AIRZONE

Easyzone **IAQ**

Indoor Air Quality | 2022

eu.bac european building automation controls association
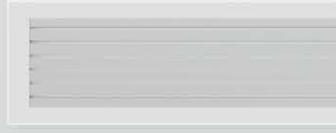
Treat indoor air with Easyzone IAQ

In addition to managing the thermal comfort of users, Easyzone now has a feature to control and improve the indoor air quality.

For more than 20 years, Airzone has offered smart control solutions that enable the management and improvement of the **energy performance of HVAC applications with different heating and cooling units,** both for HVAC projects and residential applications. The Airzone business model is based on technology, research, industrial development, continuous innovation and European manufacturing.

All Airzone systems can be integrated and controlled remotely and they can also be interconnected in the same project through the leading Home Automation and Building Management systems.

Airzone control

Smart zoned control

All Airzone systems are developed with the most advanced technologies available on the market. Our products can control all types of HVAC applications and adapt to the needs of users, anytime, anywhere.

The all-in-one, plug&play motorized plenum of Easyzone uses the same ductwork for thermal treatment and air renewal (double flow CMV). This also translates into efficient and independent control that is also self regulating.

Unify heating control, the easy way

- **Plug & Play** solution.
- Control of **underfloor heating in combination with the ducted system.**
- Optimization of the number of indoor units to be installed and labor time.

- **40% less refrigerant** and uniform air distribution compared to a multisplit or cassette application.
- **Custom-designed** for the main brands on the market.

19°C

Off

Off

Off

18°C

19°C

20°C
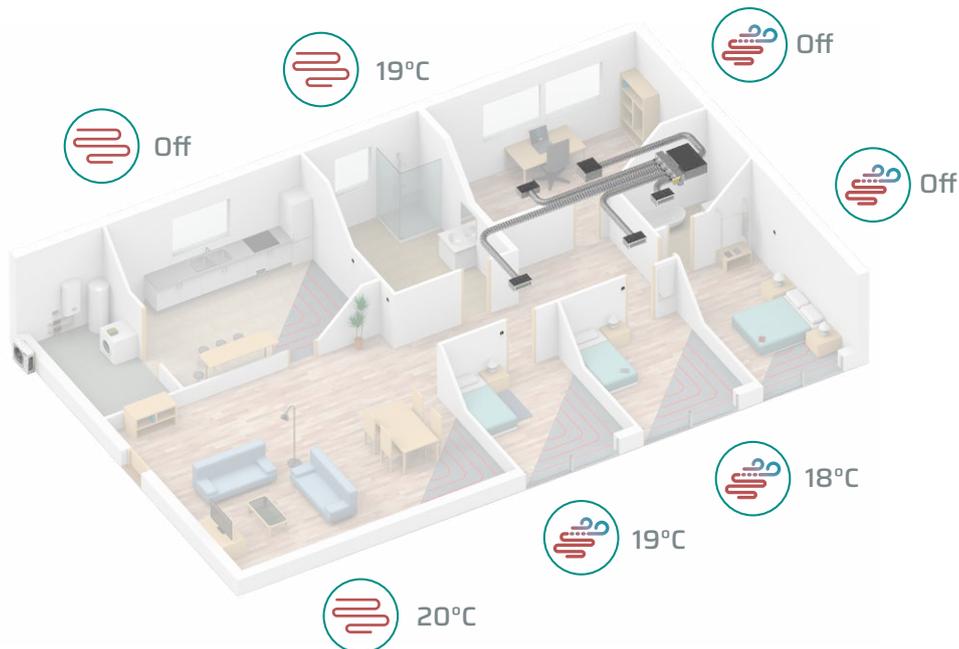
OPTIMIZED COMFORT FROM A THERMAL AND ACOUSTIC STANDPOINT

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Towards sustainable construction

All Airzone products are designed with one goal: to provide comfort and energy savings to users. This performance requirement is reflected in our systems and through the various certifications they have, which allow to construct buildings that are increasingly environmentally friendly.

The control value of our systems is **eu.bac certified** under license number 215562 with a CA value (Control Accuracy) of **0.4 K** for underfloor heating control and **0.3 K** for air conditioning, both for heating and cooling.

Airzone control systems optimise thermal comfort and energy performance of buildings while improving their scores in BREEAM and LEED certifications among others. Our solutions also comply with the Energy Performance of Buildings Directive (UNI EN 15232/Class B)

To learn more about our certifications, visit:
airzonecontrol.com/projects

Connectivity

Connectivity is the keyword for our systems. In addition to **centralized management** through the Airzone Cloud application, you can easily integrate your HVAC into the **home automation and BMS systems** on the market. Several integration paths are possible:

- Local API and Cloud API.
- Modbus.
- Integration gateways.

BACnet   Control4   CRESTRON   eedomus   fhe   FIBARO   EEDOM

LOXONE   KNX   LUTRON   Modbus   RTI   WAGO   Zwave

Indoor air quality

What is air quality?

Indoor air quality (IAQ) refers to the **levels of purity of the air we breathe inside a building.**

Temperature, humidity, CO_2 and airborne particles such as dust, mites, VOCs*, and other elements such as deodorants or smoke all affect air quality.

WE SPEND OVER 21 HOURS A DAY INDOORS.

Indoor spaces can be up to 5 times more polluted than outdoor air. **Poor air quality can cause allergies, fatigue, dizziness, headaches, and irritation of the eyes, nose and throat.**

Air purification

Air purification is a process aimed at **neutralizing the pollutants and harmful particles that are suspended in the air** in order to improve indoor air quality.

*Volatile Organic Compounds

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How is this control carried out with Airzone?

Ionization is an air purification technique that generates of negative ions.

These ions come into contact with fine particles in indoor air which, on aggregating, increase in mass, and then fall to the ground.

The benefits of ionization are also felt in health: Improved voice tone, reduced fatigue, better mood, etc.

Ionization of the air reduces the time of particle suspension, thereby reducing inhaled particles by half.

COMPLETE STUDY:
**airzonecontrol.com/**support/downloads

Airzone technology

We have developed a system that includes the latest air purification technologies to improve indoor air quality.

The total control of the heating and air conditioning system integrated into the home automation systems and associated with with improved indoor air quality by Airzone guarantees provided by Airzone, **guarantees healthier living and working spaces in the long term.**

Reduction of

55%

The time particles spend in suspension in the air is cut by half

Ionizers in the dampers

Measurement of particles
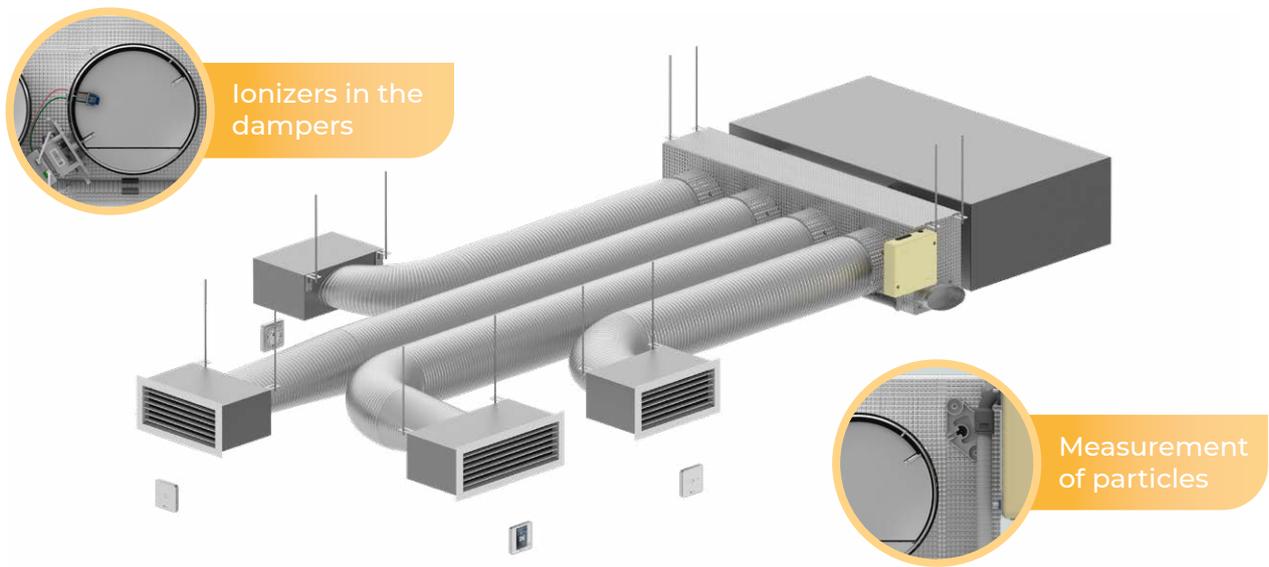
ELIMINATION OF ODORS DUE TO THE REDUCTION OF VOCS*

Evolution of the concentration of PM$_{2.5}$* particles

- ● Airzone technology activated.
- ● Airzone technology deactivated.

47% reduction in the concentration of particles

55% reduction in suspension time of PM$_{2.5}$ particles

PM2.5 particles (µg/m3)

Time (hh:mm)
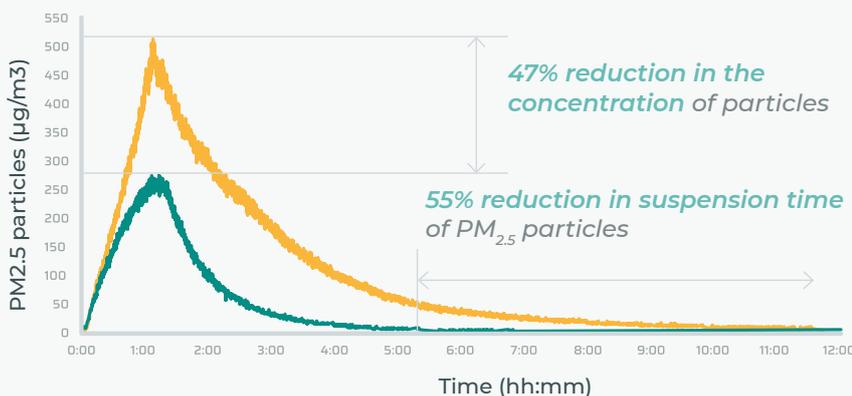
Your app for air quality

With the Airzone Cloud app, you can **monitor the indoor air quality of your residential and commercial spaces whenever you want.**

- 3 levels of measurement of 2.5 µm particles.
- Graphic visualization of air quality.
- Operation modes: on, off and automatic.

*VOCs: Volatile Organic Compounds.
PM$_{2.5}$: very small particles with a diameter of less than 2.5 microns.

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Easyzone IAQ plenum

Zoned control and improved indoor air quality

Easyzone has a **centralized management** with complete control of ducted AC units of up to 8 independent zones and radiant elements.

Thanks to new communication gateways, you can control the **production of air-to-water boilers and heat pumps.**

Control of indoor air quality

Inverter   VRF   Fancoil

Improves the indoor air quality in each zone

- **Purification system** integrated into the air distribution system.
- **Optimization of comfort** thanks to temperature control in each room.

Characteristics

- Class Bs1d0 insulated plenum box according to standard **EN 13501.**
- **Adjustment of the fan speed** according to the zones on demand.
- Motorized dampers with **integrated manual airflow balancing.**
- Customized connection neck.
- **Eu.bac certified** Flexa regulation integrated with a communication gateway **specific to the HVAC manufacturer.**
- **Input for controlled mechanical ventilation** (CMV) for the Standard model.
- Factory-installed wiring.

New!

Motorized dampers with integrated ionizers

Each motorized damper has a patented control mechanism that balances the airflow. They also incorporate an ionizer per damper. **When ionization is activated in a zone, it is triggered when the latter is on demand and the system detects stale air.**

New, more powerful antenna
Superior quality of wireless signal between the thermostats and the main control board.

Dimensions of the Easyzone IAQ plenum

Number of dampers	Dimensions		
	Standard + CMV	Slim + CMV	Medium
2 / 3	930 x 300 x 454	720 x 210 x 444	930 x 250 x 454
4	1140 x 300 x 454	930 x 210 x 444	1140 x 250 x 454
5	1425 x 300 x 454	1140 x 210 x 444	1425 x 250 x 454
6	1638 x 300 x 454	-	1638 x 250 x 454
7 / 8	1425 x 515 x 454	-	-

Measurements expressed in: L x H x W (mm).
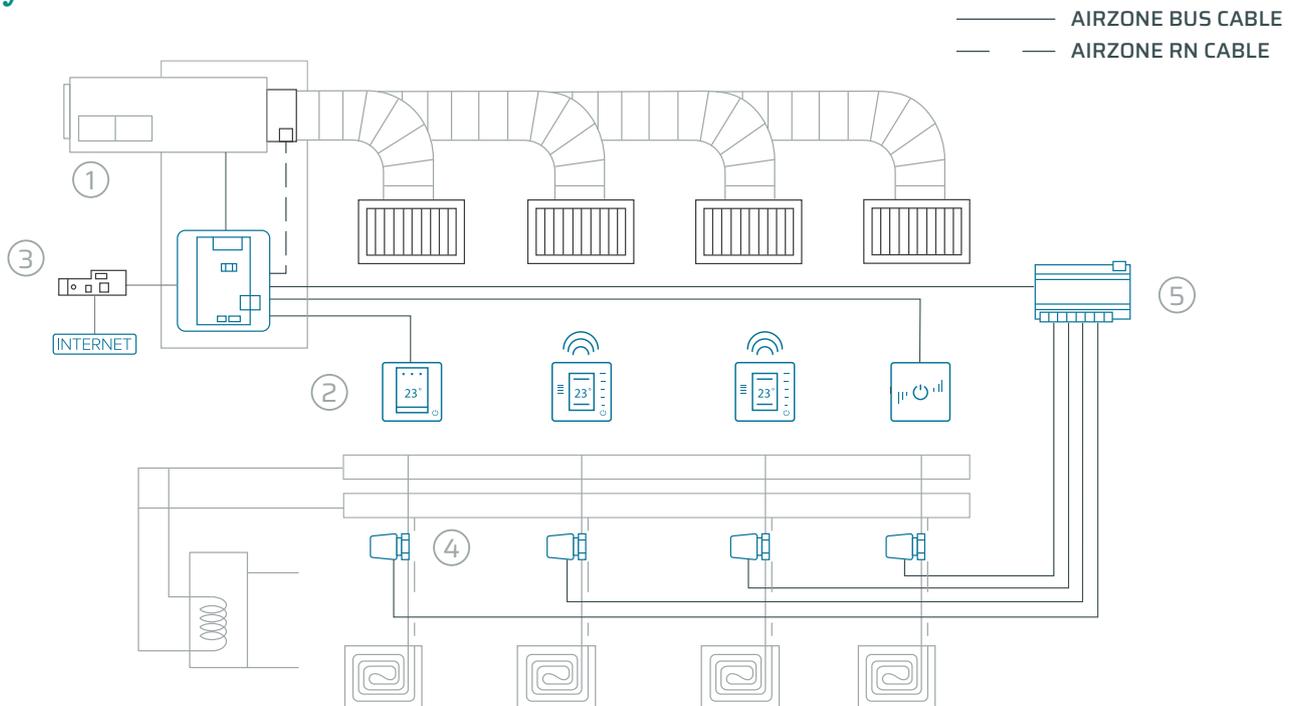
Return plenum

In order to offer a complete solution, the Easyzone motorized plenum can be equipped with an insulated return plenum according to the installed ducted system dimensions an insulated return plenum, in the dimensions of the ducted system chosen.

Ø 250 mm elliptical inlets

Connection adapted to the ducted system

Number of inlets				
XS	S	M	L	XL
1 x Ø 250 mm	1 x Ø 250 mm	2 x Ø 250 mm	3 x Ø 250 mm 4 x Ø 250 mm	3 x Ø 250 mm 4 x Ø 250 mm

AUX   AERMEC   AIRCALO   atlantic   BAXI   biniclima   BOSCH   Carrier   CHAPPEE   CIAT   CLIMAVENETA   CLIVET   DAIKIN

daitsu   De Dietrich   ERS ELECTRIC   EKOKAI   FUJITSU   Fuji Electric   Galletti   GENERAL   giatsu   GREE   Haier   HEIWA   HOKKAIDO

Hisense   HITACHI   HIYASU   HTW   johnson   Kosner   LG   MULTIWARM   MUNDOCLIMA   Midea   MITSUBISHI ELECTRIC   MITSUBISHI HEAVY INDUSTRIES LTD.

NIPPONAIR   OLIMPIA SPLENDID   Panasonic   SABIANA   SAMSUNG   systemair   TOSHIBA   TRANE   VIESMANN

System architecture

AIRZONE BUS CABLE
AIRZONE RN CABLE

INTERNET

1. **Easyzone IAQ plenum**

2. **Airzone wired and radio thermostats**

3. **Airzone Cloud Webserver Dual Wi-Fi**

4. **Airzone wired thermostatic valve actuator**

5. **Control modules of radiant elements**

Control both types of supply (heating and cooling) simultaneously with the combined mode, the system itself activates the water, air and/or radiant stages, depending on demand. That way you can optimize comfort and energy savings.

The advantages!

The advantages of Easyzone plenums

Thanks to the system's production control board and its new communication gateways, **Easyzone regulates the water temperature and domestic hot water to avoid excess power consumption.**
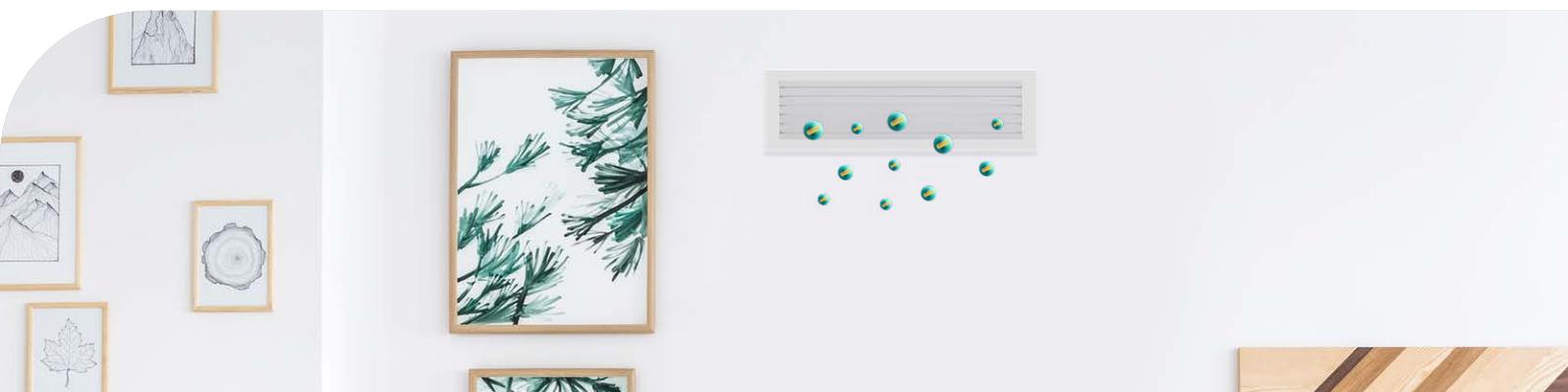
altherma   AQUAREA   ecodan

Kaysun   Midea

YUTAKI   Open Therm

Airzone Cloud

UNIFIED CONTROL OF AIRZONE AND AIDOO SYSTEMS

MULTI-USER: ADVANCED, BASIC, OR ADMIN PROFILE

ONE INTERFACE COMPLETELY REDESIGNED

amazon alexa

works with the Google Assistant

*With the user's prior consent and in accordance with the new General Data Protection Regulation (GDPR).

More than a remote control

Thanks to the Airzone Cloud Webserver, you can access centralized management and control your entire system via the new Airzone Cloud application.

- On/Off of all zones.
- Choice of set-point temperatures.
- Choice of operation mode.
- Sleep mode for a scheduled shutdown.
- Weather forecast service visible from Airzone Cloud and the thermostats.
- Activation of combined stage mode.
- Change of the name of the zones.
- Weekly and calendar schedules.
- Eco-Adapt function.

Receive remote assistance from our Technical Support during commissioning, during the reconfiguration of operation parameters or for a complete diagnosis of the system, **by registering it on your Airzone Cloud account.***

Play Store   App Store   Demo

+1

Connect an **Airzone Cloud Webserver** and get an additional year of warranty!

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Airzone Blueface

■ □ | Wired

- Zone on/off.
- Temperature control.
- Control of indoor air quality.
- Activation of combined stage mode[1].
- Reading of humidity level and room temperature.
- Choice of operation mode[1].
- Sleep mode for a scheduled shutdown of the zone.
- Eco-Adapt function[1].

- Zone on/off.
- Temperature control.
- Control of indoor air quality.
- Zone navigation.
- Reading of humidity level and room temperature.
- Choice of operation mode[1].
- Sleep mode for a scheduled shutdown of the zone.

Airzone Think

■ □ | Wireless

Airzone Lite

■ □ | Wired or wireless

- Zone on/off.
- Temperature control (± 3°C)[2].
- Measurement of humidity level and reading of room temperature.
- Color codes indicating the mode and status of the zone.

[1] Available when configured as a master thermostat.
[2] Temperature control in relation to the base value defined on the Airzone Blueface thermostat or the Airzone Cloud Webserver.

Step by step

What do you need to create an Easyzone QAI system?

1. Easyzone plenum

Combine our inlet and outlet plenums adapted to each brand and model which are manufactured to measure according to the dimensions and power of the indoor unit to optimize the system.

Plenum types

Number of dampers	Dimensions		
	ST- Standard	SL - Slim	BS - Medium
2 / 3	930 x 300 x 454	720 x 210 x 444	930 x 250 x 454
4	1140 x 300 x 454	930 x 210 x 444	1140 x 250 x 454
5	1425 x 300 x 454	1140 x 210 x 444	1425 x 250 x 454
6	1638 x 300 x 454	-	1638 x 250 x 454
7 / 8	1425 x 515 x 454	-	-

Standard + CMV	Slim + CMV	Medium
Dampers: Ø 200 mm	Dampers: Ø 150 mm	Dampers: Ø 200 mm
CMV input: Ø 150 mm	CMV input: Ø 150 mm	-
Height: 300 mm	Height: 210 mm	Height: 250 mm

TO GET THE FULL EASYZONE REFERENCE USE OUR GENERATOR!

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2. Control interfaces

To complete the system, it is necessary to choose a main thermostat for configuration, and zone thermostats for each room to be controlled individually.

Pick the combination of thermostats that best suits your project.

Choose the colour

- A main thermostat: Airzone Blueface or Airzone Think.

- A second thermostat model which may be identical or different. For the rest of the zones, pick the thermostat of your choice among Airzone Blueface, Airzone Think or Airzone Lite.

Reference	Description
AZCE6BLUEZEROC [B/N]	Airzone Flexa 3.0 Blueface Zero Thermostat wired [white/black]
AZCE6THINKR [B/N]	Airzone Flexa 3.0 Think wireless thermostat [black/white]
AZCE6LITEC [B/N]	Airzone Flexa 3.0 Lite thermostat wired [black/white]
AZCE6LITER [B/N]	Airzone Flexa 3.0 Lite thermostat wireless [black/white]

3. Centralised management

Complete your system with the Airzone Cloud Webserver Dual Wi-Fi or the Webserver HUB for centralized and remote management of the system.

Webserver
Wifi-Dual

Webserver
HUB

Or choose between a **KNX, BACnet, Lutron integration gateway to enter a BMS/HA system.**


KNX
Gateway

BACnet
Gateway

Lutron
Gateway

4. Combined floor control

Add the underfloor heating control with the radiant element control module that allows room-by-room control of the underfloor heating system.

Control of the thermic inertia to avoid overheating of the zones and to stabilise the temperature.

Airzone **thermostatic heads are powered at 230 Vac** to manage the valves in each zone.

Reference	Description
AZX6WSC5GER	Webserver Airzone Cloud Wi-Fi Dual 2,4-5 GHz
AZX6WSPHUB	Webserver HUB Airzone Cloud Dual
AZX6WSPBAC	Webserver HUB Airzone - BACnet
AZX6WSPLUT	Webserver HUB Airzone - Lutron
AZCEOUTPUT8	Airzone control module of Radiant elements (CE6)
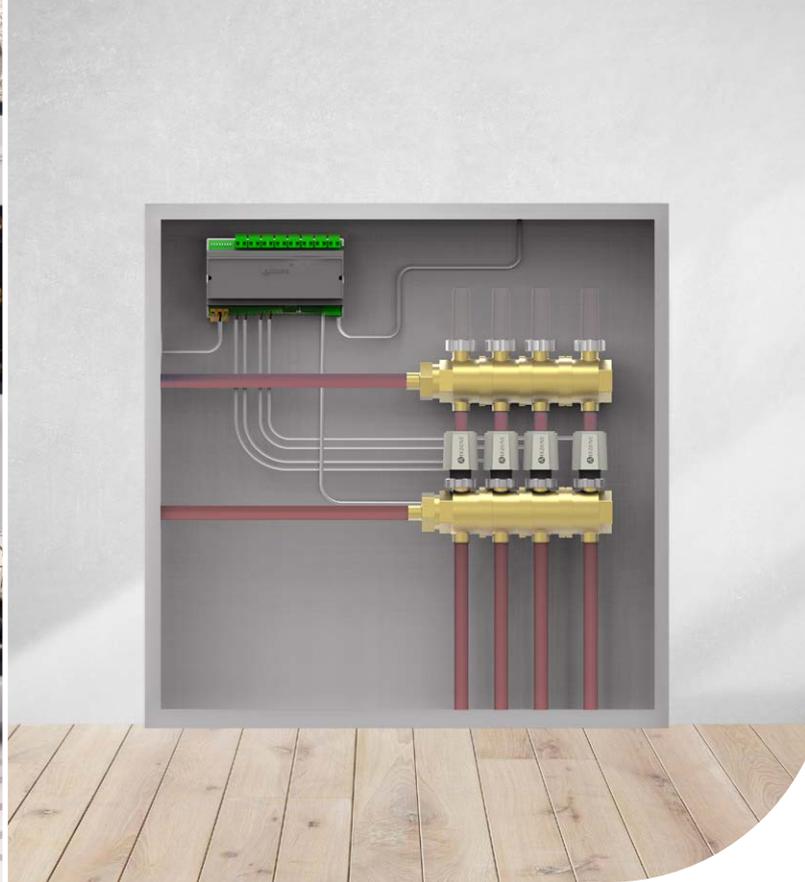
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5. Accessories

The Airzone bus cable is necessary for the proper installation and operation of the system.

Material list	
AZX6AC1VALC	Airzone 110/230V VALC wired thermostatic head for radiant elements
AZX6CABLEBUS15	Cable bus Airzone (2x0,5 + 2x0,22) 15 m
AZX6CABLEBUS100	Cable bus Airzone (2x0,5 + 2x0,22) 100 m

Technical Support

We provide our support at every stage of your project offering you customized attention. From the start up of the installation on site to managing the warranty in the after-sales service.

Technical service

To save time, contact our Technical Support when starting up your installation and ensure that it works properly.

By phone: Ask for an appointment by phone, an Airzone technician will contact you at the soonest possible.

We are by your side with Argos

- Our Technical Support team will contact you. You will receive a link by email.
- Click on the link to start the video call.

+34 900 445 445
techsupport@airzonecontrol.com

Monday to Thursday
08:00 - 13:30 / 15:00 - 17:45
Friday
08:00 - 17:00

Video call

We support you in real time by video call, no application to download. Use chat and screen sharing.

Secure communications

Argos sessions are individual and encrypted with a high degree of data protection.

Interactive dashboard

Share photos, audio messages, videos and documents for improved support.

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Our complimentary tools for all your needs

- Easyzone system **reference generator.**
- **Sample schemes** according to the desired solution and Airzone CAD blocks to integrate our systems into your projects.
- Catalog of **BIM objects.**
- In addition to **manuals, datasheets, FAQs and installation videos.**

Discover our **Ductzone** calculation software: From an image or a plan, design the ductwork for the project and integrate the Airzone system and interfaces.

Identify the reference of your Easyzone plenum based on the brand and unit with our compatibility tool:

airzonecontrol.com

Airzone Academy

Learn online, at your own pace, with industry leaders.

Choose the category, the mode and your profile, and access the training courses developed for you.

- Webinars, online or face-to-face courses.
- Programs custom developed for all profile types: installers, architects, integrators, specifiers.

Pro Airzone Installer

Get your Airzone Pro badge and display your expertise on your professional profile.

Find out how our control systems work, how they are used, installed and configured, as well as their most attractive features for different applications.

Access Airzone Academy at:
airzonecontrol.com/academy

THE ACADEMY IS GETTING A MAKEOVER!

Updated content and improved website content and improvements to the website.

Programs for professionals

AIRZONE

Parque Tecnológico de Andalucía
Marie Curie, 21 · 29590 Málaga (Spain)

projects@airzonecontrol.com · **+34 900 400 445**

airzonecontrol.com

Your Airzone distributor