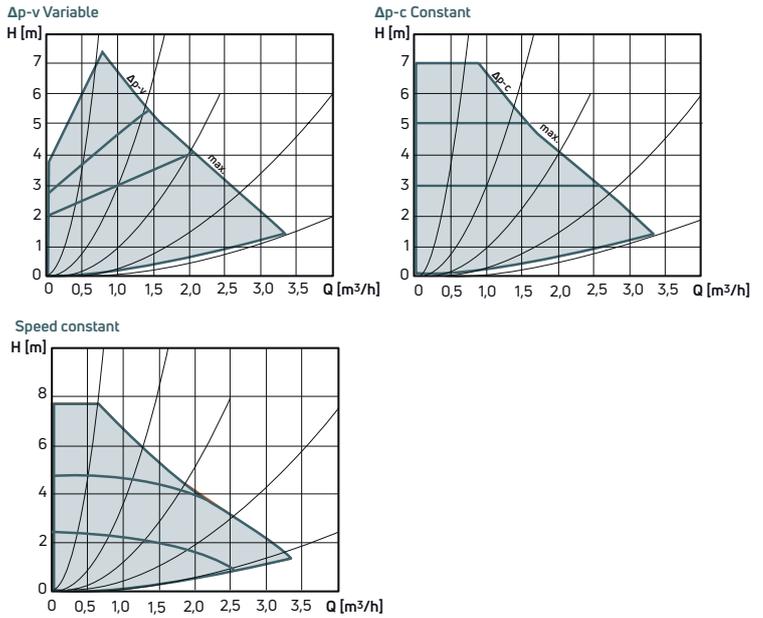


0 ... 5

Valve position of calibration and by-pass.

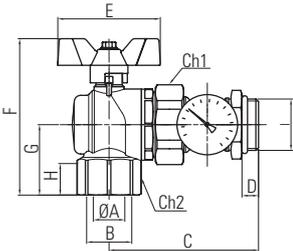
Performance measured at -2K

Wilco Para 25/7 circulator hydraulic performance diagrams

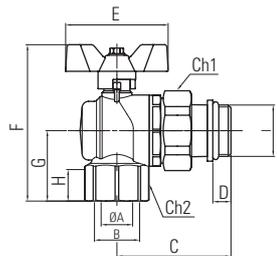


Progress valve kit for Modular Firstbox

Angled with thermometer holder union and thermometers



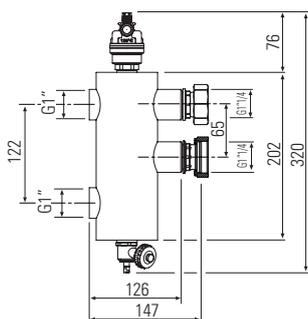
DN [mm]	ØA [mm]	B	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I	Ch1 [mm]	Ch2 [mm]	g
25	25	Rp 1	95	10,5	65	99,5	45	22	1"	47	38	800



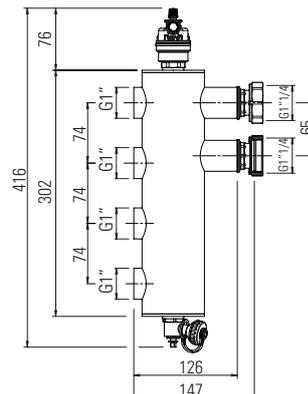
DN [mm]	ØA [mm]	B	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I	Ch1 [mm]	Ch2 [mm]	g
25	25	Rp 1	73,5	11,5	65	99,5	45	22	1"	47	38	688

Open manifold for Modular Firstbox

Open manifold 2" 1/2 - takeoff 65 mm 2+2 ways

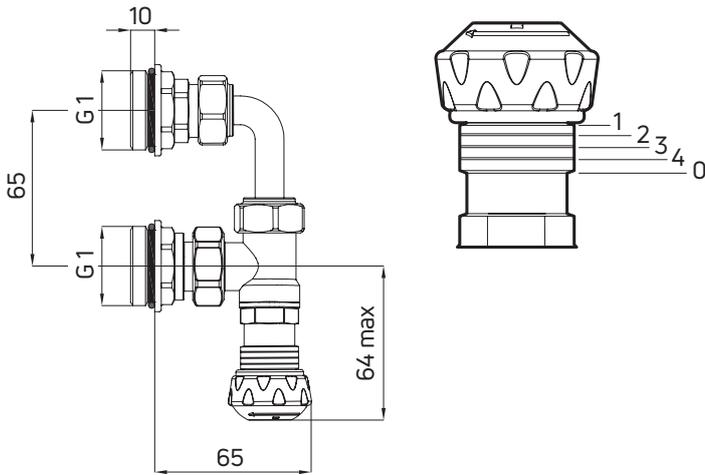


Open manifold 2" 1/2 - takeoff 65 mm 4+2 ways

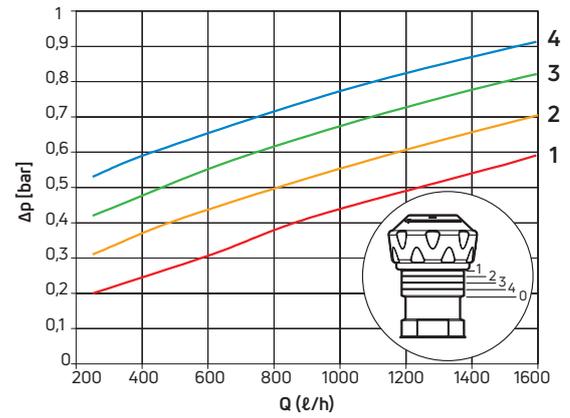


Modular Firstbox - Underboiler Kit

Terminal kit with by-pass for Modular Firstbox



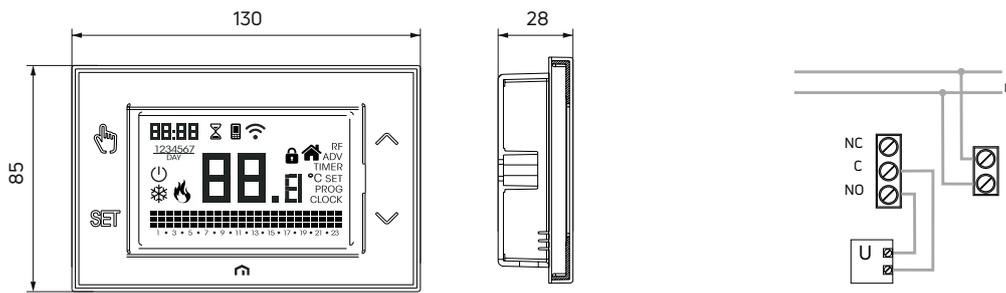
Differential by-pass (Progress kit)



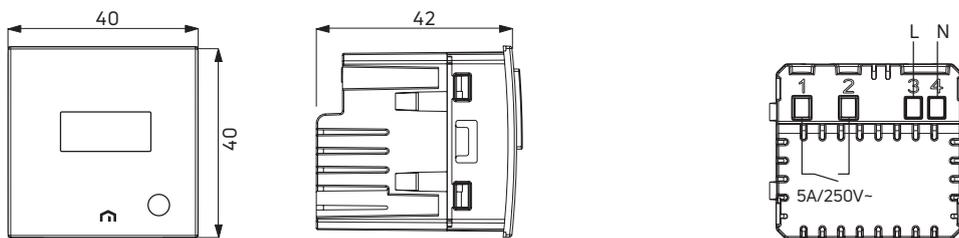
Note:
for regulation on low temperature collectors
see description Topway pre-assembled.

SINTESI - Chronothermostats and Thermostats

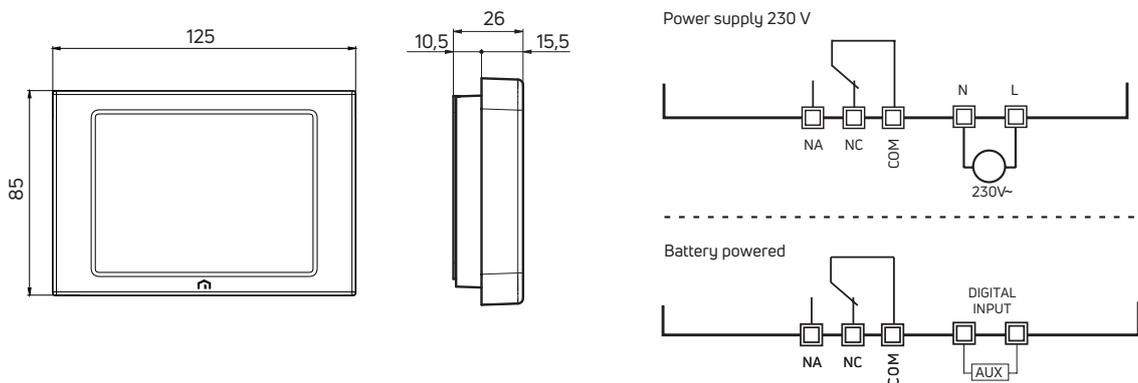
SINTESI Wall Wi-Fi and SINTESI Wall Wi-Fi RF



SINTESI Mini Wi-Fi

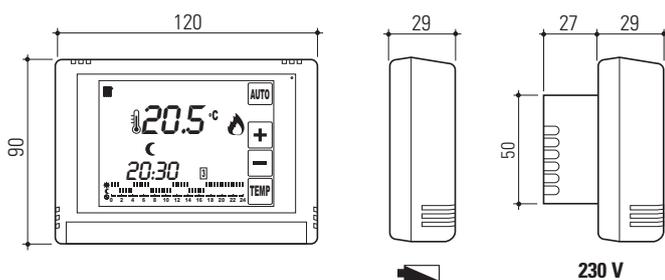


SINTESI Thermostats and chronothermostats



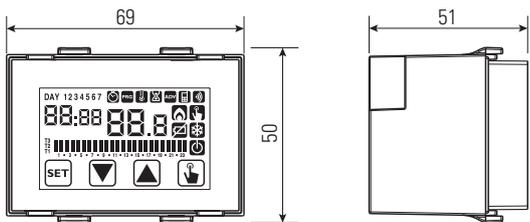
Smarty - Touch Screen Chronothermostat / Thermostat

Dimensions (mm)

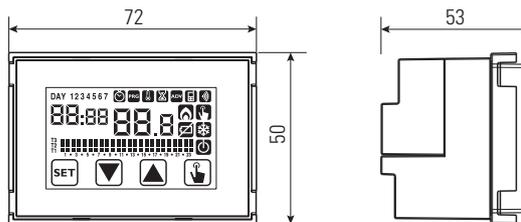


Touch screen Chronothermostat - Recessed

Dimensions (mm) model 230 V

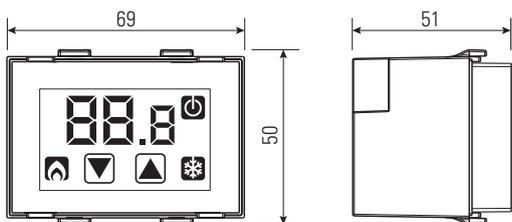


Dimensions (mm) battery model

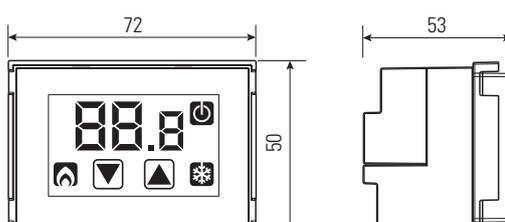


Touch screen Thermostat - Recessed

Dimensions (mm) model 230 V

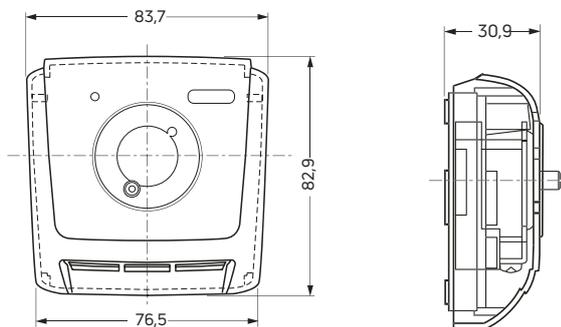


Dimensions (mm) battery model



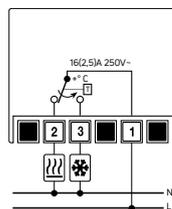
Termec EVO - Room thermostat

Dimensional data

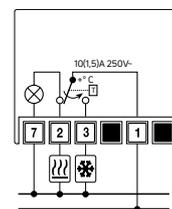


Wiring diagrams

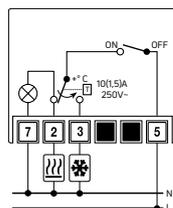
3 contacts



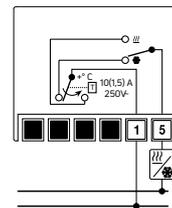
3 contacts with warning light



3 contacts with warning light + on/off switch

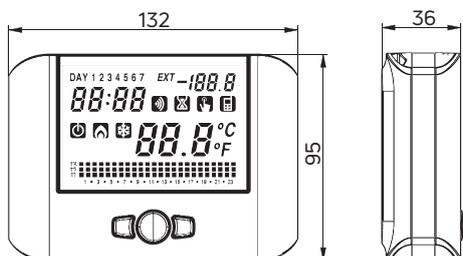


2 contacts with indicator light + comm. summer/winter

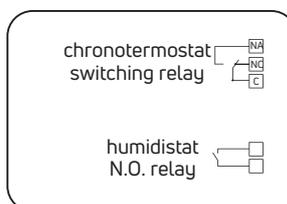


Chronothermostat with humidistat - Wall mounted

Dimensions (mm)

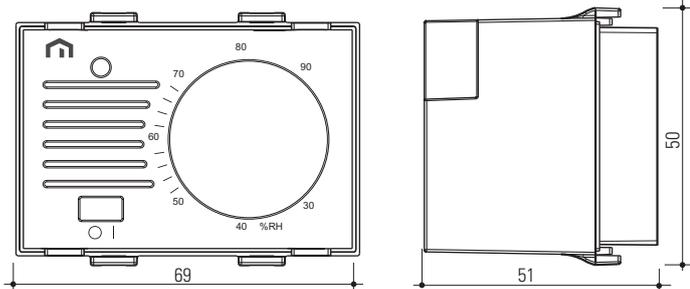


Wiring diagram

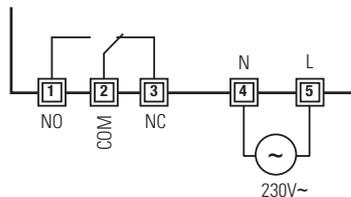


Built-in electronic humidistat

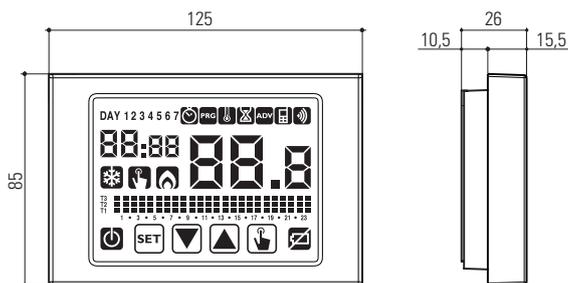
Dimensions (mm)



Connection diagrams



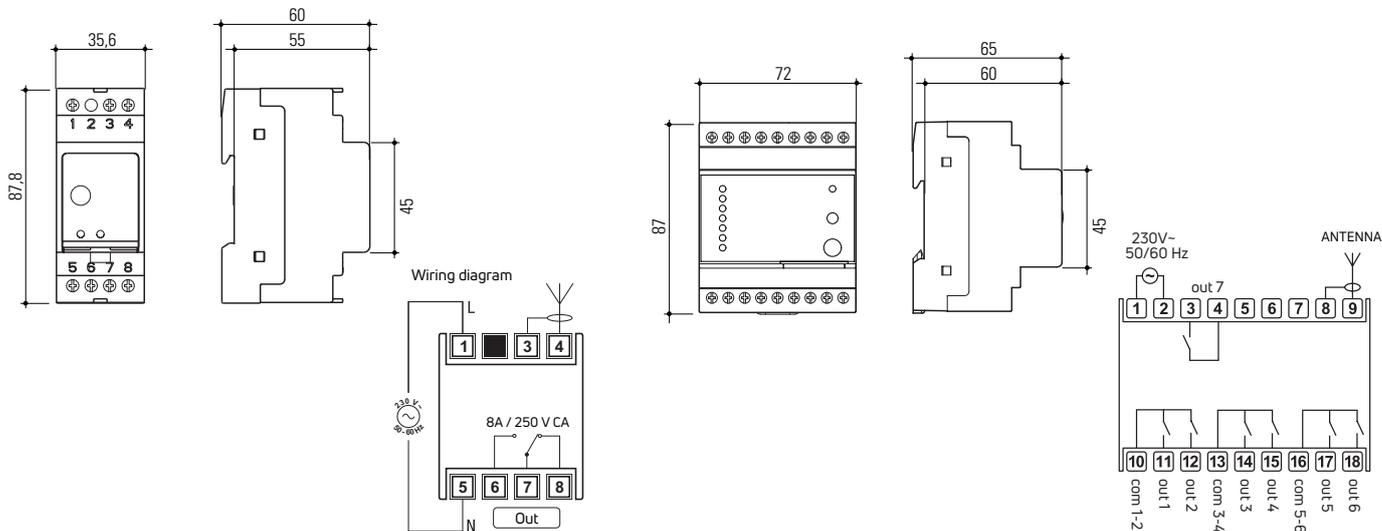
Radio frequency chronothermostat



DIN bar radiofrequency actuator

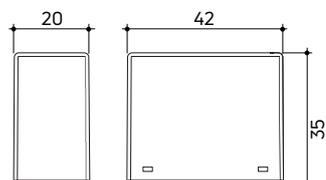
DIN bar radio frequency actuator one channel with fixed delay

6-channel DIN rail radio frequency actuator, with additional channel, with adjustable delay

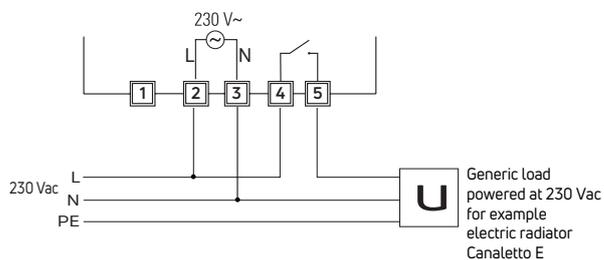


Built-in radiofrequency actuator

Dimensions [mm]

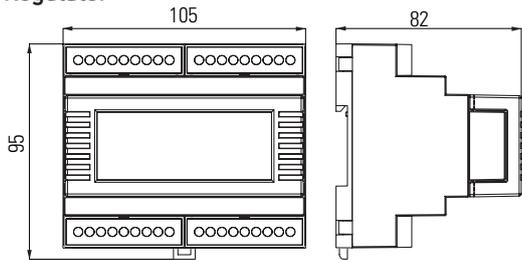


Wiring diagram for controlling a 230 Vac load

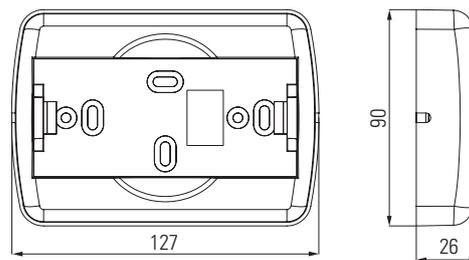


RCE - Emmeti Climatic Regulator for mixing groups

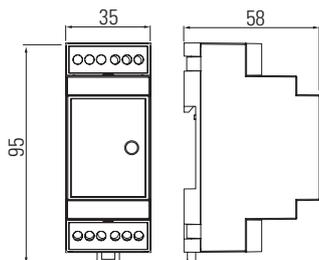
Regulator



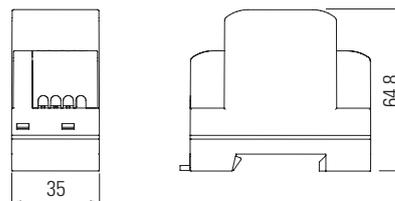
Wall plaque



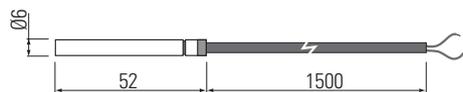
Converter



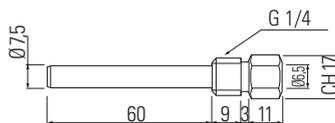
Transformer



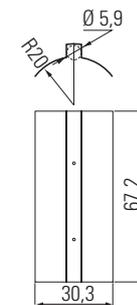
Temperature probe



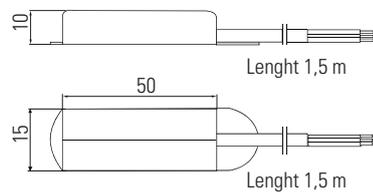
Steel pocket for NTC probes



Probe holder



Condensating probe



PCOC - Emmeti Climatic Regulator for mixing groups

Modular system

Matrix for the selection of the components of the modules for the environmental thermal control (according to the amount of temperature (T) areas, of the humidity (H) areas, and of the mixing (M) lines. The system can be combined or to ambient temperature/temperature-humidity blind analogic probes or to ambient temperature/temperature-humidity probes bus with display.

ZONE	1H/1M	2H/1M or 2H/2M	Management servomotors 3 Points
1T	PCOC		MOD_M3P (Optional)
2T	PCOC + MOD_Z1	PCOC + MOD_Z1	
3T	PCOC + MOD_Z1	PCOC + MOD_Z1 + MOD_Z2	
4T	PCOC + MOD_Z1	PCOC + MOD_Z1 + MOD_Z2	
5T	PCOC + MOD_Z1	PCOC + MOD_Z1 + MOD_Z2	
6T	PCOC + MOD_Z1 + MOD_Z2	PCOC + MOD_Z1 + MOD_Z2	
7T	PCOC + MOD_Z1 + MOD_Z2	PCOC + MOD_Z1 + MOD_Z2 + MOD_Z3	
8T	PCOC + MOD_Z1 + MOD_Z2	PCOC + MOD_Z1 + MOD_Z2 + MOD_Z3	
9T	PCOC + MOD_Z1 + MOD_Z2	PCOC + MOD_Z1 + MOD_Z2 + MOD_Z3	
10T	PCOC + MOD_Z1 + MOD_Z2 + MOD_Z3	PCOC + MOD_Z1 + MOD_Z2 + MOD_Z3	
11T	PCOC + MOD_Z1 + MOD_Z2 + MOD_Z3		
12T	PCOC + MOD_Z1 + MOD_Z2 + MOD_Z3		
13T	PCOC + MOD_Z1 + MOD_Z2 + MOD_Z3		

T1 - 13: Controlled temperature areas / H1 - 2: Controlled relative humidity areas / M1 - 2: Managed mixing lines

PCOC: Climatic regulator

MOD_Z1: PCOE Module configured as expansion module of the number of areas (1)

MOD_Z2: PCOE Module configured as expansion module of the number of areas (2)

MOD_Z3: PCOE Module configured as expansion module of the number of areas (3)

MOD_M3P: PCOE Module configured as module to manage three-point servomotors for mixing valves

NOTE:

A combination of the regulator with the modules, defined according to the selected matrix shown above, can manage up to two mixing valves or, alternatively, up to two Floor Control Units. **Emmeti can develop additional solutions for specific systems, also centralised ones. For these applications contact our sales network.**

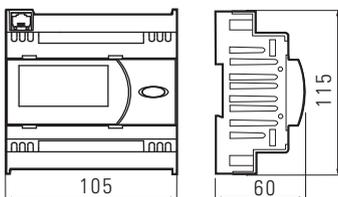
EXAMPLE 1

Management of 5 temperature areas and 2 humidity areas with the use of two mixing valves or two Floor Control Units in both cases with 0-10V servomotors. Basic setting: N° 1 PCOC Regulator + N° 2 Expansion Modules Combined areas (MOD_Z1, MOD_Z2) to control 5 temperature areas and 2 humidity areas and manage the two mixing valves or the two Floor Control Units.

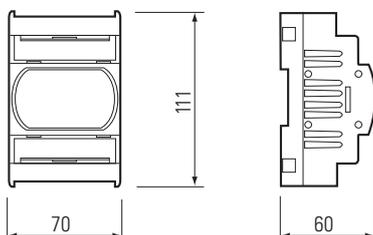
EXAMPLE 2

Management of 5 temperature areas and 2 humidity areas with the use of two mixing valves or two Floor Control Units in both cases with three-point servomotors. Basic setting: N° 1 PCOC Regulator + N° 2 Area Expansion Modules (MOD_Z1, MOD_Z2) + N° 1 Expansion Module to manage three-point servomotors (MOD_M3P) combined to control 5 temperature areas and 2 humidity areas and manage the two mixing valves or the two Floor Control Units.

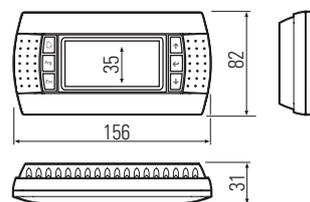
PCOC (6 DIN modules) Regulator



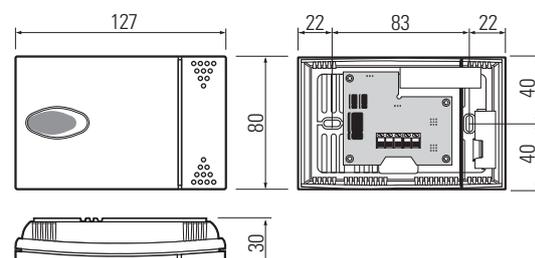
PCOE Module (4 DIN modules) Expansion module



Large Remote Terminal with display

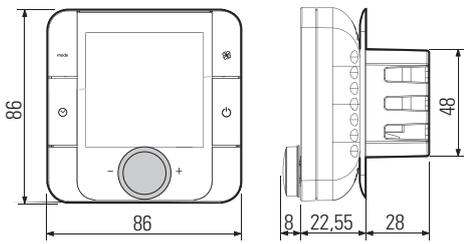


Room temperature probe, temperature - humidity

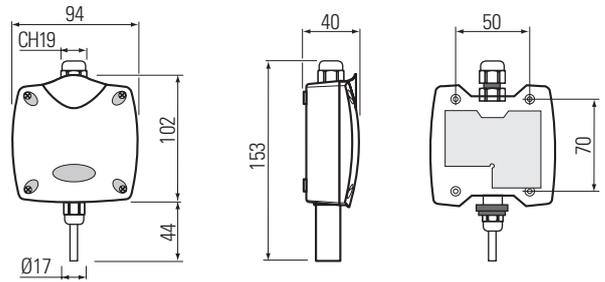


PCOC - Climatic regulator for mixing groups

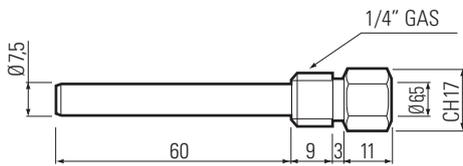
Room temperature probe, temperature - humidity built-in bus with display



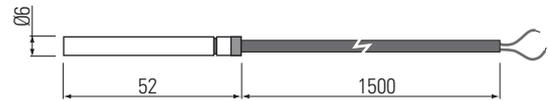
External temperature probe



Socket for immersion type water sensor



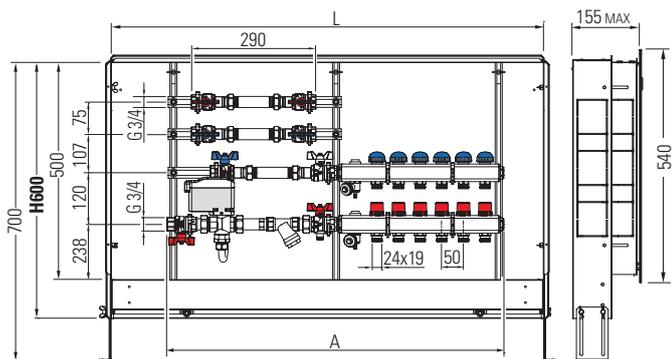
Flow temperature sensor



Energy Box - Accounting

Energy Box

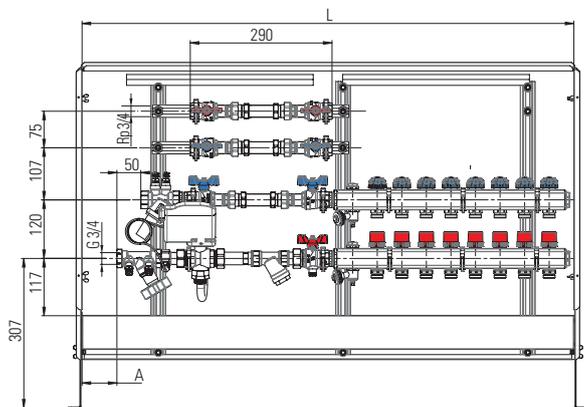
Metering with 1" manifolds equipped with valves and lockshields



L [mm]	N. ways	A [mm]
700	2	580
850	3	630
850	4	680
850	5	730
1000	6	780
1000	7	830
1000	8	880
1200	9	930
1200	10	980
1200	11	1030
1200	12	1080

Energy Box with dynamic balancing kit

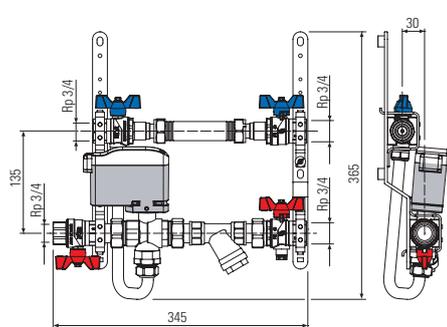
Metering with 1" manifolds equipped with valves and lockshields with dynamic balancing kit



L [mm]	N. ways	A [mm]
700	2	70
850	3	170
850	4	120
850	5	70
1000	6	170
1000	7	120
1000	8	70
1200	9	120
1200	10	170
1200	11	120
1200	12	70

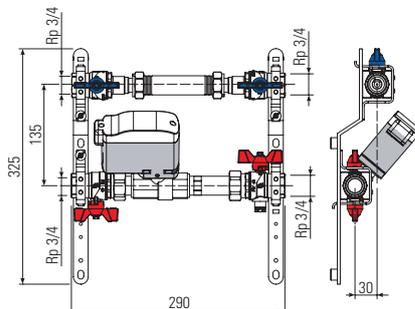
Energy Box

Single heating/cooling metering module with 4-way zone valve with By-pass passage



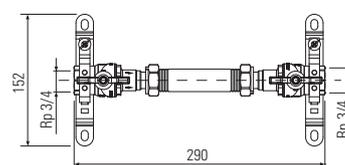
Energy Box

Single heating/cooling metering module with 2-way zone valve



Energy Box

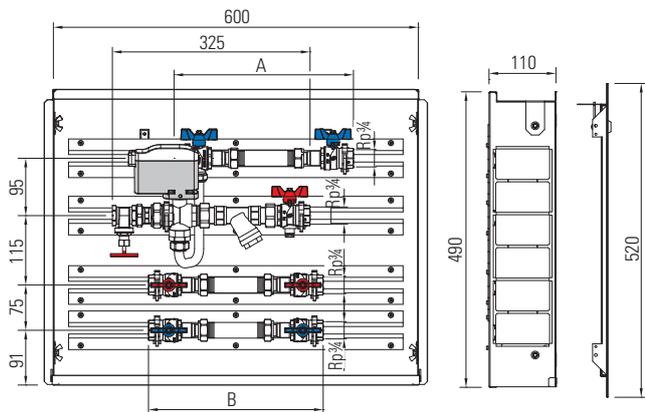
Single module of accounting sanitary water



Energy Box Compact - Accounting

Energy Box Compact with 4-way zone valve

Heating/cooling metering, with or without domestic water, 4-way zone valve



Model	A [mm]	B [mm]
DN 15 (*)	290	290
DN 20 (**)	310	290
DN 20/DN 20 (***)	310	310

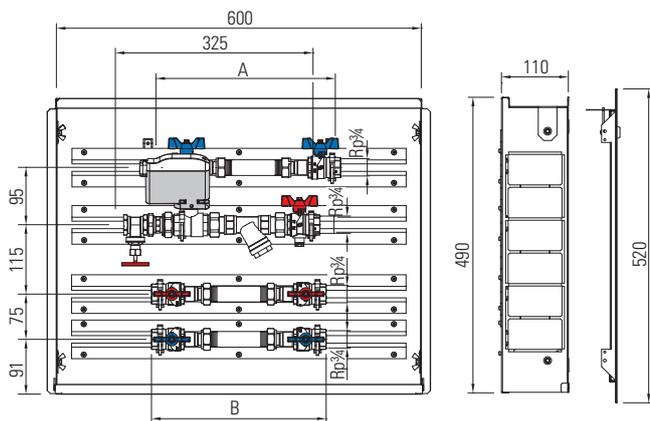
(*) Arrangement for installation of DN15 energy meter (G 3/4 connections) and DN15 volumetric meters (G 3/4 connections)

(**) Arrangement for installation of DN20 energy meter (G 1 connections) and DN15 volumetric meters (G 3/4 connections)

(***) Arrangement for installation of DN20 energy meter (G 1 connections) and DN20 volumetric meters (G 1 connections)

Energy Box Compact with 2-way zone valve

Heating/cooling metering, with or without domestic hot water, 2-way zone valve



Model	A [mm]	B [mm]
DN 15 (*)	290	290
DN 20 (**)	310	290
DN 20/DN 20 (***)	310	310

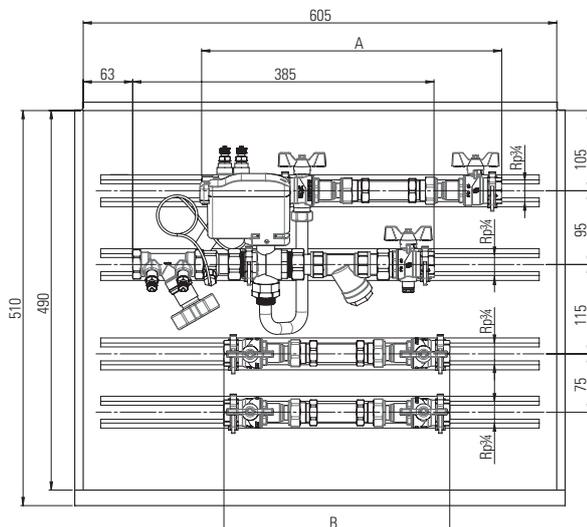
(*) Arrangement for installation of DN15 energy meter

(**) Arrangement for installation of DN20 energy meter

(***) Arrangement for installation of DN20 energy meter (G 1 connections) and DN20 volumetric meters (G 1 connections)

Energy Box Compact with 4-way zone valve and dynamic balancing kit

Heating/cooling metering, with or without domestic hot water, 4-way zone valve and dynamic balancing kit



Model	A [mm]	B [mm]
DN 15 (*)	384	290
DN 20 (**)	404	290
DN 20/DN 20 (***)	404	310

(*) Arrangement for installation of DN15 energy meter

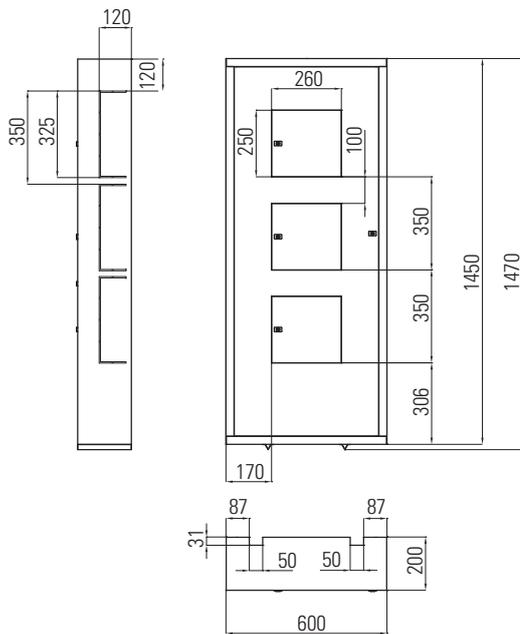
(**) Arrangement for installation of DN20 energy meter

(***) Arrangement for installation of DN20 energy meter (G 1 connections) and DN20 volumetric meters (G 1 connections)

Energy Wall - Cabinets for accounting

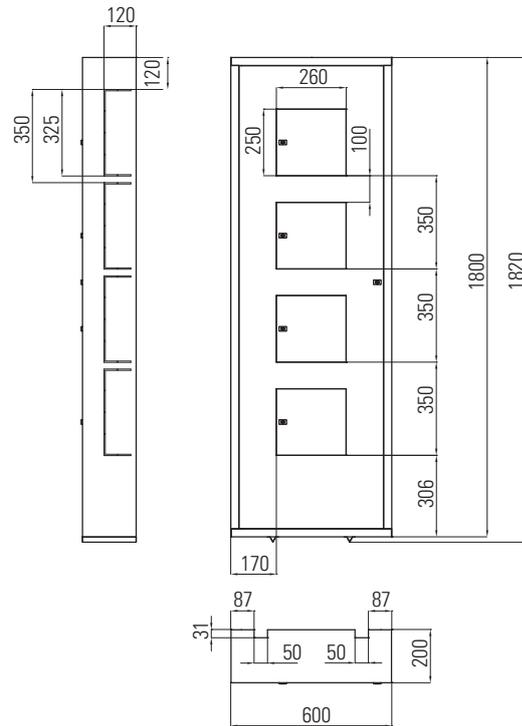
Energy Wall

Cabinet for metering groups, model max 3 users



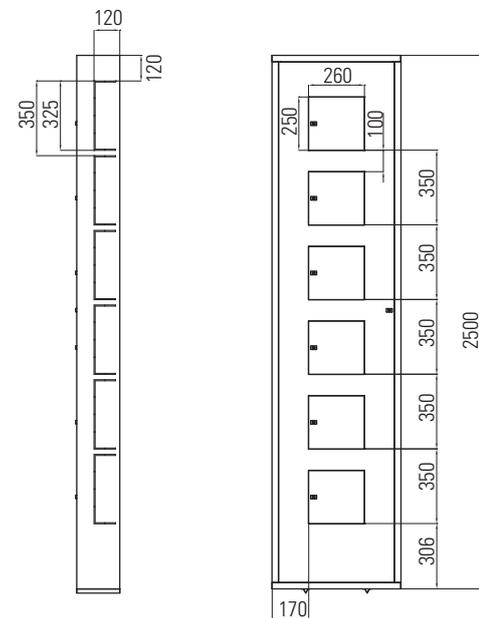
Energy Wall

Cabinet for metering groups, model max 4 users



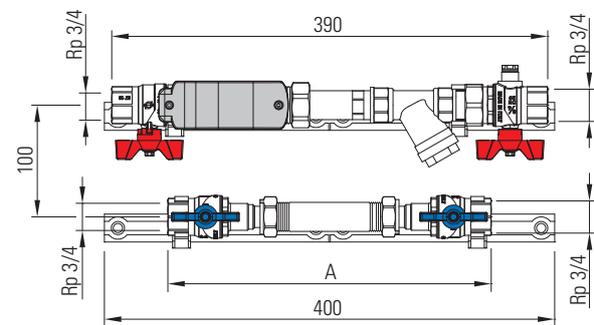
Energy Wall

Cabinet for metering groups, model max 6 users



Energy Wall

Heating/cooling groups for Energy Wall

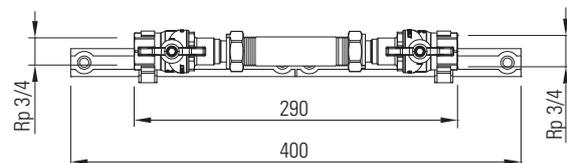


Model	A [mm]
DN15 (*)	290
DN20 (**)	310

(*) Arrangement for installation of DN15 energy meter
 (**) Arrangement for installation of DN20 energy meter

Energy Wall

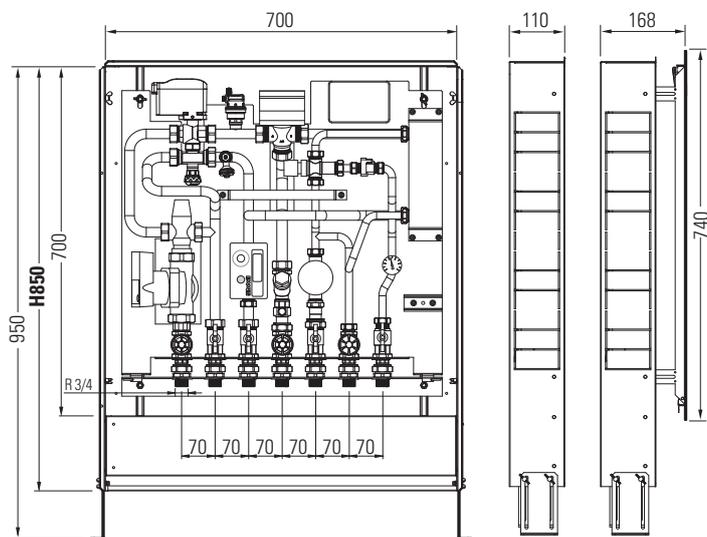
Hot and cold line for Energy Wall



Energy Combibox Floor - Accounting

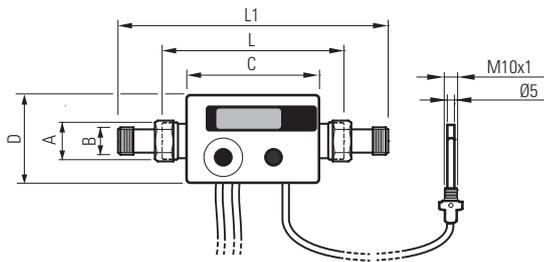
Energy Combibox Floor

Built-in modules for metering thermo-sanitary consumption with instantaneous production of domestic hot water



Accessories - Accounting

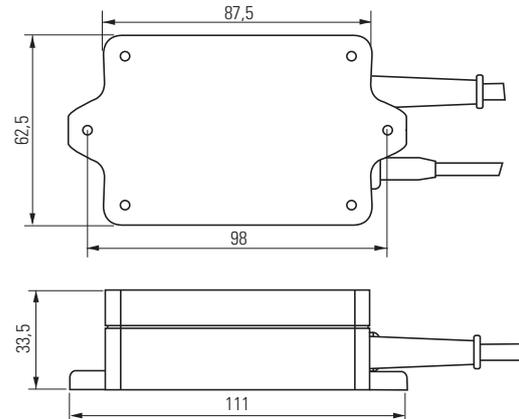
EVO energy meter Models DN15 and DN20



Size		DN15	DN20
Connections	A	3/4"	1"
	B	1/2"	3/4"
Length	L [mm]	110	130
Length with fittings	L1 [mm]	190	228
Dimensions electronic unit	C [mm]	110	110
	D [mm]	75	75
Total height	[mm]	84,5	87

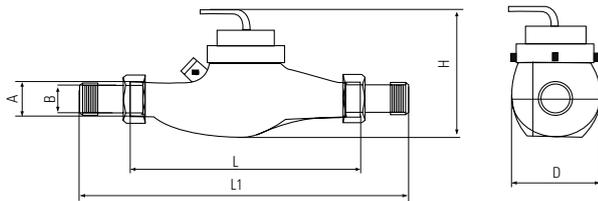
NB: the union fittings are not supplied with the instrument.

230 Vac power supply for EVO energy meter

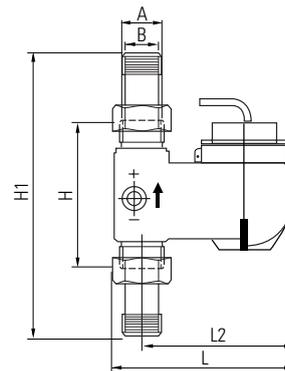


Threaded energy meter for high flow rates

Models DN25, DN32 and DN40 horizontal installation



Models DN25, DN32 and DN40 vertical installation

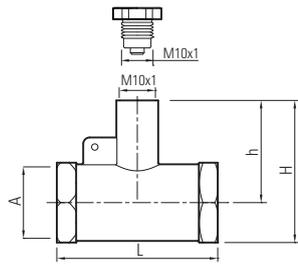


Size		Horizontal installation			Vertical installation		
		DN25	DN32	DN40	DN25	DN32	DN40
Connections	A	1"1/4	1"1/2	2"	1"1/4	1"1/2	2"
	B	1"	1"1/4	1"1/2	1"	1"1/4	1"1/2
Length	L [mm]	260	260	300	169	183	226
Length with fittings	L1 [mm]	374	374	434	-	-	-
Length from axis	L2 [mm]	-	-	-	143	156	190
Height	H [mm]	137	137	163	150	150	200
Height with fittings	H1 [mm]	-	-	-	268	268	338
Depth	[mm]	100	100	135	98	101	139

NB: the union fittings are not supplied with the instrument.

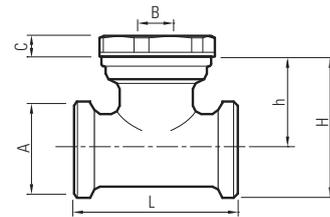
Accessories - Accounting

Probe holder Tee group for DN15 and DN20 meters



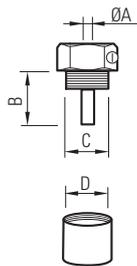
Size	DN15	DN20
A	1/2"	3/4"
h [mm]	32	35
H [mm]	45	48
L [mm]	50	50

Probe holder Tee group for DN25 meter



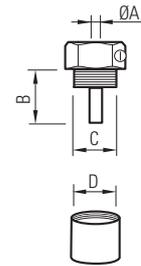
Size	DN25
A	1"
B	M10x1
C [mm]	5
L [mm]	72
h [mm]	36
H [mm]	57

Probe holder kit for DN32 and DN40 meters



Size	DN32 and DN40
ØA [mm]	6,8
B [mm]	40
C	1/2"
D	1/2"

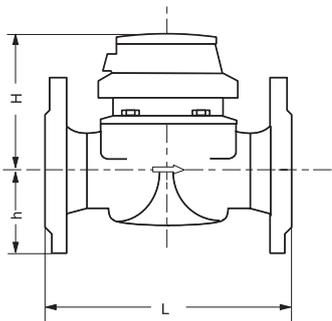
Probe holder kit for DN50 and DN65 meters



Size	DN50 and DN65
ØA [mm]	6,8
B [mm]	40
C	1/2"
D	1/2"

Flanged energy meter for high flow rates

DN50, DN65, DN80, DN100, DN125, DN150

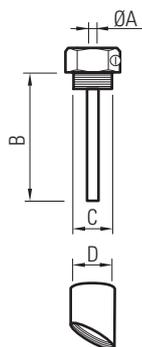


Dimensional data flowmeter

Size	mm	50	65	80	100	125	150
Nominal flow rate q_p	m ³ /h	25	40	63	100	160	250
Minimum flow rate q_i	m ³ /h	0,6	1	1,6	2,5	4	6
Maximum capacity q_s	m ³ /h	31	50	79	125	200	313
Operating pressure PN	bar	16					
Maximum operating temperature	°C	130					
L	mm	200	200	225	250	250	300
H	mm	187	197	219	229	257	357
h	mm	72	83	95	105	120	135
Pulse value	l/imp	100	100	100	100	100	1000
Weight	kg	9,9	10,6	13,3	15,6	18,1	40,1

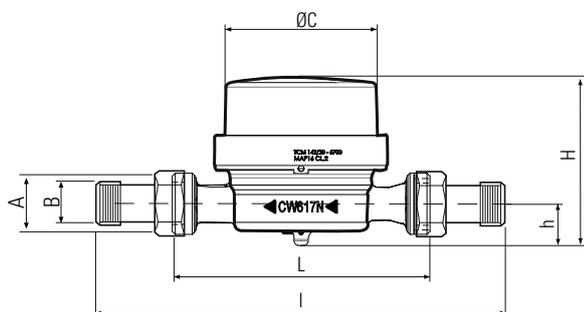
Accessories - Accounting

Probe holder kit for meters DN50, DN65, DN80, DN125 and DN150



Size	DN50, DN65	DN80, DN100, DN125	DN150
ØA [mm]	6,8	6,8	6,8
B [mm]	40	85	120
C	1/2"	1/2"	1/2"
D	1/2"	1/2"	1/2"

Volumetric counter Models DN15 and DN20

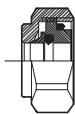


Model	A	B	ØC [mm]	H [mm]	h [mm]	L [mm]	I [mm]	Weight [kg]
DN15	3/4"	1/2"	65	74	11,7	110	190	0,35
DN20	1"	3/4"	65	74	11,7	130	228	0,45

NB: the union fittings are not supplied with the instrument.

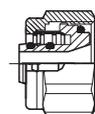
Fitting to be tightened

Monoblocco seal for copper pipes



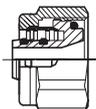
Size [mm]	Tightening torque [Nm]
Ø 10	30÷35
Ø 12	35÷40
Ø 14 - Ø 15	40÷45
Ø 16	45÷50
Ø 18	50÷55
Blind Monoblocco	30÷35

Sealing for multilayer pipes



Size [mm]	Nut	Tightening torque [Nm]
Ø 12 ÷ 20	24x19 CH27	30÷35
Ø 12 ÷ 16	G 3/4 EK CH27	30÷35
Ø 20	G 3/4 EK CH27	35÷40
Ø 26x3	M32x1,5 CH37	55÷60

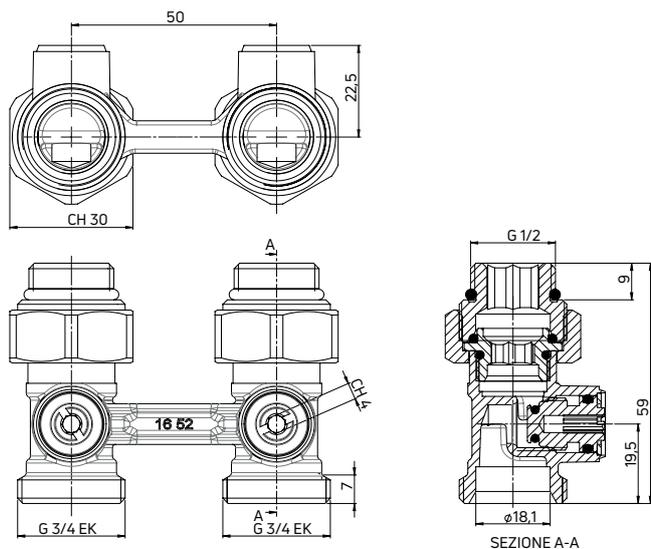
Seal for PE-X, PP plastic pipes



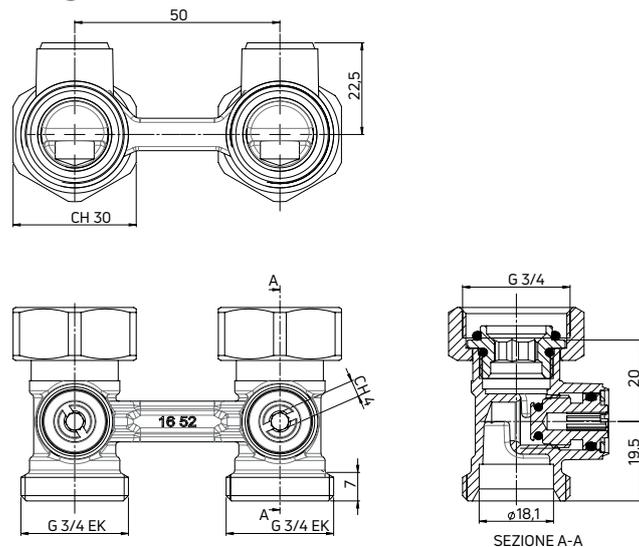
Size [mm]	Nut	Tightening torque [Nm]
Ø 12 ÷ 20	24x19 CH27	30÷35
Ø 12 ÷ 16	G 3/4 EK CH27	30÷35
Ø 17 ÷ 20	G 3/4 EK CH27	35÷40
Ø 25	M32x1,5 CH37	55÷60

H valves

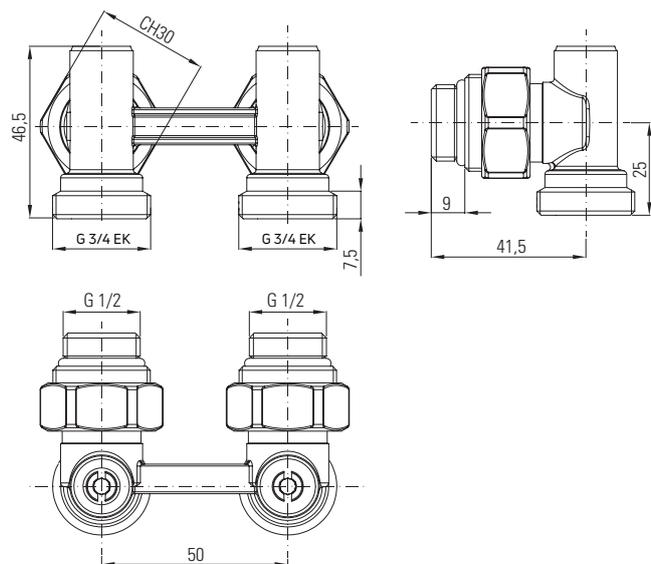
Straight H-hand valve with adapter



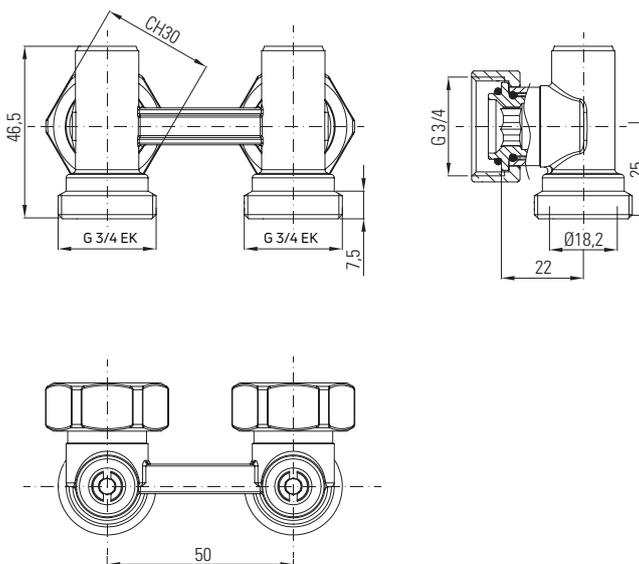
Straight H-hand valve



Manual angle H valve with adapter



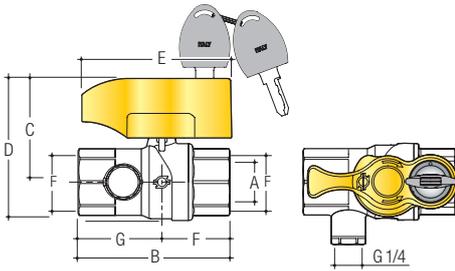
Manual angle H valve



Futurgas with lock - Ball valves

Futurgas

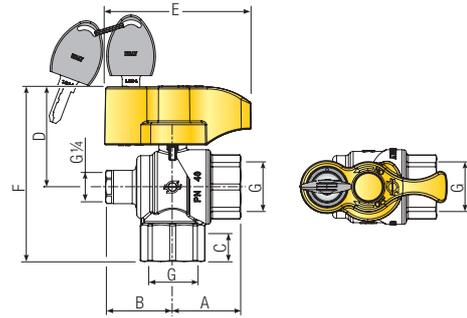
Female-Female with G 1/4 pressure connection and key lock



Size	DN [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]
3/4"	20	33,5	41,5	18,3	51	74	Rp 3/4	75
1"	25	40	49	22	57	74	Rp 1	89

Futurgas

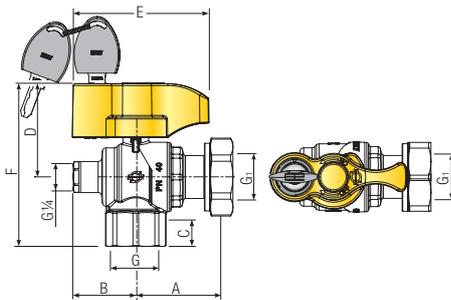
Angled Female-Female with G 1/4 pressure port and key lock



Size	DN [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]
3/4"	20	34,5	30	18,3	51	74	89	Rp 3/4
1"	25	41,5	34,5	22	57	74	102	Rp 1

Futurgas

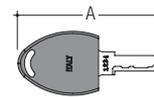
Swivel female-nut with G 1/4 pressure point and key lock



Size	DN [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	G1
Rp 3/4 x G 1	20	52,8	30	18,3	51	74	89	Rp 3/4	G 1
Rp 1 x G 1 1/4	25	58,2	34,5	22	57	74	102	Rp 1	G 1 1/4

Futurgas

Master key



A [mm]
55

Tanks

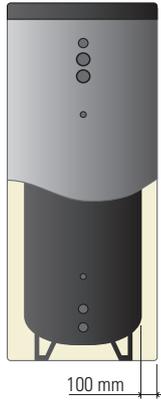
Euro V
150 ÷ 500



Euro HPV
200 ÷ 500



Euro HPV
1.000



HE2V
200 ÷ 500



HE2V
750 ÷ 2.000



HP2V
300 ÷ 500



HP2V
750 ÷ 1.000



Comfort V
2 flanges 200 ÷ 500



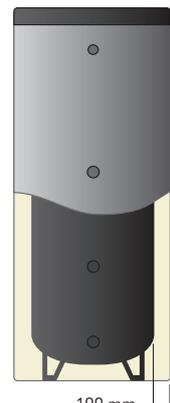
Comfort V
3 flanges 750 ÷ 3000



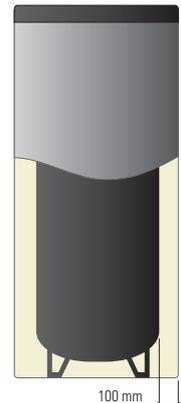
Comfort S
3 flanges 1500 ÷ 3000



Thanks for domestic
hot water
300 ÷ 2000



Puffer
300 ÷ 2000



ETW
25 ÷ 60



ETW
120 ÷ 280



ETW Inox
26



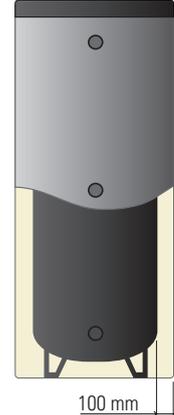
ETW Inox
51



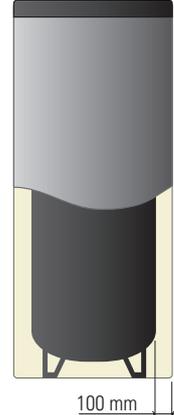
HYBV1S
300 ÷ 500



EBN
300 ÷ 500

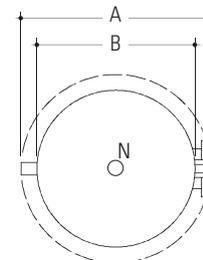
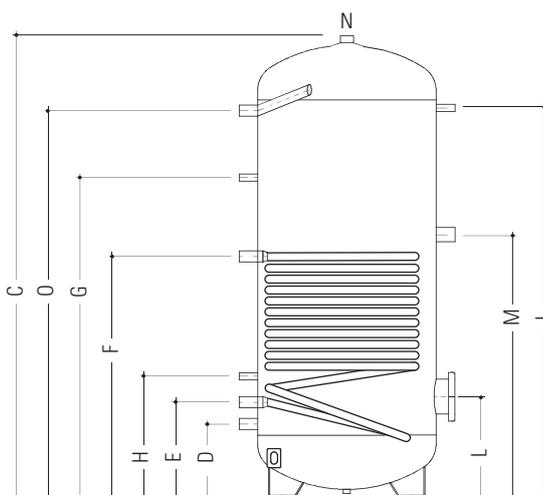
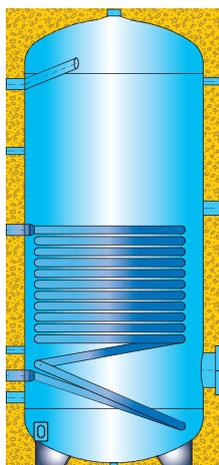


EB
1000 ÷ 1500



Tanks

Euro V vitrified tanks for sanitary water



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal treatment of inorganic enamelling (vitrification).
- Insulation in rigid foamed polyurethane foam 50 mm thick.
- Insulation coating in gray PVC SKY.
- S235JR carbon steel coil.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 10 bar.
- Coil maximum working pressure: 6 bar.

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

Euro V storage tanks are supplied with the closing flange mounted and equipped with thermal insulation and nr. 1 Boguard electronic anode.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

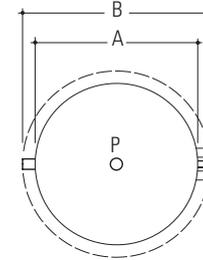
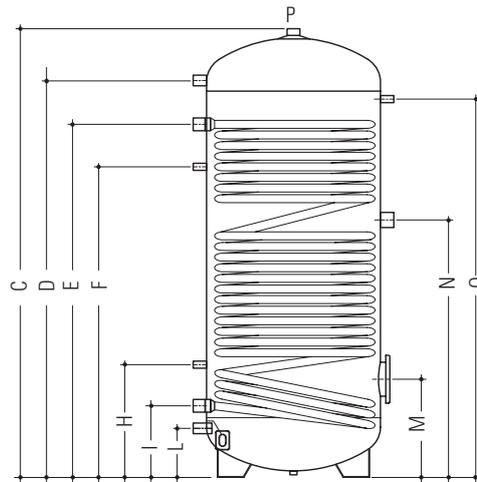
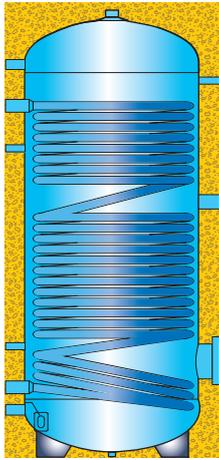
Models	Ref.	u.m.	150	200	300	500
Total capacity (storage volume)		ℓ	160	196	273	475
Non-solar volume Vbu		ℓ	0	0	0	0
Ø with insulation	A	mm	600	600	600	750
Ø without insulation	B	mm	500	500	500	650
Height	C	mm	990	1215	1615	1705
Height with insulation		mm	1000	1225	1625	1715
Cold water inlet	D	1" mm	220	220	220	265
Fixed heat coil outlet	E	1" mm	300	290	290	345
Fixed heat coil inlet	F	1" mm	620	750	890	880
Recirculation	G	1/2" mm	695	835	1165	1170
Thermostat / Thermometer	H	1/2" mm	385	375	375	440
Thermostat / Thermometer	I	1/2" mm	775	1000	1390	1425
Flange	L	DN 180 mm	330	320	320	365
Electric resistance	M	1"1/2 mm	655	810	955	960
Anode	N	1"1/4 mm	Above	Above	Above	Above
Hot water outlet	O	1" mm	765	975	1390	1415
Fixed coil exchange surface		m ²	0,5	0,7	1,2	1,8
Fixed coil content		ℓ	3,1	5,6	7,9	11,4
Empty weight		kg	70	90	115	155
Dispersion S (*)		W	55	67	85	112
Specific dispersion psbsol		W/K	1,22	1,49	1,89	2,49
Energetic class			B	C	C	C

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with T_{water} = 65 °C and T_{environment} = 20 °C

Tanks

Euro HPV 200-300-500 vitrified tanks for domestic water production with heat pump



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal treatment of inorganic enamelling (vitrification).
- Insulation in rigid foamed polyurethane foam 50 mm thick.
- Insulation coating in gray PVC SKY.
- S235JR carbon steel coil.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 10 bar.
- Coil maximum working pressure: 6 bar.

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

Euro HPV storage tanks are supplied with the closing flange mounted and equipped with thermal insulation and nr. 1 Boguard electronic anode.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

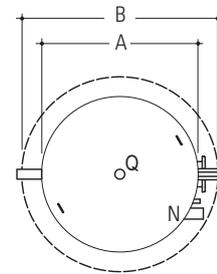
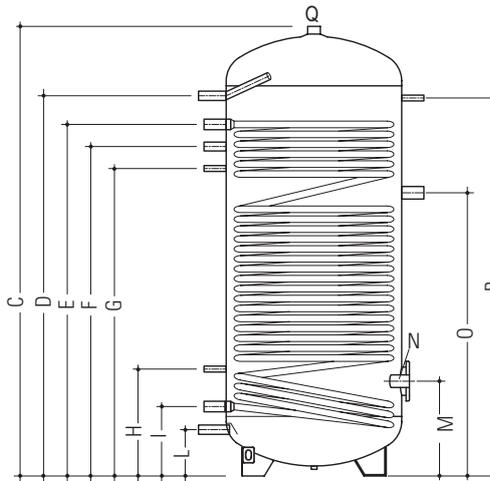
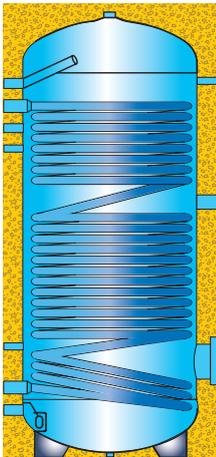
Models	Ref.	200 / 300	500	u.m.	Euro HPV200	Euro HPV300	Euro HPV500
Total capacity (storage volume)				ℓ	190	263	470
Non-solar volume Vbu				ℓ	0	0	0
∅ without insulation	A			mm	500	500	650
∅ with insulation	B			mm	600	600	750
Height	C			mm	1215	1615	1705
Height with insulation				mm	1225	1625	1715
Hot water outlet	D	1"	1"	mm	1070	1470	1495
Fixed heat coil inlet	E	1"	1"1/4	mm	990	1310	1380
Recirculation	F	1/2"	1/2"	mm	835	1165	1170
Thermostat / Thermometer	G	-	-	mm	-	-	-
Thermostat / Thermometer	H	1/2"	1/2"	mm	370	395	435
Fixed heat coil outlet	I	1"	1"1/4	mm	220	220	280
Cold water inlet	L	1"	1"	mm	140	140	185
Flange	M	DN 180	DN 180	mm	320	340	370
Electric resistance	N	1"1/2	1"1/2	mm	730	945	970
Thermostat / Thermometer	O	1/2"	1/2"	mm	990	1390	1420
Anode	P	1"1/4	1"1/4	mm		Above	
Fixed coil exchange surface				m ²	3,0	4,0	6,0
Fixed coil content				ℓ	17,2	23,0	50,5
Empty weight				kg	120	160	220
Dispersion S (*)				W	67	85	112
Specific dispersion pbsol				W/K	1,49	1,89	2,49
Energetic class					C	C	C

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with $T_{water} = 65 °C$ and $T_{environment} = 20 °C$

Tanks

Euro HPV 1000 vitrified tanks for domestic water production with heat pump



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal treatment of inorganic enamelling (vitrification).
- Insulation in 100 mm thick flexible polyester.
- Insulation coating in gray PVC SKY.
- S235JR carbon steel coil.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 10 bar.
- Coil maximum working pressure: 6 bar.

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

Euro HPV storage tanks are supplied with the closing flange mounted and equipped with thermal insulation and nr. 1 Boguard electronic anode.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

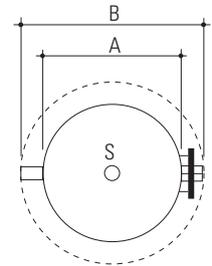
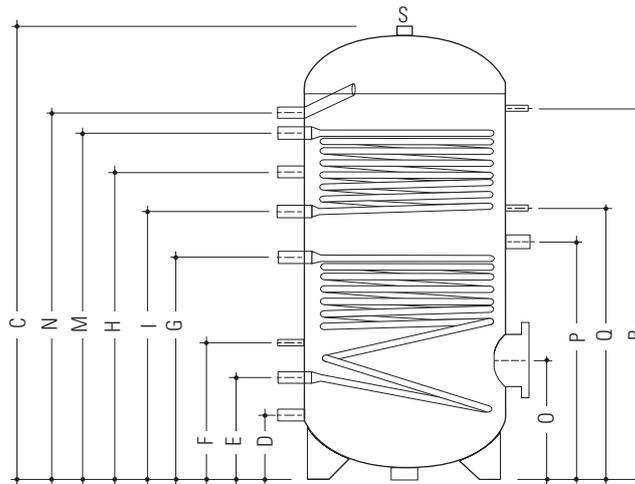
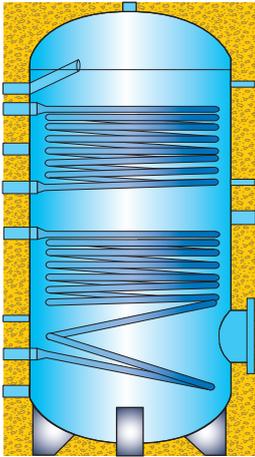
Models	Ref.		u.m.	Euro HPV 1000
Total capacity (storage volume)			ℓ	900
Non-solar volume Vbu			ℓ	0
Ø without insulation	A		mm	790
Ø with insulation	B		mm	990
Height	C		mm	2140
Height with insulation			mm	2230
Hot water outlet	D	1"1/4	mm	1940
Fixed heat coil inlet	E	1"1/4	mm	1830
Recirculation	F	1"	mm	1615
Thermostat / Thermometer	G	1"	mm	1485
Thermostat / Thermometer	H	1"	mm	515
Fixed heat coil outlet	I	1"1/4	mm	345
Cold water inlet	L	1"1/4	mm	240
Flange	M	DN 180	mm	470
Anode	N	1"1/2	mm	470
Electric resistance	O	1"1/2	mm	1435
Thermostat / Thermometer	P	1/2"	mm	1940
Anode	Q	1"1/2	mm	Above
Fixed coil exchange surface			m ²	8,0
Fixed coil content			ℓ	68,5
Empty weight			kg	320
Dispersion S (*)			W	142
Specific dispersion pbsol			W/K	3,16
Energetic class				-

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with T_{water} = 65 °C and T_{environment} = 20 °C

Tanks

HE2V 200-300-500 vitrified tanks for domestic water production



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal treatment of inorganic enamelling (vitrification).
- Insulation in rigid foamed polyurethane foam 50 mm thick.
- Insulation coating in gray PVC SKY.
- S235JR carbon steel coil.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 10 bar.
- Coil maximum working pressure: 6 bar.

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

HE2V storage tanks are supplied with the closing flange mounted and equipped with thermal insulation and nr. 1 Boguard electronic anode.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

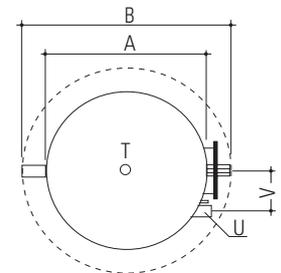
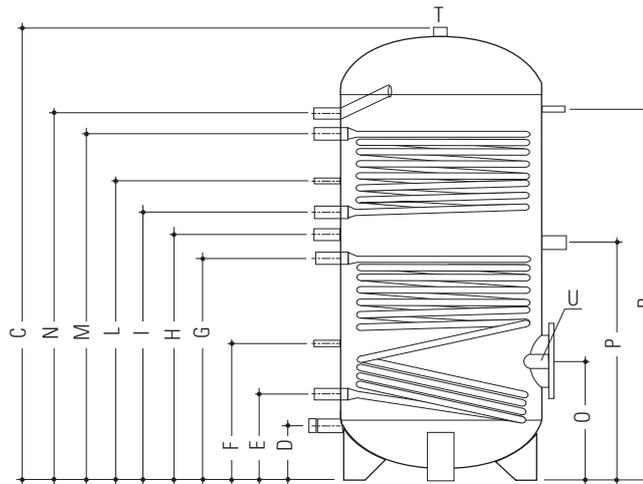
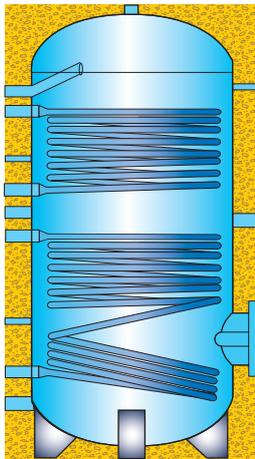
Models	Ref.	u.m.	200	300	500
Total capacity (storage volume)		ℓ	196	273	475
Non-solar volume Vbu		ℓ	60	100	180
∅ without insulation	A	mm	500	500	650
∅ with insulation	B	mm	600	600	750
Height	C	mm	1215	1615	1705
Height with insulation		mm	1225	1625	1715
Cold water inlet	D	1" mm	220	220	265
Lower coil outlet	E	1" mm	290	290	345
Thermometer - probe	F	1/2" mm	375	375	440
Lower coil inlet	G	1" mm	750	890	880
Recirculation	H	1/2" mm	905	1165	1170
Upper coil outlet	I	1" mm	835	1005	1015
Upper coil inlet	M	1" mm	975	1320	1330
Hot water outlet	N	1" mm	1070	1390	1415
Flange	O	DN 180 mm	320	320	365
Electric resistance	P	1"1/2 mm	810	955	960
Thermometer - probe	Q	1/2" mm	885	1045	1060
Thermometer - probe	R	1/2" mm	1000	1390	1425
Anode	S	1"1/4		Above	
Lower coil surface	-	m2	0,7	1,2	1,8
Upper coil surface	-	m2	0,5	0,8	0,9
Lower coil content	-	ℓ	5,6	7,9	11,4
Upper coil content	-	ℓ	2,6	4,1	5,6
Empty weight		kg	95	130	170
Dispersion S (*)		W	67	85	112
Specific dispersion psbsol		W/K	1,48	1,88	2,49
Energetic class			C	C	C

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with $T_{water} = 65\text{ °C}$ and $T_{environment} = 20\text{ °C}$

Tanks

HE2V 750-1000-1500-2000 vitrified tanks for sanitary water



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal treatment of inorganic enamelling (vitrification).
- Insulation in 100 mm thick flexible polyester.
- Insulation coating in gray PVC SKY.
- S235JR carbon steel coil.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum operating pressure: 10 bar (models 750-1000), 8 bar (models 1500-2000).
- Coils maximum working pressure: 6 bar.

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

HE2V storage tanks are supplied with the closing flange mounted and equipped with thermal insulation and nr. 1 Boguard electronic anode (single for 750-1000 models, double for 1500-2000 models).

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

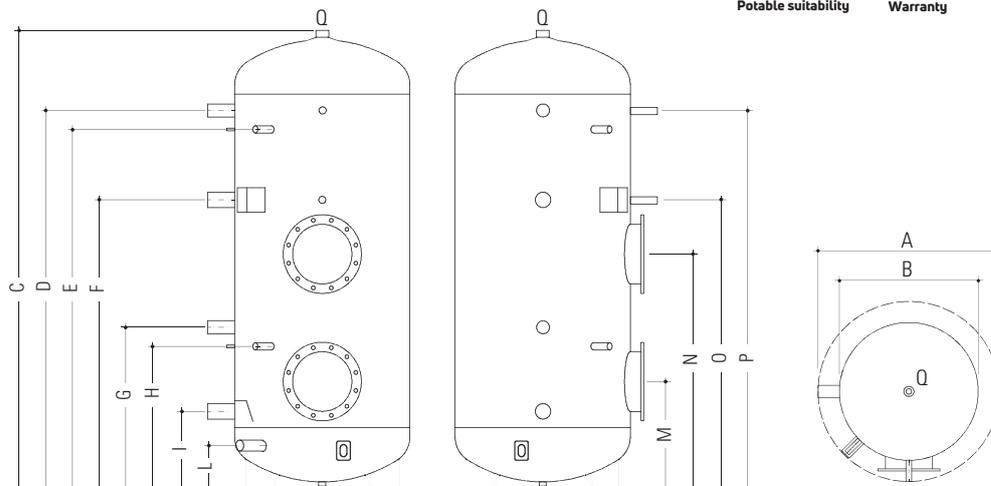
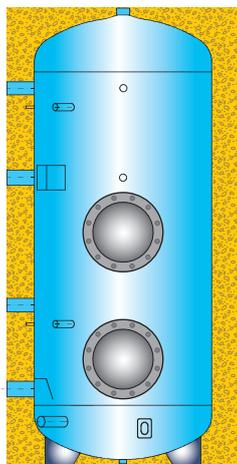
Models	Ref.	750÷1000	1500÷2000	u.m.	750	1000	1500	2000
Total capacity (storage volume)				ℓ	738	930	1390	1950
Non-solar volume Vbu				ℓ	300	330	605	840
∅ without insulation	A			mm	790	790	1000	1100
∅ with insulation	B			mm	990	990	1200	1300
Height	C			mm	1810	2140	2120	2405
Height with insulation				mm	1900	2230	2210	2495
Cold water inlet	D	1"1/4	1"1/2	mm	240	240	280	250
Lower coil outlet	E	1"1/4	1"1/4	mm	365	380	415	400
Thermometer - probe	F	1/2"	1/2"	mm	565	600	525	662
Lower coil inlet	G	1"1/4	1"1/4	mm	905	1120	1125	1205
Recirculation	H	1"	1"	mm	995	1235	1225	1315
Upper coil outlet	I	1"1/4	1"1/4	mm	1085	1345	1325	1425
Thermometer - probe	L	1/2"	1/2"	mm	1235	1495	1420	1487
Upper coil inlet	M	1"1/4	1"1/4	mm	1400	1660	1730	1870
Hot water outlet	N	1"1/4	1"1/2	mm	1500	1830	1890	1990
Flange	O	DN 180	DN 290	mm	470	470	515	550
Electric resistance	P	1"1/2	1"1/2	mm	980	1220	1230	1340
Thermometer - probe	R	1/2"	1/2"	mm	1500	1830	1775	2000
Anode	T	1"1/2	1"1/2				Above	
Anode	U	1"1/2	1"1/2	mm	470	470	515	550
Center distance of the flanges - Anode	V			mm	200	200	230	230
Lower coil surface	-	-	-	m2	2,0	2,4	3,4	4,6
Upper coil surface	-	-	-	m2	1,2	1,2	1,8	2,8
Lower coil content	-	-	-	ℓ	12,6	15,1	19,4	28,1
Upper coil content	-	-	-	ℓ	7,0	7,0	10,4	16,9
Empty weight				kg	220	265	365	480
Dispersion S (*)				W	130	142	162	186
Specific dispersion pbsol				W/K	2,89	3,16	3,60	4,13
Energetic class					-	-	-	-

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with $T_{water} = 65\text{ °C}$ and $T_{environment} = 20\text{ °C}$

Tanks

Comfort V 200-300-500 vitrified tanks for sanitary water



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal treatment of inorganic enameling (vitrification).
- Insulation in 100 mm thick flexible polyester.
- Insulation coating in gray PVC SKY.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 10 bar.

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

The Comfort V storage tanks are supplied with the closing flange mounted and equipped with thermal insulation and nr. 1 Boguard electronic anode. Their completion requires the insertion of the chosen coil; coils are not included.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

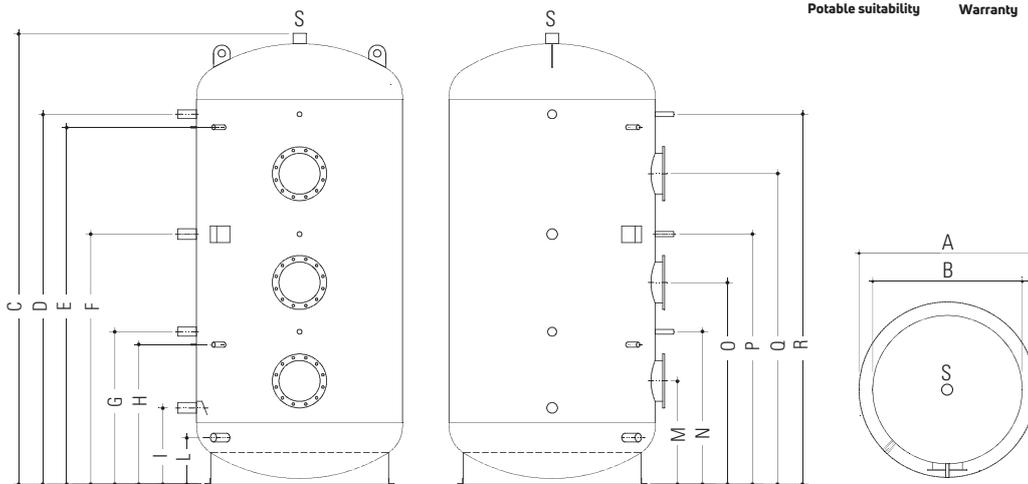
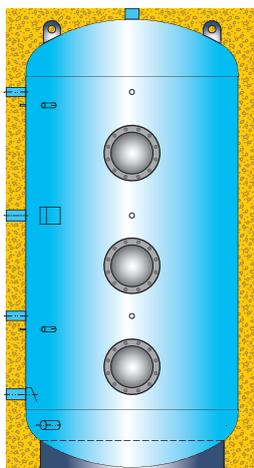
Models	Ref.		u.m.	200	300	500
Total capacity (storage volume)			ℓ	208	285	490
Non-solar volume Vbu			ℓ	95	160	275
Ø with insulation	A		mm	700	700	850
Ø without insulation	B		mm	500	500	650
Height	C		mm	1215	1615	1690
Height with insulation			mm	1305	1705	1780
Anode	D	1"1/4	mm	965	1375	1395
Thermometer / Probe / Anode	E	1/2"	mm	895	1315	1325
Electric resistance/Recirculation	F	1"1/2	mm	725	1010	1065
Anode	G	1"1/4	mm	485	540	595
Thermometer / Probe / Anode	H	1/2"	mm	415	480	525
Cold water inlet	I	1"1/2	mm	245	235	285
Drain	L	1"1/4	mm	140	140	165
First flange	M	DN290	mm	345	345	395
Second flange	N	DN290	mm	765	810	865
Thermometer / Probe / Anode	O	1/2"	mm	-	1010	1065
Thermometer / Probe / Anode	P	1/2"	mm	965	1375	1395
Hot water outlet	Q	1"1/4	mm		Above	
Empty weight			kg	70	105	145
Dispersion S (*)			W	77	95	115
Specific dispersion psbsol			W/K	1,71	2,11	2,56
Energetic class				C	C	C

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with $T_{water} = 65\text{ °C}$ and $T_{environment} = 20\text{ °C}$

Tanks

Comfort V 750-1000-1500-2000-3000 vitrified tanks for sanitary water



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal treatment of inorganic enamelling (vitrification).
- Insulation in 100 mm thick flexible polyester.
- Insulation coating in gray PVC SKY.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum operating pressure: 10 bar (models 750-1000), 8 bar (models 1500-2000-3000).

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

The Comfort V storage tanks are supplied with the closing flange mounted and equipped with thermal insulation and nr. 1 Boguard electronic anode (single for 750-1000 models, double for 1500-2000-3000 models). Their completion requires the insertion of the chosen coil; coils are not included.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

Models	Ref.	u.m.	750	1000	1500	2000	3000
Total capacity (storage volume)		ℓ	749	955	1430	1990	2848
Non-solar volume Vbu		ℓ	420	490	790	840	1745
Ø with insulation	A	mm	990	990	1200	1300	1450
Ø without insulation	B	mm	790	790	1000	1100	1250
Height	C	mm	1810	2140	2120	2425	2650
Height with insulation		mm	1900	2230	2180	2495	2705
Anode	D	1"1/4 mm	1500	1830	1720	1990	2180
Thermometer / Probe / Anode	E	1/2" mm	1430	1760	1650	1920	2110
Electric resistance or recirculation	F	1"1/2 mm	1130	1295	1300	1345	1425
Anode	G	1"1/4 mm	670	760	800	820	835
Thermometer / Probe / Anode	H	1/2" mm	600	690	730	750	765
Cold water inlet	I	1"1/2 or 2" (*) mm	350	350	435	410	440
Drain	L	1"1/4 mm	240	240	280	250	235
First flange	M	DN290 mm	470	470	545	555	550
Thermometer / Probe / Anode	N	1/2" mm	-	-	760	820	835
Second flange	O	DN290 mm	940	1075	1075	1085	1130
Thermometer / Probe / Anode	P	1/2" mm	1130	1295	1290	1345	1425
Third flange	Q	DN290 mm	1320	1610	1505	1670	1800
Thermometer / Probe / Anode	R	1/2" mm	1510	1830	1720	1990	2180
Hot water outlet	S	1"1/2 or 2" (*) mm			Above		
Empty weight		kg	195	205	285	350	620
Dispersion S (**)		W	130	142	162	186	344
Specific dispersion psbsol		W/K	2,89	3,16	3,6	4,13	7,64

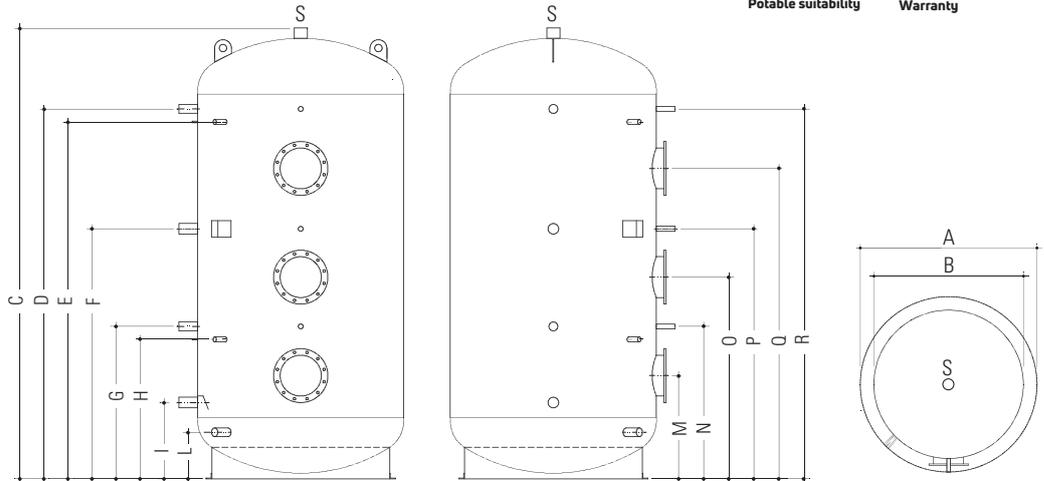
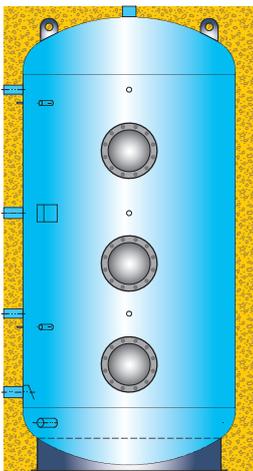
Thread : G (ISO 228-1)

(*) 1"1/2 for models up to 1500, 2" for models from 2000 to 3000

(**) In compliance with UNI EN 12897 with $T_{water} = 65\text{ °C}$ and $T_{environment} = 20\text{ °C}$

Tanks

Comfort S enamelled tanks for sanitary water



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal organic enamel treatment (treatment with thermosetting resins).
- Insulation in 100 mm thick flexible polyester.
- Insulation coating in gray PVC SKY.

Technical data

- Storage tank max continuous operating temperature: 70 °C.
- Accumulator maximum working pressure: 6 bar

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

Comfort S storage tanks are supplied with closing flange mounted and equipped with thermal insulation and nr. 1 double Bogaard electronic anode.

Their completion requires the insertion of the chosen coil; coils are not included.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

Models	Ref.	u.m.	1500	2000	3000
Total capacity (storage volume)		ℓ	1430	1990	2959
Non-solar volume Vbu		ℓ	790	840	1745
Ø with insulation	A	mm	1200	1300	1450
Ø without insulation	B	mm	1000	1100	1250
Height	C	mm	2105	2425	2700
Height with insulation		mm	2210	2495	2755
Anode	D	1"1/4 mm	1750	1990	2265
Thermometer / Probe / Anode	E	1/2" mm	1680	1920	2196
Electric resistance or recirculation	F	1"1/2 mm	1295	1345	1455
Anode	G	1"1/4 mm	780	820	865
Thermometer / Probe / Anode	H	1/2" mm	710	750	795
Cold water inlet	I	1"1/2 or 2" (*) mm	395	410	475
Drain	L	1"1/4 mm	180	180	190
First flange	M	DN290 mm	530	555	580
Thermometer / Probe / Anode	N	1/2" mm	780	820	865
Second flange	O	DN290 mm	1000	1085	1165
Thermometer / Probe / Anode	P	1/2" mm	1295	1345	1455
Third flange	Q	DN290 mm	1525	1670	1860
Thermometer / Probe / Anode	R	1/2" mm	1750	1990	2265
Hot water outlet	S	1"1/2 or 2" (*) mm		Above	
Empty weight		kg	285	350	535
Dispersion S (**)		W	162	186	344
Specific dispersion psbsol		W/K	3,60	4,13	7,64

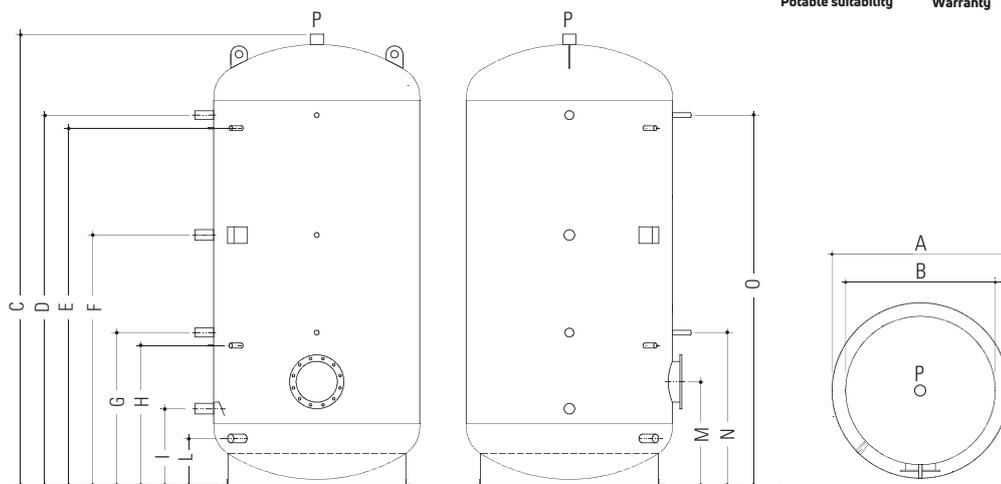
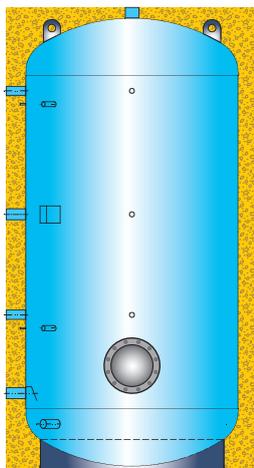
Thread : G (ISO 228-1)

(*) 1"1/2 for models up to 1500, 2" for models from 2000 to 3000

(**) In compliance with UNI EN 12897 with $T_{water} = 65 °C$ and $T_{environment} = 20 °C$

Tanks

Vitrified tanks for sanitary water



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal treatment of inorganic enamelling (vitrification).
- Insulation in 100 mm thick flexible polyester.
- Insulation coating in gray PVC SKY.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum operating pressure: 10 bar (models 300-500-750-1000), 8 bar models 1500-2000.

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

The vitrified storage tanks are supplied with the closing flange mounted and equipped with thermal insulation and nr. 1 Boguard electronic anode (single for models 300-500-750-1000, double for models 1500-2000). In the 2000 model only there is a closing flange mounted.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

Models	Ref.	u.m.	300	500	750	1000	1500	2000	
Total capacity (storage volume)		ℓ	285	490	749	955	1430	1990	
∅ with insulation	A	mm	700	850	990	990	1200	1300	
∅ without insulation	B	mm	500	650	790	790	1000	1100	
Height	C	mm	1615	1690	1810	2140	2120	2425	
Height with insulation		mm	1705	1780	1900	2230	2180	2495	
Anode	D	1"1/4	mm	1375	1395	1500	1830	1720	1990
Thermometer / Probe / Anode	E	1/2"	mm	1315	1325	1430	1760	1650	1920
Electric resistance/Recirculation	F	1"1/2	mm	1010	1065	1130	1295	1300	1345
Anode	G	1"1/4	mm	540	595	670	760	800	820
Thermometer / Probe / Anode	H	1"1/2	mm	480	525	600	690	730	750
Cold water inlet	I	1"1/2 or 2" (*)	mm	235	285	350	350	435	410
Drain	L	1"1/4	mm	140	165	240	240	250	250
Flange	M	DN290	mm	-	-	-	-	-	555
Thermometer / Probe / Anode	N	1/2"	mm	-	-	-	-	760	820
Thermometer / Probe / Anode	O	1/2"	mm	1375	1395	1510	1830	1720	1990
Hot water outlet	P	1"1/4 or 1"1/2" or 2" (**)	mm						Above
Empty weight		kg	105	145	195	205	285	350	
Dispersion S (***)		W	95	115	130	142	162	186	
Specific dispersion psbsol		W/K	2,11	2,56	2,89	3,16	3,6	4,13	
Energetic class			C	C	-	-	-	-	

Thread : G (ISO 228-1)

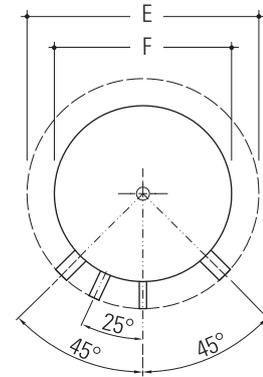
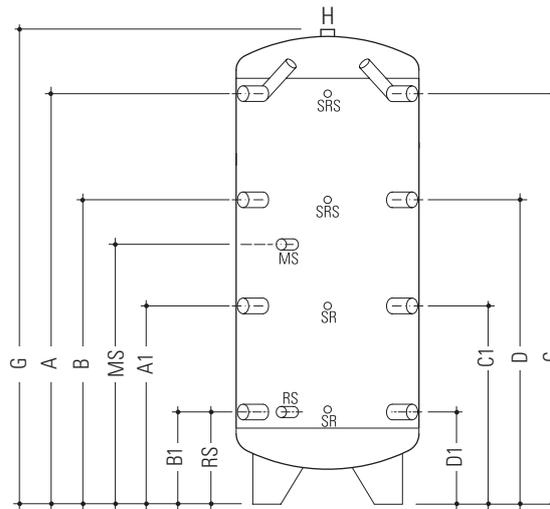
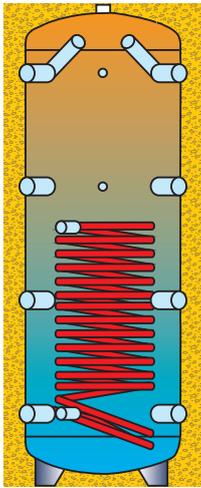
(*) 1"1/2 for models up to 1500, 2" for model 2000

(**) 1"1/4 for models from 300 to 500, 1"1/2 for models from 750 to 1500, 2" for model 2000

(***) In compliance with UNI EN 12897 with $T_{water} = 65\text{ °C}$ and $T_{environment} = 20\text{ °C}$

Tanks

Puffer for heating water



Puffer are used for the storage of heating water in support of systems with boiler, wood-burning boiler, thermal stove, fireplaces and other sources of energy.

Construction

- Accumulation untreated inside, painted outside surface.
- With or without coil for solar system or fireplace stove.
- Insulation in 100 mm thick flexible polyester.
- Insulation coating in gray PVC SKY.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 3 bar.
- Coil maximum working pressure: 10 bar.

Conformity

Complies with art. 4.3 PED Directive 2014/68/EU.

Supplying

Puffers are supplied equipped with thermal insulation.

Note: fit the Puffers with a safety valve and expansion tank suitable for the volume of the system.

Models	Ref.	u.m.	300	500	1000	1500	2000
Total capacity (storage volume)		ℓ	270	476	920	1410	2010
Fireplace stove flow	A	1"½	mm	1340	1470	1860	2070
Fireplace stove return	A1	1"½	mm	230	710	805	950
Heating flow	B	1"½	mm	970	1090	1335	1510
Heating flow	B1	1"½	mm	600	330	280	390
Boiler flow	C	1"½	mm	1340	1470	1860	2070
Boiler return	C1	1"½	mm	600	710	805	950
Third source of feating flow or electric resistance	D	1"½	mm	970	1090	1335	1510
Third source of heating return	D1	1"½	mm	230	330	280	390
Solar flow (**)	MS	1"	mm	830	930	990	1290
Solar return (**)	RS	1"	mm	230	330	280	390
Heating probe	SR	1/2"		-	-	-	-
Solar heating probe	SRS	1/2"		-	-	-	-
Ø with insulation	E		mm	700	850	990	1200
Ø without insulation	F		mm	500	650	790	1000
Vent	H	1"¼				Above	
Height	G		mm	1560	1700	2115	2090
Height with insulation			mm	1665	1800	2215	2190
Coil exchange surface (**)			m2	1,8	1,8	2,6	3,8
Fixed coil content (**)			ℓ	10,4	10,4	14,6	21,6
Empty weight (*)			kg	77,5 (95*)	105 (124*)	150 (180*)	196 (240*)
Dispersion S (***)			W	93	110	143	167
Specific dispersion pbsol			W/K	2,07	2,44	3,18	3,71
Energetic class				C	C	-	-

Thread: G (ISO 228-1)

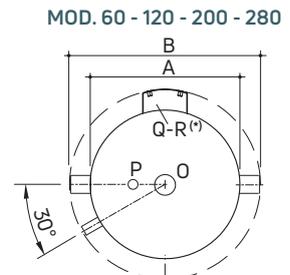
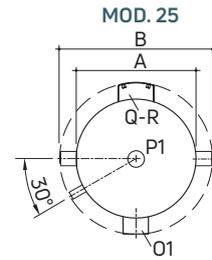
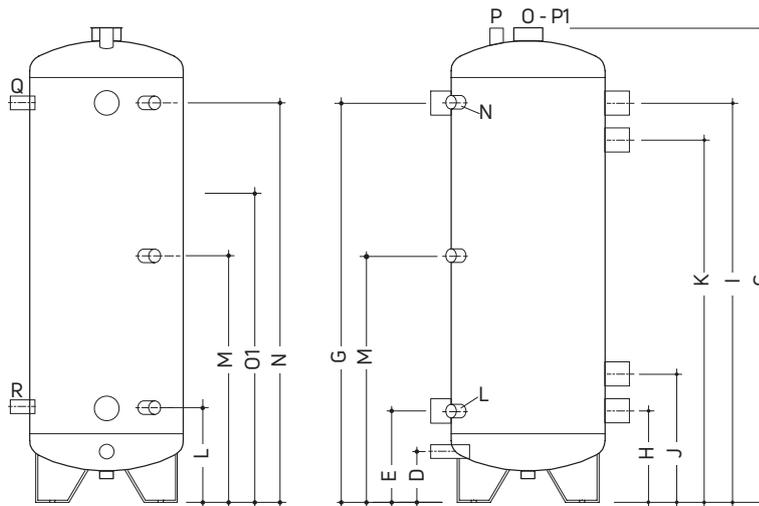
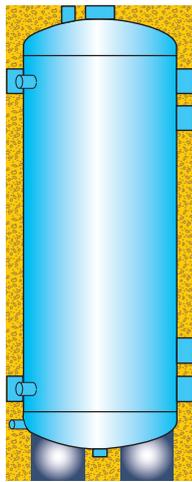
(*) In brackets it is reported the value of the model with serpentine

(**) only for model with coil

(***) In compliance with UNI EN 12897 with Twater = 65 °C and Tenvironment = 20 °C

Tanks

ETW accumulation tanks for hot and cold technical water



(*) ONLY mod. 60, 120

ETW series storage tanks are particularly suitable for storing hot and cold technical water, to create thermal buffers for heat pump systems. They are not suitable for storing water for hygienic-sanitary use.

Construction

- Untreated accumulation inside.
- Insulation in rigid expanded polyurethane foamed directly on the boiler: thickness 40 mm (models ETW 25-60), thickness 50 mm (models ETW 120-200-280).
- Insulation coating in gray PVC SKY.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 6 bar.

Conformity

Complies with art. 4.3 PED Directive 2014/68/EU.

Supplying

ETW storage tanks are supplied with thermal insulation.

Note: ETW 25-60-120 models can be hung on the wall using the brackets supplied.

Models	Ref.	ETW 25	ETW 60 ETW 120	ETW 200	ETW 280	u.m.	ETW 25	ETW 60	ETW 120	ETW 200	ETW 280
Total capacity (usable volume)						ℓ	24	57	123	203	277
Ø without insulation	A					mm	300	300	400	450	500
Ø with insulation	B					mm	380	380	510	550	600
Height	C					mm	451	935	1100	1395	1560
Height with insulation						mm	461	945	1120	1405	1570
Drain	D	1/2"	1/2"	1/2"	3/4"	mm	80	100	100	105	120
System return	E	1"1/4	1"1/4	1"1/2	2"	mm	165	180	185	215	235
System flow	G	1"1/4	1"1/4	1"1/2	2"	mm	300	785	935	1200	1340
Heat pump return	H	1"1/4	1"1/4	1"1/2	2"	mm	165	180	185	215	235
Boiler flow	I	1"1/4	1"1/4	1"1/2	2"	mm	300	785	935	1200	1340
Boiler return	J	-	1"1/4	1"1/2	2"	mm	-	275	280	315	350
Heat pump flow	K	-	1"1/4	1"1/2	2"	mm	-	690	840	1100	1225
Thermometer - probe	L	1/2"	1/2"	1/2"	1/2"	mm	80	180	185	215	235
Thermometer - probe	M	1/2"	1/2"	1/2"	1/2"	mm	165	485	560	705	785
Thermometer - probe	N	1/2"	1/2"	1/2"	1/2"	mm	300	785	935	1200	1340
Electric resistance (*)	O	-	1" 1/2	1" 1/2	1" 1/2		-			Above	
	O1	1" 1/2	-	-	-	mm	210	-	-	-	-
Air vent connection	P	1/2"	1/2"	1/2"	1/2"		-			Above	
	P1	1"	-	-	-		Above	-	-	-	-
Upper bracket	Q					mm	300	785	935	-	-
Lower bracket	R					mm	165	180	185	-	-
Empty weight						kg	18	25	35	45	55
Dispersion S (**)						W	19	34	50	68	82
Specific dispersion psbsol						W/K	0,42	0,75	1,10	1,51	1,82
Energetic class							A	B	B	C	C

Thread: G (ISO 228-1)

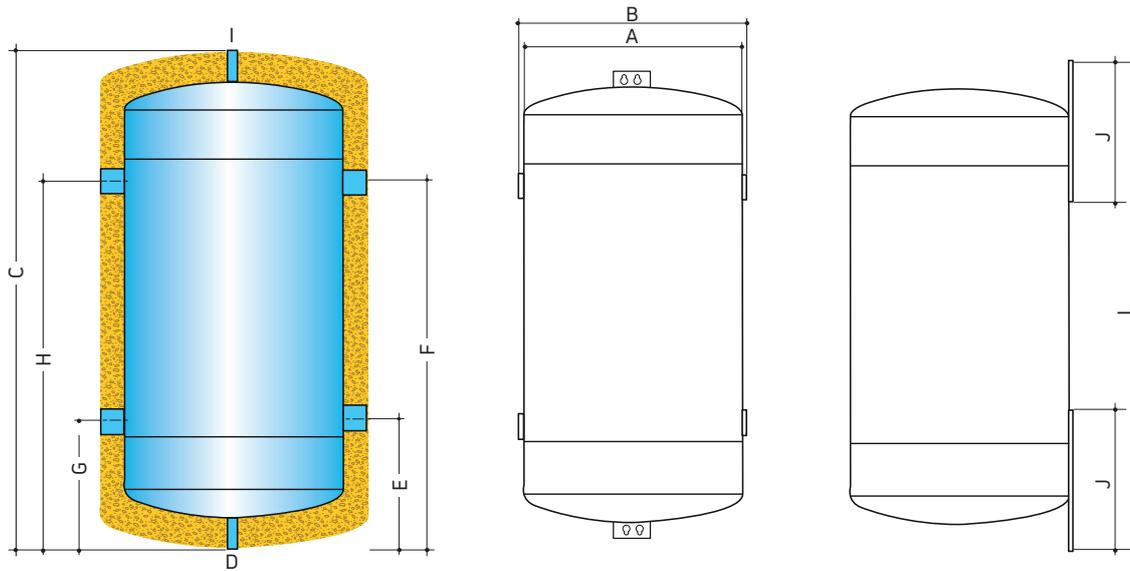
(*) The electric resistance, in the models 60, 120, 200, 280 (connexion O), must be suitable for operation in vertical position.

(**) In compliance with UNI EN 12897 with $T_{water} = 65\text{ °C}$ and $T_{environment} = 20\text{ °C}$

Tanks

ETW Inox accumulation tanks for hot and cold technical water in stainless steel

NEW



ETW Inox series storage tanks are particularly suitable for storing hot and cold technical water, to create thermal buffers for heat pump systems. They are not suitable for storing water for hygienic-sanitary use.

Construction

- Accumulator in stainless steel.
- Insulation in cross-linked expanded polyethylene thickness 24 mm (model ETW 26) or 30 mm (model ETW 51).

Technical data

- Storage tank maximum operating temperature: 95 °C.
- Accumulator maximum working pressure: 5 bar.

Conformity

Complies with art. 4.3 PED Directive 2014/68/EU.

Supplying

ETW Inox storage tanks are supplied with thermal insulation.

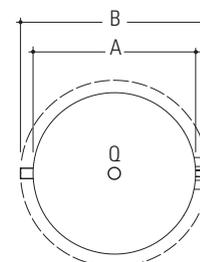
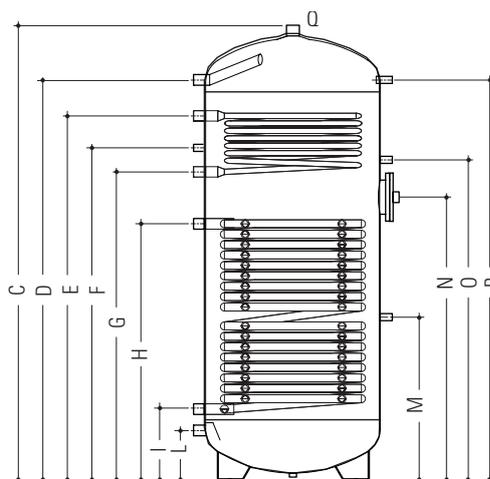
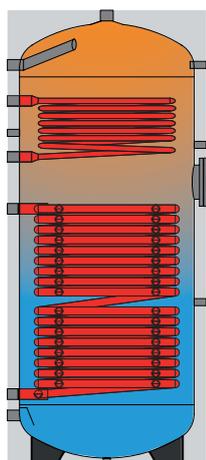
Note: ETW Inox storage tanks can be hung on the wall using the supplied brackets.

Models	Ref.	ETW 26 / 51	u.m.	ETW 26	ETW 51
Total capacity (usable volume)			ℓ	23	50
∅ with insulation	A		mm	302	379
Maximum width	B		mm	320	385
Height with insulation	C		mm	554	755
Drain	D	3/8" F	mm	0	0
System return	E	1"1/4 F	mm	124,5	155,5
System flow	F	1"1/4 F	mm	429,5	599,5
Heat pump return	G	1"1/4 F	mm	124,5	155,5
Heat pump flow	H	1"1/4 F	mm	429,5	599,5
Air vent connection	I	3/8" F	mm	554	755
Bracket length	J		mm	160	190
Length including brackets	L		mm	599	775
Empty weight			kg	6	9
Dispersion S (*)			W	43	54
Specific dispersion psbsol			W/K	0,96	1,20
Energetic class				C	C

(*) In accordance with standard EN 12897:2020 with water temperature in the storage tank $T_w=65\text{ °C}$ and ambient temperature $T_a=20\text{ °C}$

Tanks

HP2V vitrified boilers for sanitary water production with heat pump and boiler



Construction

- Accumulator in carbon steel S235JR with dished bottoms with deep drawing; internal treatment of inorganic enamelling (vitrification).
- Insulation: in 50 mm thick rigid expanded polyurethane (models 300-500); in 100 mm thick flexible polyester (models 750-1000).
- Insulation coating in gray PVC SKY.
- S235JR carbon steel coils.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 10 bar.
- Coils maximum working pressure: 10 bar.

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

HP2V storage tanks are supplied with the closing flange mounted and equipped with thermal insulation and nr. 1 Bogueard electronic anode.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

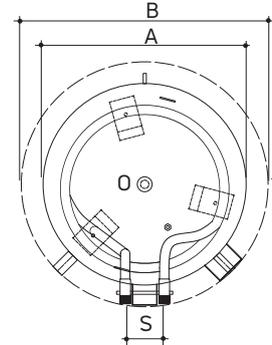
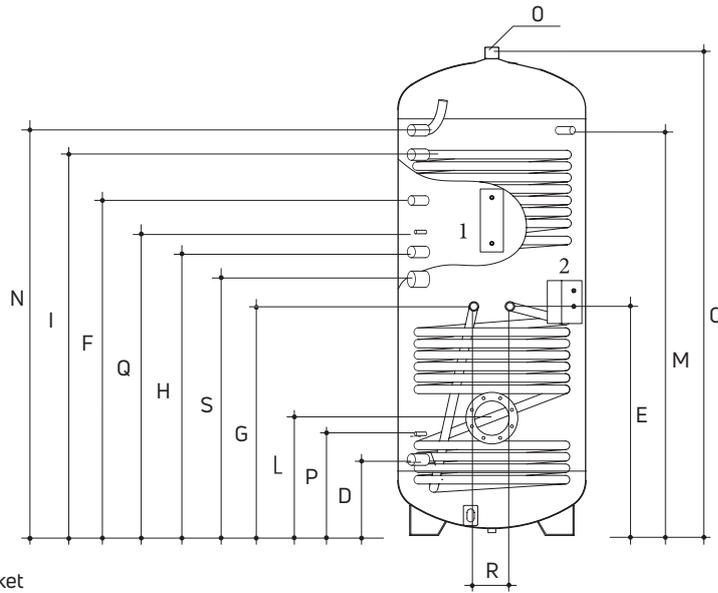
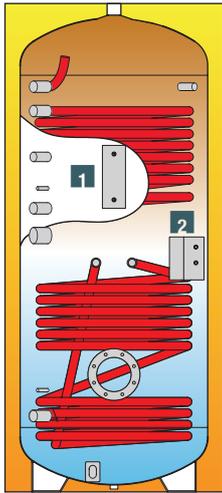
Models	Ref.	u.m.	300 / 500	750 / 1000	HP2V 300	HP2V 500	HP2V 750	HP2V 1000
Total capacity (storage volume)		ℓ			260	455	702	900
Energetic class					C	C	-	-
Dispersion S (*)		W			85	112	130	142
Specific dispersion psbsol		W/K			1,88	2,49	2,89	3,16
Empty weight		kg			125	170	288	318
Non-solar volume Vbu		ℓ			175	300	385	430
Coil exchange surface inferiore		m ²			3,7	5,2	5,1	6,0
Lower coil content		ℓ			18,0	31,0	39,9	36,6
Coil exchange surface superiore		m ²			0,7	1,0	1,0	1,4
Upper coil content		ℓ			3,5	5,9	6,4	8,3
Ø without insulation	A	mm			500	650	790	790
Ø with insulation	B	mm			600	750	990	990
Height	C	mm			1615	1705	1810	2140
Height with insulation		mm			1615	1705	1875	2205
Hot water outlet	D	mm	1"	1"1/4	1470	1500	1610	1830
Upper coil inlet	E	mm	1"	1"1/4	1320	1365	1440	1660
Recirculation	F	mm	1/2"	1"	1090	1245	1270	1485
Upper coil outlet	G	mm	1"	1"1/4	1180	1155	1125	1345
Lower coil inlet	H	mm	1"	1"1/4	960	970	915	1085
Lower coil outlet	I	mm	1"	1"1/4	220	265	350	350
Cold water inlet	L	mm	1"	1"1/4	140	185	240	240
Thermostat / Thermometer	M	mm	1/2"	1/2"	605	610	565	520
Flange/Electric resistance	N	mm	DN 180 / 1"1/2	DN 180 / 1"1/2	1045	1070	1015	1200
Thermostat / Thermometer	O	mm	1/2"	1/2"	1230	1210	1270	1485
Thermometer / Probe	P	mm	1/2"	1/2"	1390	1365	1610	1830
Anode	Q		1" (mod. 300) 1"1/4 (mod. 500)	1"1/2			Above	

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with T_{water} = 65 °C and T_{environment} = 20 °C

Tanks

HEVSN solar tanks



- 1 Solar station support bracket
- 2 Expansion vessel support bracket

Construction

- Inorganic glazing (vitrification)
- Insulation in 70 mm thick rigid expanded polyurethane

Conformity

- Compliant with art. 4.3 PED directive 2014/68/EU
- Complies with DIN 4753.3 and UNI 10025

Technical data

- Maximum working pressure: 6 bar (coil), 10 bar (sanitary)
- Storage tank max continuous operating temperature: 95 °C
- Test pressure: 15 bar
- Insulation coating in gray PVC SKY

Model			u.m.	300	500
Total capacity (storage volume)			ℓ	273	475
Non-solar volume V _{bu}			ℓ	110	205
∅ without insulation		A	mm	500	650
∅ with insulation		B	mm	640	790
Height		C	mm	1615	1705
Height with insulation			mm	1625	1715
Cold water inlet	1"	D	mm	220	265
Lower coil outlet	1"	E	mm	800	800
Recirculation	3/4"	F	mm	1145	1170
Lower coil entry	1"	G	mm	800	800
Upper coil outlet	1"	H	mm	965	990
Upper coil entry	1"	I	mm	1305	1330
Flange	DN 180	L	mm	330	410
Thermometer / Probe	1/2"	M	mm	1390	1415
Hot water outlet	1"	N	mm	1390	1415
Anode	1"1/4	O		in alto	in alto
Probe	∅ 10	P	mm	310	355
Probe	∅ 10	Q	mm	1035	1060
Connection center distance		R	mm	125	125
Electric resistance / Recirculation	1"1/2	S	mm	860	895
Lower serpentine surface			m ²	1,3	1,7
Upper serpentine surface			m ²	0,9	1,2
Lower coil content			ℓ	7,8	10,1
Upper coil content			ℓ	5,3	7,5
Weight (empty)			kg	125	165
Dispersion S (*)			W	63	80
Specific dispersion psbsol			W/K	1,40	1,78
Energetic class				B	B

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with T_{water} = 65 °C and T_{environment} = 20 °C

Tanks

HYBV1S double tanks for sanitary water and technical water

NEW

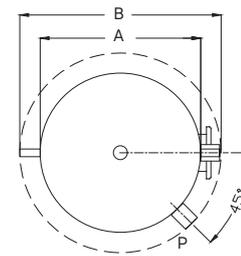
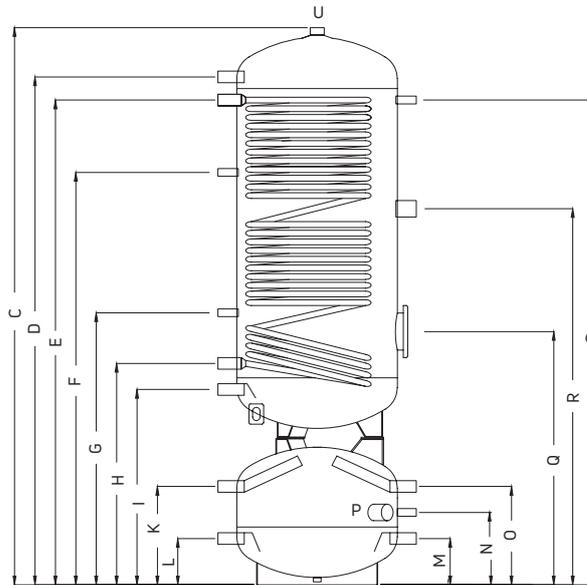
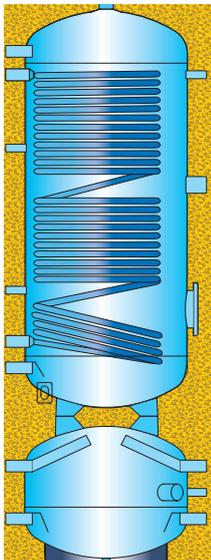


Potable suitability



Warranty

VALID ONLY
FOR THE ACCUMULATION OF
DOMESTIC HOT WATER



HYBV1S series storage tanks consist of a double storage tank for the production of domestic hot water from a heat pump with thermal flywheel for hot or chilled technical water.

Construction

- Upper tank in S235JR carbon steel with deep drawing dished ends; internal treatment of inorganic enamelling (vitrification).
- Bottom accumulation with untreated interior.
- Insulation: in 70 mm thick rigid expanded polyurethane.
- Insulation coating in gray PVC SKY.
- S235JR carbon steel coil.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- DHW storage tank maximum operating pressure: 10 bar.
- Technical water storage tank max operating pressure: 6 bar.
- Coil maximum working pressure: 10 bar.

Conformity

- Compliant with art. 4.3 PED Directive 2014/68/EU.
- Complies with DIN 4753.3 and UNI 10025.

Supplying

HYBV1S storage tanks are supplied with a DN180 closing flange mounted (for possible integration with solar thermal through an additional coil to be purchased separately), equipped with thermal insulation and nr. 1 Boguard electronic anode.

Note: a safety valve with maximum calibration = 6 bar and an expansion vessel suitable for the volume of the DHW system must be installed in the DHW circuit near the storage tank.

Models	Ref.		u.m.	HYBV1S 300	HYBV1S 500
Useful volume (sanitary storage/technical water)			ℓ	350 (270/80)	524 (450/74)
Non-solar volume Vbu			ℓ	0	0
∅ without insulation	A		mm	550	650
∅ with insulation	B		mm	690	790
Height	C		mm	1925	2040
Height with insulation			mm	1935	2050
Domestic hot water flow	D	1"	mm	1755	1850
Serpentine entrance	E	1"	mm	1675	1755
Recirculation	F	1/2"	mm	1425	1520
Probe	G	1/2"	mm	940	810
Serpentine outlet	H	1"	mm	765	655
Sanitary Cold water inlet	I	1"	mm	675	565
Heat pump flow	K	1"	mm	340	235
Heat pump return	L	1"	mm	160	135
System return	M	1"	mm	160	135
Thermometer - probe	N	1/2"	mm	250	235
System flow	O	1"	mm	340	235
Electric resistance	P	1"1/2	mm	250	135
Flange	Q	DN 180	mm	875	750
Resistance	R	1"1/2	mm	1300	1355
Thermometer - probe	S	1/2"	mm	1675	1770
Anode	U	1"1/4	mm	Above	
Coil exchange surface			m ²	3,3	6,0
Serpentine content			ℓ	20,2	51,5
Empty weight			kg	150	200
Dispersion S (*)			W	73	84
Specific dispersion psbsol			W/K	1,62	1,87
Energetic class				B	B

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with T_{water} = 65 °C and T_{environment} = 20 °C

Tanks

EBN300-500 storage tanks for heating water for integrated systems

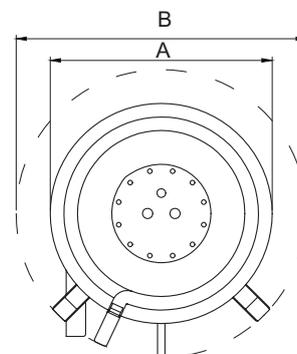
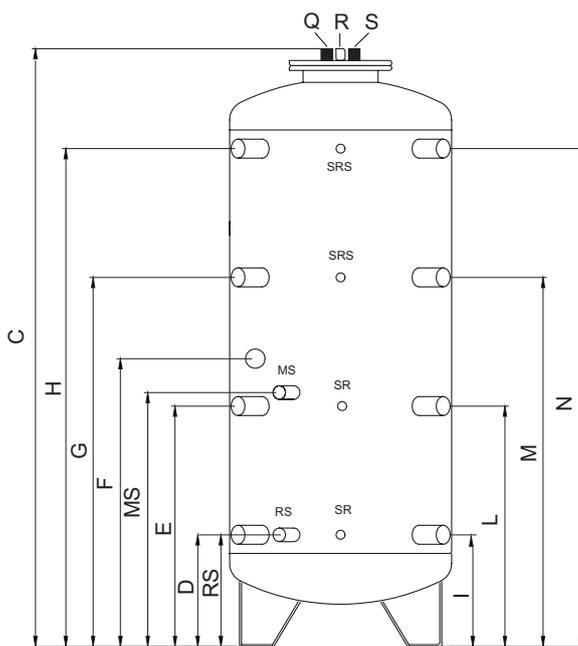
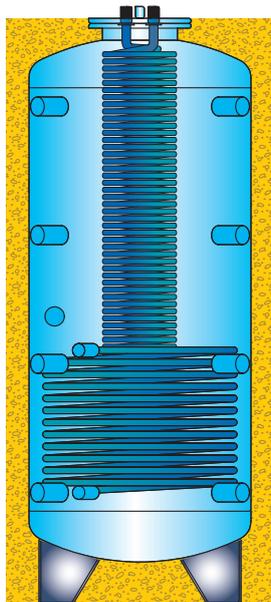


Potable suitability



Warranty

VALID ONLY
FOR THE INTERNAL COIL
FOR DOMESTIC HOT WATER



EBN300-500 storage tanks are designed to be able to integrate multiple energy sources present in the heating system, such as, for example: heat pumps, thermal solar panels, gas boilers, thermo fireplaces, etc.

Characteristics

- Solar integration to heating
- Integration of condensing boiler
- Possible integration of heat pump
- Possible integration of wood boiler

Construction

- Crude accumulation inside.
- Insulation: in 100 mm thick flexible polyester.
- Insulation coating in gray PVC SKY.
- S235JR carbon steel solar coil.
- Coil for domestic hot water production in copper.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 3 bar.
- Solar coil maximum operating pressure: 10 bar.
- Sanitary coil maximum operating pressure: 10 bar.

Compliance

Complies with art. 4.3 PED Directive 2014/68/EU.

Supplying

EBN300-500 storage tanks are supplied with thermal insulation.

Tanks

Models	Ref.		u.m.	EBN300	EBN500
Total capacity (storage volume)			ℓ	270	450
Non-solar volume Vbu			ℓ	0	0
Ø without insulation	A		mm	500	650
Ø with insulation	B		mm	700	850
Height	C		mm	1625	1765
Height with insulation			mm	1625	1765
System return di riscaldamento	D	1"1/2	mm	230	330
Solar return	RS	1"	mm	230	330
Fireplace stove return	E	1"1/2	mm	600	710
Solar flow	MS	1"	mm	830	750
Electric resistance	F	1"1/2	mm	930	850
Heating system flow	G	1"1/2	mm	1040	1090
Fireplace stove flow	H	1"1/2	mm	1340	1470
System return a pavimento	I	1"1/2	mm	230	330
Boiler return	L	1"1/2	mm	600	710
Floor system flow	M	1"1/2	mm	1040	1090
Boiler flow	N	1"1/2	mm	1340	1470
Sanitary cold water inlet	Q	1" (*)	mm	Above	Above
Air vent	R	1/2"	mm	Above	Above
Heating probe	SR	1/2"	mm	-	-
Solar heating probe	SRS	1/2"	mm	-	-
Lower coil heat exchange surface			m ²	1,9	2,5
Lower coil water content			ℓ	11,4	14,9
Sanitary coil heat exchange surface			m ²	5,0	5,0
Sanitary coil water content			ℓ	3,5	3,5
Empty weight			kg	130	150
Dispersion S (**)			W	93	112
Specific dispersion psbsol			W/K	2,07	2,49
Energetic class				C	C

Thread: G (ISO 228-1)

(*) With dielectric joint

(**) In compliance with UNI EN 12897 with T_{water} = 65 °C and T_{ambient} = 20 °C

Tanks

EB1000-1500 storage tanks for heating water for integrated systems

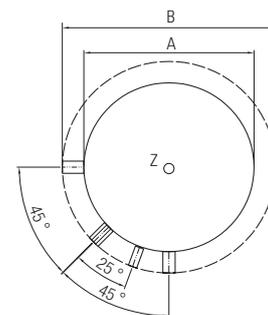
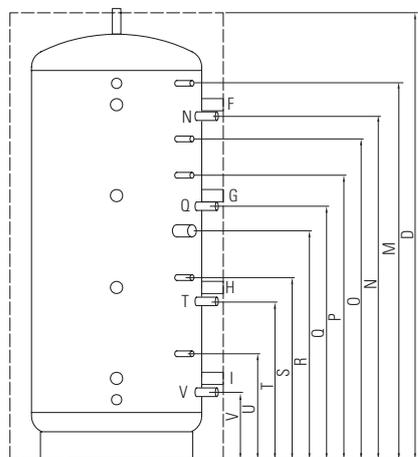
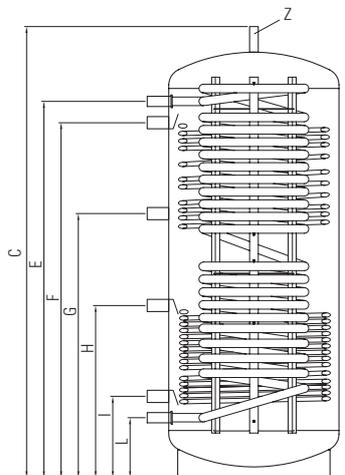
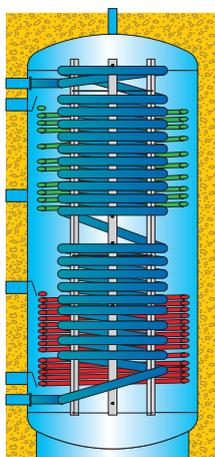


Potable suitability



Warranty

VALID ONLY
FOR THE INTERNAL COIL
FOR DOMESTIC HOT WATER



EB1000-1500 storage tanks are designed to be able to integrate multiple energy sources present in the heating system, such as, for example: heat pumps, thermal solar panels, gas boilers, thermo fireplaces, etc.

Characteristics

- Solar integration to heating
- Integration of condensing boiler
- Possible integration of heat pump
- Possible integration of wood boiler
- Stratification with hydraulic chimney

Construction

- Crude accumulation inside.
- Insulation: in 100 mm thick flexible polyester.
- Insulation coating in gray PVC SKY.
- Solar coil and alternative energy coil in S235JR carbon steel.
- Coil for domestic hot water production in AISI 316L stainless steel.

Technical data

- Storage tank max continuous operating temperature: 95 °C.
- Accumulator maximum working pressure: 3 bar.
- Sanitary coil maximum operating pressure: 6 bar.
- Max working pressure of the alternative energy coil: 10 bar.
- Solar coil maximum operating pressure: 10 bar.

Compliance

Complies with art. 4.3 PED Directive 2014/68/EU.

Supplying

EB1000-1500 storage tanks are supplied with thermal insulation.

Tanks

Models	Ref.	u.m.	EB1000 S30 AS76 AUX20	EB1500 S35 AS89 AUX30
Total capacity (storage volume)		ℓ	870	1470
Non-solar volume Vbu		ℓ	356	672
∅ without insulation	A	mm	790	1000
∅ with insulation	B	mm	990	1200
Height	C	mm	2110	2240
Insulation height	D	mm	2135	2265
Sanitary hot water outlet	E	1"1/4 mm	1760	1825
Boiler flow	F	1"1/2 mm	1660	1725
Heating system flow	G	1"1/2 mm	1235	1300
Boiler return	H	1"1/2 mm	805	870
Heating system return	I	1"1/2 mm	380	445
Sanitary cold water inlet	L	1"1/4 mm	280	345
Thermometer - probe	M	1/2" mm	1760	1825
Alternative energy supply	N	1" mm	1655	1715
Thermometer - probe	O	1/2" mm	1500	1525
Thermometer - probe	P	1/2" mm	1330	1415
Alternative energy return	Q	1" mm	1185	1165
Electric resistance	R	1"1/2 mm	1070	1055
Thermometer - probe	S	1/2" mm	840	870
Solar flow	T	1" mm	785	835
Thermometer - probe	U	1/2" mm	495	520
Solar return	V	1" mm	365	445
Air vent	Z	1"	Above	Above
Sanitari coil exchange surface ●		m ²	7,6	8,9
Sanitary coil water content ●		ℓ	48	56
Sanitary coil nominal flow rate ●		m ³ /h	1,89	2,36
DHW coil pressure drop referred to the nominal flow rate ●		mbar	100	150
Coil exchange surface alternative energy ●		m ²	2,0	3,0
Alternative energy coil water content ●		ℓ	11,8	19,0
Solar coil exchange surface ●		m ²	3,0	3,5
Solar coil water content ●		ℓ	16,6	20,5
Empty weight		kg	315	390
Dispersion S (*)		W	141	170
Specific dispersion psbsol		W/K	3,13	3,78

Thread : G (ISO 228-1)

(*) In compliance with UNI EN 12897 with $T_{\text{water}} = 65 \text{ °C}$ and $T_{\text{environment}} = 20 \text{ °C}$

- : SANITARY COIL
- : ALTERNATIVE ENERGY COIL
- : SOLAR COIL

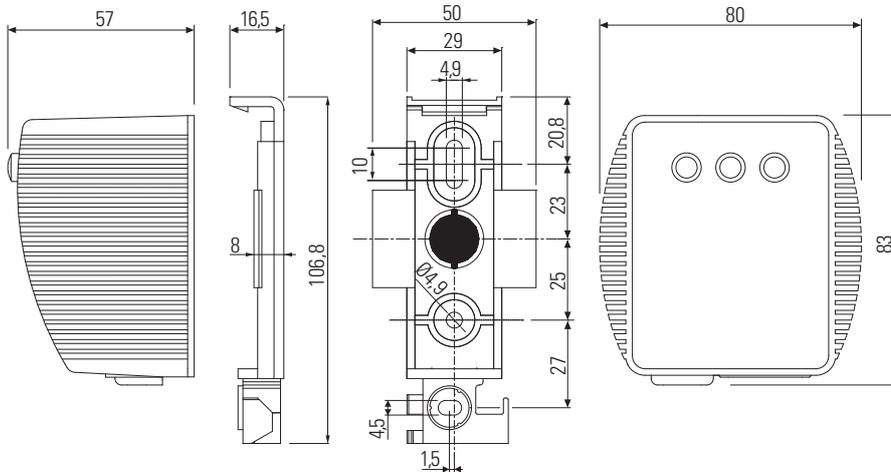
Tanks

Compatibility SH electric heaters / Emmeti tanks

Tank	Resistance								
	SH-1,5	SH-2,0	SH-2,5	SH-3,0	SH-3,8	SH-4,5	SH-6,0	SH-7,5	SH-9,0
Euro V 150	•	•	•	•	•	•	--	--	--
Euro V 200	•	•	•	•	•	•	--	--	--
Euro V 300	•	•	•	•	•	•	--	--	--
Euro V 500	•	•	•	•	•	•	•	--	--
Euro HPV 200	•	•	•	•	•	•	--	--	--
Euro HPV 300	•	•	•	•	•	•	--	--	--
Euro HPV 500	•	•	•	•	•	•	•	--	--
Euro HPV 1000	•	•	•	•	•	•	•	•	•
HP2V 300	•	•	•	•	•	•	--	--	--
HP2V 500	•	•	•	•	•	•	•	--	--
HP2V 750	•	•	•	•	•	•	•	•	•
HP2V 1000	•	•	•	•	•	•	•	•	•
Comfort V 2F 200	•	•	•	•	•	•	--	--	--
Comfort V 2F 300	•	•	•	•	•	•	--	--	--
Comfort V 2F 500	•	•	•	•	•	•	•	•	--
Comfort V 3F 750	•	•	•	•	•	•	•	•	•
Comfort V 3F 1000	•	•	•	•	•	•	•	•	•
Comfort V 3F 1500	•	•	•	•	•	•	•	•	•
Comfort V 3F 2000	•	•	•	•	•	•	•	•	•
Comfort V 3F 3000	•	•	•	•	•	•	•	•	•
Comfort S 3F 1500	•	•	•	•	•	•	•	•	•
Comfort S 3F 2000	•	•	•	•	•	•	•	•	•
Comfort S 3F 3000	•	•	•	•	•	•	•	•	•
HE2V 200	•	•	•	•	•	•	--	--	--
HE2V 300	•	•	•	•	•	•	--	--	--
HE2V 500	•	•	•	•	•	•	•	--	--
HE2V 750	•	•	•	•	•	•	•	•	•
HE2V 1000	•	•	•	•	•	•	•	•	•
HE2V 1500	•	•	•	•	•	•	•	•	•
HE2V 2000	•	•	•	•	•	•	•	•	•
Accumulation tanks V 300	•	•	•	•	•	•	--	--	--
Accumulation tanks V 500	•	•	•	•	•	•	•	•	--
Accumulation tanks V 750	•	•	•	•	•	•	•	•	•
Accumulation tanks V 1000	•	•	•	•	•	•	•	•	•
Accumulation tanks V 1500	•	•	•	•	•	•	•	•	•
Accumulation tanks V 2000	•	•	•	•	•	•	•	•	•
Puffer 300 N	•	•	•	•	•	•	--	--	--
Puffer 500 N	•	•	•	•	•	•	•	•	--
Puffer 1000 N	•	•	•	•	•	•	•	•	•
Puffer 1500 N	•	•	•	•	•	•	•	•	•
Puffer 2000 N	•	•	•	•	•	•	•	•	•
Puffer 300 N 1S	•	•	•	•	•	•	--	--	--
Puffer 500 N 1S	•	•	•	•	•	•	•	•	--
Puffer 1000 N 1S	•	•	•	•	•	•	•	•	•
Puffer 1500 N 1S	•	•	•	•	•	•	•	•	•
Puffer 2000 N 1S	•	•	•	•	•	•	•	•	•
ETW 25	•	•	--	--	--	--	--	--	--
ETW 26	--	--	--	--	--	--	--	--	--
ETW 51	--	--	--	--	--	--	--	--	--
ETW 60	--	--	--	--	--	--	--	--	--
ETW 120	--	--	--	--	--	--	--	--	--
ETW 200	--	--	--	--	--	--	--	--	--
ETW 280	--	--	--	--	--	--	--	--	--
EBN300	•	•	--	--	--	--	--	--	--
EBN500	•	•	•	•	•	--	--	--	--
EBN1000-S30-AS76 AUX20	•	•	•	•	•	•	•	•	•
EBN1500-S35-AS89 AUX30	•	•	•	•	•	•	•	•	•
HYBV1S 300	•	•	•	•	•	•	--	--	--
HYBV1S 500	•	•	•	•	•	•	•	--	--

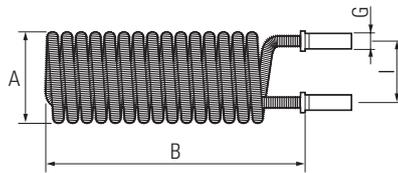
• Usable -- Not usable

Boguard - electronic anode



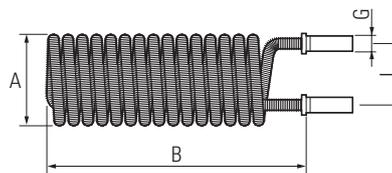
LS08 - LS12

Coils kit LS in tinned copper suitable for HEVSN, HE2V, Euro V, Euro HPV, HYBV



LN 12 ÷ LN 63

Coils kit LN in finned copper suitable for Comfort V, Comfort S, HE2V models 1500 and 2000, vitrified accumulation 2000



Model		u.m.	LS 08	LS 12
external Ø	A	mm	100	100
Length	B	mm	450	550
Surface		m ²	0,80	1,21
Flange		DN	180	180
Connections (*)	G	gas	3/4"	3/4"
Connection takeoffs	I	mm	60	60
Content		ℓ	0,5	0,5
Empty weight		kg	5,0	9,6

(*) with dielectric joints

LS 08: usable on tanks HE2V 200-300-500-750-1000; HEVSN 300-500; Euro V 150-200-300-500, Euro HPV 200-300-500-1000, HYBV1S 300-500, HP2V 300-500-750-1000.

LS 12: usable on tanks HE2V 500-750-1000; HEVSN 500; Euro V 500, Euro HPV 500-1000, HYBV1S 500, HP2V 500-750-1000.

Model		u.m.	LN 12	LN 18	LN 26	LN 32	LN 45	LN 63
external Ø	A	mm	200	200	200	200	200	200
Length	B	mm	420	470	580	660	750	980
Surface		m ²	1,21	1,80	2,63	3,20	4,54	6,34
Flange		DN	290	290	290	290	290	290
Connections (*)	G	gas	1"	1"	1"	1"	1"1/4	1"1/4
Connection takeoffs	I	mm	80	80	80	80	80	80
Content		ℓ	0,7	1,4	2,0	2,5	3,5	5,0
Weight without fittings		kg	9,6	11,7	14,9	17,0	21,1	29,0
For thanks (from÷to)		ℓ	200 ÷ 3000	200 ÷ 3000	500 ÷ 3000	750 ÷ 3000	750 ÷ 3000	1500 ÷ 3000

(*) with dielectric joints

Arcobaleno - Solar panel

Arcobaleno

"SRTV" tray type with selective surface

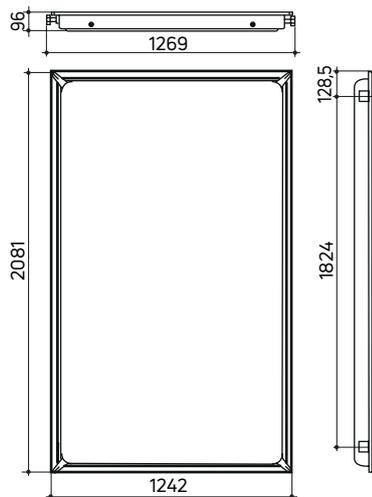
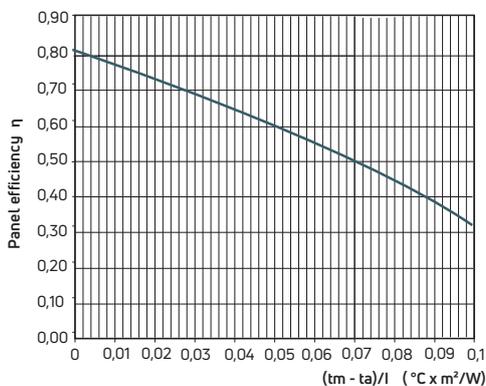


Diagram of efficiency



Technical data	u.m.	
Gross surface	m ²	2,58
Opening (net) surface	m ²	2,31
Absorber surface	m ²	2,29
Connections		1" M - 1" F - Swivel
Empty weight	kg	40,5
Fluid content	ℓ	1,86
Stagnation temperature (*)	°C	196
Max operating pressure	bar	10
Test pressure (**)	bar	15
Q _{COL} (***)	kWh	1193

Thread: G (ISO 228-1)

(*) Referred at I=1000 W/m² and 30 °C

(**) 100% of production

(***) Heat energy produced annually, related to the Würzburg locality and to an average operating temperature of T_m equal to 50 °C

$$\eta_{0_s} = 0,803$$

$$a1_s = 3,715$$

$$a2_s = 0,011$$

t_m = Fluid average temperature (°C)

t_a = Ambient temperature (°C)

I = Global radiation (W/m²)

$$K_{\theta}(50^\circ) = 0,94$$

$$\text{Heat capacity} = 25,19 \text{ kJ/K}$$

Note: values for normal incidence I=1000 W/m² and referred to the net surface.

Arcobaleno

"SRT0" tray type with selective surface

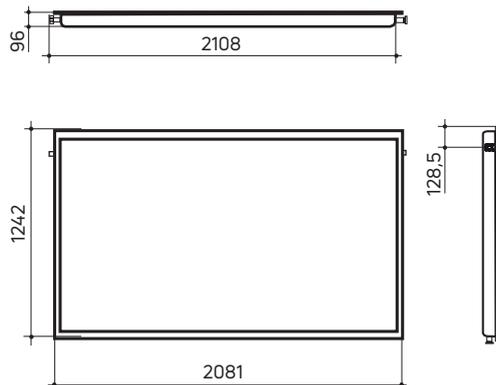
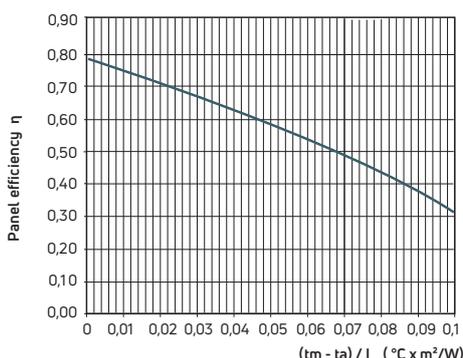


Diagram of efficiency



Technical data	u.m.	
Gross surface	m ²	2,58
Opening (net) surface	m ²	2,31
Absorber surface	m ²	2,29
Connections		1" M - 1" F - swivel
Empty weight	kg	40
Fluid content	ℓ	1,7
Stagnation temperature (*)	°C	212
Max operating pressure	bar	10
Test pressure (**)	bar	15
Q _{COL} (***)	kWh	1127

Thread: G (ISO 228-1)

(*) Referred at I=1000 W/m² and 30 °C

(**) 100% of production

(***) Heat energy produced annually, related to the Würzburg locality and to an average operating temperature of T_m equal to 50 °C

$$\eta_{0_s} = 0,782$$

$$a1_s = 3,378$$

$$a2_s = 0,010$$

t_m = Fluid average temperature (°C)

t_a = Ambient temperature (°C)

I = Global radiation (W/m²)

$$K_{\theta}(50^\circ) = 0,94$$

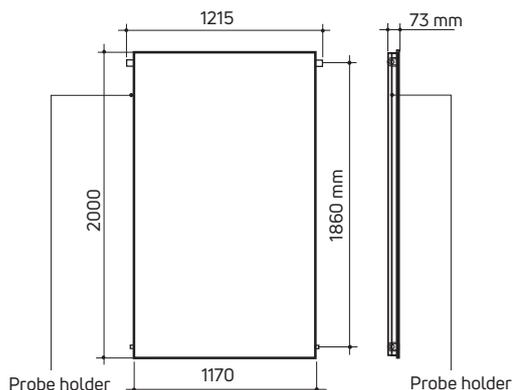
$$\text{Heat capacity} = 22,61 \text{ kJ/K}$$

Note: values for normal incidence I=1000 W/m² and referred to the net surface.

Arcobaleno - Solar panel

Arcobaleno

"SXM" type with selective surface



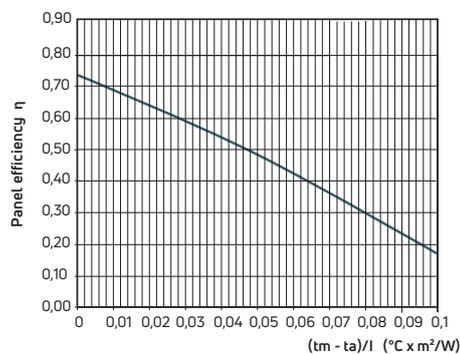
Technical data	u.m.	
Gross surface	m ²	2,34
Opening (net) surface	m ²	2,24
Absorber surface	m ²	2,14
Connections: copper pipe	mm	Ø 22
Empty weight	kg	32
Fluid content	ℓ	1,6
Stagnation temperature (*)	°C	227
Max operating pressure heating	bar	10
Pressione di collaudo (**)	bar	15
Q _{COL} (***)	kWh	901

(*) Referred at I=1000 W/m² and 30 °C

(**) 100% of production

(***) Heat energy produced annually, related to the Würzburg locality and to an average operating temperature of T_m equal to 50 °C

Diagram of efficiency



$$\eta_{0a} = 0,733$$

$$a_{1a} = 4,269$$

$$a_{2a} = 0,0143$$

t_m = Fluid average temperature (°C)

t_a = Ambient temperature (°C)

I = Global radiation (W/m²)

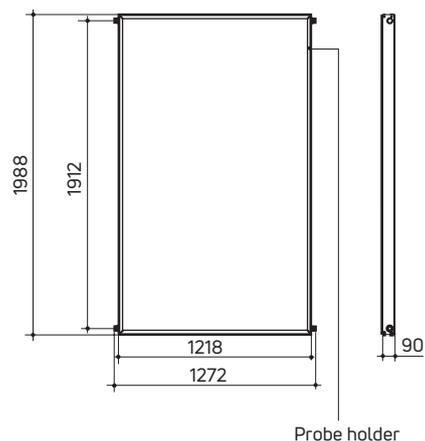
$$K_{\theta}(50^{\circ}) = 0,93$$

Heat capacity = 10,9 kJ/K

Note: values for normal incidence I=1000 W/m² and referred to the net surface.

Arcobaleno

"NS" type with selective surface



Technical data	u.m.	
Gross surface	m ²	2,43
Opening (net) surface	m ²	2,22
Absorber surface	m ²	2,20
Connections	mm	3/4" M
Empty weight	kg	44
Fluid content	ℓ	1,27
Stagnation temperature (*)	°C	194
Max operating pressure	bar	10
Test pressure (**)	bar	20
Q _{COL} (***)	kWh	990

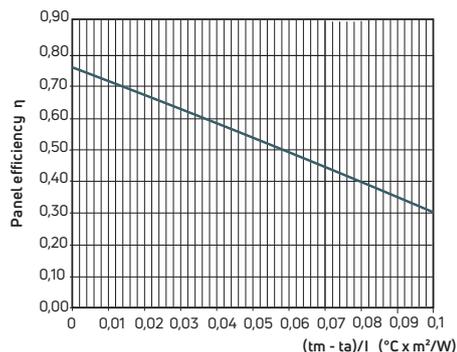
Thread: G (ISO 228-1)

(*) Referred at I=1000 W/m² and 30 °C

(**) 100% of production

(***) Heat energy produced annually, related to the Würzburg locality and to an average operating temperature of T_m equal to 50 °C

Diagram of efficiency



$$\eta_{0a} = 0,754$$

$$a_{1a} = 4,255$$

$$a_{2a} = 0,0027$$

t_m = Fluid average temperature (°C)

t_a = Ambient temperature (°C)

I = Global radiation (W/m²)

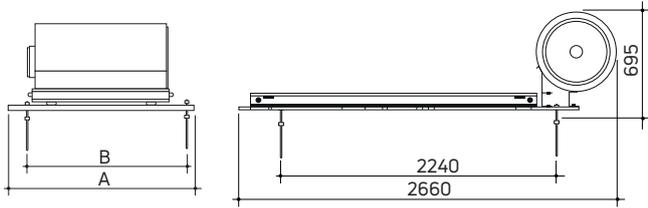
$$K_{\theta}(50^{\circ}) = 0,94$$

Heat capacity = 9,21 kJ/K

Note: values for normal incidence I=1000 W/m² and referred to the net surface.

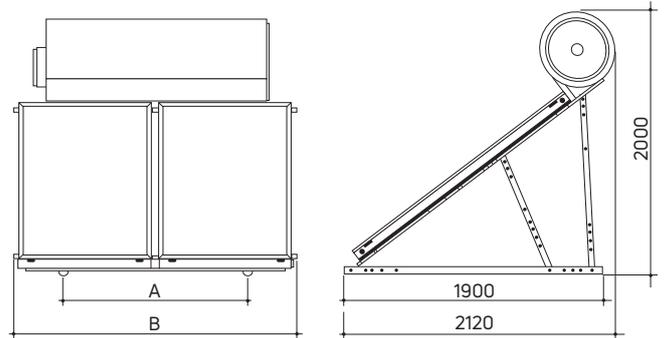
NVSN natural circulation solar kit

Parallel roof mounting



Model	NVSN1S 150	NVSN1S 200	NVSN2S 200	NVSN2S 280
A [mm]	1400	1400	1400	2000
B [mm]	1040-1300	1040-1300	1040-1300	1700-1900

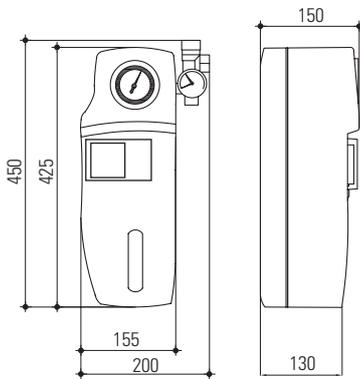
Installation on flat roof



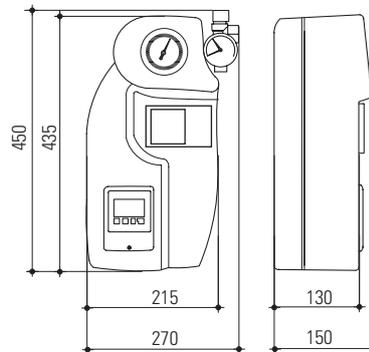
Model	NVSN1S 150	NVSN1S 200	NVSN2S 200	NVSN2S 280
A [mm]	745	980	980	1420
B [mm]	1090	1090	2230	2230

Accessories for solar systems - Solar stations

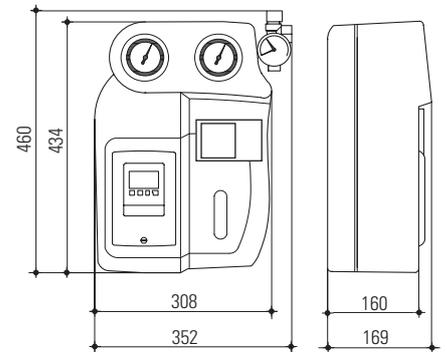
GSN1V 38 NP Solar station



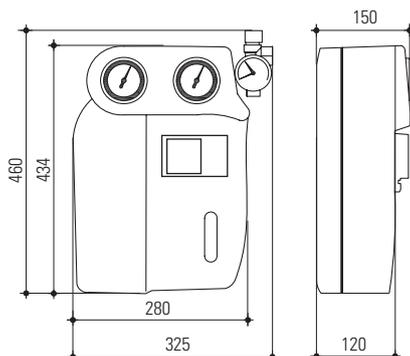
SS1V 12 NP One-way solar station



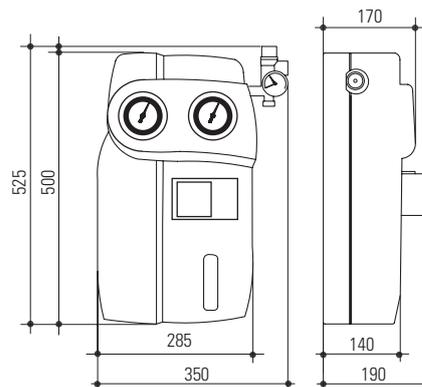
SSX 12-38 NP e SSC 40 NP Solar station



GSN 12-38 NP Circulation solar unit

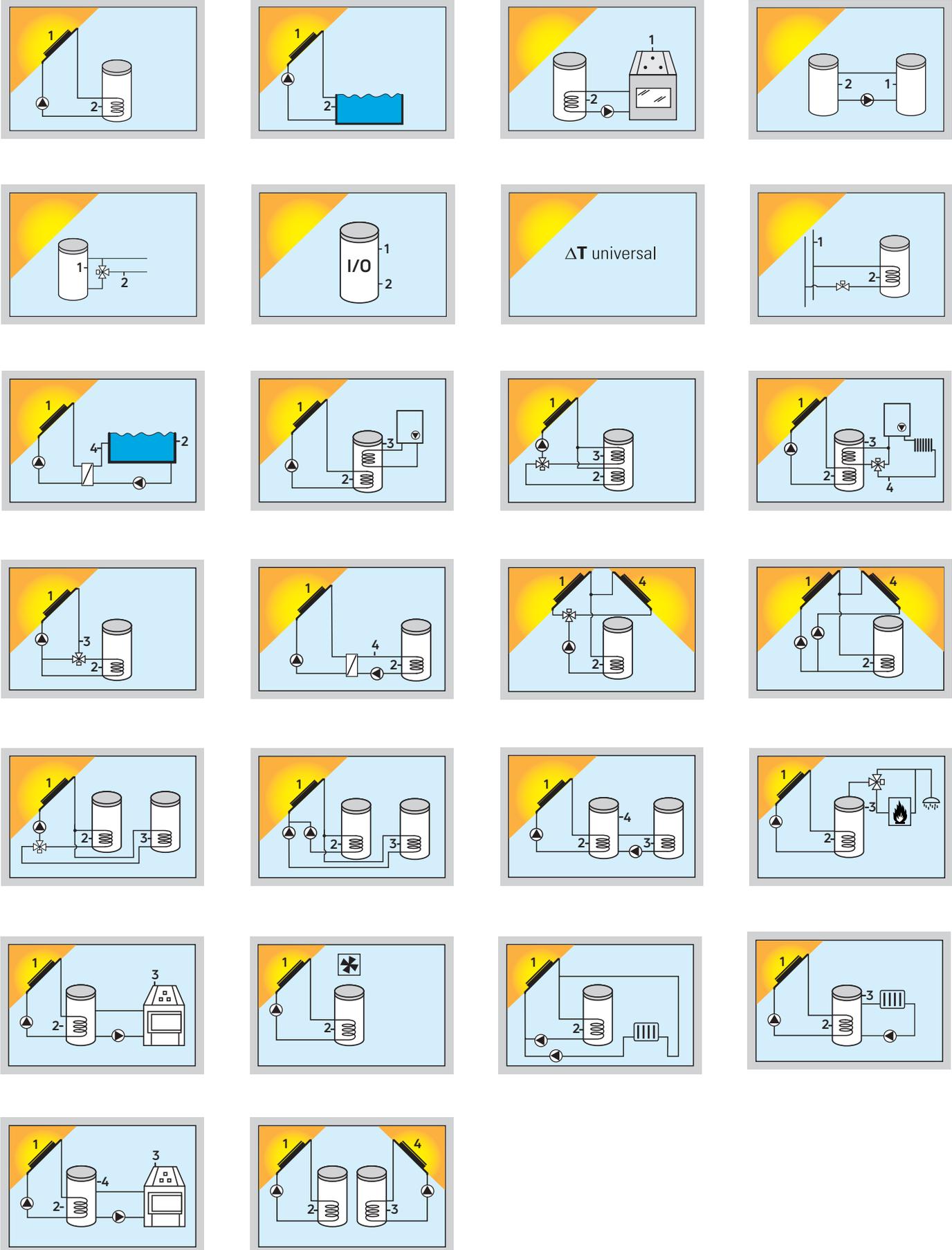


GSA 42-70 N Solar unit for high flow rate circulation



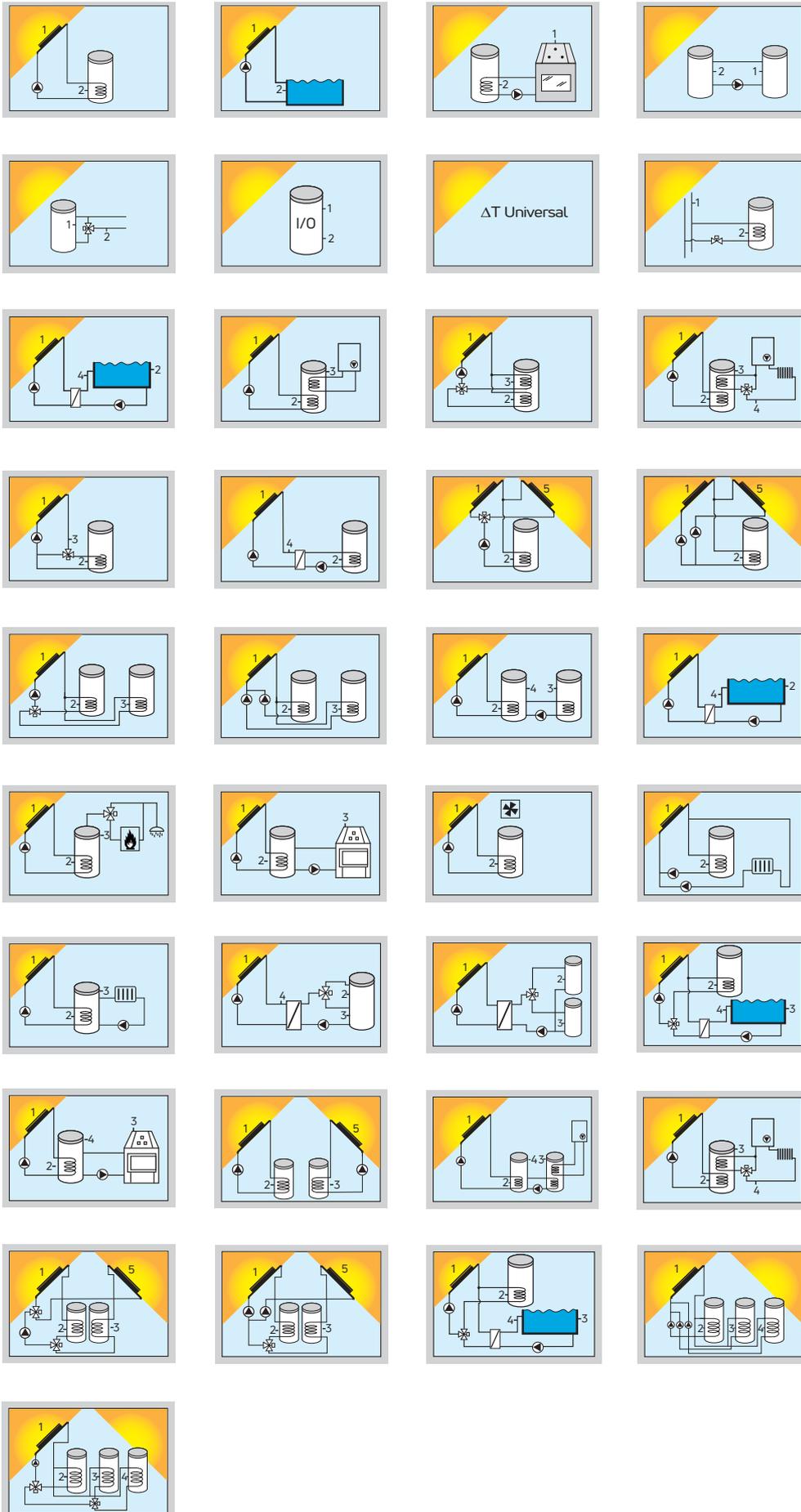
Solar accessories - Solar control unit

Hydraulic variants with EMCS 2015 differential temperature regulator and SSX12 NP and SSX38 NP solar station



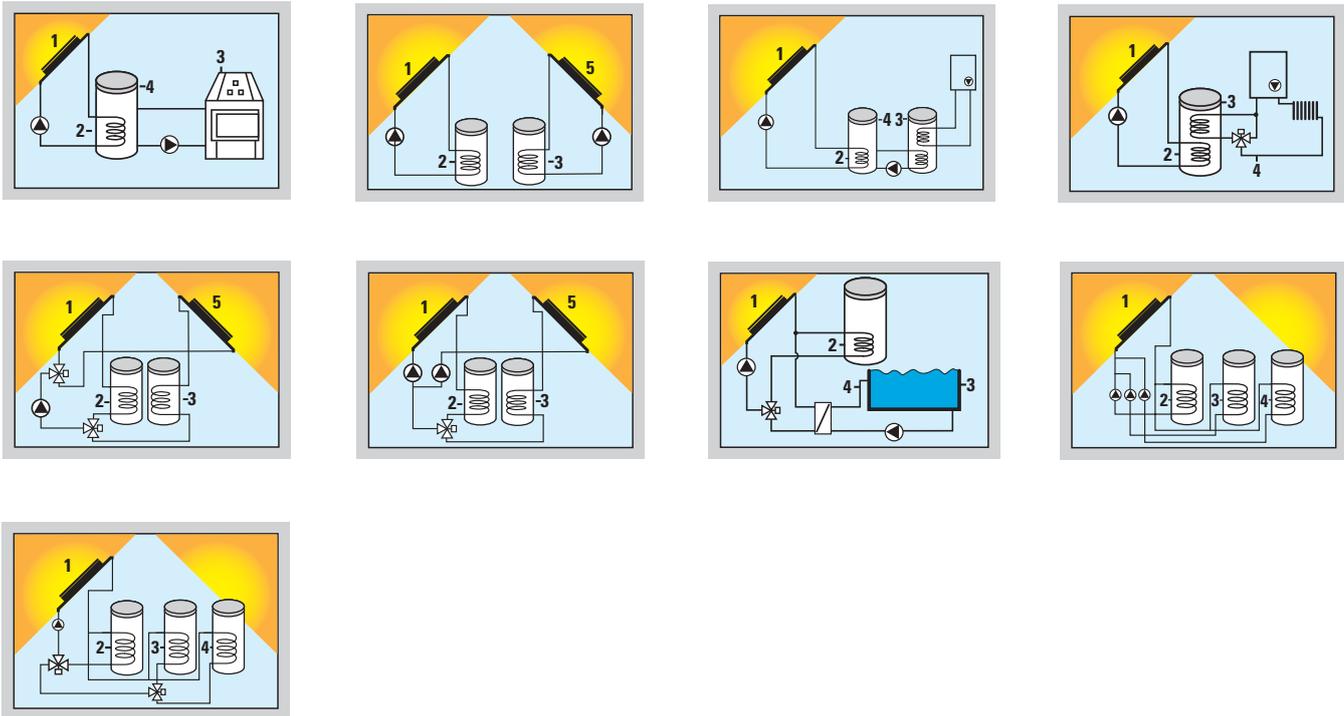
Solar accessories - Solar control unit

Basic hydraulic variants with ELCS 2016 differential temperature controller and SSC40 NP solar station

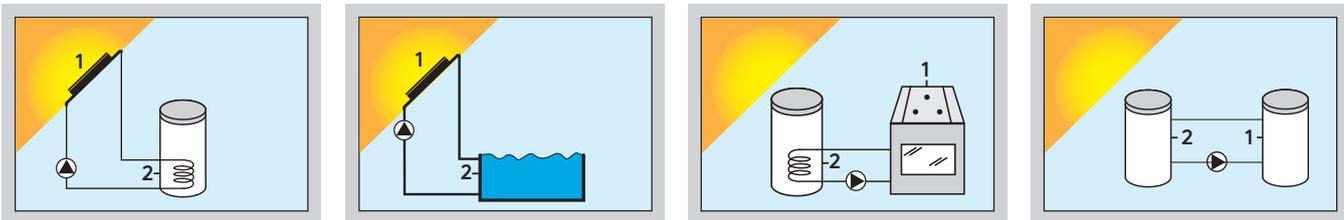


Solar accessories - Solar control unit

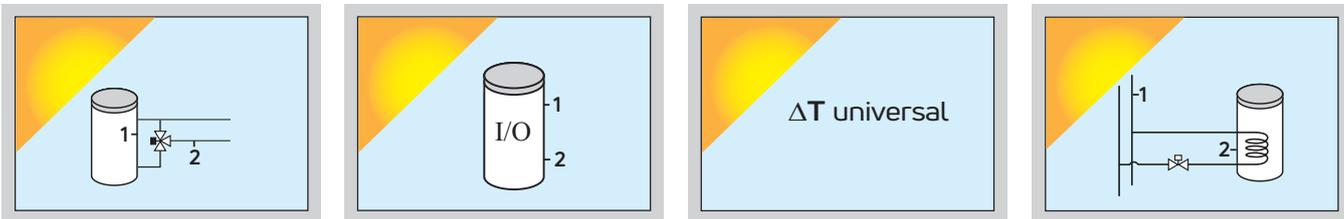
Basic hydraulic variants with ELCS 2016 differential temperature controller and SSC40 NP solar station



Hydraulic variants STDC 2015 solar controller and SS1V 12 NP one-way solar station



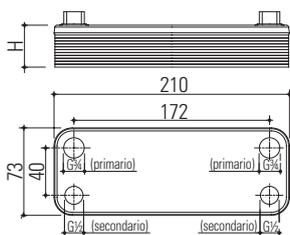
1 Solar with storage 2 Solar with swimming pool 3 Wood boiler with accumulation 4 Transfer



5 Return raising 6 Thermostat 7 ΔT Universal 8 Valve

Plate heat exchangers

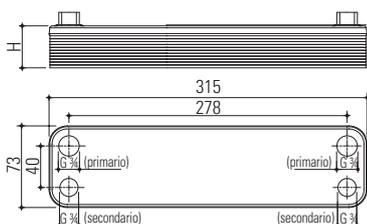
Model SPES 210



Technical data	u.m.	10	12	14	16	20	24	30	34	40
Nominal number of plates	N°	10	12	14	16	20	24	30	34	40
Exchange area	m ²	0,112	0,140	0,168	0,196	0,252	0,308	0,392	0,448	0,532
Exchange coefficient KA	W/K	800	1000	1200	1400	1800	2200	2800	3200	3800
Kv (primary=primary) (*)	m ³ /h / (bar) ^{0,5}	2,1	2,6	3,1	3,5	4,3	4,9	5,7	6,1	6,5
Kv (primary=secondary) (*)	m ³ /h / (bar) ^{0,5}	2,5	2,9	3,3	3,6	4,2	4,6	5,1	5,3	5,5
Height H	mm	27	31	36	41	50	60	72	82	95
Weight	g	760	850	940	1040	1220	1400	1680	1860	2140

(*) water temperature = 15 °C

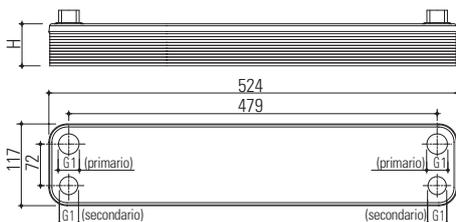
Model SPES 315



Technical data	u.m.	20	24	30	34	40
Nominal number of plates	N°	20	24	30	34	40
Exchange area	m ²	0,414	0,506	0,644	0,736	0,874
Exchange coefficient KA	W/K	2790	3410	4340	4960	5890
Kv (primary=primary) (*)	m ³ /h / (bar) ^{0,5}	3,1	3,7	4,4	4,8	5,4
Kv (primary=secondary) (*)	m ³ /h / (bar) ^{0,5}	3,4	3,9	4,6	5,0	5,5
Height H	mm	50	60	72	82	95
Weight	g	1890	2190	2640	2940	3390

(*) water temperature = 15 °C

Model SPES 524



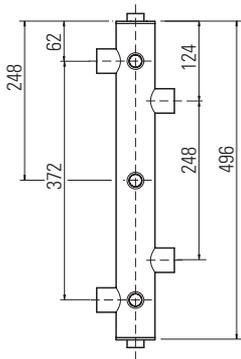
Technical data	u.m.	20	30	40	50	60	80
Nominal number of plates	N°	20	30	40	50	60	80
Exchange area	m ²	1,13	1,76	2,39	3,02	3,65	4,91
Exchange coefficient KA	W/K	8550	13300	18050	22800	27550	37050
Kv (primary=primary) (*)	m ³ /h / (bar) ^{0,5}	3,0	4,5	5,8	6,8	7,7	8,9
Kv (primary=secondary) (*)	m ³ /h / (bar) ^{0,5}	3,4	4,8	6,0	7,0	7,8	9,0
Height H	mm	55	82	107	131	155	204
Weight	g	4640	6410	8190	9960	11740	15290

(*) water temperature = 15 °C

Open manifolds

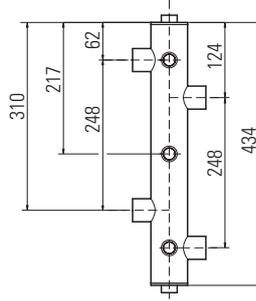
Open manifolds

Version 2" and 3" 2+2+5 ways



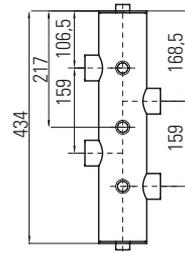
2" model volume: 1.22 litres
3" model volume: 2.70 litres

3" 2+2+5-way S version



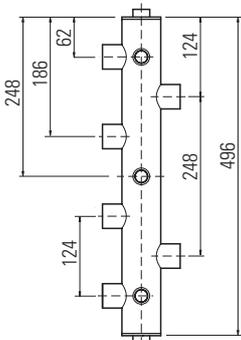
Volume: 2.37 litres

3" 2+2+5 S version center distance Firstbox



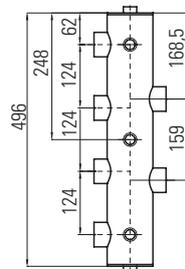
Volume: 2,37 litres

3" 4+2+5-way version



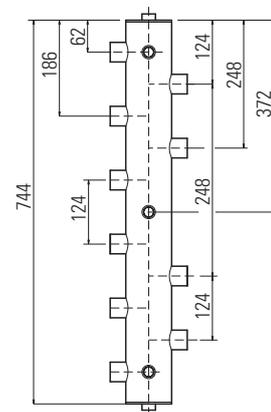
Volume: 2,70 litres

3" 4+2+5 Firstbox center distance version



Volume: 2,75 litres

3" 6+4+5-way version



Volume: 4,10 litres

Side connections: G 1 1/4 Female in the "Firstbox center distance" models, G 1 Female in all the other models
Service connections: G 1/2 Female in all models

Chemical resistance table

LEGEND	BRASS	P.T.F.E.	N.B.R.	INOX 316	NYLON
E	Excellent				
B	Good				
M	Mediocre				
S	Not recommended				
-	Not experienced				
Ethyl chloride	B	E	E	E	B
Ferric chloride	S	E	E	S	-
Ferrous chloride	S	E	E	S	-
Magnesium chloride	S	E	E	B	E
Methyl chloride	B	E	M	B	M
Nickel chloride	M	E	E	B	-
Potassium chloride	M	E	E	B	E
Copper chloride	S	E	E	B	S
Sodium chloride	M	E	E	B	E
Zinc chloride	S	E	E	B	B
Dicloroethan	-	E	M	B	-
Phenol	-	E	B	B	B
Aluminium fluoride	-	E	E	M	-
Sodium fluoride	-	E	-	B	-
Formaldehyde	M	E	E	M	-
Methyl formate	-	E	M	B	-
Ammonium phosphate	-	E	E	B	-
Sodium phosphate	M	E	E	B	-
Freon 11-12-21-22-TE	E	E	B	E	E
Furfural	E	E	S	B	-
Methane	E	E	E	E	E
Gelatine	B	E	E	E	-
Glycerine	E	E	E	E	B
Clycol ethylene	B	E	B	E	E
Glucose	E	E	E	B	-
Sodium hydrate	B	E	E	E	-
Hydrocarbons	E	E	E	E	E
Hydrogen dry	E	E	-	-	S
Hydrogen wet	M	E	-	-	S
Ammonium hydroxide	S	E	E	E	-
Barium hydroxide	B	E	E	B	-
Calcium hydroxide	B	E	E	B	-
Magnesium hydroxide	B	E	E	E	-
Potassium hydroxide	M	E	E	E	-
Sodium hydroxide	M	E	E	E	-
Iodoform	-	E	-	E	-
Potassium iodide	-	E	E	B	-
Ipoclorato of sodio	M	E	M	M	-
Calcium hypochlorite	S	E	E	M	S
Hypoclorite sodium	S	E	E	M	B
Hyposulphite sodium	M	E	E	B	-
Iso-octane	-	E	E	E	-
Milk	B	E	E	E	E
Molasses	B	E	E	E	-
Mercury	S	E	E	M	E
Natural gas	E	E	E	B	E
Sodium metasilicate	-	E	E	E	-
Ammonium monophosphate	-	E	E	E	-
Naphta	B	E	E	B	E
Naphtalene	-	E	-	B	E
Ammonium nitrate	S	E	E	B	-
Silver nitrate	S	E	E	B	E
Nickel nitrate	-	E	E	B	-
Copper nitrate	M	E	E	E	-
Sodium nitrate	M	E	E	B	E

LEGEND	BRASS	P.T.F.E.	N.B.R.	INOX 316	NYLON
E	Excellent				
B	Good				
M	Mediocre				
S	Not recommended				
-	Not experienced				
Nitrobenzene	-	E	S	B	B
Oleum	-	E	S	B	S
Fuel oil	E	E	E	E	-
Coconut oil	-	E	E	B	E
Creosote oil	E	E	S	B	E
Flax oil	B	E	E	B	E
Fish oil	-	E	E	E	E
Pine oil	-	E	E	E	E
Castor oil	M	E	E	E	E
Cottonseed oil	E	E	E	B	E
Soybean oil	-	E	E	E	E
Mineral oil	E	E	E	E	E
Ethylene oxide	E	E	S	B	-
Magnesium oxide	-	E	E	B	-
Oxygen	E	E	E	E	E
Paraffin	E	E	E	E	-
Paraformaldehyde	-	E	B	B	-
Pentane	-	E	E	E	-
Sodium perborate	-	E	E	B	-
Propane	E	E	E	B	-
Brine	B	E	E	B	-
Mercury salts	S	E	E	S	-
Soap	B	E	E	B	E
Sodium silicate	B	E	E	B	-
Caustic soda	M	E	E	B	B
Aluminium sulphate	M	E	E	B	E
Ammonium sulphate	S	E	E	B	-
Barium sulphate	E	E	E	B	E
Calcium sulphate	E	E	E	B	-
Magnesium sulphate	M	E	E	B	-
Nickel sulphate	M	E	E	B	-
Potassium sulphate	B	E	E	B	-
Copper sulphate	S	E	E	B	E
Sodium sulphate	B	E	E	B	E
Zinc sulphate	S	E	E	B	-
Ferric sulphate	S	E	E	E	-
Ferrous sulphate	S	E	E	B	-
Sodium sulphate	B	E	E	B	-
Barium sulphide	B	E	E	-	B
Carbon sulphide	E	E	S	B	E
Sodium sulphide	B	E	E	B	-
Paint solvents	E	E	M	E	-
Styrene	-	E	B	E	-
Fruit Juices	S	E	E	E	-
Carbon tetrachloride	M	E	S	M	E
Sodium tiosulphate	M	E	E	E	-
Toluene-Toluol	E	E	M	E	E
Turpentine	B	E	S	E	-
Trichloro ethylene dry	E	E	M	B	B
Trichloro ethylene wet	M	E	M	-	B
Ammonium phosphate tribask	-	E	E	E	-
Steam	M	E	-	E	-
Paint	E	E	E	E	-
Xilene dry	-	E	S	E	-
Sulphur	S	E	S	B	E

Note: the information in the tables is indicative. To be sure of the functionality of the materials of the listed products, it is necessary to investigate the real conditions of use concentration, pressure, temperature and any dynamic shocks. The data was taken from the material manufacturers' tables.

General conditions of sales

- 1 From the moment this proposal is accepted it shall be considered a contract sale valid for all legal purposes.
The proposal is considered automatically accepted the instant the purchaser receives the first delivery of material.
- 2 Export Market: orders for a minimum amount of 2.500,00 euro can be accepted. Orders for less amounts might be fulfilled at the seller's discretion.
- 3 The prices agreed upon are the same as those in the seller's price lists and only include the packaging expenses based on company standard and expenses relative to the technical documentation enclosed with the products sold.
The seller reserves the right, within the period of time elapsing between the signature of the order and the first delivery, to alter the list prices should any unexpected events occur to make it necessary.
Such alterations in prices are considered automatically accepted by the purchaser unless he declares otherwise in writing.
- 4 Exclusively for supplies related to photovoltaic products, the purchaser must pay, upon order confirmation, an amount that is equal to 30% of the entire order value (VAT and transport included), as a **"commitment deposit pursuant to and for the effects of art. 1385 of the civil code"**, whereas the balance must be paid upon the shipment of the goods.
- 5 Failure to pay the agreed amounts within the terms established will lead to the charging of interest on arrears at a rate of 0,7% a month plus banking charges.
- 6 The purchaser may not make any exceptions to delay payment.
- 7 Shipments shall be debited completely to the purchaser and the goods are considered sold ex seller's works.
Also, by way of signing this deed and unless otherwise agreed upon, the purchaser entrusts the seller to negotiate on his behalf and completely independently, transportation and other accessory services and the procedures for their implementation, including the drawing up of an insurance contract for the goods shipped. In such a case, the expenses relative to shipping, to the other accessories services and to the insurance will be charged to the purchaser separately as a percentage of the value of the supply.
The purchaser is hereby notified that if he is unable to check the goods at the time of delivery he must accept the goods with the reserve to check and report any defects to the carrier within 8 days from the date of delivery.
In addition, the purchaser may collect the goods with his own means from the seller's factory.
- 8 The material travels at the risk and peril of the purchaser and, if shipping is seen to by the seller, the purchaser must make any complaints directly to the carrier.
The documentation necessary to receive insurance payment must be sent promptly to the company.
- 9 The delivery terms of each single order must be compatible with the availability of the goods at the seller's factory and will be agreed at the time of the order.
However, such terms are not binding and may be, at the seller's discretion.
The purchaser has the right to ask, in writing, for the order to be cancelled in which case, however, he has no right to request damages of any kind.
Furthermore, the seller reserves the right to supply products which are different from those in the order but which have the same performance should warehouse or manufacturing requirements make this necessary.
Guarantees on faults and defects remain unchanged.
- 10 The products sold are guaranteed free from manufacturing defects for the term of 24 months from shipping (unless agreed otherwise in relation to the type of product).
The guarantee is limited to replacing a product found to be faulty. The seller declines all liability in the case of an incorrect installation or improper use of the products sold.
- 11 Any defects found in the material, both relevant to faults covered by the guarantee, as per point Nr. 10, or any other hypothesis, must be reported to the seller in the accordance with the law terms.
- 12 All products are intended sold with reserve of proprietorship and become property of the buyer only after the whole price has been paid.
Acceptance of payment by way of bills or other means does not change this agreement provided such bills are considered received "prosolvendo" (without recourse) and not "pro soluto" (with recourse).
- 13 Any particular and general exceptions to these conditions shall be agreed upon between the parties in writing.
- 14 The seller reserves the right to accept returned goods in the case of products acknowledged as faulty and covered by the guarantee. The conditions for such returns are free consignee.
- 15 In the case of continuous supplies, the seller may stop such supplies if the purchaser is in breach of only one of the particular or general conditions agreed upon. In such an event, any agreements reached for attributing premiums or for the attainment of objectives will no longer be valid.
- 16 The price indicated refers to the single article (piece) if not otherwise specified. When the article is a kit made of various components, even identical, the price refers to the complete kit. In the case of insulation, the price refers to the entire (complete) package. In the case of piping, whether in coil or in bar, naked or insulated, the price refers to one meter of pipe.
- 17 The images of the products shown in this catalog and price list are indicative.
- 18 All judicial disputes, with no exception, will be settled by the Pordenone Court of Law.

The purchaser declares to have read the aforesaid general conditions and to have fully accepted them.

He also declares to have received a copy of them and to have read the information regarding personal data, which is also available on the Emmeti S.p.a website.

THE PURCHASER

place and date _____

Pursuant to articles 1341 and 1342 of the civil code, the purchaser declares after careful reading to accept the contract clauses specified in point 1 Contract purpose, 2 Amount of foreign orders, 3 Prices, 4 Commitment deposit, 5 Interest on arrears, 6 Prohibition of exceptions, 7 Transport method-conditional acceptance, 8 Transport risks, 9 Delivery terms, 10 Warranty for faults and defects, 11 Defect reporting terms, 12 Lien, 13 Written changes, 14 Good returns, 15 Continuous supply, 16 Price specifications, 17 Court of jurisdiction.

Confirms to have received a copy of these conditions, authorising the use of personal data pursuant to Leg. Decree 196/03.

THE PURCHASER

place and date _____

DECLARATION ACCORDING TO THE REACH REGULATION N. 1907/2006

Emmeti Spa, aware of its obligations deriving from Regulation (EC) no. 1907/2006 REACH as a downstream user, warns that lead has been included in the SVHC substance list, on 27.06.2018, as follows:

Substance name	Number of CAS	Number of EC	Date of registration	Decision
Piombo	7439-92-1	231-100-4	27.06.2018	ED/61/2018

The latest version of the Candidate List is available on the ECHA (European Chemicals Agency) website:

<https://echa.europa.eu/home>

Emmeti informs, as required by art. 33 of the REACH Regulation, which in the products of this catalog, containing brass, lead may be present in a concentration higher than 0.1% (w / w), depending on the type of brass alloy used.

The inclusion of lead in the SVHC list does not imply new ways of using Emmeti products for their safe use, if used in the manner provided by the related product documentation.

Emmeti undertakes, based on the information that its suppliers of components and finished products will communicate to the company, to keep customers updated on the possible use in their products of substances, which are currently not included in the SVHC list but which could be in future revisions. The information may be included directly in the product information sheets.

DECLARATION OF CONFORMITY RoHS

Emmeti SpA, aware of its obligations deriving from directive (EC) no. 2011/65 RoHS II (and subsequent amendments and additions), declares that the products in this catalog comply with the requirements of the aforementioned European directive on the restriction of the use of certain dangerous substances in electrical and electronic equipment.



EMMETI S.p.A. Unipersonale

Via Brigata Osoppo, 166
33074 Vigonovo frazione di Fontanafredda (PN) - Italia
Tel. +39 0434 567911
Fax +39 0434 567901
www.emmeti.com
info@emmeti.com

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