

A photograph of a modern building with a glass facade and a curved outdoor lighting fixture in the foreground. The building's glass reflects the sky and surrounding environment. The lighting fixture is a tall, slender pole with a curved arm holding a light fixture. The scene is set in an outdoor plaza with some greenery and a paved area.

ROSA

**OUTDOOR
LIGHTING**



ecology economics safety aesthetics

This is a brief description of the mission we have been pursuing continuously for over three decades.

Ecology is one of our most important values and guides us at every stage of our operations. Many years ago, we chose **aluminium** for our production – a material with a **low carbon footprint** that is **100% recyclable**. We use processing technologies that do not disrupt this property of aluminium, allowing our products to gain new life in the future. Additionally, we generate **over 40% of the energy** we consume ourselves, **including from renewable sources**.

Economics in our understanding means a **responsible approach to the entire product lifecycle**. Aluminium columns with a proven **minimum 50-year service life** are an investment that **reduces operating costs** and **reduces the need for future structure replacement**. High-quality workmanship ensures they maintain their performance parameters for years to come, further increasing the **cost-effectiveness of the solutions used**.

We prioritise safety and verify it based on precise testing. All our **structures undergo strength calculations** to confirm their **reliability** in various operating conditions. Furthermore, our lighting columns meet the „NE“ class passive safety requirements of the EN 12767:2019 standard – in the category of non-energy-absorbing structures.

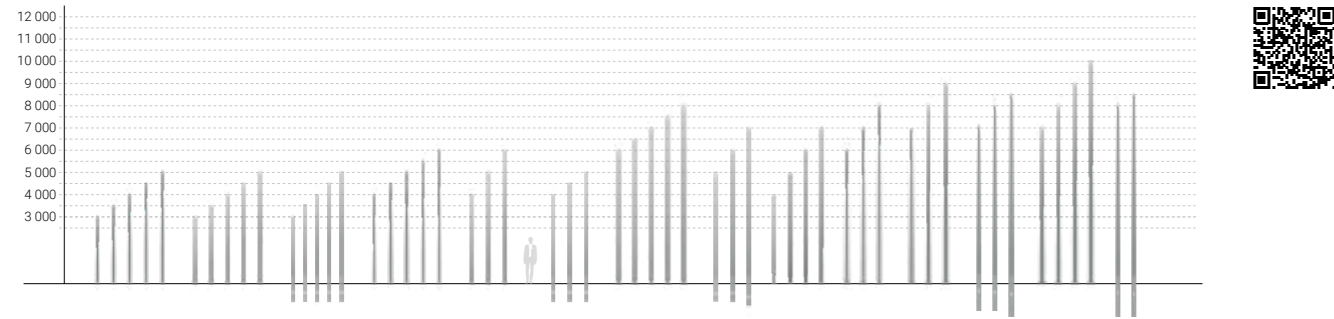
Aesthetics is a natural complement to our design philosophy. **We view lighting as an integral element of architecture**, which is why we offer a wide range of form-shaping options and anodise products in **ten colours**, allowing solutions to be **harmoniously matched** to the nature of the project.

See how we do it.

ALUMINIUM COLUMNS

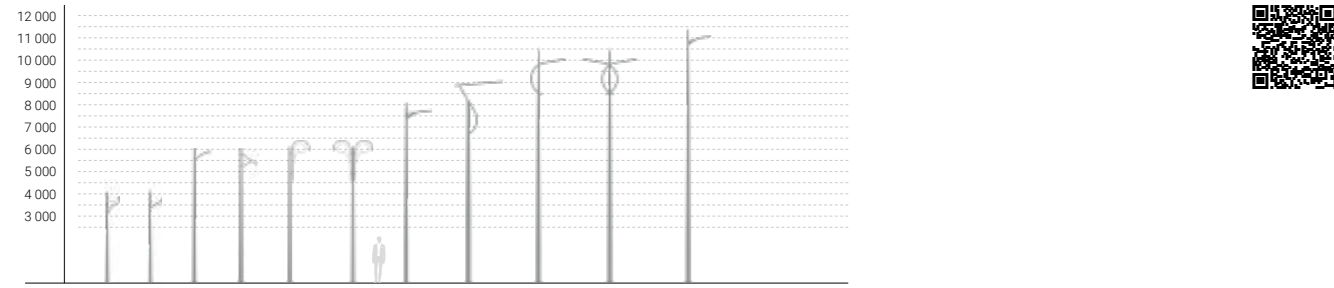
Straight aluminium columns

34-59



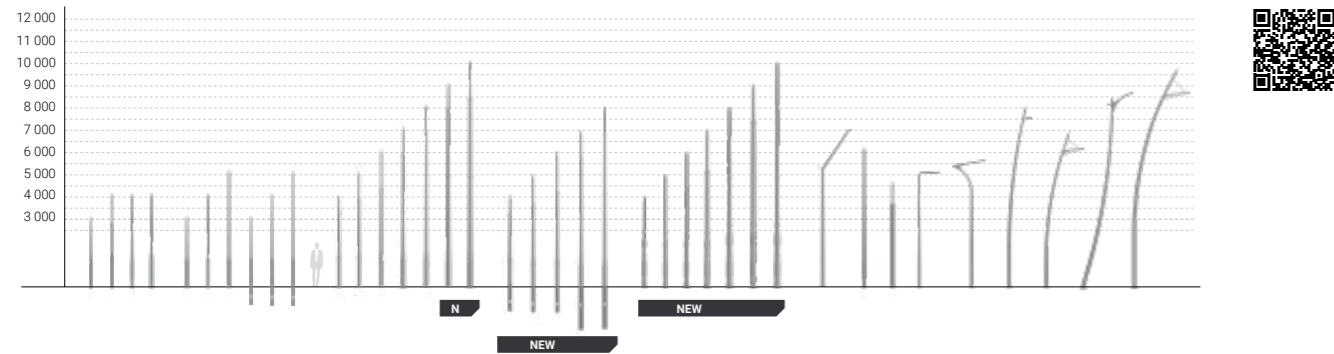
Aluminium columns with welded extension arms

60-67



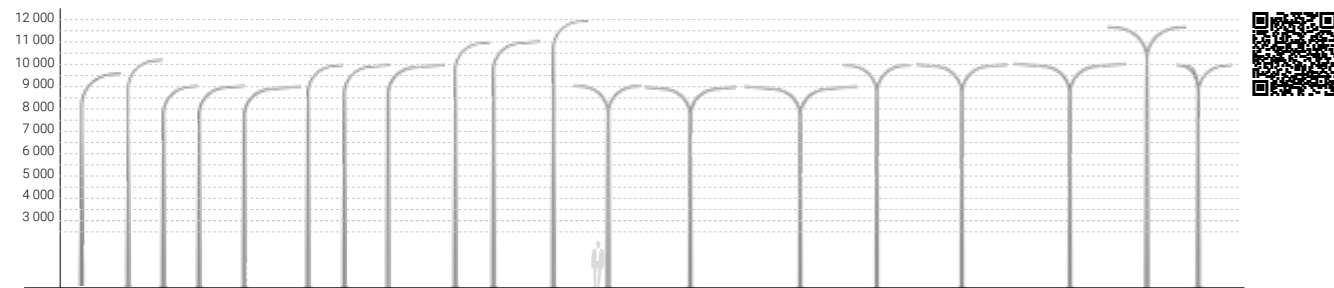
Decorative aluminium columns

68-89



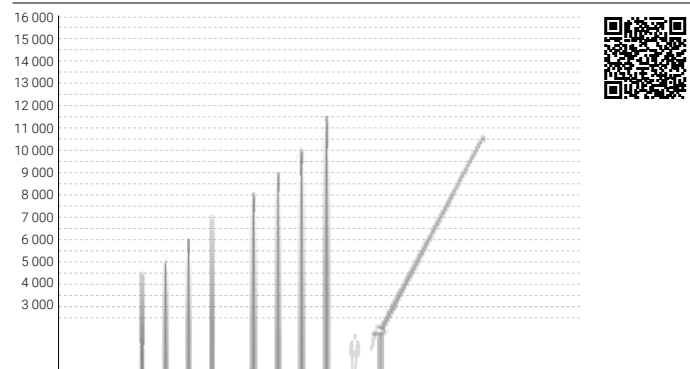
Two piece aluminium columns with curved extension arms

90-95



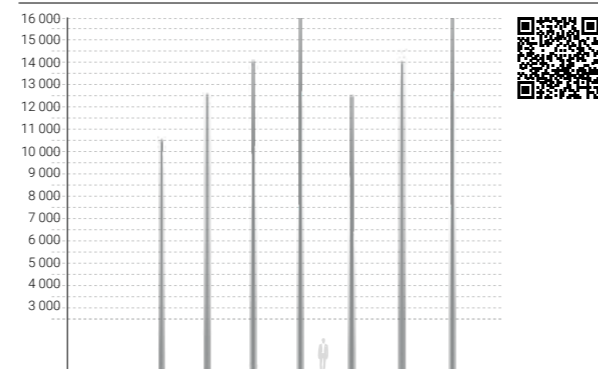
Lowering and raising columns

96-99



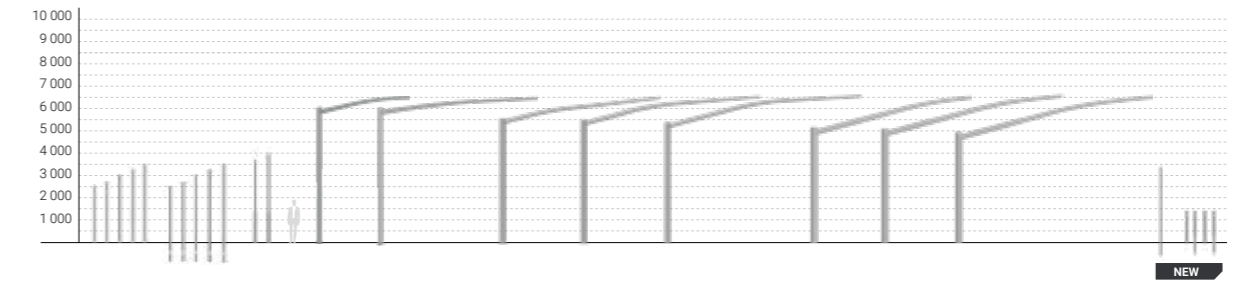
Aluminium light masts

100-101



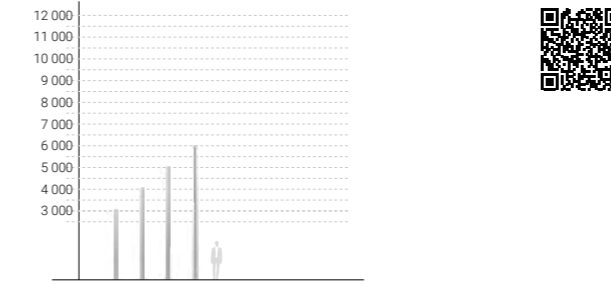
Columns and bollards for road infrastructure

102-117



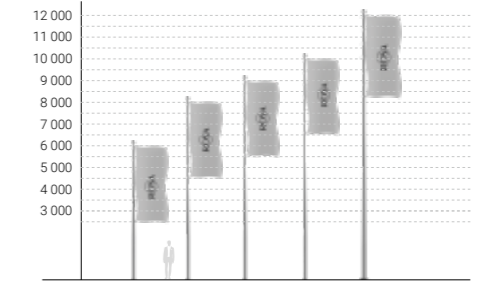
Aluminum columns for CCTV

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Aluminium flag poles

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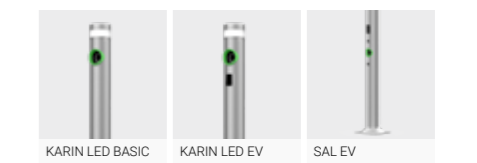
Aluminium column with photovoltaic modules

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Charging stations

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ALUMINIUM EXTENSION ARMS

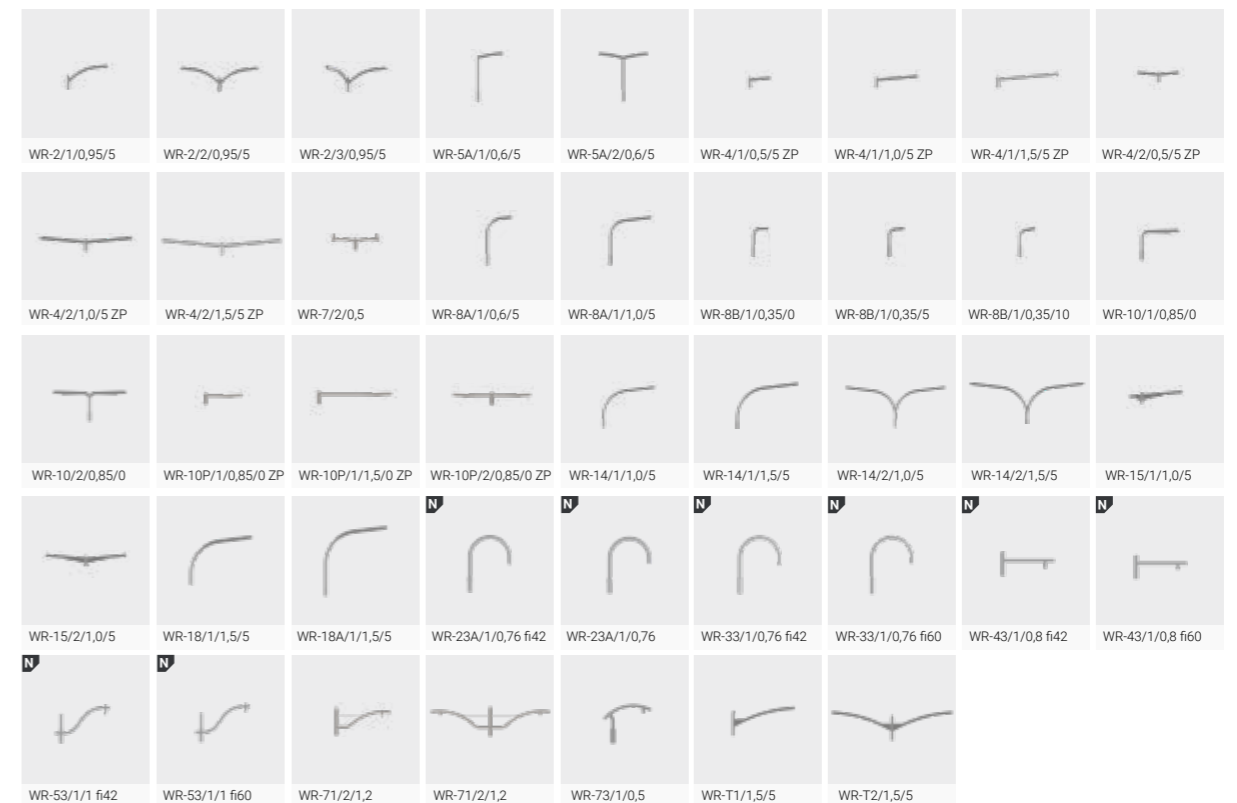
Aluminium extension arms WA

130-131



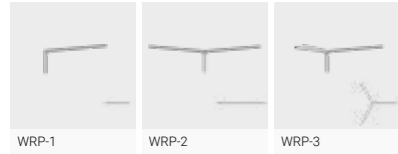
Aluminium extension arms WR

132-139



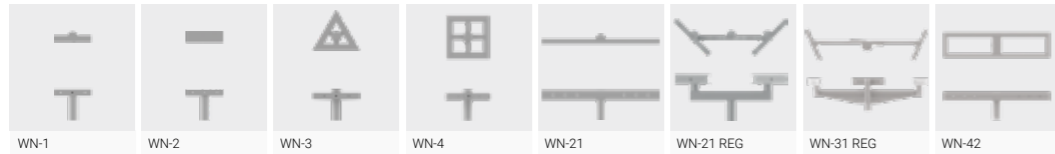
Aluminium extension arms WRP

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Aluminium extension arms WN

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Aluminium extension arms WM

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Aluminium extension arms WRK

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LUMINAIRES

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LED lighting columns

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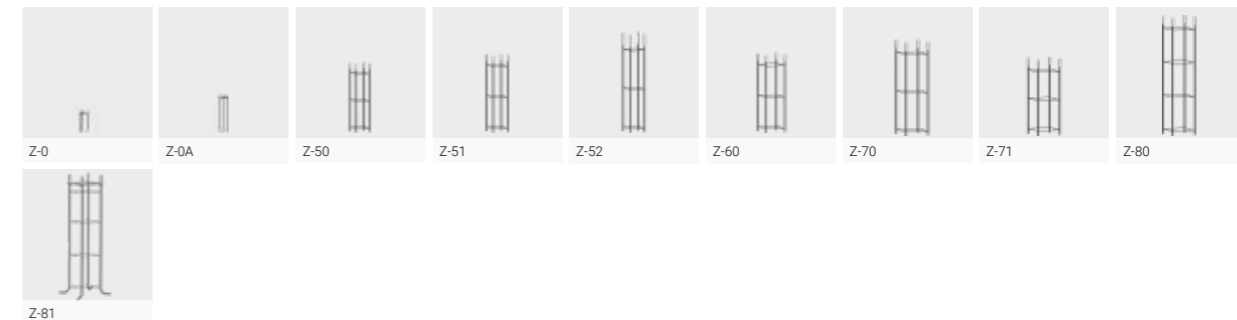
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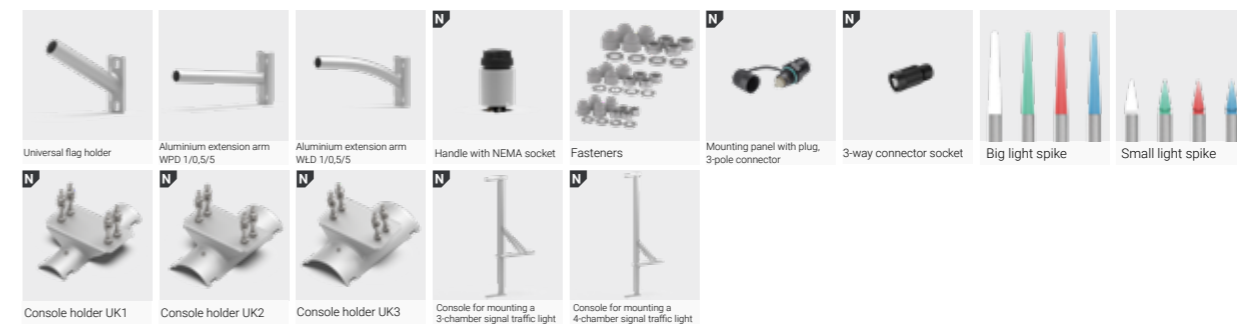
Connection boxes

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Accessories for columns and traffic signal lights

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ROSA

We are one of the **leading manufacturers of outdoor lighting**. We offer complete solutions that we distribute almost **worldwide**. We specialise in the production of columns, modern and decorative LED luminaires, and lighting sets with all necessary accessories.

For production, we chose **aluminium** – one of the most durable and versatile construction materials, which we additionally **anodise** in our own facility.

Our origins date back to 1992, when current CEO – Stanisław Rosa founded the business with just a few employees. Despite the difficult realities of the times, through determination and hard work, he managed to transform it into a dynamically growing company. The following years brought **bold decisions, investments in people, technology, and new solutions**. As a result, we built a strong brand, recognised today both in Poland and international markets.

Our business in numbers

4	34+	70+	350+	38 000
production plants	years of market presence	countries to which we export our products	employees	m ² of production space

100% Polish production

We focus on the development of the Polish economy and corporate responsibility. That's why the entire product development process – from design, through production and anodising, to specialised testing – is carried out in Poland, in the Silesian Voivodeship, within the Tychy Subzone of the Katowice Special Economic Zone, where the company's four production plants are located.

This approach allows for real-time **oversight at every stage of production**. This allows us not only to guarantee the **highest quality** but also to operate faster and more efficiently. The proximity of our plants allows for shorter lead times and greater flexibility to meet customer needs.



Our annual production capacity is

45 000 units +	160 000 units +	200 000 units +
of aluminium LED luminaires	of aluminium columns and masts, LED sets and columns	of aluminium extension arms, foundations, reinforcement cages, and connection boxes

We develop our **own technological solutions** – our team of engineers and designers continually refines design solutions and production methods. **We operate three automated lines for the production of aluminium columns and an automated line for the production of lighting sets.** This technological infrastructure translates into high-volume production annually.



A 50-Year service life

The best proof of our products' reliability is the **Technical Approval** issued by the independent Association of Polish Mechanical Engineers and Technicians. This document confirms that **the service life of our anodised aluminium columns is at least 50 years**. This is the maximum period for which such certificate can be obtained under current standards.

In our laboratory, we also conducted a series of tests on the columns' resistance to external factors and processes such as corrosion and material aging, under conditions simulating long-term exposure. The results of these tests, among others, indicate that the actual durability of the structure can significantly exceed the minimum 50 years specified in the Technical Approval.



Our products' life cycle costs

ROSA products are synonymous with **premium quality** and the **highest level of safety**. It may come as a surprise that choosing our anodised aluminium columns can actually result in **lower overall project costs** in the long term. There are many factors that influence this aspect.

The key here is **LCC (Life Cycle Cost)**, i.e. the **total cost of the product's life cycle**. Considering all aspects of lighting investments, where **transport, maintenance and product durability** play a significant role, our solutions result in **financial savings** in the long term. Investing in our products simply becomes more cost-effective.



One investment = long-term return

The minimum 50-year service life of anodised aluminium columns is confirmed by a Technical Approval issued by the independent Association of Mechanical Engineers and Technicians in Poland. This means that **the structure will not need to be replaced for decades, resulting in a significant reduction in the project's life-cycle costs.**



No need for costly maintenance

Anodised aluminium requires no additional maintenance or corrosion protection, **thereby eliminating maintenance costs throughout its service life.**



High aesthetic appeal without refurbishment costs

In addition to enhancing strength and corrosion resistance, anodising gives products a colour which, unlike paint, does not form an additional layer but becomes an integral part of the material. As a result, **there is no need to renew coatings or incur painting costs throughout the product's service life.**



Minimising installation and transport costs

Thanks to its low density, aluminium enables lighter structures, resulting in **lower transport and installation costs.**



One delivery directly to the construction site

A comprehensive delivery of all necessary components in a single shipment – including concrete foundations, columns, extension arms, luminaires and accessories from one manufacturer – results in **lower logistics costs, reduced risk of delays, and more efficient project execution.**

50 years of service life anodized aluminum products

According to the Technical Approval issued by the independent Association of Polish Mechanical Engineers and Technicians, **the service life of ROSA lighting columns made of aluminium alloys subjected to the anodising process is a minimum of 50 years**. It is worth noting that this is the maximum time for which approval can be obtained.

In our laboratory, we also have conducted series of tests on the columns' resistance to external factors and processes such as corrosion and material aging, under conditions simulating long-term exposure. The results of these tests, among others, indicate that the actual durability of the structure can significantly **exceed the minimum 50 years** specified in the Technical Approval.

A vivid proof of the above this is the project carried out at the **Hornsund Polish Polar Station**, located on the White Bear Bay in the Arctic. Our **aluminium flag poles** were installed there in **2009**. After **16 years** of continuous exposure to such **extreme conditions**, the poles have retained their structural integrity, and their anodised **surface remains uniform, free from corrosion or damage**. They look almost identical to how they did on the day they were installed.



Scan the QR code to visit the website
and see the latest news about
the Hornsund Polar Station

Maintenance not required = low LCC

When planning new lighting infrastructure investment, **maintenance costs** are often not taken into account. Difficulties arise when the columns require **repairs, removal of corrosion centres and painting** (in the case of steel columns) in order to provide additional protection against corrosion and **combat discoloration or peeling of the paint**, etc.

The maintenance costs of steel column coatings are very high and are settled in many ways with external maintenance companies.

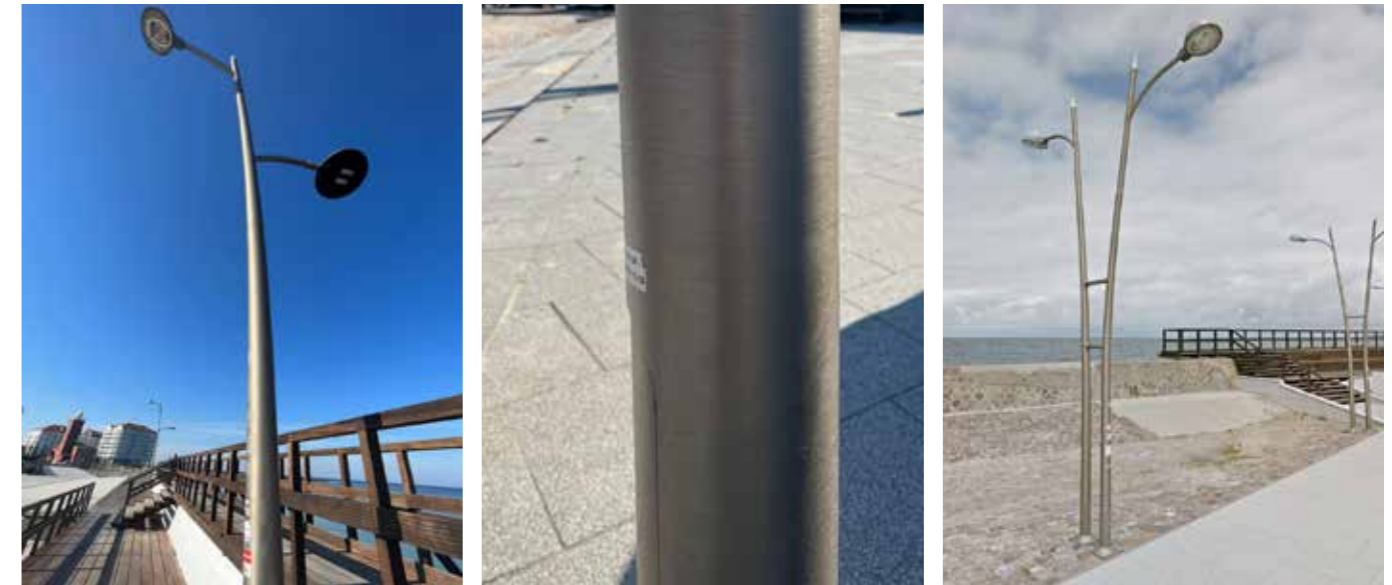
The analysed case studies, after many conversations with Investors, i.e. City and Municipal Offices, clearly indicated that **investors much more often decide to replace columns requiring maintenance with new ones than to maintain them**.

The only product that **does not require maintenance to keep its anti-corrosion properties is an anodised aluminium column**. If the investor requires decorative values throughout columns entire service life, all they need to do is clean them periodically.



Examples of corrosion resistance in practice

Time verifies quality. To demonstrate how our products **perform over the long term**, we present sample projects that have reliably served their purpose for years. Despite exposure to harsh weather conditions, they still maintain their pristine aesthetics, deep colour, and full corrosion resistance — simply removing superficial contaminants restores the coating's original appearance.



Location: Darłowo, Darłówko Wschodnie Promenade
ROSA project commissioned in 2010
Atmospheric corrosivity category: high - C4

Condition after 14 years of use (test conducted in May 2024)

After 14 years of use, no significant loss of anodic coating thickness was observed. The 25 µm - thick layer continues to protect against corrosion. The coating, once cleaned of superficial contaminants, retained its original appearance and colour.



Location: Oman
ROSA project commissioned in 2014
Atmospheric corrosivity category: very high - C5

Condition after 11 years of use (test conducted in February 2025)

The 25 µm thick anodic coating shows no significant thickness loss and no signs of corrosion.

Production of anodised aluminium columns

Standard column production technology

Our aluminium column production technology is based on patented solutions, making it the **only investment of its kind in the world**. Each stage of the process is subject to strict control, **guaranteeing full repeatability and high product quality**. The lines can operate in parallel or independently, allowing us to easily adapt their performance to current production needs



1 minute = 1 metre of column

Producing a linear metre of column on one line takes one minute



3 automated lines

Each aluminium column production line is equipped with automated stations



50 minutes = 30 five-metre columns

This is the production time for a typical lighting project

Material

Aluminium is the foundation of our production. Column cones are rolled from EN AW-6060 aluminium alloy tubes, which are characterised by excellent ductility and high anodisation properties, making them ideal for forming and achieving aesthetic surface finishes. Column bases are pressed from EN AW-5754 sheet metal – an alloy with exceptional corrosion resistance, especially in demanding environmental conditions. The materials used are crucial to the correctness of technological processes, such as robotic welding, grinding, and the production of anodic oxide coatings



The process of creating custom columns

Innovative production lines enable the implementation of projects that go beyond the catalogue offering – from minor modifications to completely new designs developed according to individual specifications.

Our modern machinery, including waterjet and laser cutting stations, CNC machines, and tube and sheet metal bending machines, allows for the precise production of elements with complex geometries, including decorative details and columns and extension arms bent to a specified radius.

Our design and construction office is involved in the process of creating custom solutions, developing technical documentation and preparing models and design assumptions. These designs are then supported by research conducted in our laboratory, responsible for verifying material parameters, compliance with specifications, and quality control.

Column Construction – wiring chamber and screws

Each aluminium lighting column we produce has a wiring chamber in which connection boxes are installed, screwed to a welded mounting strip inside. These connection boxes are available as a separate supplementary component in our offer.

The wiring chamber cover is cut by laser or on a specially designed saw (in the case of columns manufactured outside the technological line) and fixed by screws. The column wiring chamber laser-cut on the production line has an IP54 protection rating. Furthermore, the recess closure is equipped with catches (locks) welded into the cover and chamber. This allows the cover to additionally transfer the load resulting from the structure's operating conditions.

Screws for wiring chamber cover

Safety is a priority. That is why the wiring chamber closure is secured with M8 stainless steel screws with a special, unusual socket shape preventing unauthorised opening of the wiring chamber. O-ring washers are fitted to each screw to prevent them from falling out during unscrewing. Upon customer request, the column can be equipped with triangular-head screws.



Hexagonal key and screw (available as standard)



Triangular key and screw (available upon request)

Wiring chamber in anodised aluminium columns



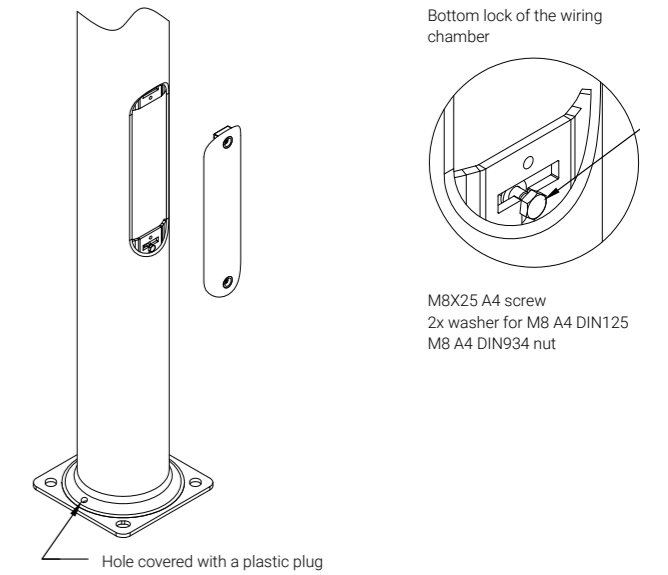
Column reinforcement

Our offer includes columns marked with the „wzm” index. This means that their structure is reinforced. This occurs within the base and wiring chamber, using an additional pipe or thicker wall, enabling the use of heavier luminaires or larger extension arms, as well as their installation in locations exposed to high wind speeds.

Column Construction – earthing

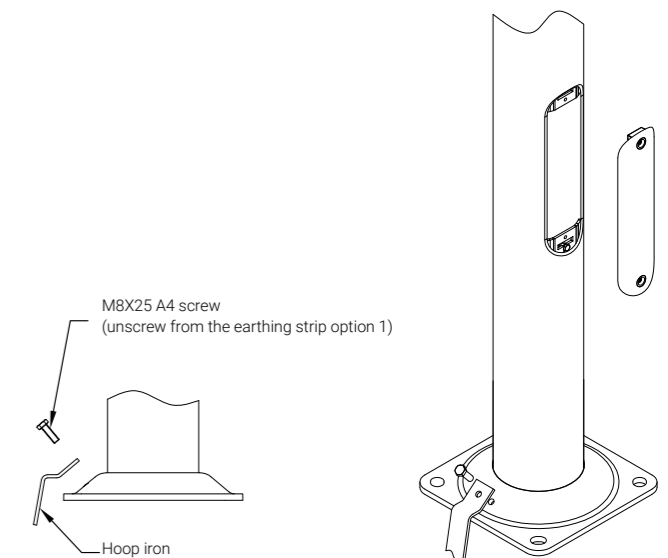
In our columns, the M8 earthing screw is located in the hole in the lower wiring chamber lock. This location allows for easy access to the screw, thus enabling quick assembly and maintenance. However, this is not the only available solution.

Earthing option 1



An alternative to earthing in the wiring chamber is a dedicated hole in the column base. This solution is particularly useful when earthing columns with an earthing strip. The earthing strip should then be screwed to the column foot using an M8 screw taken from the column recess (option 1) and screwed into the hole made in the base. When using option 1, the hole for the earthing strip will remain covered with a plastic plug.

Earthing option 2



Connection of two-element columns

Two-element anodised aluminium columns are permanently connected using a **specially designed stainless steel connector**.

The connecting element is locked using:

- 3 M10 screws – for two-piece SAL columns,
- 4 M10 screws – for two-piece MAL column.



Connecting element for a two-element SAL column



EConnecting element for a two-piece MAL column

Acceptable column loads

The design of lighting columns is based on the EN 40 group of standards. Thanks to the factory control system, we have obtained a **Certificate of Constancy of Performance**, which confirms that the **manufacturer meets all the requirements contained in the following EN 40 standards** and ensures that they are maintained in continuity.

1. EN 40-1 – Lighting columns – Terms and definitions
2. EN 40-2 – Lighting columns – General requirements and dimensions
3. EN 40-3-1 – Lighting columns – Design and verification – Specification of characteristic loads and references to EN 1991-1-4. Design basics and impacts on structures 2-4. Wind loads
4. EN 40-3-2 – Lighting columns – Design and verification – Verification by means of research
5. EN 40-3-3 – Lighting columns – Design and verification – Verification by means of calculation
6. EN 40-6 – Aluminium lighting columns – requirements

These standards are not only a series of recommendations. They also specify the method for determining the permissible load on a column structure. When calculating the permissible load on columns, many characteristic parameters are considered, such as mean: **wind speed, terrain category, horizontal deflection, and shape factor.**

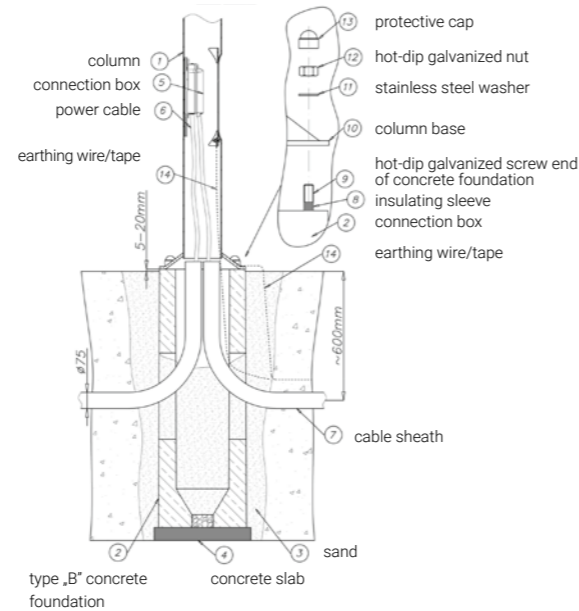


Scan the QR code to go to the website and view the remaining instructions

Strength Calculations

We perform column strength calculations using our proprietary calculation program in accordance with the applicable requirements of EN 40 and EN 1991-1-4.

Recommendations for aluminium columns and masts on concrete foundations installation method



1. Dig a cable trench in the ground and run the power cable (6) through it (it is recommended that the cable be sheathed (7)).
2. Dig a suitably large hole at the column installation site - the hole size depends on the dimensions of the concrete foundation used (2).
3. Place and level a concrete slab (4) at the bottom of the hole, at the appropriate depth, so that after the concrete foundation (2) is placed on it, it protrudes 5-20 mm above ground level.
4. Insert the concrete foundation (2) into the previously prepared hole and set it on the concrete slab (4), simultaneously inserting the cable sheaths (6) (7) and, optionally, the earthing wire (14) into its centre. The power cable (6) must be long enough to allow for easy connection to the connection box (5) located in the wiring chamber (1).
5. Backfill the concrete foundation (2) with sand (3), compacting it in layers every 30 cm, while maintaining and controlling the vertical alignment of the foundation.

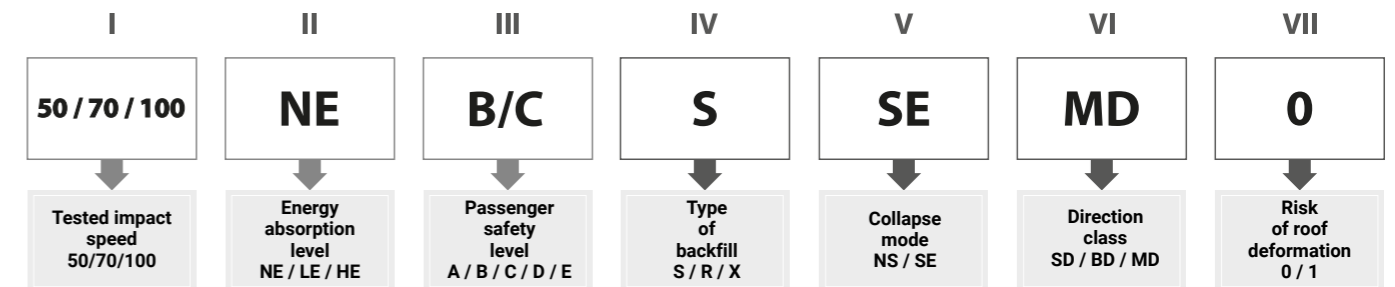
Passive safety

Safety is our priority. To confirm the properties of our columns in reducing the risk of serious injury to participants in dangerous road accidents, we tested them in accordance with the **EN 12767:2019** standard „Passive safety of support structures for road equipment – Requirements and test methods.“

As a result of the tests, we determined the passive safety classes for anodised aluminium columns:

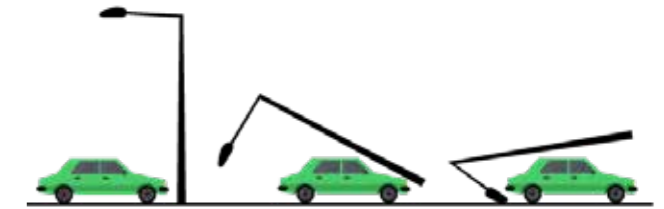
- **SAL** cylindrical-conical columns with a base diameter of: **Ø114** , **Ø120** , **Ø146** and **Ø178** mm in the version with or without an extension arm have been classified as:
 - 100-NE-B-S-SE-MD-0,
 - 70-NE-B-S-SE-MD-0,
 - 50-NE-B-S-SE-MD-0
- **SAL** and **MAL** columns **rooted**, cylindrical-conical with a diameter of **Ø114-Ø225** mm and SAL **Ø176 (WL)** and **Ø180 (M , WLN)** with a base, with or without an extension arm have been classified as:
 - 100-NE-C-S-SE-MD-0,
 - 70-NE-C-S-SE-MD-0,
 - 50-NE-C-S-SE-MD-0

Explanation of symbols using our qualifications as the example



Categories and levels of energy absorption according to the EN 12767 standard

- HE - high level of energy absorption
- LE - low level of energy absorption
- NE - no energy absorption
- Class „0“ - no passive safety requirements met
- Structures not tested



NE

No energy absorption



Scan the QR code to read more

Anodising process



ROSA Anodising Plant

Since 2009, our company has had an anodising plant. We perform **anodising with electrochemical and interference** colouring of aluminium materials, including sheets, pipes, profiles, luminaire housings, and other structural elements.

Modern interference colouring technology allows for a richer palette of colours resistant to external factors, including UV radiation, than the traditional one. We anodise products **up to 10 meters** long, with simple and complex shapes, in **10 unique anodising colours**.

Anodising is an unparalleled aluminium protection process. Under natural conditions, aluminium spontaneously forms a **thin** oxide layer, but this process typically takes 1-2 years to provide full protection. **With anodising, a protective coating is created in just a few hours, and its thickness is hundreds of times greater than the natural one.**

The process is used to:

- **anti-corrosion and mechanical protection** of metal surfaces, with particular emphasis on atmospheric corrosion, especially against aggressive environmental factors such as sea water, acid rain, salt, etc.
- **decorative** – anodised surfaces achieve a smooth, satin finish, and additional colouring guarantees exceptional surface aesthetics.

Advantages of anodising:



ROSA anodised aluminium columns have a **minimum service life of 50 years**



Anodised **products** are **UV-resistant**, and their colour does not fade



The coating serves a **decorative** purpose and is available in **10 colours**



The surface has **increased scratch and damage resistance**



Anodised aluminium is **100% recyclable***



Anodised aluminium products **do not corrode**



*Our anodised aluminium products are classified as **pure aluminium** (17 04 02). This means they do not require any additional processing before recycling and can be recycled repeatedly without losing their material properties.

QUALANOD

Since 2011, we have continuously maintained the technical **approval** of the European Association for Surface Treatment on Aluminium QUALANOD, along with the right to use the **QUALANOD Anodic Coatings Quality Mark**, which **confirms the highest quality** of our services.



Anodising Process Stages

The anodising process is carried out on an automated technological line equipped with 28 process tanks. The process can be divided into three stages. A rinsing operation is performed between each of the main processes.

1. Surface Preparation:

The first step is degreasing, which involves removing oils and their derivatives from the aluminium surface, as well as any contaminants resulting from the machining of the details.

The second step is alkaline etching (satin finishing), which removes the inherent oxide layer from the product's surface and gives the surface a uniformly matte (or, conversely, shiny) appearance.

The third step is brightening (picking), which aims to finally remove thin oxide layers and deposits that may have remained after the satin etching or brightening processes, and removal of which is essential to achieving a structurally uniform oxide coating.

2. Anodising and Colouring:

Anodising involves the controlled formation of an aluminium oxide layer on the aluminium surface through an electrochemical process. An anodised coating is produced by electrolysis in a sulfuric acid solution using direct current of a specific density. The resulting coating grows two-thirds of its thickness into the metal surface and one-third above it. It becomes significantly thicker than natural aluminium, effectively protecting it from further oxidation, or corrosion. Its structure allows for permanent colouring of the product using chemical, electrochemical, or interference methods.

3. Sealing:

The final stage of anodising technology is sealing, which involves closing the porous oxide structure. Sealing involves immersing the product in a solution of hot demineralised water with small accelerating additives. This accelerates the closure of the oxide coating pores with boehmite and aluminium hydroxide. Sealing ensures that the surface of the anodised element becomes tight and smooth, making the oxide coating resistant to atmospheric corrosion and reducing the tendency for contaminants to settle on the product's surface.

Aluminium Colouring Methods

Colouring can be:

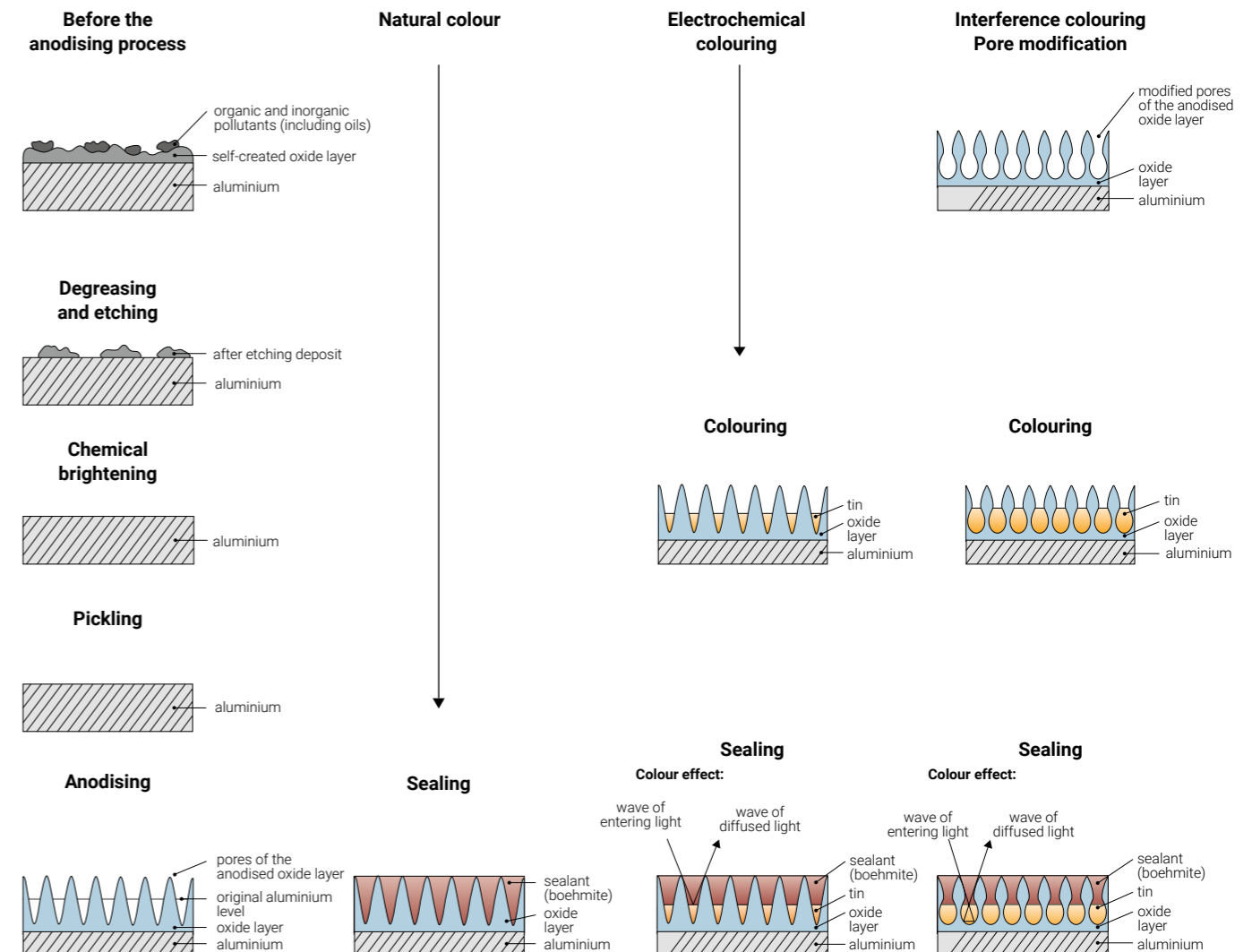
- **Electrochemical** - involves treating the anodised product in an electrolyte containing tin salt ions. The reduced metal deposits at the bottom of the oxide coating's pores in the cathodic cycle, imparting a permanent colour to the aluminium surface. This produces a range of colours, from light to dark brown, all the way to black.
- **Interference** – this is always preceded by an operation to modify the anodic coating pore shape. The coating is then electrochemically coloured in tin-salt baths, expanding the colour palette achieved with traditional electrochemical dyeing to include shades of grey and green.

This method utilises the phenomenon of interference, i.e., the overlapping of reflected light waves, leading to an increase or decrease in the amplitude of the resultant wave. Modifying this amplitude through appropriate, controlled changes in the pore shape of the anodic layer allows for the desired optical effect (colour).



Scan the QR code to visit the website and learn more

Anodising process diagram



Surface Finishing

The anodising plant can provide two types of surface finish:

- **Satin** – (standard) for chemically polished products (E-6 etching) and for profile columns and flat luminaires elements using dry etching technology. This involves surface treatment by shot-blasting using a modern machine for tarnishing the surface. The processed elements are subjected to abrasive blasting using shot with a diameter of approximately 0.1 mm, achieving a satin finish.

Importantly, this type of technology significantly eliminates all types of surface defects resulting from extrusion or rolling processes, such as streaks, thermal stripes, etc., as well as minor mechanical damage such as scratches or scuffs. The resulting surfaces are characterised by significantly improved quality compared to traditional chemical etching. The technical solutions used allow for shot-blasting of sheet metal elements as thin as 1 mm without the risk of surface damage

- **Brightened*** – achieving a glossy surface texture on aluminium is achieved through chemical etching prior to anodising. The process involves chemically smoothing the surface structure, reducing dullness and brightening the metal surface, ultimately resulting in a glossy finish.

* This process is available upon customer request.

Electrical strength test

The anodic layer, in addition to its anti-corrosion and decorative properties, is also characterised by **electrical insulating properties**.

For verification purposes, a test of the electrical strength of the anodised surface was conducted. The measurement was performed by placing electrodes between the inner part of the column and the outer surface and gradually increasing the test voltage until breakdown occurred. The tests were conducted at the ROSA laboratory and commissioned to an **independent research facility**.

The results indicate that for an anode thickness of 20 µm, the electrical strength ranges from 320 to 530 V AC. For an anode thickness of 25 µm, the breakdown voltage increases to a value of 830 to 1140 V AC. These electrical insulation properties do not provide protection against electric shock within the meaning of the standard, but they do increase safety by providing additional insulation.

Aging chamber test

We conducted tests on the resistance of anodic oxide coatings to **UV radiation** in our own research and development laboratory.

The tests were performed in accordance with the recommendation of the **PN-EN ISO 6581 standard** „Anodic oxidation of aluminium and its alloys - determination of the relative resistance to ultraviolet light and high temperature of coloured anodic oxide coatings”.

During the 14,600-hour exposure of the samples in the Q-Sun Xe-3 device, **no change in the coloured oxide coatings was observed**. This exposure period is **equivalent to 20 years** of operation in Polish climatic conditions.

Salt spray test

To **determine corrosion resistance**, samples of anodised aluminium lighting columns were tested in a salt spray chamber with a 5% salt concentration (for comparison, the salt concentration in the Baltic Sea is 0.8% and in the North Sea is 3%).

The **samples were exposed** to the chamber for a **total of 20,000 hours**, and despite this long testing period, **no signs of corrosion were detected**. The test was performed in accordance with the **PN EN ISO 9227 standard, using the NSS method**.

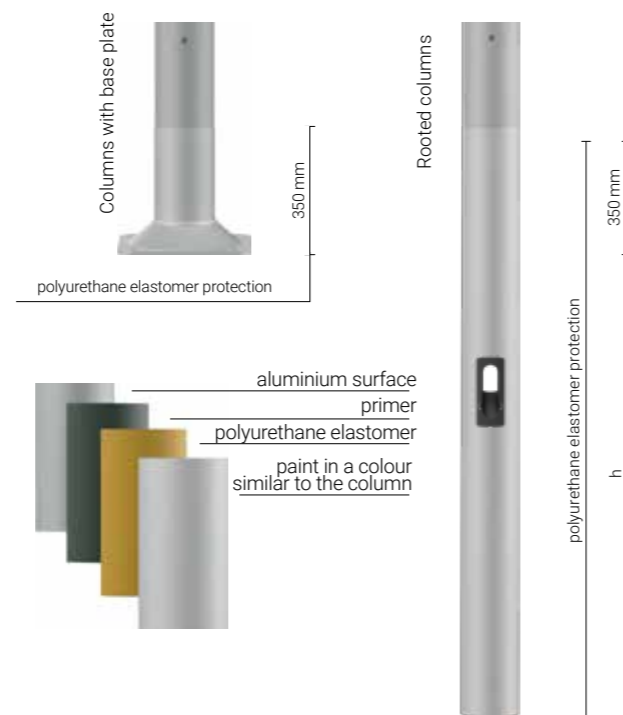
Elastomer protection

In very unfavourable environmental conditions, the base plates and the parts of the rooted column are exposed to mechanical damage and discolouration caused by the effects of salt compounds.

For additional corrosion protection, we offer the option of coating both the base plate (including the mounting screw holes) and a section of the column (up to a height of 350 mm) with a polyurethane elastomer. The protective coating, with a hardness of approximately 90° Sh, has a thickness of 0.7 to 1 mm.

The elastomer surface is painted with a UV-resistant paint, in a colour similar to the column's anodic coating. The elastomer protection complies with EN-40 standards, i.e. the European requirements for anodised aluminium lighting columns.

All „SAL DZ” rooted columns feature polyurethane elastomer protection as standard.



	Black steel	Galvanized steel	Hot dip galvanized steel	Raw aluminium	Anodised aluminium
Model sample					
Test in salt chamber PN-EN ISO 9227 standard - NSS method Test in neutral salt fog					
Test in salt chamberj PN-EN ISO 9227 standard - CASS method Test in acid salt fog with addition of copper					

Comparison of different surface protection methods against corrosion, tested in two different environments

Anodising colour palette

In addition to its protective function, anodising also serves a decorative purpose, enhancing the product's aesthetic appeal. We offer 10 colour variants, allowing you to customise the product to your design and visual requirements



Natural **C-0**



Champagne **C-32**



Olive **C-33**



Brown **C-34**



Black **C-35**



Inox **C-45**



Grey **CI-63**



Graphite **CI-65**



Green **CI-75**



Anthracite **CI-78**

The anodising colour chart is for illustrative purposes only. The actual anodising colour may differ from the colour chart presented.

Anodised Aluminium cleaning and maintenance

Proper maintenance and regular cleaning of anodised aluminium products allow to keep their aesthetic and decorative appearance for longer. **Below, we have defined the classification of contaminants and indicated the recommended cleaning products.**

Category I

Industrial atmosphere pollution, road salt residue, persistent precipitation from car exhaust fumes, etc.



Recommended cleaning products

- Aluprop Neutro by Alvarez Schaer
- Alupolish by Alufinish
- REYNAWASH ANO by Reynaers

Contamination removal process

1. Apply the cleaner to the column, then wait until it starts to react with the dirt (if the manufacturer recommends it).
2. Wash the column with a sponge or brush (with soft bristles).
3. Rinse the column thoroughly with clean water.



Category II

Graffiti, paints, markers



- HG – Graffiti remover
- HENKEL BONDERITE S-ST 1302
- MetalZell L250
- AGS 5SR

1. Wash the column according to the category I cleaning procedure.
2. Apply the graffiti and paint remover. Leave for the time specified in the product data sheet.
3. Wash with a sponge and cleaning detergent.
4. Rinse the column thoroughly with clean water.



Category III

Stickers, tapes, adhesives



- HG – Label Remover
- HENKEL BONDERITE C-MC 400
- AGS GLUE REMOVER

1. Wash the column according to the category I cleaning procedure.
2. Remove any remaining stickers and tapes with a plastic spatula.
3. Apply the label remover. Leave for the time specified in the product data sheet. Wash with a sponge and cleaning detergent.
4. Rinse the column thoroughly with clean water.



If necessary, repeat the process until a satisfactory result is achieved.

Recommendations before maintenance

The following substances are not recommended for cleaning aluminium: corrosive potassium (potassium hydroxide), technical soda (sodium carbonate), caustic soda, acidic products, polishing products, and products that may damage the anode surface.



Scan the QR code to see the practical instructions

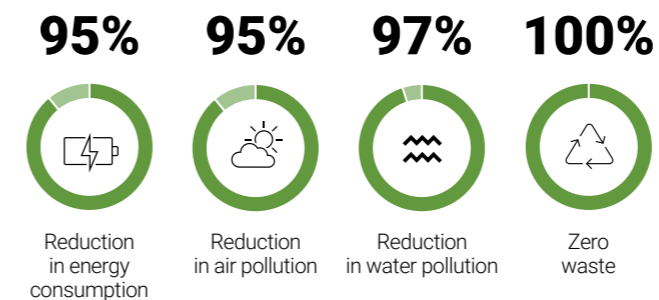
Ecology and quality of our products

From the beginning of our business, we have focused on not only monitoring changes but actually creating them.

Environmentally friendly production

Our products are manufactured in production plants that are efficient in energy management, including from our own photovoltaic farms. We also produce energy through cogeneration, using natural gas as the fuel. Its combustion is less harmful to the environment and contributes to the active fight for healthier air. We use the generated waste heat in the aluminium anodising process, as well as for heating and cooling rooms and production halls, and heating utility water.

Efficient aluminium recycling saves up to 95% of the energy needed to produce the primary material, while maintaining all its functional properties. For the environment, this means a 100% reduction in solid waste, a reduction in CO2 emissions by up to 95%, and a reduction in water pollution by approximately 97%.



Quality is a priority

Our technologies and production processes are the result of many years of intensive research and continuous improvement. Thanks to them, we have achieved today's level of innovation and product reliability. We approach quality in a structured and consistent manner.

Our daily operations are conducted in accordance with the **ISO 9001:2015** Quality Management System and the **ISO 14001:2015** Environmental Management System. We also hold a full set of certificates required by the European market, including **QUALANOD**, confirming the highest quality of anodic coatings.

The high quality of our luminaires is confirmed by the European Electrical Product Certificates **ENEC** and **ENEC+**, which guarantee compliance with standards, safety of use, and structural reliability. The certification process includes laboratory testing and regular inspections at the production facility, conducted by an independent certification body recognised throughout the European Union. Additionally, many of our luminaires are **Zhaga-D4i** certified, confirming their compatibility with lighting control systems and smart city solutions compliant with the Zhaga standard.



Own research laboratory

Our own research laboratory is equipped with modern devices for measuring material properties. Using a spark spectrometer, we can determine the quantitative composition of alloying elements, which allows us to verify the aluminium alloys intended for production.

A **high-quality spectrophotometer** allows us to measure the colour of oxide coatings by spectral band, as well as their colour intensity and tarnishing level. Both devices confirm the highest quality of workmanship, which makes **our products unrivalled**.

We analyse the impact of various environments on quality and durability. We utilise equipment such as **climatic chambers, NNS and CASS salt chambers, dust chambers, thermal chambers and aging chambers (Xenotest)**, as well as **fatigue, IP, photobiological safety, and high-temperature resistance tests**.

The laboratory is also equipped with an **Ulbricht integrating sphere**, which enables precise measurements of luminous flux, chromaticity coordinates, and spectral parameters of light sources and luminaires. This is complemented by a **goniophotometer** used to determine the photometric properties of luminaires, such as their shape and photometric curves, luminous efficiency, and power consumption.



By personally analysing the components of our products for **thermal conductivity, corrosion resistance, UV resistance, light distribution** and **photometric properties of the diodes**, we have complete control over the entire manufacturing process: from raw materials to the final product.

LED luminaires

Our LED luminaires are distinguished by their unique design, innovative LED source, and anodising technology. During production, we place particular emphasis on **quality, durability, and aesthetic appeal**.

We offer luminaires:

- designed for illuminating urban areas (parks, traffic routes and squares),
- designed for illuminating highways, roads, streets, and industrial areas,
- used in industrial halls, warehouses, gas stations, sports facilities, parking lots, and outdoor areas.

Benefits of using our luminaires



Interchangeable LED module: **simple component replacement** without disassembling the luminaire



Reduced maintenance and operating **costs**



Possibility of **power reduction**



Aesthetic and decorative **appearance**, aluminium **housing**



Reduced number of lighting sets



High durability LED luminaire housings

Light sources

High-performance LEDs in our luminaires allow for a luminous efficiency of up to 178 lm/W for the entire luminaire.

Light colour temperature and colour rendering index

We offer the following standard colour temperature variants for LED luminaires:

Light colour	Correlated colour temperature (CCT)	Colour rendering index (CRI)
Warm white	2700 K	>70
	3500 K	>70
Neutral white	4000 K	>70
Cold white	5000 K	>70

Warm white colours of 2700K and 3500K, and neutral white of 4000K, are preferred for lighting urban spaces and parks. Cool white colour of 5000K is often used in street lighting. The choice of one of these options depends solely on the customer's preferences. For custom solutions, it is also possible to order luminaires with light sources of a different colour temperature within the range of 2200K - 5700K.

Optics

Most of our luminaires use optics made of PMMA (polymethyl methacrylate), a material with increased temperature resistance. This is used in both the lens systems and the diffusers/light diffusing plates.

Interchangeable LED module

The interchangeable LED modules are equipped with a variety of unique optical systems. The module has a thermal protection sensor and an IP66 protection rating. Module assembly and disassembly is performed using **standard tools**.



Tempered Glass

Our luminaires from the RING LED, OW+ LED, BELLA LED, CUDDLE MINI LED, COSMO LED, DROP LED, and MIRA LED series, as well as the RING MINI LED, LINE LED, and DROP I and II LED lighting sets, feature tempered glass protection. This **allows for a modern design**, but above all, provides a **high level of protection** against mechanical damage (IK08), which is equivalent to a 5-joule hammer blow.

Luminaire construction

The luminaire housings and LED lighting sets are made of profiles and sheets of the highest quality anodised aluminium alloy*. Their characteristic feature is **high thermal properties** (thermal conductivity >200 W/ mK). Anodising **protects** the aluminium housing of the luminaire **from corrosion and aggressive external factors** such as acid rain, seawater, UV radiation, and salt. At the same time, the aluminium adds a decorative touch. In addition to aesthetic value and protection from weather conditions, the anodised coating improves heat transfer from the housing through radiation, and maintaining a low temperature of the diodes significantly improves their durability.

* Exceptions include ELBA LED, ATLANTIS LED, OS-1 LED, and OS-11 LED fixtures. Please refer to the product datasheet.



Programmable power supply

Our luminaires are equipped with high-efficiency, constant-current, and programmable power supplies. They offer reliability and high operational flexibility thanks to a wide range of programmable options tailored to diverse customer requirements.

Users can take advantage of features such as **adjustable output current, a DALI interface, optional 1-10V, and programmable time profiles**. Additionally, the power supply features thermal protection and LED module protection, which allows for power reduction if a temperature exceeds the recommended range. This protects the LED from overheating and, consequently, from premature aging.

Thanks to the housing with quick-connectors, replacing the power supply requires only basic tools.



We have created special power supply housings with built-in Zhaga or Nema sockets, which can be used to connect intelligent lighting control sensors.



The parameters of the power supplies used in selected LED luminaires

Programmable time profiles guarantee increased savings when using LED lighting. The customer can choose from up to five power levels ranging from 10 to 100% of rated power, for any operating time period.

The power supply implements a developed time profile – variable power levels for luminaires on a daily basis, according to the investor's needs. This solution reduces luminaire power consumption, translating into economic savings.

External control system

ROSA LED luminaires are equipped with a **DALI, D4i, or 1-10V** interface (as standard or as an option, depending on the luminaire), which allows for connection to autonomous controllers or entire control systems that reduce energy consumption.

Appropriate control of luminaire power depending on, for example, traffic volume on a selected road section provides **additional savings of 40-70%**. The ability to include luminaires in specific groups (e.g., a group of pedestrian crossings or a group of main city streets) facilitates simultaneous control of classified luminaires.

Furthermore, the control system allows for fault reporting (e.g., when a luminaire stops working – the error is signalled via the system, email, or SMS).

Advantages of control systems

- reduction of energy consumption and operating costs,
- monitoring and remotely controlling city lighting,
- controlling light intensity in real time,
- programming switch-on times and luminaire intensity for selected times of day and year.

Surge protection

Outdoor lighting using LED technology is particularly vulnerable to surges caused by electrical grid disturbances or atmospheric phenomena, such as lightning.

All ROSA LED luminaires are equipped with **10kV surge protection**, which reduces surge energy to a level safe for the electronics used in LED luminaires. This protection significantly increases the luminaire's resistance to electrical discharges (up to 15 pulses with a voltage of 10kV).

Furthermore, in the event of a larger number of pulses or a pulse of higher energy, it is destroyed by cutting off the luminaire from the power supply.

Optics for an interchangeable LED module

What are optics and what does their selection mean?

Optics are one of the key elements determining the operation of an LED luminaire. Its design determines the light distribution and the achievement of the required photometric parameters in accordance with lighting standards. A properly selected optical system increases the efficiency of luminous flux utilisation, reduces light loss, and influences the stable operation of the LED module.

The selection of optics is also crucial for the design of lighting installations. The light distribution characteristics must meet the requirements of a given space – e.g., a road, sidewalk, or recreational area – to achieve proper lighting uniformity and minimise glare.

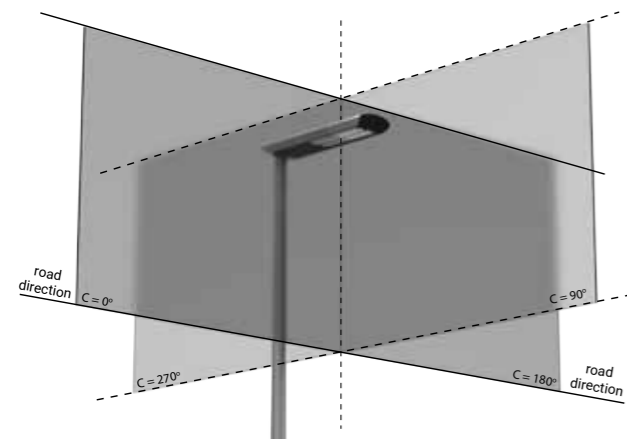
Light distribution curves determine the amount of light emitted from the luminaire in a given direction. The photometric solid and electrical and photometric parameters – such as luminous flux and luminous efficiency – are determined using a goniophotometer.

The final light distribution is primarily influenced by the optics used, but the luminaire's design and the arrangement of diodes on the LED module are also important.

Diagram of planes

The graph shows the luminous intensity distribution of the luminaire in the following photometric planes:

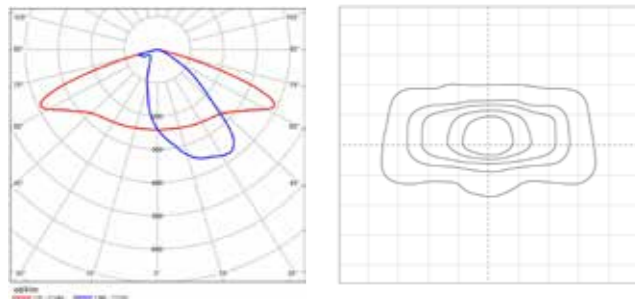
- C0–C180: perpendicular to the luminaire axis,
- C90–C270: vertical passing through the longitudinal axis of the luminaire.



Street lighting

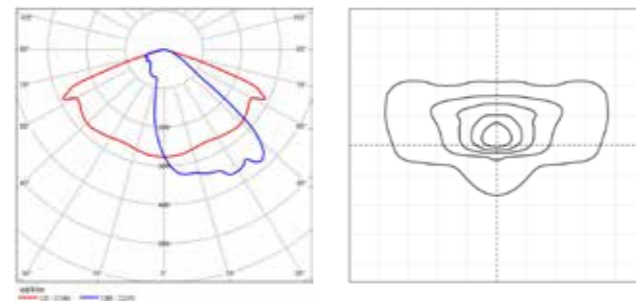
DW Optics

This is a universal optic used in street traffic applications, with a uniform combination of lighting parameters.



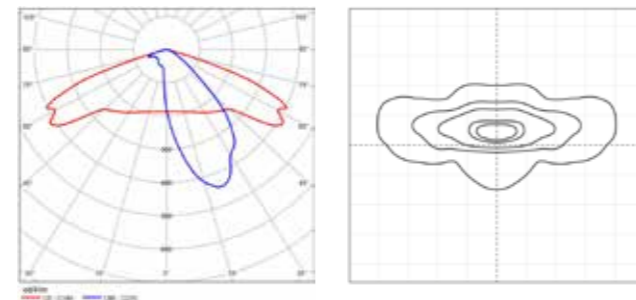
ME optics

It is designed for wider roads and can illuminate up to three lanes with sidewalks on both sides when mounted on one side.



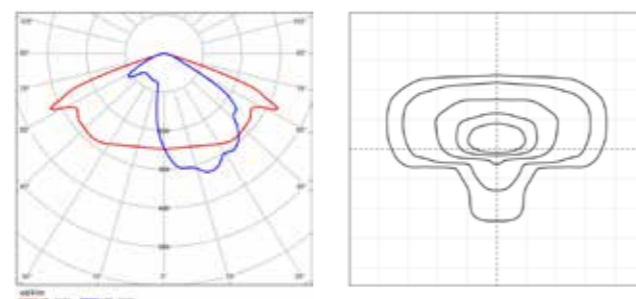
T2 optics

It is suitable for illuminating narrower roads with two lanes and for installing luminaires on the central lane separating the roadways in a dual carriageway configurations (road classes P and M).



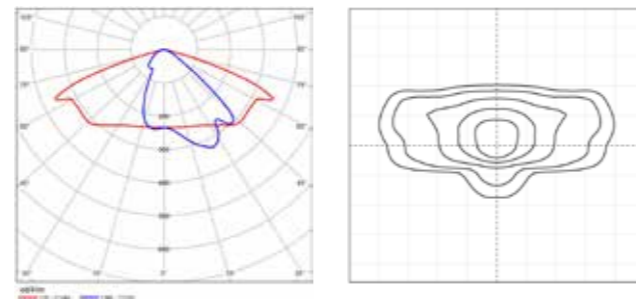
T3 optics

It allows for wider light distribution than T2 optics and is similarly effective for illuminating two-lane roads with sidewalks.



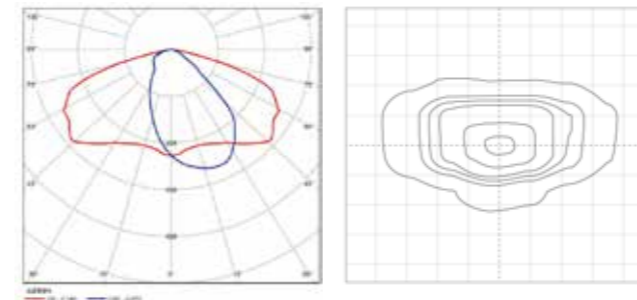
LM optics

It is designed for illuminating roads requiring M lighting classes, where the column height is similar to the road width. They provide very high longitudinal luminance uniformity.



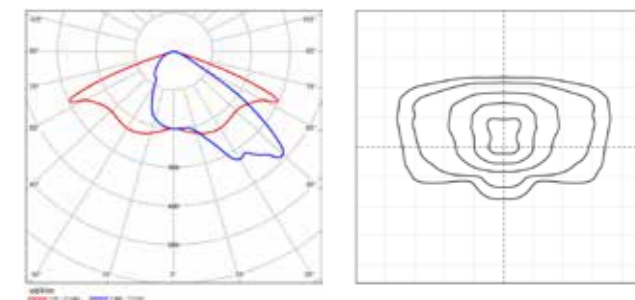
LN optics

It is a universal optic used in street traffic applications, where the column height corresponds to the road width (road class N).



LW optics

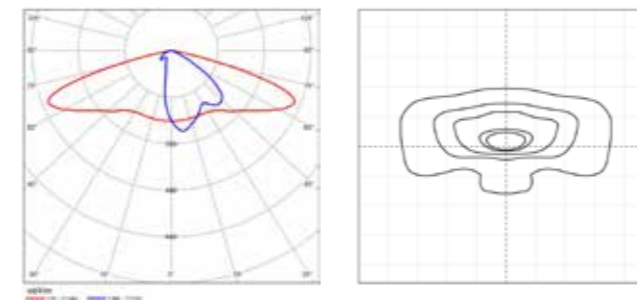
It is designed for more complex road layouts, where the road width is up to 1,5 times greater than the column height.



Lighting pedestrian paths / residential roads

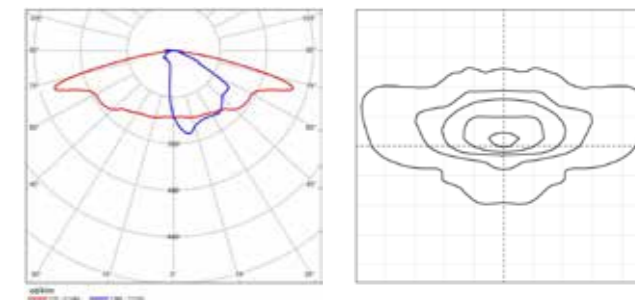
SP optics

It emits light very widely, allowing the distance between luminaires to be up to 8 times greater than the height of the column on which they are installed.



3L optics

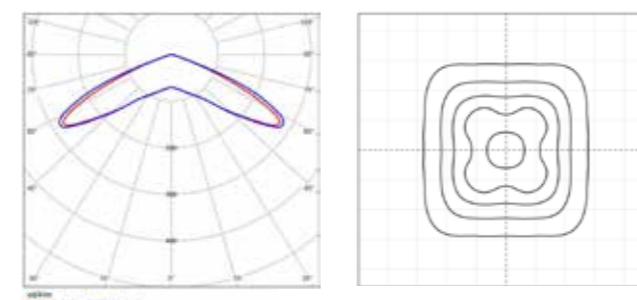
It is designed for bicycle paths, they feature wide light distribution, even with low column heights.



Park / area lighting

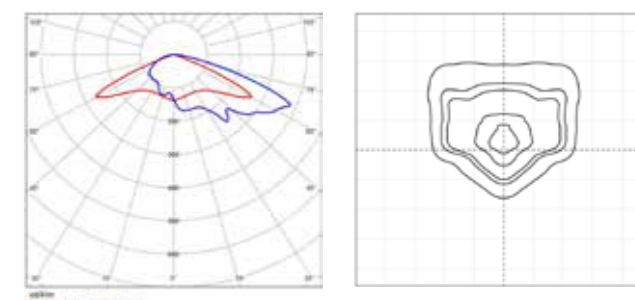
VS optics

It is characterised by an even, symmetrical light distribution around the luminaire (square beam).



T4 optics

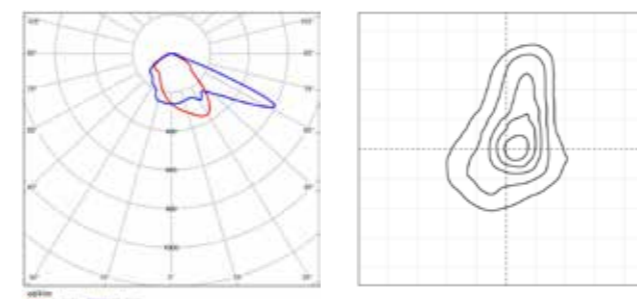
It works best in low-height luminaires, designed close to each other. It is characterised by light emission far forward.



Pedestrian Crossings

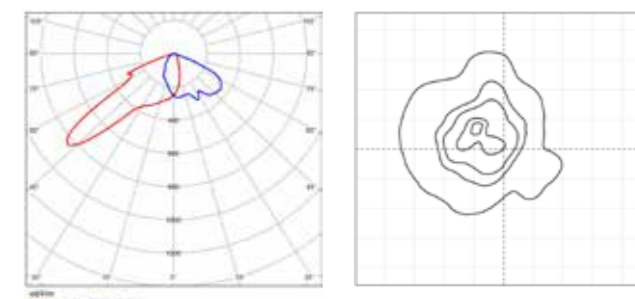
P2 optics

Pedestrian crossing optics, designed specifically to meet the requirements of WR-D-41-4. It allows for lighting a pedestrian crossing on a three-lane road in one direction from a single luminaire.



PL optics

Left-hand traffic optics, also suitable for right-hand traffic configurations when columns are mounted on an island.



Unique Projects

Standard catalogue solutions represent only part of our manufacturing capabilities. Thanks to precision machining technology, we provide comprehensive support for projects requiring a bespoke design approach. We specialise in adapting aluminium profiles to non-standard geometric, load-bearing and functional requirements, while ensuring full compliance with PN-EN 40 standards.

The bespoke nature of a project does not limit our production capacity. Our production facilities are configured to ensure a smooth transition from prototyping to series production. Through advanced automation of cutting, CNC machining and surface finishing processes, we guarantee high dimensional accuracy and consistent quality for every component. Whether the project involves a single bespoke design or hundreds of columns or luminaires for a complete development, we deliver reliable and scalable solutions.

The projects presented here demonstrate that aluminium does not impose limitations, but opens up new possibilities. Each of these structures began as a bespoke enquiry and a simple sketch.

Today, they form an integral part of the architecture, proving that a lighting column can be not only a background element, but also a defining feature of the development.



Scan the QR code to visit the website and see our capabilities.

San Diego, USA



By creating these extraordinary lighting columns, which resemble twisted spirals, we have clearly demonstrated our ability to produce truly complex designs. The project fits seamlessly into the aesthetic of contemporary architecture, combining practical functionality with decorative elements and lending Broadway Street in San Diego a more futuristic and prestigious appearance.

WAGO Factory, Wróblowice

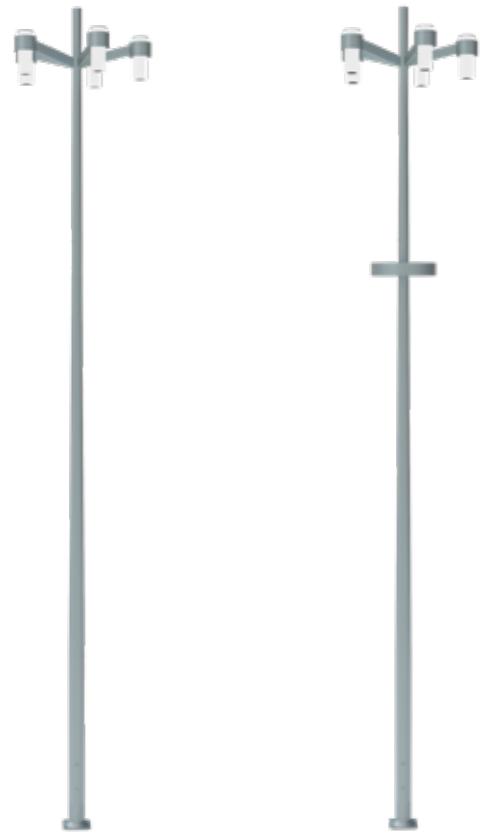
A perfect example of creating a bespoke lighting system is our project for WAGO, originally intended for installation in Wróblowice. The client's objective was for the lighting around the factory to reflect their flagship product – the CAGE CLAMP used in cable connections. We took on this challenge by designing unique lighting systems, the key element of which is a black anodised column, inspired by the form of an insulated cable. The top section of the column, representing an uninsulated copper conductor, is finished in a champagne colour. The design is completed by a precisely recreated clamp, inspired by the iconic CAGE CLAMP system developed by WAGO, with characteristic bending angles faithfully reflecting the form of the original.



Central Square, Warsaw

We had the honour of participating in the revitalisation project of Plac Centralny in Warsaw. As part of the project, we manufactured nine lighting systems based on the MAL 11.5 masts, installed in the prestigious setting of Plac Defilad (Parade Square).

The lighting of Plac Centralny was closely aligned with the architectural concept, which draws on the historical urban layout of the area. The design of the lighting systems is inspired by candelabras designed around 1955 for Plac Defilad, offering a contemporary interpretation of these historic forms.



The new lighting systems are manufactured from aluminium, replacing previous steel solutions. This change highlights the growing importance of aluminium as a modern material, offering reduced weight, high corrosion resistance and enhanced durability, which directly contributes to extending the structure's lifespan and optimising its lifecycle performance.

The systems are also equipped with integrated mounting rings for additional equipment, such as cameras. The LED lighting serves both decorative and functional purposes and can be integrated with external control systems via a DALI interface.



Offida, Italy

Our project in Italy is an example of how modern design can engage in a subtle dialogue with its surroundings. The aim of the project was to create a distinctive lighting feature that would become a recognisable element of the public space, whilst blending harmoniously into the city's Mediterranean landscape.

The lighting system comprises slender, dynamically curved columns with an organic form.

The luminaires, with their gently rounded forms, have been integrated into the structure in a cohesive and functional way, ensuring even illumination of the space. The project demonstrates how technical infrastructure can become a distinctive element of landscape architecture, combining functionality with timeless aesthetics.

We make the impossible possible.

We respond to needs and bring the Client's vision to life, providing support and professional guidance at every stage of the project.



ROSA Designer: design your space!

The application is available at www.rosa.pl

Electronic products' catalogue

ROSA Designer electronic products' catalogue is a complete database of products: columns, extension arms, luminaires, and lighting sets. The wide selection of products allows for easy use of the catalogue and selection of components so that the **final effect meets not only visual but also technical expectations.**

Completion panel

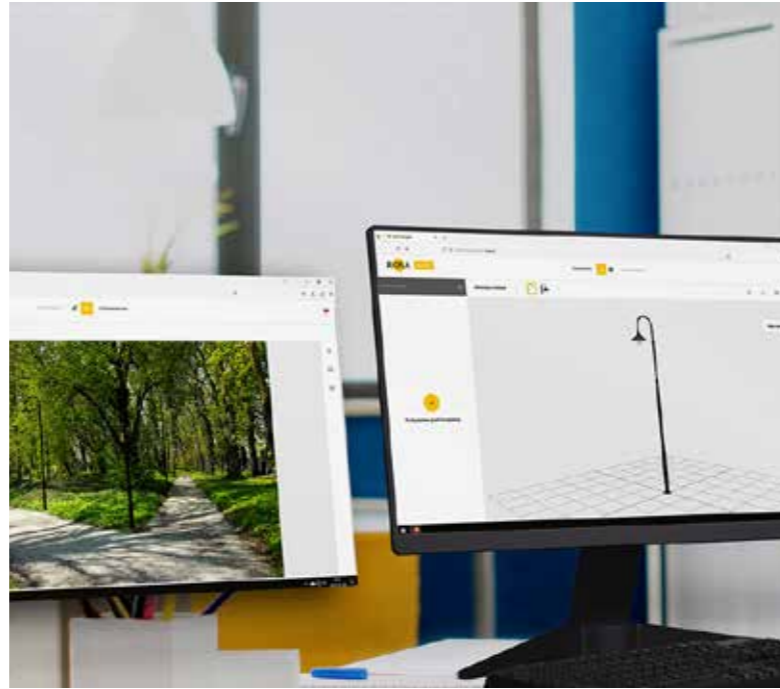
We have simplified the process of assembling a lighting set. The panel allows for quick and precise **assembly of compatible components.** Just a few clicks are all it takes to combine all the necessary products and specify their colour from the available anodising palette.

Spatial visualisation

No spatial imagination required – simply use the visualiser to see how the composed lighting set will look in a specific location.

Take a photo of a street or square and design the lighting.

Explore all the available options! Go to the Designer and prepare your own configuration. If in doubt, the application manual is available on the website.



Smart City: Smart Lighting



Smart City

A smart city is a concept of a better life, focused on **improving the quality of shared capital, the environment, and technology.** The implementation of smart solutions and the digitisation of cities are processes of modernising urban infrastructure, thanks to which currently transformed resources can serve as a basis for future improvements and innovations

Smart Lighting

Modern city concepts assume the introduction of solutions enabling efficient, **intelligent lighting control.** Our luminaires offer such possibilities. Innovative **programming of luminaires with LED light** sources allows for reduced energy consumption while increasing lighting efficiency.


























Electric Vehicle Charging Stations

We have introduced **charging stations integrated with lighting columns,** allowing for maximum utilisation of available space and facilitating the development of charging infrastructure.

Available solutions include:

- **SAL EV** – anodised aluminium columns equipped with electric vehicle charging points. Integrating lighting and charging functions allows the **use of existing power connections,** significantly simplifying installation and eliminating the need for additional, costly work.
- **KARIN LED EV** – compact lighting columns offering an **alternative to tall columns.** They are frequently used in residential areas, hotels, restaurants, and municipal parking lots. The **KARIN LED EV BASIC** version is also available, designed for installation on private properties.

Symbols

	Ecological material
	ENEC certified
	ENEC+ certified
	Symbol CE
	Symbol CE, Standard EN 40
	Qualanod certificate
	Zhaga-D4i certificate
	Insulation class I
	Insulation class II
	Input voltage 220-240 V at a frequency of 50-60 Hz
	Input voltage 100-240 V at a frequency of 50-60 Hz
	Input voltage 220-240 V at a frequency of 50-60 Hz
	Input voltage 230 V at a frequency of 50-60 Hz
	Input voltage 400 V at a frequency of 50-60 Hz
	Surge protection device 10 kV
	Possibility to connect to an external control system via DALI
	Protected against 5 joules of impact
	Protected against 10 joules of impact
	Protected against 20 joules of impact
	Material aluminium
	100-NE-C-S-SE-MD-0 – energy absorption levels according to standard EN 12767:2019
	Operating temperature range from -40° to +40°
	Operating temperature range from -40° to +55°
	The option of anodising in 10 colours
	Choice of elastomer colour according to the RAL palette

Straight aluminium columns

ø114 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 mm

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

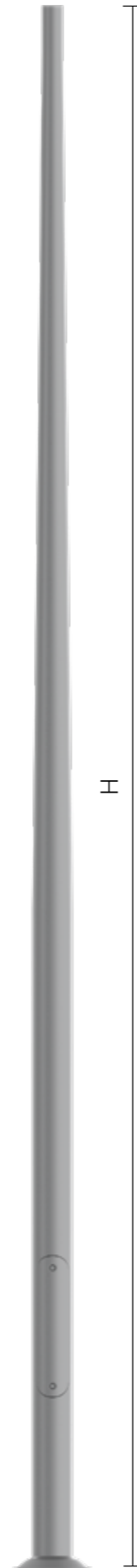
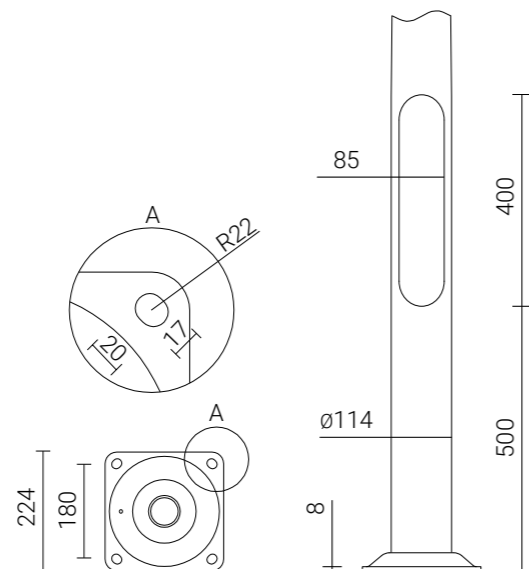


Column type	SAL-3/B60	SAL-3,5/B60	SAL-4/B60	SAL-4,5/B60	SAL-5/B60
Height of the column H [mm]	3 000	3 500	4 000	4 500	5 000
Code	42120/C...	42101/C...	42102/C...	42103/C...	42127/C...
Net weight [kg]	8,7	10	11,3	12,7	14,2
Approximate unit volume [m³]*	0,067	0,078	0,09	0,1	0,11
Recommended luminaires for column top mounting	ISKRA LED ALFA, ISKRA LED ALFA PROG, CUDDLE MINI LED REG, ELBA LED, ELBA II LED, ATLANTIS LED, MIRA LED				
Recommended extension arms and luminaires	WA-14S/1 - luminaire OW LED, DROP LED; WR-4/1/0,5/5 ZP - luminaire ISKRA LED, CUDDLE MINI LED				
Concrete footing / reinforcement basket type	B-50 / Z-50				
Threaded anchor ending	4xM14				
Concrete footing / reinforcement basket code	311150 / 311205				
Fasteners	4006				
Dimension of the base plate (side / bolt spacing / thickness) [mm]	224 / 180 / 8				

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Base-plate of aluminium column
224x180x8



H



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø114 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 mm

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

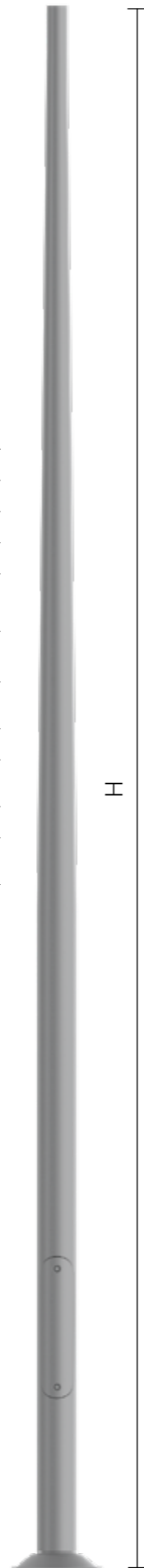
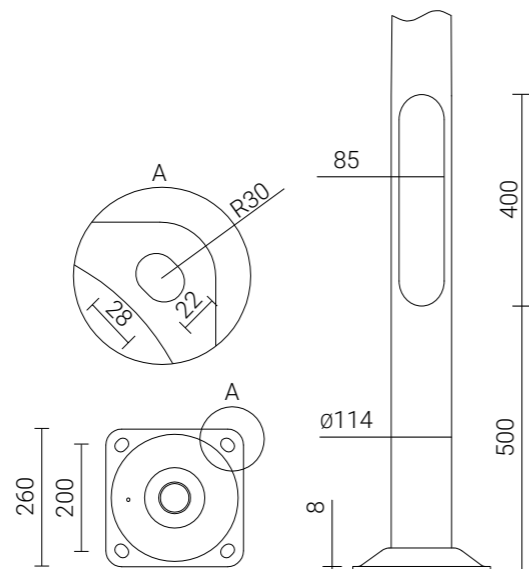


Column type	SAL-3/D60	SAL-3,5/D60	SAL-4/D60	SAL-4,5/D60	SAL-5/D60
Height of the column H [mm]	3 000	3 500	4 000	4 500	5 000
Code	42122/C...	42114/C...	42115/C...	42116/C...	42128/C...
Net weight [kg]	9,1	10,4	11,7	13,1	14,6
Approximate unit volume [m ³]*	0,087	0,101	0,115	0,13	0,145
Recommended luminaires for column top mounting	ISKRA LED ALFA, ISKRA LED ALFA PROG, CUDDLE MINI LED REG, ELBA LED, ELBA II LED, ATLANTIS LED, MIRA LED				
Recommended extension arms and luminaires	WA-14S/1 - luminaire OW LED, DROP LED; WR-4/1/0,5/5 ZP - luminaire ISKRA LED, CUDDLE MINI LED				
Concrete footing / reinforcement basket type	B-51 / Z-51				
Threaded anchor ending	4xM18				
Concrete footing / reinforcement basket code	311151 / 311251				
Fasteners	4008				
Dimension of the base plate (side / bolt spacing / thickness) [mm]	260 / 200 / 8				

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Ending of aluminium column



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø114 mm at ground level

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 mm

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

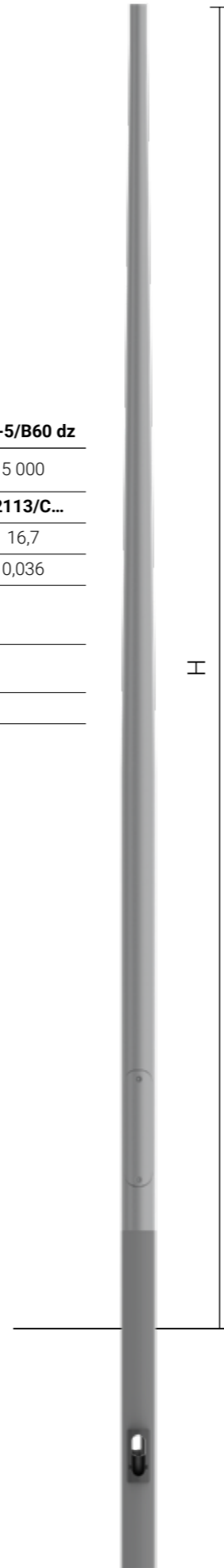
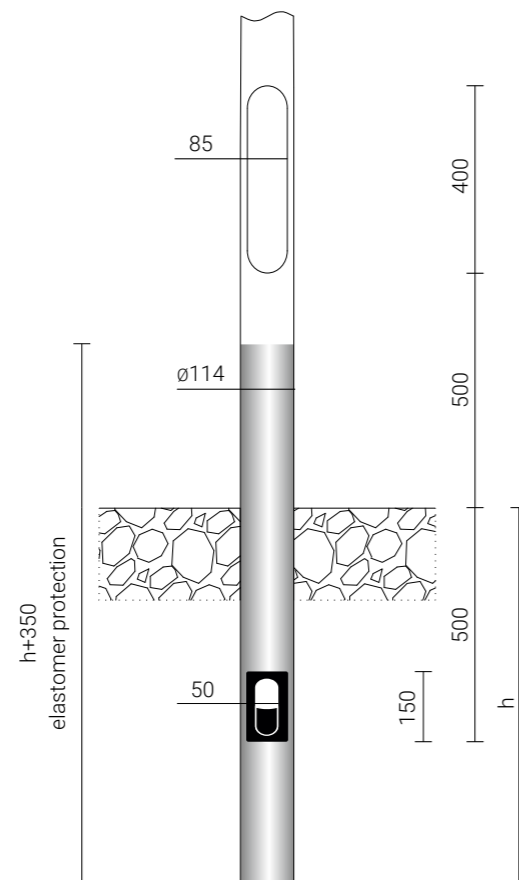


Column type	SAL-3/B60 dz	SAL-3,5/B60 dz	SAL-4/B60 dz	SAL-4,5/B60 dz	SAL-5/B60 dz
Height of the column at ground level [mm]	3 000	3500	4 000	4 500	5 000
Code	42124/C...	42108/C...	42111/C...	42107/C...	42113/C...
Net weight [kg]	11,3	12,5	13,9	15,2	16,7
Approximate unit volume [m³]*	0,024	0,027	0,03	0,033	0,036
Recommended luminaires for column top mounting	ISKRA LED ALFA, ISKRA LED ALFA PROG, CUDDLE MINI LED REG, ELBA LED, ELBA II LED, ATLANTIS LED, MIRA LED				
Recommended extension arms and luminaires	WA-14S/1 - luminaire OW LED, DROP LED; WR-4/1/0,5/5 ZP - luminaire ISKRA LED, CUDDLE MINI LED				
Rooted section h [mm]	800				

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Elastomer protection for rooted anodised aluminium columns



H



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø120 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 mm

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

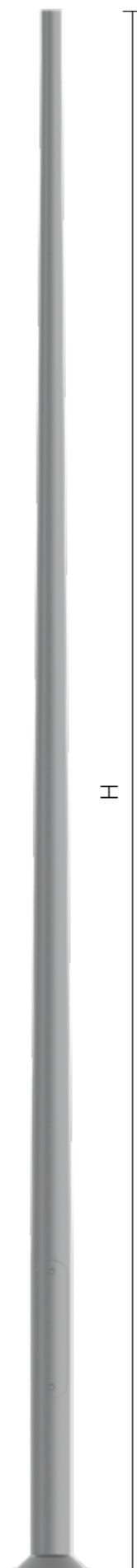
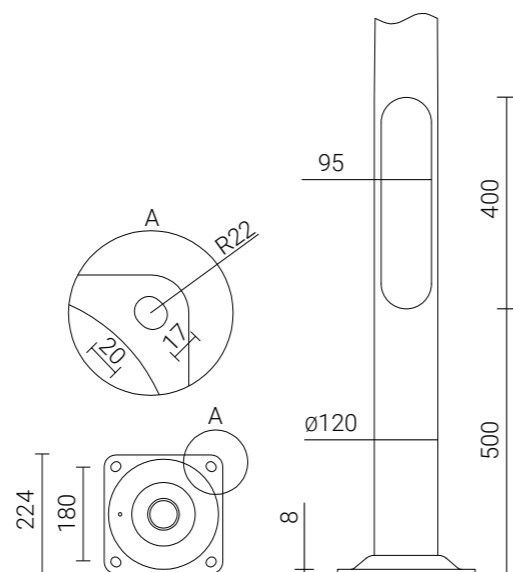


Column type	SAL-4	SAL-4,5	SAL-5	SAL-5,5	SAL-6
Height of the column H [mm]	4 000	4 500	5 000	5 500	6 000
Code	42201/C...	42202/C...	42203/C...	42205/C...	42207/C...
Net weight [kg]	14,8	16,4	17,6	19,6	20,6
Approximate unit volume [m ³]*	0,09	0,101	0,112	0,123	0,134
Recommended luminaires for column top mounting	ISKRA LED ALFA, ISKRA LED P ALFA, ELBA LED, ELBA II LED, CUDDLE MINI LED REG, COSMO DELTA LED, MIRA LED, MIZAR LED				
Recommended extension arms and luminaires	WA-14S/1 - luminaire OW LED, DROP LED; WR-4/1/0,5/5 ZP - luminaire ISKRA LED, CUDDLE MINI LED		WA-14S/2 - luminaire OW LED, DROP LED		
Concrete footing / reinforcement basket type	B-50 / Z-50				
Threaded anchor ending	4xM14				
Concrete footing / reinforcement basket code	311150 / 311205				
Fasteners	4006				
Dimension of the base plate (side / bolt spacing / thickness) [mm]	224 / 180 / 8				

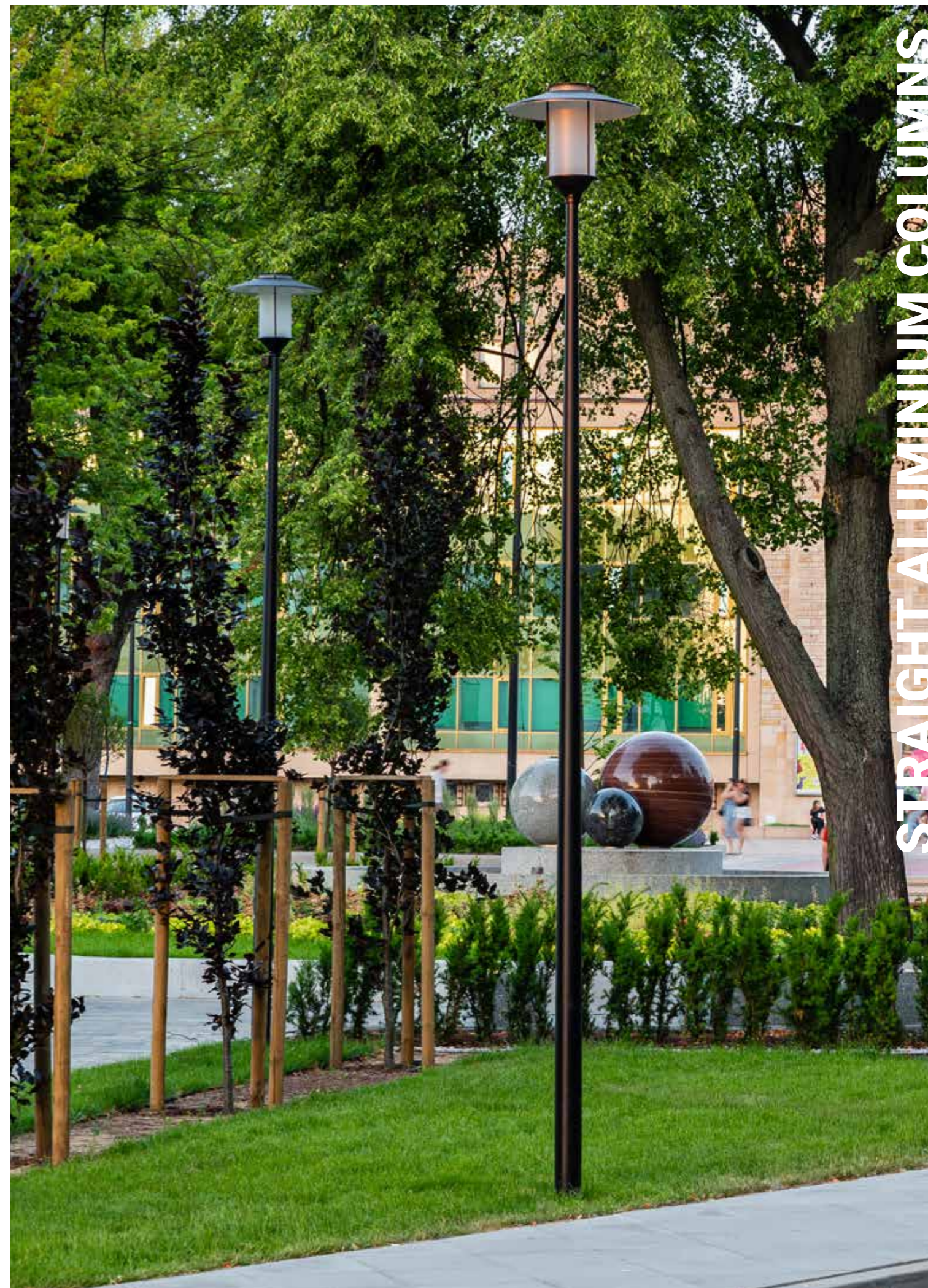
* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Base-plate of aluminium column
224x180x8



H



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø120 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 mm

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

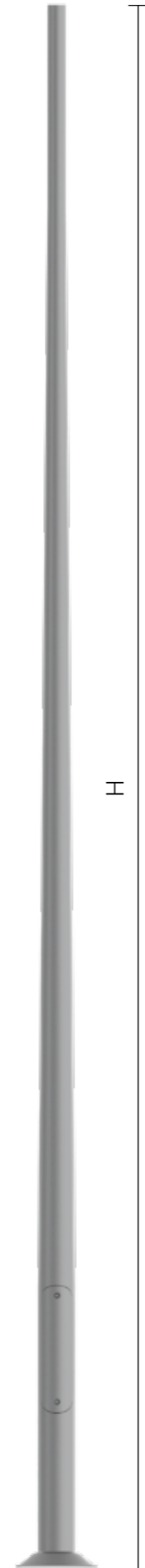
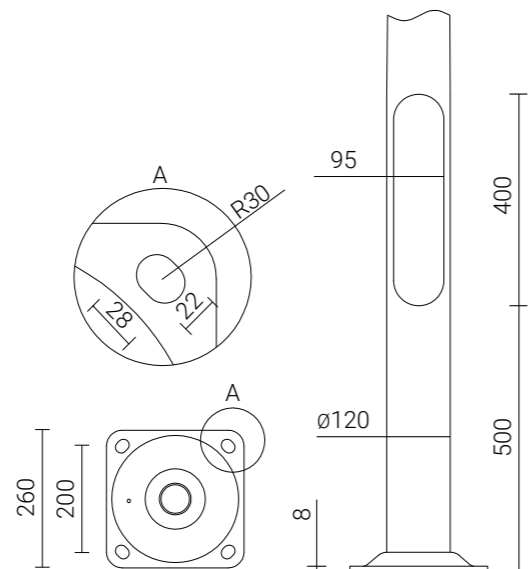


Column type	SAL-4E	SAL-5E	SAL-6E
Height of the column H [mm]	4 000	5 000	6 000
Code	42217/C...	42219/C...	42223/C...
Net weight [kg]	15,2	18	21
Approximate unit volume [m ³]*	0,116	0,145	0,174
Recommended luminaires for column top mounting	ISKRA LED ALFA, ISKRA LED P ALFA, ELBA LED, ELBA II LED, CUDDLE MINI LED REG, COSMO DELTA LED, MIRA LED, MIZAR LED RING 1 LED head type 'A', RING 2 LED head type 'A', RING 3 LED head type 'A'		
Recommended extension arms and luminaires	WA-14S/1 - luminaire OW LED, DROP LED; WR-4/1/0,5/5 ZP - ISKRA LED, CUDDLE MINI LED WA-14S/2 - luminaire OW LED, DROP LED		
Concrete footing / reinforcement basket type	B-51 / Z-51		
Threaded anchor ending	4xM18		
Concrete footing / reinforcement basket code	311151 / 311251		
Fasteners	4008		
Dimension of the base plate (side / bolt spacing / thickness) [mm]	260 / 200 / 8		

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Laser cut aluminium column's wiring chamber



H



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø120 mm at ground level

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 mm

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

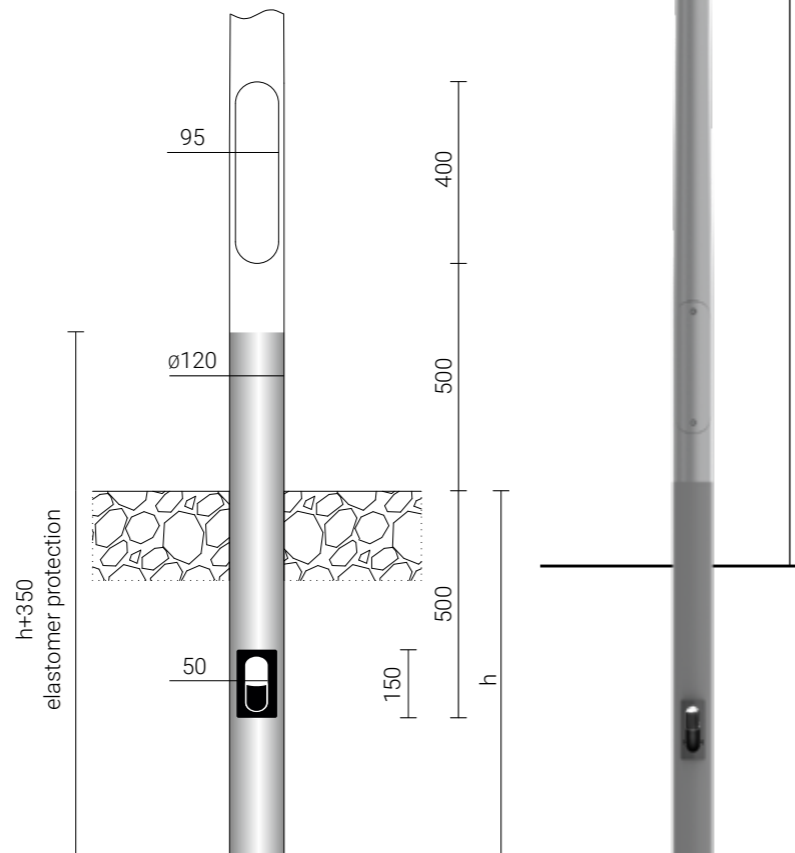


Column type	SAL-4 dz	SAL-4,5 dz	SAL-5 dz
Height of the column at ground level H [mm]	4 000	4 500	5 000
Code	42231/C...	42232/C...	42233/C...
Net weight [kg]	18,3	19,9	21,1
Approximate unit volume [m ³]*	0,032	0,035	0,039
Recommended luminaires for column top mounting	ISKRA LED ALFA, ISKRA LED P ALFA, ISKRA LED ALFA PROG, ISKRA LED P ALFA PROG, CUDDLE MINI LED REG, ELBA LED, ELBA II LED, ATLANTIS LED, MIRA LED, MIZAR LED		
Recommended extension arms and luminaires	WA-41 f42 - luminaire OW LED; WA-14S/1, WA-14S/2 - luminaire OW LED, DROP LED; WR-4/1/0,5/5 ZP - luminaire ISKRA LED, CUDDLE MINI LED		
Rooted section h [mm]	800		

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Holes for power cables in an aluminium rooted column



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø146 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 x 180 mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

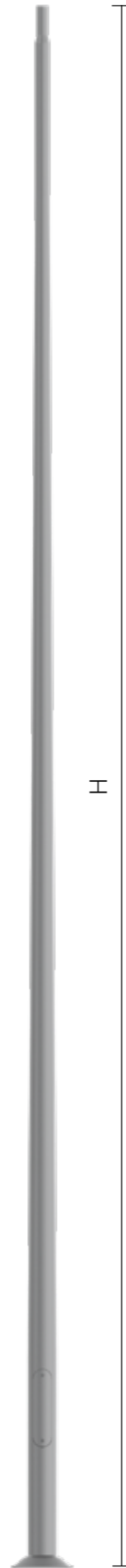
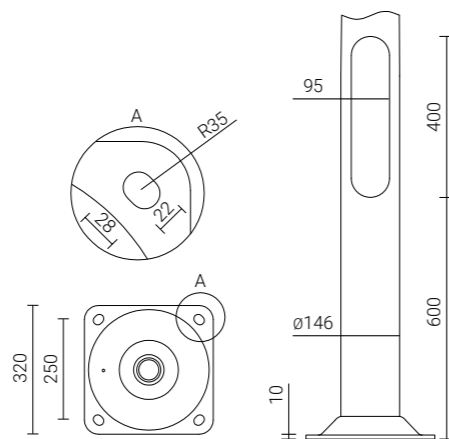


Column type	SAL-60	SAL-65	SAL-70	SAL-75	SAL-80
Height of the column H [mm]	6 000	6 500	7 000	7 500	8 000
Code	42313/C...	42314/C...	42315/C...	42316/C...	42317/C...
Net weight [kg]	26,3	28,6	30,6	33,6	36,4
Approximate unit volume [m³]*	0,265	0,287	0,309	0,331	0,353
Recommended luminaires for column top mounting	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B', CUDDLE MINI LED REG, CUDDLE II LED REG, COSMO DELTA LED, COSMO LED ALFA WR-4/1/0,5/5 ZP - luminaire CUDDLE MINI LED, CUDDLE II LED, COSMO LED; WN-1 - luminaire ARTEMIS LED				
Recommended extension arms and luminaires	WR-2/1/0,95/5, WR-4/1/1,0/5 ZP, WR-15/1/1,0/5 - luminaire CUDDLE MINI LED, CUDDLE II LED, CUDDLE II LED REG, COSMO LED; WR-10/1/0,85/0, WR-10P/1/0,85/0 ZP - luminaire ISKRA LED, ISKRA LED PROG; WN-2 - luminaire ARTEMIS LED				
Concrete footing / reinforcement basket type	B-60 / Z-60				
Threaded anchor ending	4xM18				
Concrete footing / reinforcement basket code	311160 / 311206				
Fasteners	4008				
Dimension of the base plate (side / bolt spacing / thickness) [mm]	320 / 250 / 10				

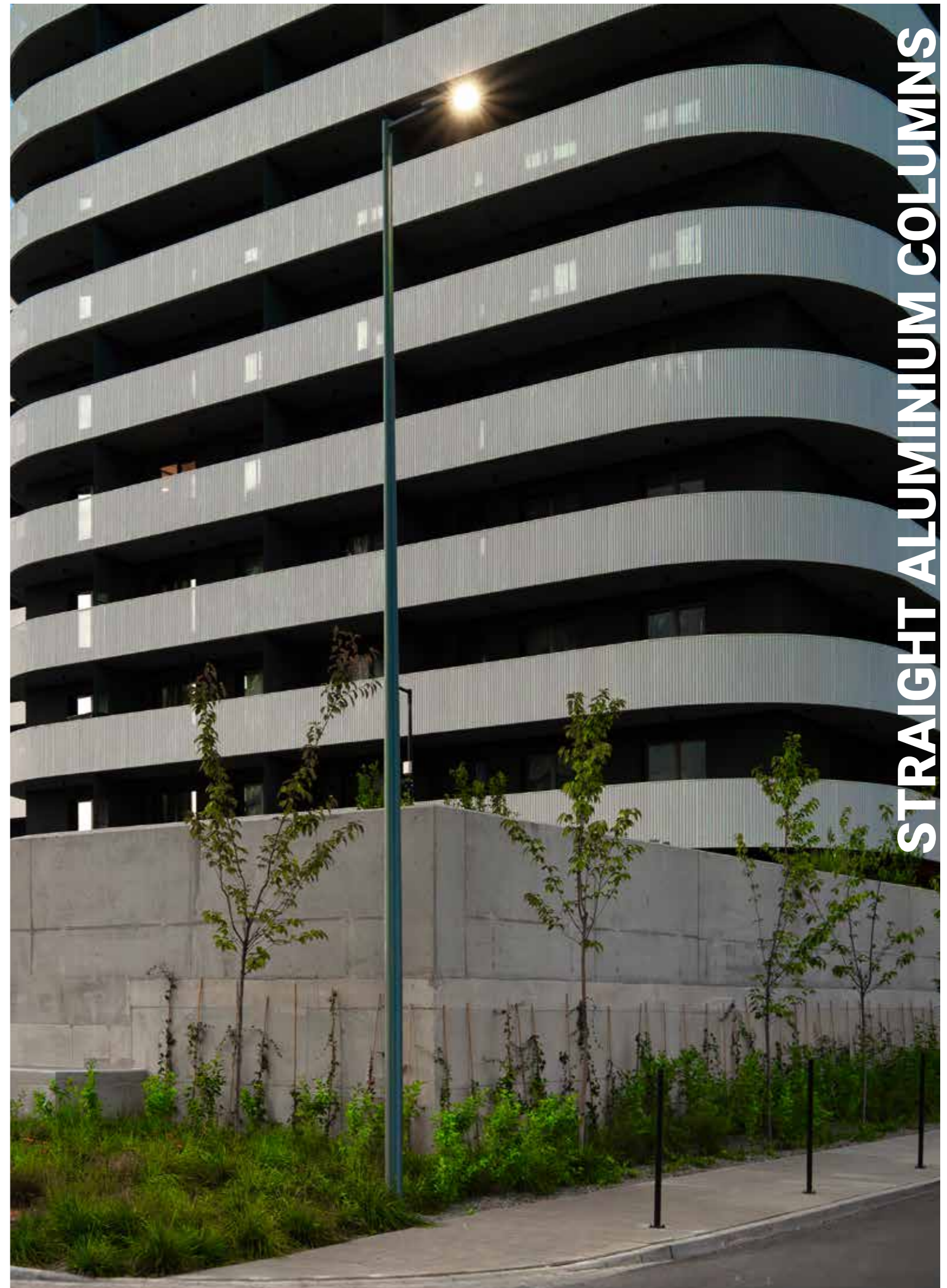
* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



A aluminium column ending, tapered to ø60



H



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø146 mm at ground level

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 x 180 mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

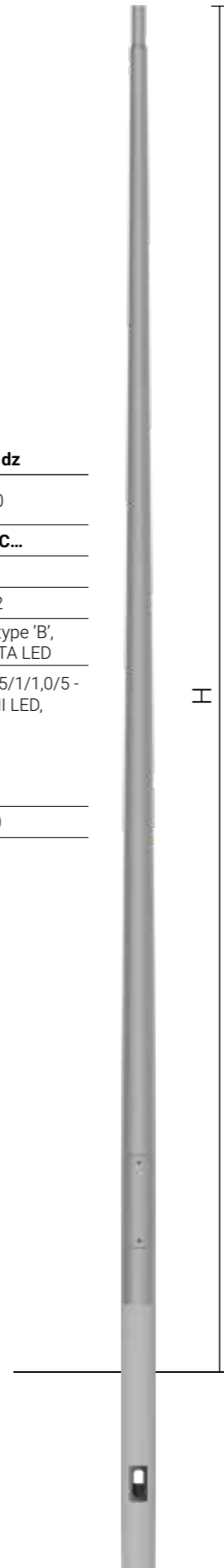
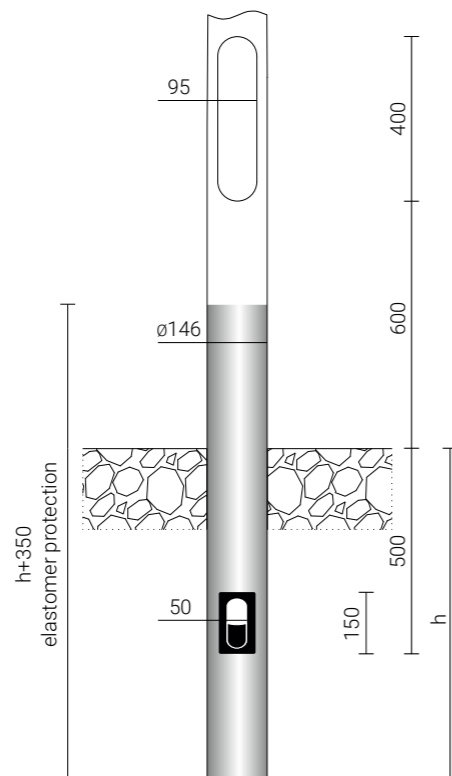


Column type	SAL-50 dz	SAL-60 dz	SAL-70 dz
Height of the column at ground level H [mm]	5 000	6 000	7 000
Code	42321/C...	42323/C...	42325/C...
Net weight [kg]	26,6	29,7	34,9
Approximate unit volume [m ³]*	0,058	0,069	0,082
Recommended luminaires for column top mounting	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B', CUDDLE II LED REG, CUDDLE MINI LED REG, MIZAR LED, COSMO DELTA LED		
Recommended extension arms and luminaires	WR-2/1/0,95/5, WR-4/2/1,0/5 ZP, WR-4/1/1,5/5 ZP, WR-8A/1/0,6/5, WR-15/1/1,0/5 - luminaire ISKRA LED, ISKRA LED PROG, CUDDLE MINI LED, CUDDLE II LED, COSMO LED; WR-10P/1/0,85/0 ZP - luminaire ISKRA LED, ISKRA LED PROG; WA-20S/1 - luminaire OW LED; WN-2 - luminaire ARTEMIS LED		
Rooted section h [mm]	800	800	1000

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Aluminium column wiring chamber with a mounting rail for a connection box



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø146 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 x 180 mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

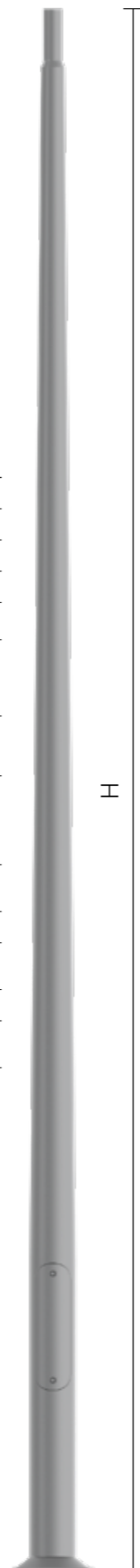
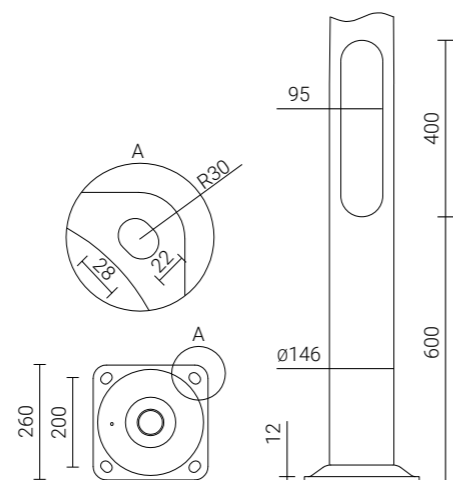


Column type	SAL-40G	SAL-50G	SAL-60G	SAL-70G
Height of the column H [mm]	4 000	5 000	6 000	7 000
Code	42342/C...	42341/C...	42343/C...	42345/C...
Net weight [kg]	19,7	22,8	25,5	29,8
Approximate unit volume [m ³]*	0,124	0,155	0,186	0,217
CUDDLE MINI LED REG				
Recommended luminaires for column top mounting	-	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B',		
WR-2/1/0,95/5, WR-4/1/0,5/5 ZP, WR-4/2/0,5/5 ZP- CUDDLE MINI LED, CUDDLE MINI LED REG				
Recommended extension arms and luminaires	WA-20S/1 - luminaire OW LED, DROP LED; WR-10P/1/0,85/0 ZP- luminaire ISKRA LED, ISKRA LED PROG		WR-14/1/1,0/5 - luminaire CUDDLE II LED, CUDDLE II LED REG, COSMO LED; WN-2 - luminaire ARTEMIS LED	
Concrete footing / reinforcement basket type	B-51 / Z-51			
Threaded anchor ending	4xM18			
Concrete footing / reinforcement basket code	311151 / 311251			
Fasteners	4008			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	260 / 200 / 12			

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



A aluminium column ending, tapered to ø60



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø146 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 x 180 mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

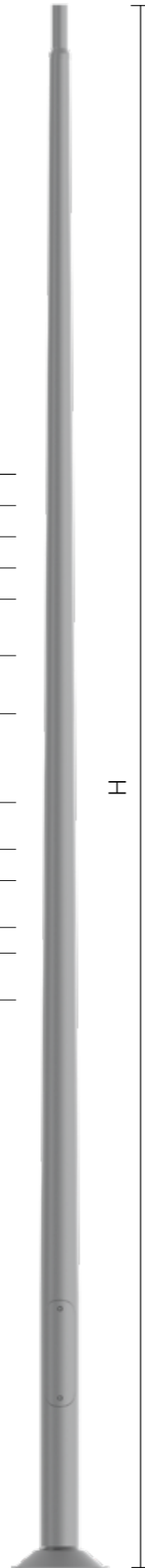
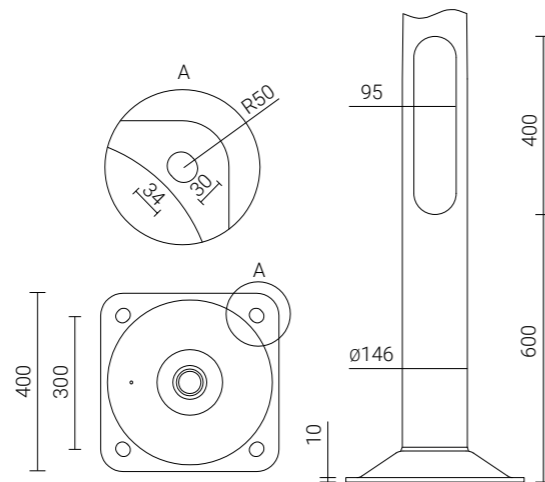


Column type	SAL-60H	SAL-70H	SAL-80H
Height of the column H [mm]	6 000	7 000	8 000
Code	42335/C...	42337/C...	42340/C...
Net weight [kg]	28	32,3	38,1
Approximate unit volume [m ³]*	0,392	0,458	0,523
Recommended luminaires for column top mounting	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B', CUDDLE MINI LED REG, CUDDLE II LED REG, COSMO DELTA LED, COSMO LED ALFA		
Recommended extension arms and luminaires	WR-4/1/1,0/5 ZP - luminaire CUDDLE II LED, CUDDLE II LED REG; WN-1, WN-2 - luminaire ARTEMIS LED		
Concrete footing / reinforcement basket type	B-71 / Z-71		
Threaded anchor ending	4xM24		
Concrete footing / reinforcement basket code	311171 / 311271		
Fasteners	4012		
Dimension of the base plate (side / bolt spacing / thickness)[mm]	400 / 300 / 10		

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Base-plate of aluminium column
400x300x10



H



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø178 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 x 180 mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

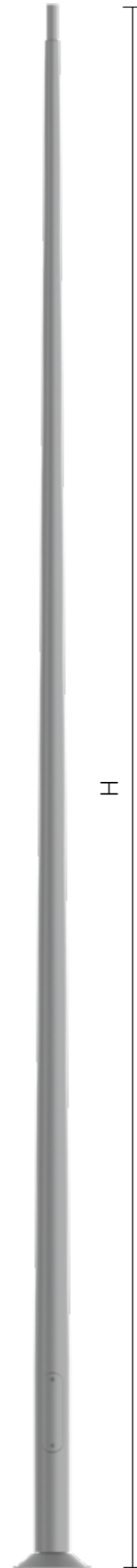
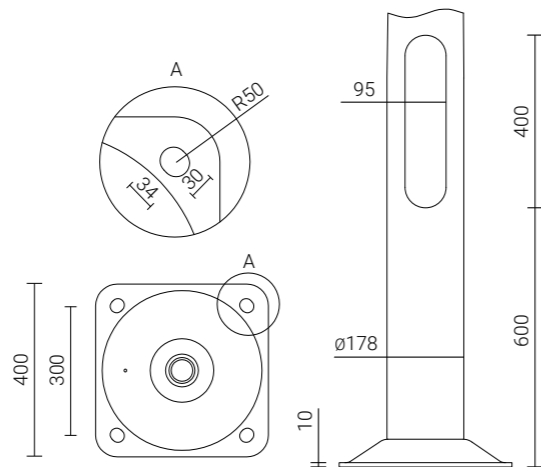


Column type	SAL-70K	SAL-80K	SAL-90K
Height of the column H [mm]	7 000	8 000	9 000
Code	42628/C...	42630/C...	42632/C...
Net weight [kg]	34,7	37	42,8
Approximate unit volume [m ³]*	0,458	0,523	0,589
COSMO LED ALFA, CUDDLE II LED REG			
Recommended luminaires for column top mounting	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B', CUDDLE MINI LED REG		-
Recommended extension arms and luminaires	WR-2/1/0,95/ 5, WR-2/2/0,95/5, WR-4/1/1,0/5 ZP, WR-4/2/1,0/5 ZP, WR-4/1/1,5/5 ZP; WR-15/1/1,0/5 , WR-15/2/1,0/5 - luminaire CUDDLE II LED, CUDDLE II LED REG, COSMO LED; WR-71/1/1,2, WR-71/2/1,2 - luminaire OW II LED, BELLA LED		
Concrete footing / reinforcement basket type	B-71 / Z-71	B-70, B-71 / Z-70, Z-71	
Threaded anchor ending	4xM24		
Concrete footing / reinforcement basket code	311171 / 311271	311170, 311171 / 311207, 311271	
Fasteners	4012		
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 10		

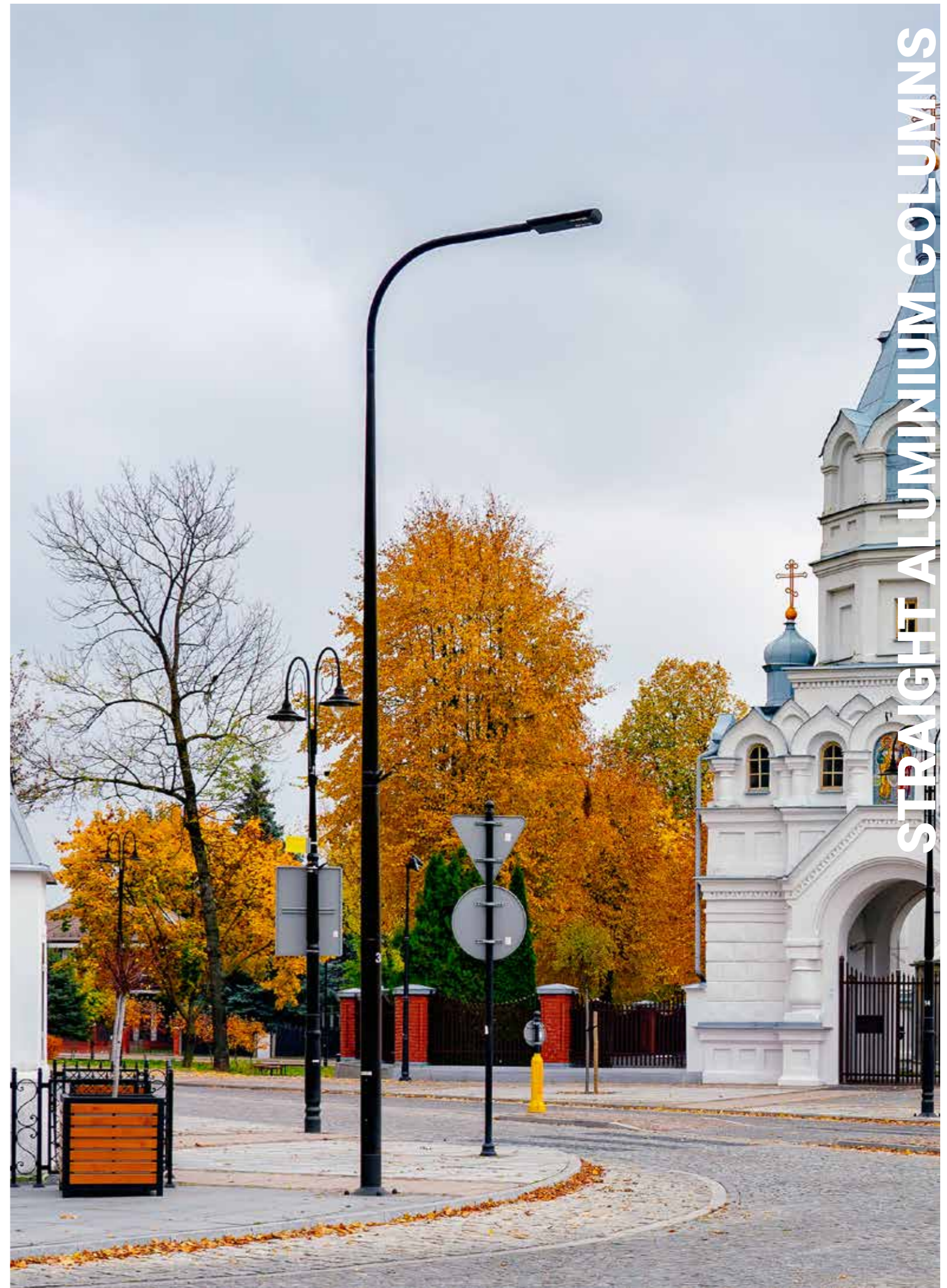
* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Laser cut aluminium column's wiring chamber



H



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø180 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 x 180 mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

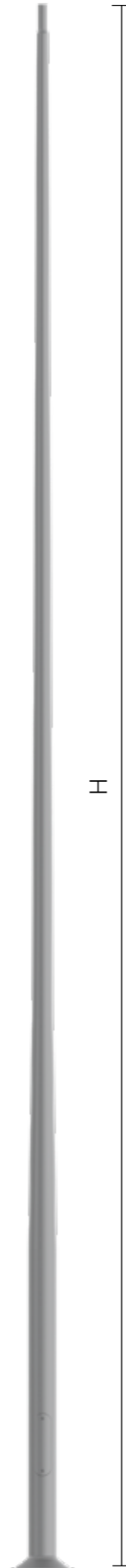
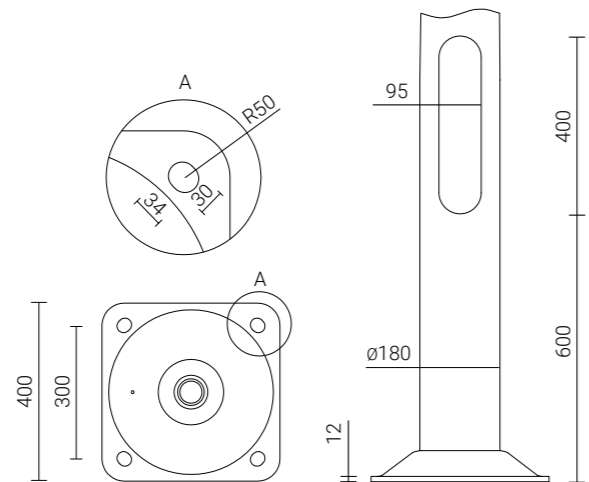


Column type	SAL-70M	SAL-80M	SAL-90M	SAL-100M
Height of the column H [mm]	7 000	8 000	9 000	10 000
Code	42753/C...	42755/C...	42757/C...	42759/C...
Net weight [kg]	42	44,5	51,5	56,3
Approximate unit volume [m ³]*	0,458	0,523	0,589	0,654
	COSMO LED ALFA, CUDDLE II LED REG			
Recommended luminaires for column top mounting	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B', CUDDLE MINI LED REG		-	
	WR-4/1/1,5/5 ZP, WR-4/2/1,5/5 ZP, WR-14/2/1,0/5 - luminaire CUDDLE II LED, CUDDLE II LED REG, COSMO LED			
Recommended extension arms and luminaires	WR-14/1/1,5/5, WR-18A/1/1,5/5, WRP/1/1,0/0,7/5 - luminaire CUDDLE II LED, CUDDLE II LED REG, COSMO LED; WR-71/1/1,2, WR-71/2/1,2 - luminaire OW II LED, BELLA LED		-	
Concrete footing / reinforcement basket type	B-70, B-71 / Z-70, Z-71			
Threaded anchor ending	4xM24			
Concrete footing / reinforcement basket code	311170, 311171 / 311207, 311271			
Fasteners	4012			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12			

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Aluminium column wiring chamber with a mounting rail for a connection box



H



STRAIGHT ALUMINIUM COLUMNS

Straight aluminium columns

ø178 and ø180 mm at ground level

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 x 180 mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

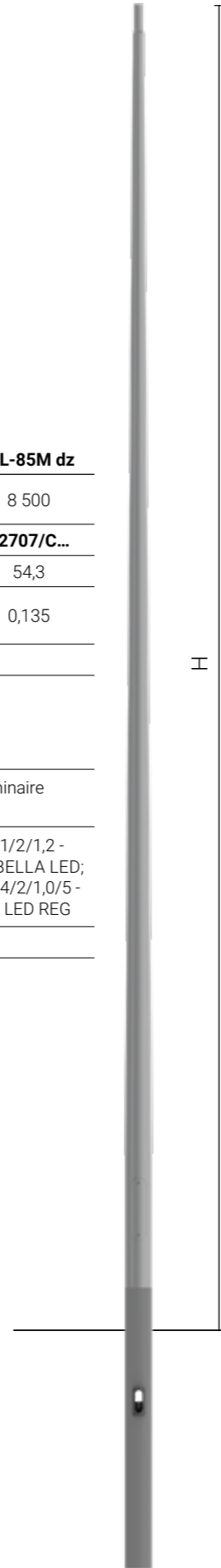
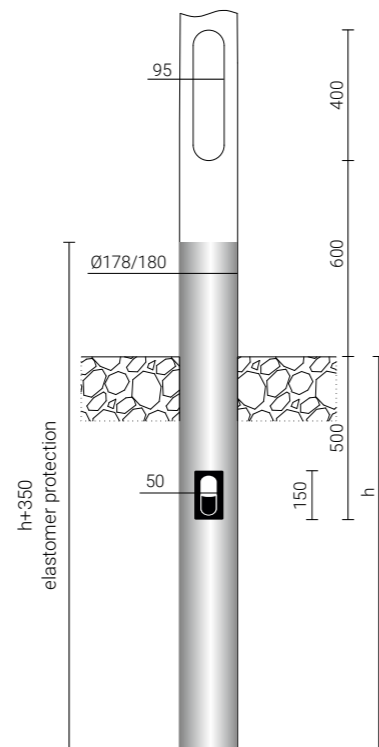


Column type	SAL-70K dz	SAL-80K dz	SAL-85K dz	SAL-80M dz	SAL-85M dz
Height of the column at ground level H [mm]	7 000	8 000	8 500	8 000	8 500
Code	42604/C...	42606/C...	42607/C...	42706/C...	42707/C...
Net weight [kg]	37,9	41,8	45,1	51,7	54,3
Approximate unit volume [m ³]*	0,109	0,123	0,133	0,128	0,135
COSMO LED ALFA, CUDDLE II LED REG					
Recommended luminaires for column top mounting	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B', CUDDLE MINI LED REG		-		
Recommended extension arms and luminaires	-		WR-2/2/0,95/5, WR-15/2/1,0/5, WR-4/1/1,5/5 ZP, WRP-1/1,0/0,7/5 - luminaire CUDDLE II LED, CUDDLE II LED REG, COSMO LED		
Rooted section h [mm]	1 200		1 500		

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Elastomer protection for rooted anodised aluminium columns



I



STRAIGHT ALUMINIUM COLUMNS

Aluminium columns with welded extension arms

ø120 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

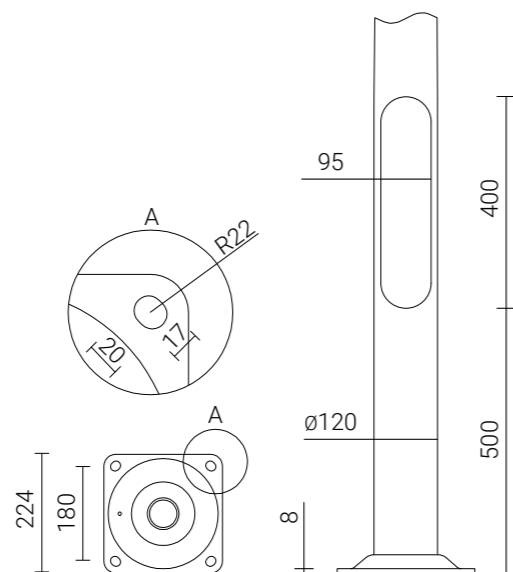


Column type	SAL-A1	SAL-D1
Height of the column [mm]	4 000	4 000
Code	42209/C...	42215/C...
Net weight [kg]	15,9	16,3
Approximate unit volume [m ³]*	0,263	0,282
Recommended luminaires for column top mounting	ELBA LED, ELBA II LED, OS-1 LED, OS-11 LED	
Concrete footing / reinforcement basket type	B-50 / Z-50	
Threaded anchor ending	4xM14	
Concrete footing / reinforcement basket code	311150 / 311205	
Fasteners	4006	
Dimension of the base plate (side / bolt spacing / thickness) [mm]	224 / 180 / 8	

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging. /C... – choice of anodising colour

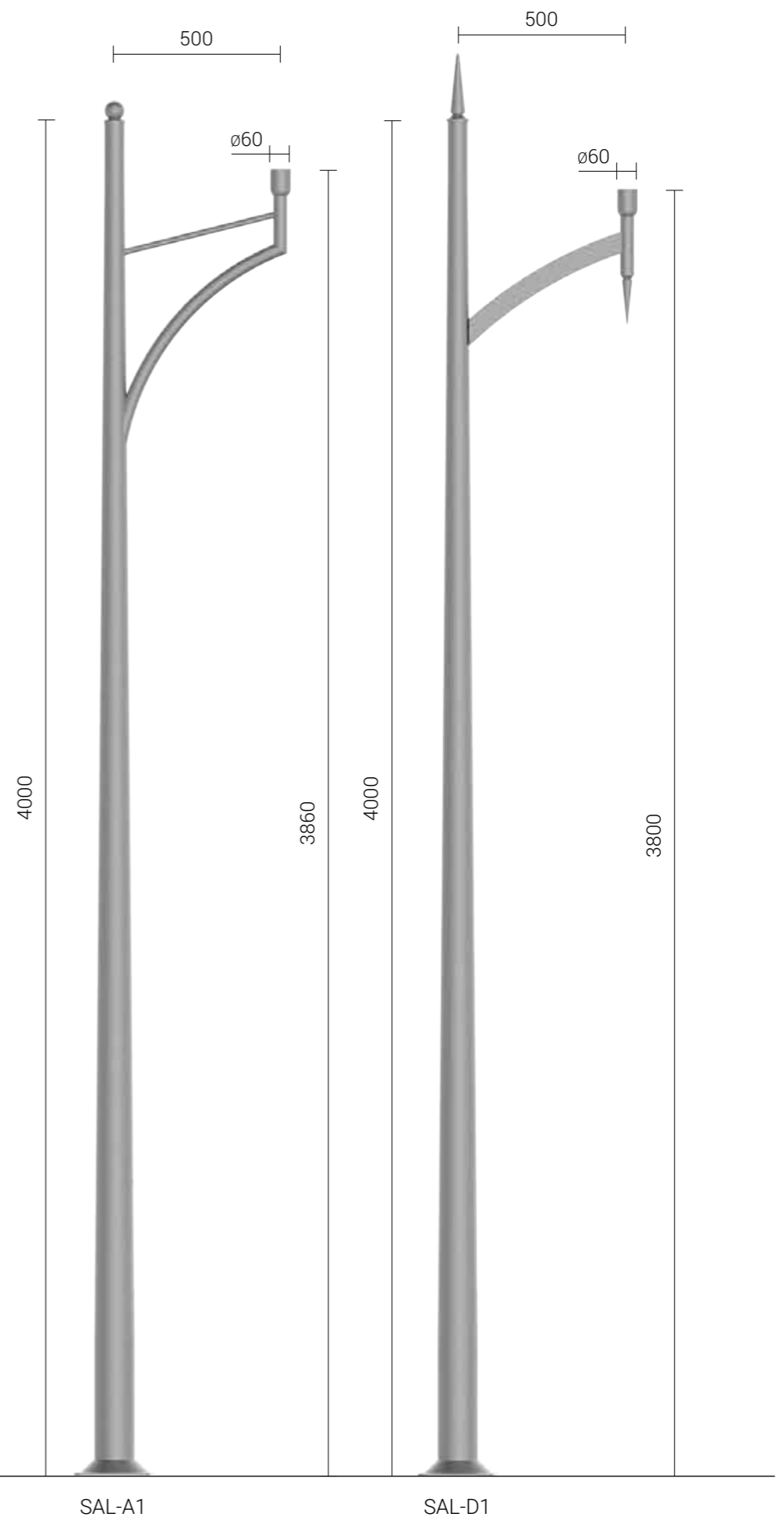


Assembly of aluminium column's cover



Luminaire: OS-1 LED

Column: SAL-A1



SAL-A1

SAL-D1

Aluminium columns with welded extension arms

ø146 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the extension arm, luminaires with ø42 or ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

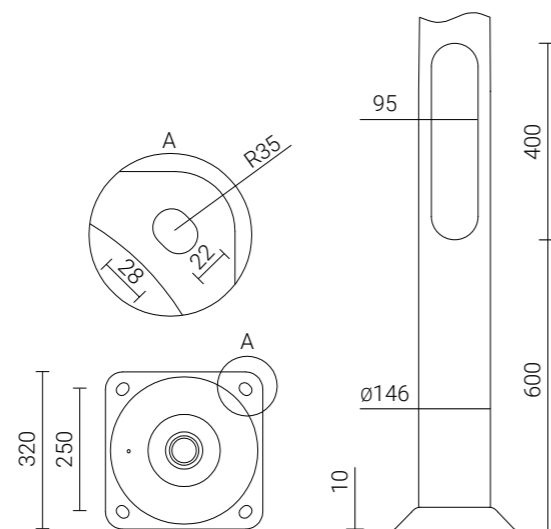


Column type	SAL-K1 ZP	SAL-M1 ZP	SAL-N12/5
Height of the column [mm]	6 000	6 000	8 000
Code	423309/C...	423089/C...	4234711/C...
Net weight [kg]	27,2	27,7	38,8
Approximate unit volume [m ³]*	0,67	0,661	1,21
Recommended luminaires for column top mounting	OW LED, DROP LED		CUDDLE MINI LED, CUDDLE MINI LED REG, CUDDLE II LED, CUDDLE II LED REG, COSMO LED
Concrete footing / reinforcement basket type	B-60 / Z-60		
Threaded anchor ending	4xM18		
Concrete footing / reinforcement basket code	311160 / 311206		
Fasteners	4008		
Dimension of the base plate (side / bolt spacing / thickness) [mm]	320 / 250 / 10		

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour

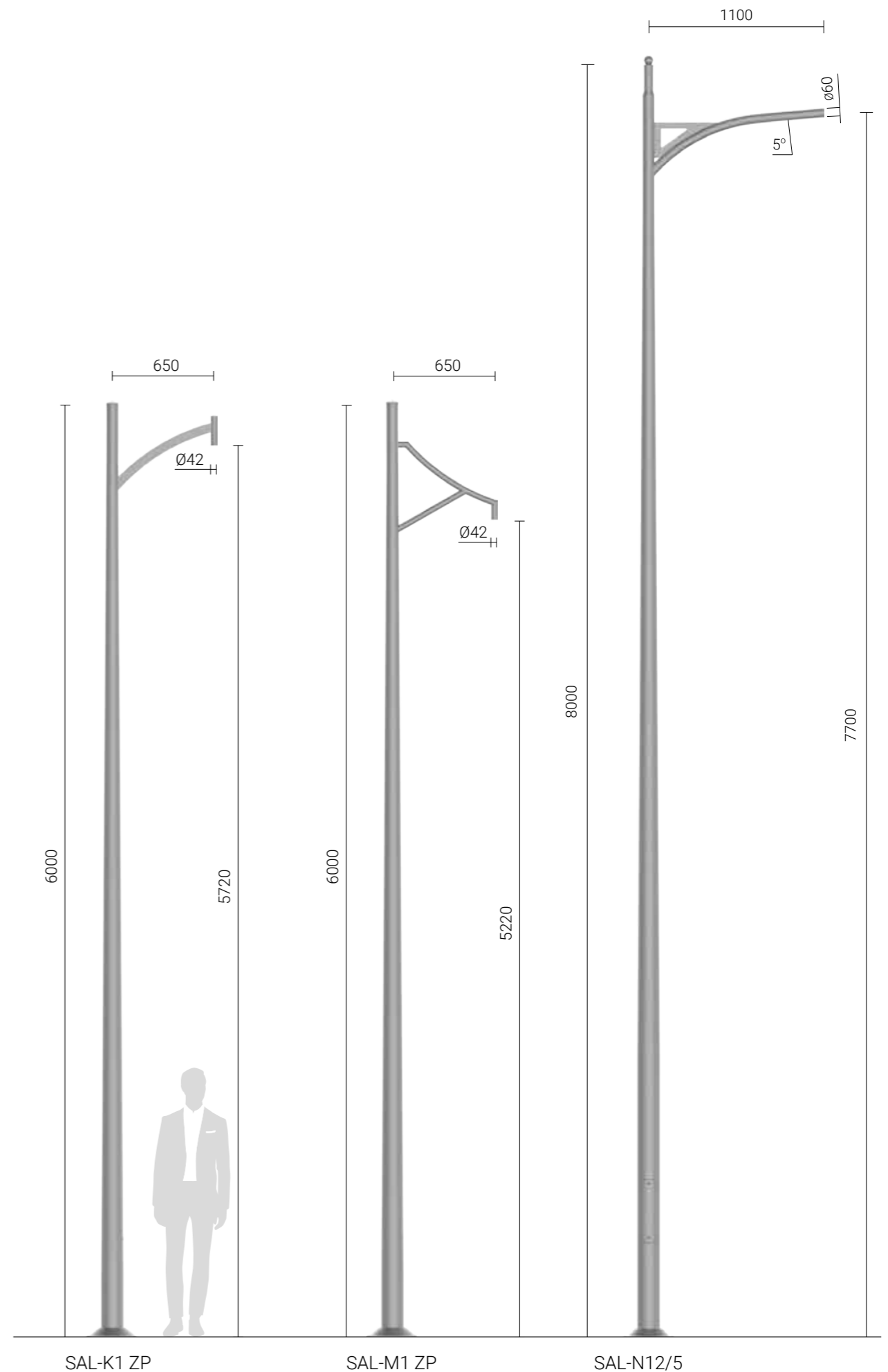


Base-plate of aluminium column
320x250x10



Luminaire: DROP LED

Column: SAL-K1 ZP



SAL-K1 ZP

SAL-M1 ZP

SAL-N12/5

Aluminium columns with welded extension arms

ø146 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

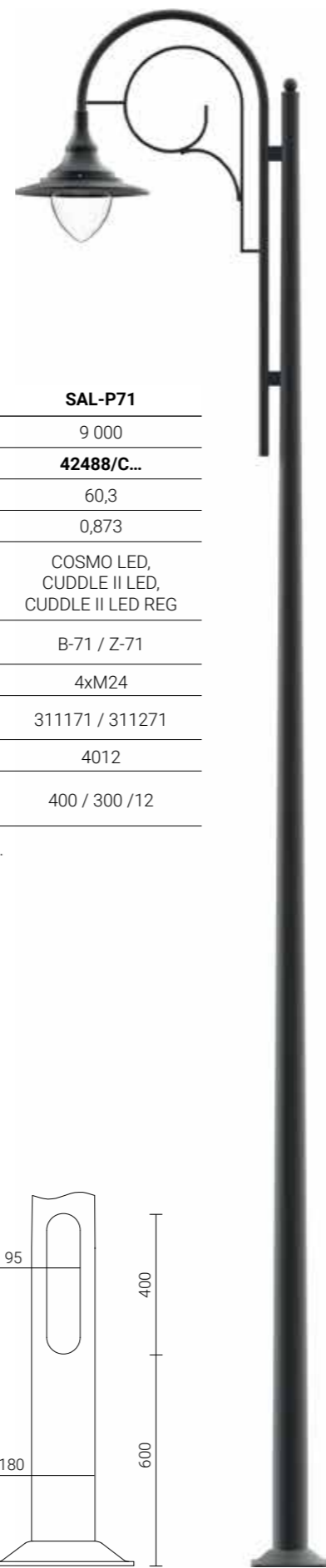
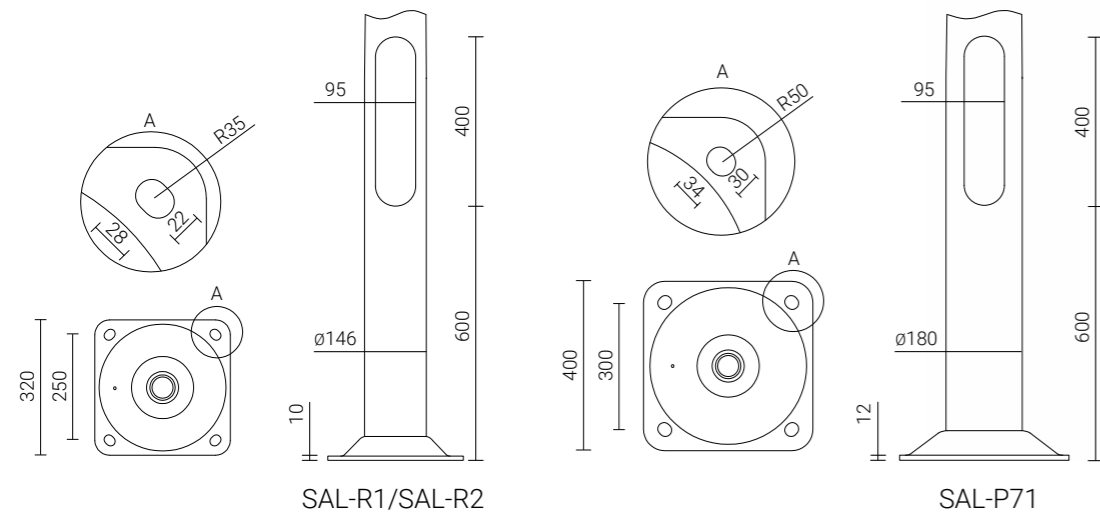
Protection class: IP 44 for the wiring chamber

Luminaire mounting: directly on the extension arm, luminaires with ø42 or ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet



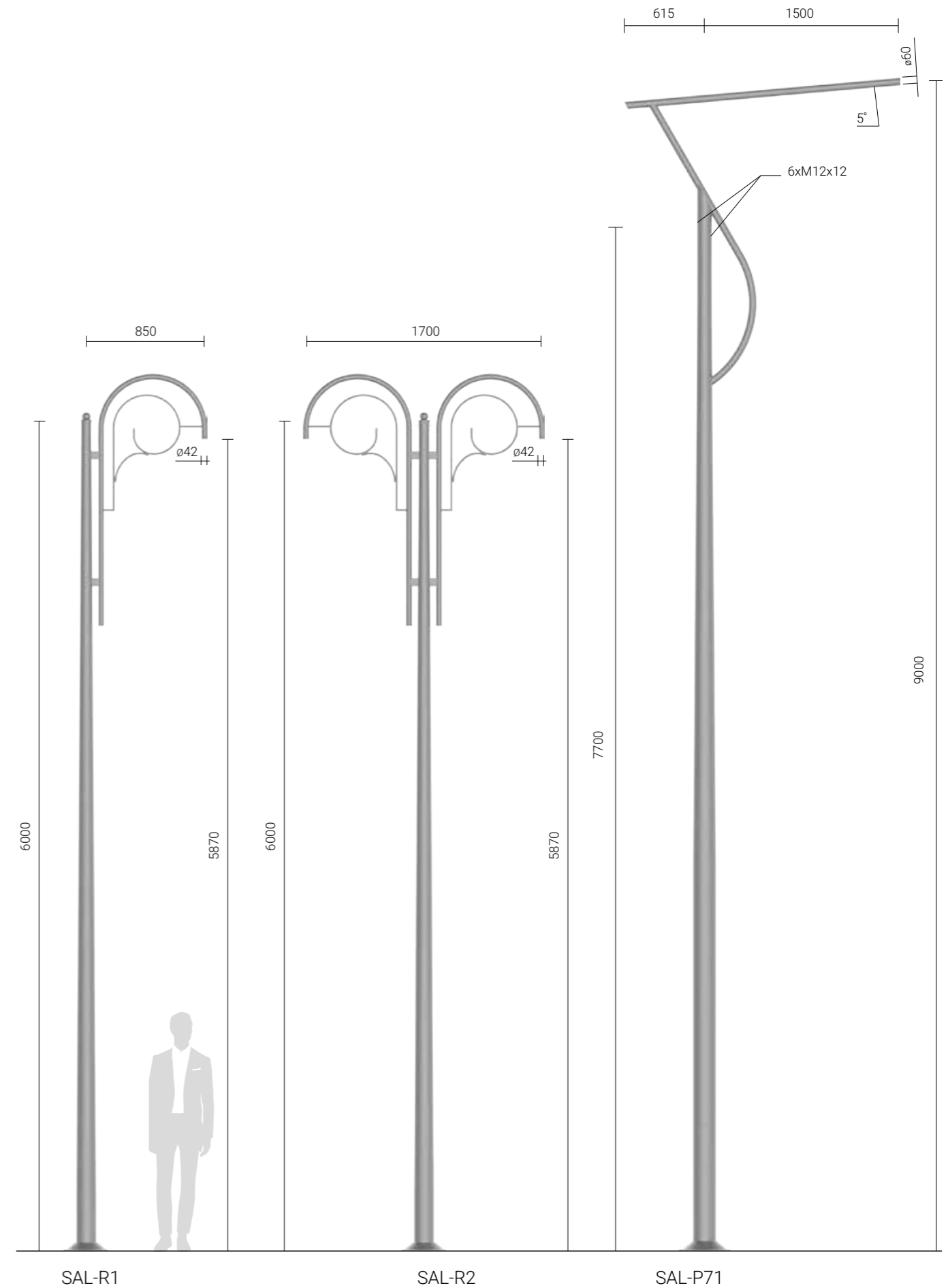
Column type	SAL-R1	SAL-R2	SAL-P71
Height of the column [mm]	6 000	6 000	9 000
Code	42334/C...	42311/C...	42488/C...
Net weight [kg]	30	33,6	60,3
Approximate unit volume [m³]*	0,831	1,306	0,873
Recommended luminaires for column top mounting	OW LED, DROP LED		COSMO LED, CUDDLE II LED, CUDDLE II LED REG
Concrete footing / reinforcement basket type	B-60 / Z-60		B-71 / Z-71
Threaded anchor ending	4xM18		4xM24
Concrete footing / reinforcement basket code	311160 / 311206		311171 / 311271
Fasteners	4008		4012
Dimension of the base plate (side / bolt spacing / thickness) [mm]	320 / 250 / 10		400 / 300 / 12

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Column: SAL-R1

Luminaire: OW LED + DIFFUSER



SAL-R1

SAL-R2

SAL-P71

Aluminium columns with welded extension arms

ø176 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: ø60 mm

Protection class: IP 54 for the wiring chamber (SAL-P11, SAL-P12)

Luminaire mounting: directly on the extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

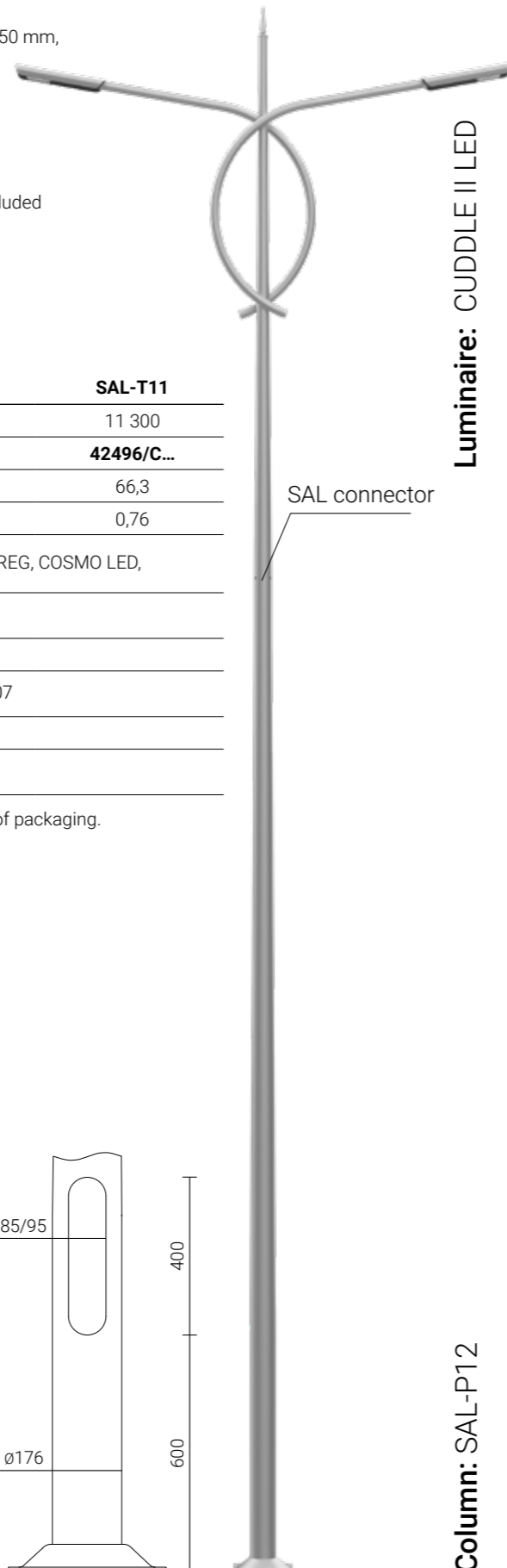
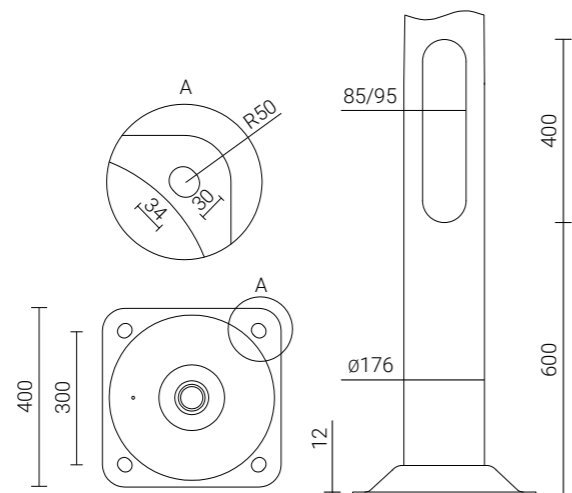


Column type	SAL-P11	SAL-P12	SAL-T11
Height of the column [mm]	10 300	10 300	11 300
Code	42481/C...	42482/C...	42496/C...
Net weight [kg]	60,3	65,2	66,3
Approximate unit volume [m ³]*	1,03	1,42	0,76
Recommended luminaires for column top mounting	CUDDLE II LED, CUDDLE II LED REG, COSMO LED,		
Concrete footing / reinforcement basket type	B-70 / Z-70		
Threaded anchor ending	4xM24		
Concrete footing / reinforcement basket code	311170 / 311207		
Fasteners	4012		
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12		

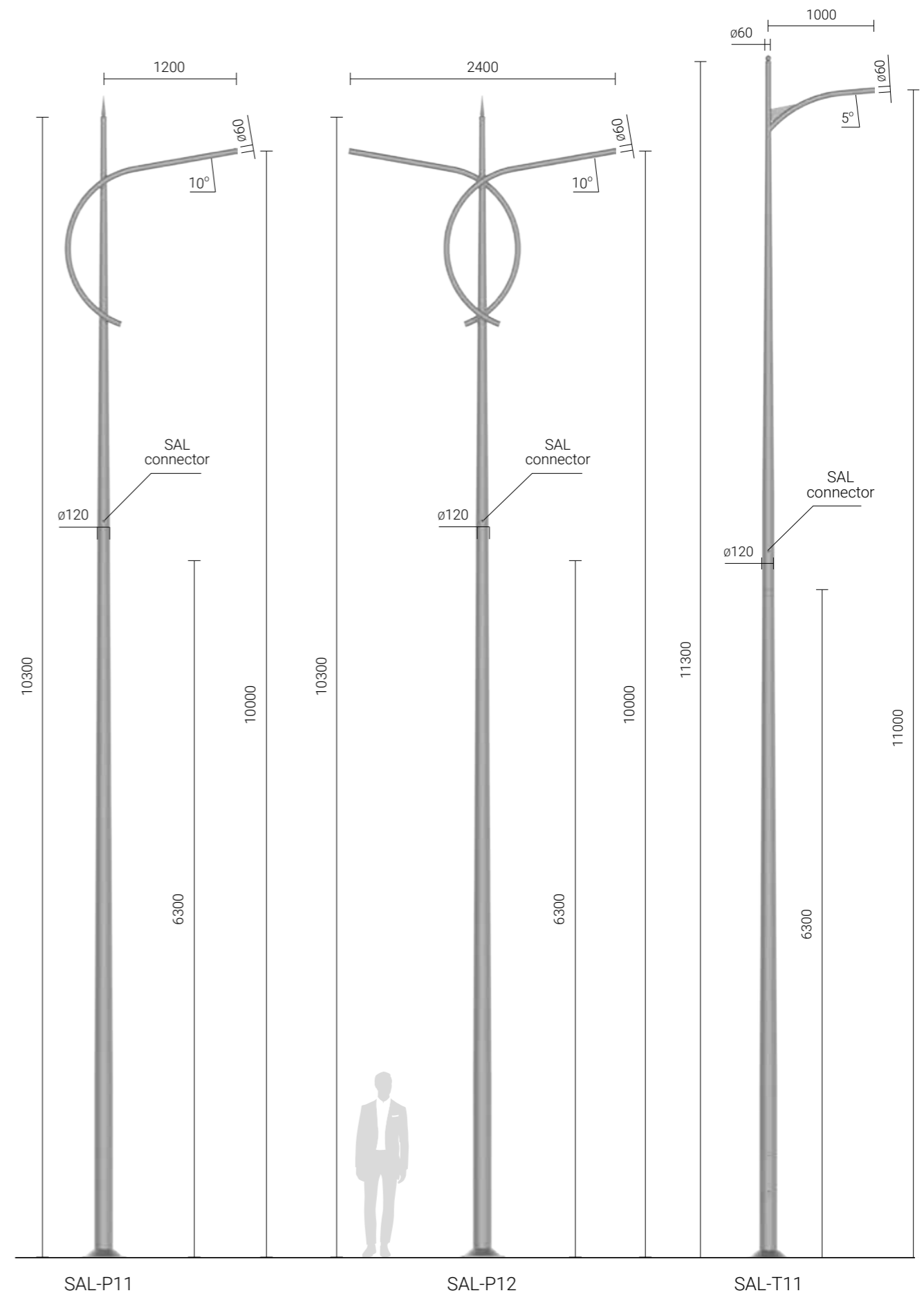
* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Base-plate of aluminium column
400x300x12



Column: SAL-P12



SAL-P11

SAL-P12

SAL-T11

Decorative aluminium columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

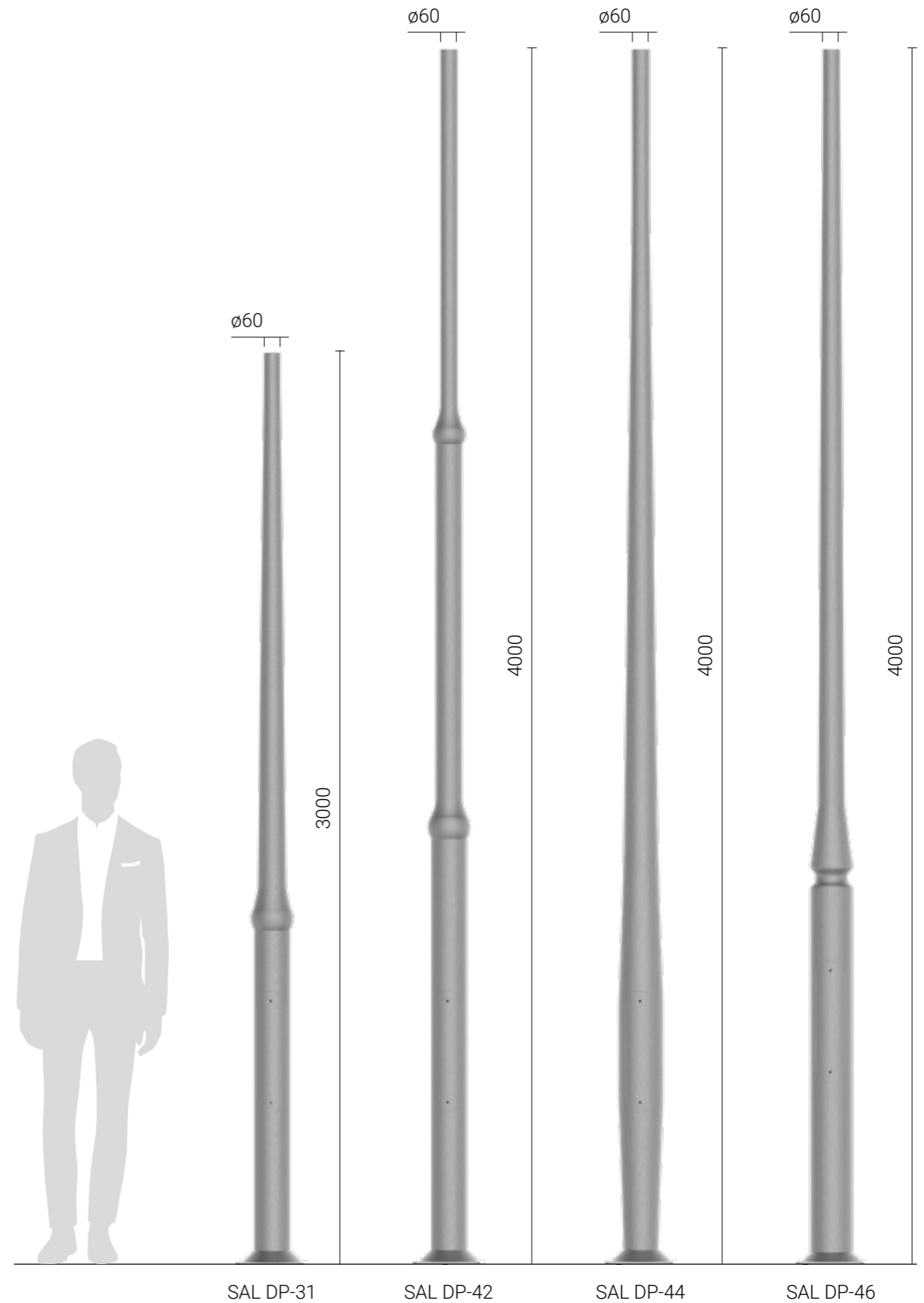
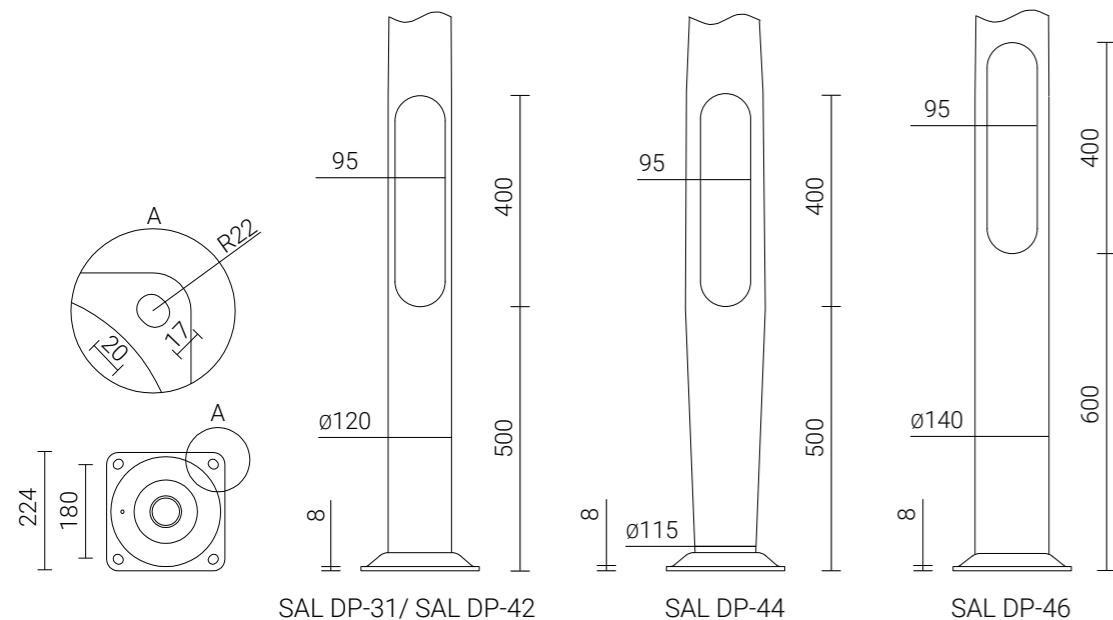
Diameter of the column ending: $\varnothing 60$ mm

Luminaire mounting: directly on the column, luminaires with $\varnothing 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet in the technical data sheet



Column type	SAL DP-31	SAL DP-42	SAL DP-44	SAL DP-46
Height of the column [mm]	3 000	4 000	4 000	4 000
Code	42910/C...	42911/C...	42913/C...	42943/C...
Net weight [kg]	12,6	16,2	16,8	16,8
Approximate unit volume [m ³]*	0,067	0,09	0,09	0,09
Recommended luminaires for column top mounting	ISKRA LED ALFA, ISKRA LED ALFA PROG, ELBA LED, ELBA II LED, ATLANTIS LED, MIRA LED, OS-1 LED, OS-11 LED			
Concrete footing / reinforcement basket type	B-50 / Z-50			
Threaded anchor ending	4xM14			
Concrete footing / reinforcement basket code	311150 / 311205			
Fasteners	4006			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	224 / 180 / 8			

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Decorative aluminium columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection in column's colour up to a height of 350 mm (other height on customer's request) for columns with a base-plate, grounded columns are protected with elastomer as standard

Diameter of the column ending: $\varnothing 60$ mm

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the column, luminaires with $\varnothing 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

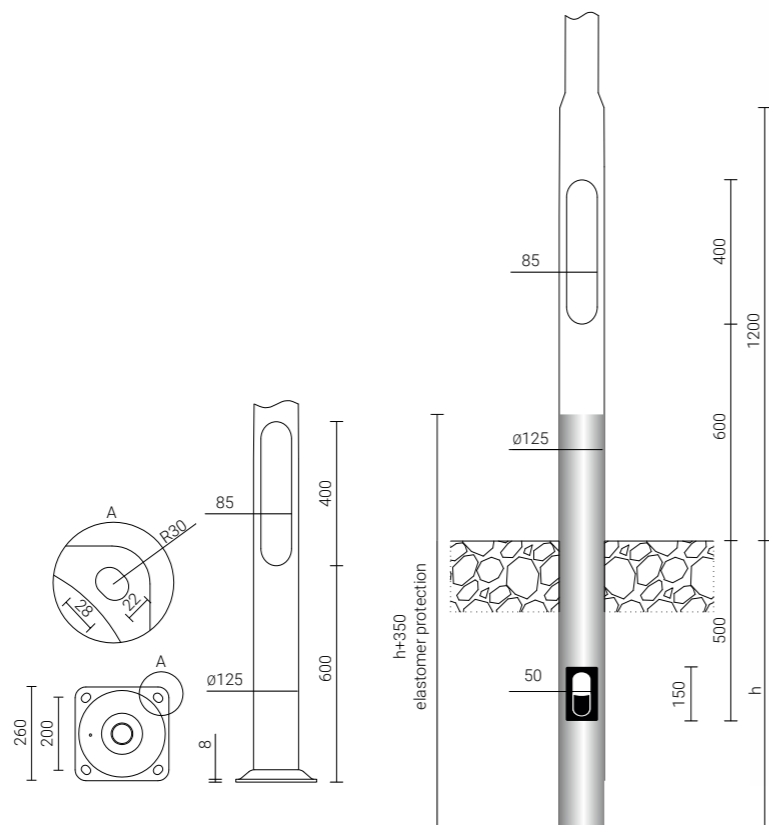


Column type	SAL DP-38	SAL DP-48	SAL DP-58	SAL DP-38 dz	SAL DP-48 dz	SAL DP-58 dz
Height of the column [mm]	3 000	4 000	5 000	3 000	4 000	5 000
Code	42945/C...	42946/C...	42947/C...	42965/C...	42966/C...	42967/C...
Net weight [kg]	9,5	11,7	13,4	11,5	13,0	14,7
Approximate unit volume [m ³]*	0,087	0,116	0,145	0,027	0,034	0,041
Recommended luminaires for column top mounting	ISKRA LED ALFA, ISKRA LED ALFA PROG, ELBA LED, ELBA II LED, MIRA LED, OS-1 LED, OS-11 LED					
Concrete footing / reinforcement basket type	B-51 / Z-51		-			
Threaded anchor ending	4xM18		-			
Concrete footing / reinforcement basket code	311151 / 311251		-			
Fasteners	4008		-			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	260 / 200 / 8		-			
Rooted section h [mm]	-		800			

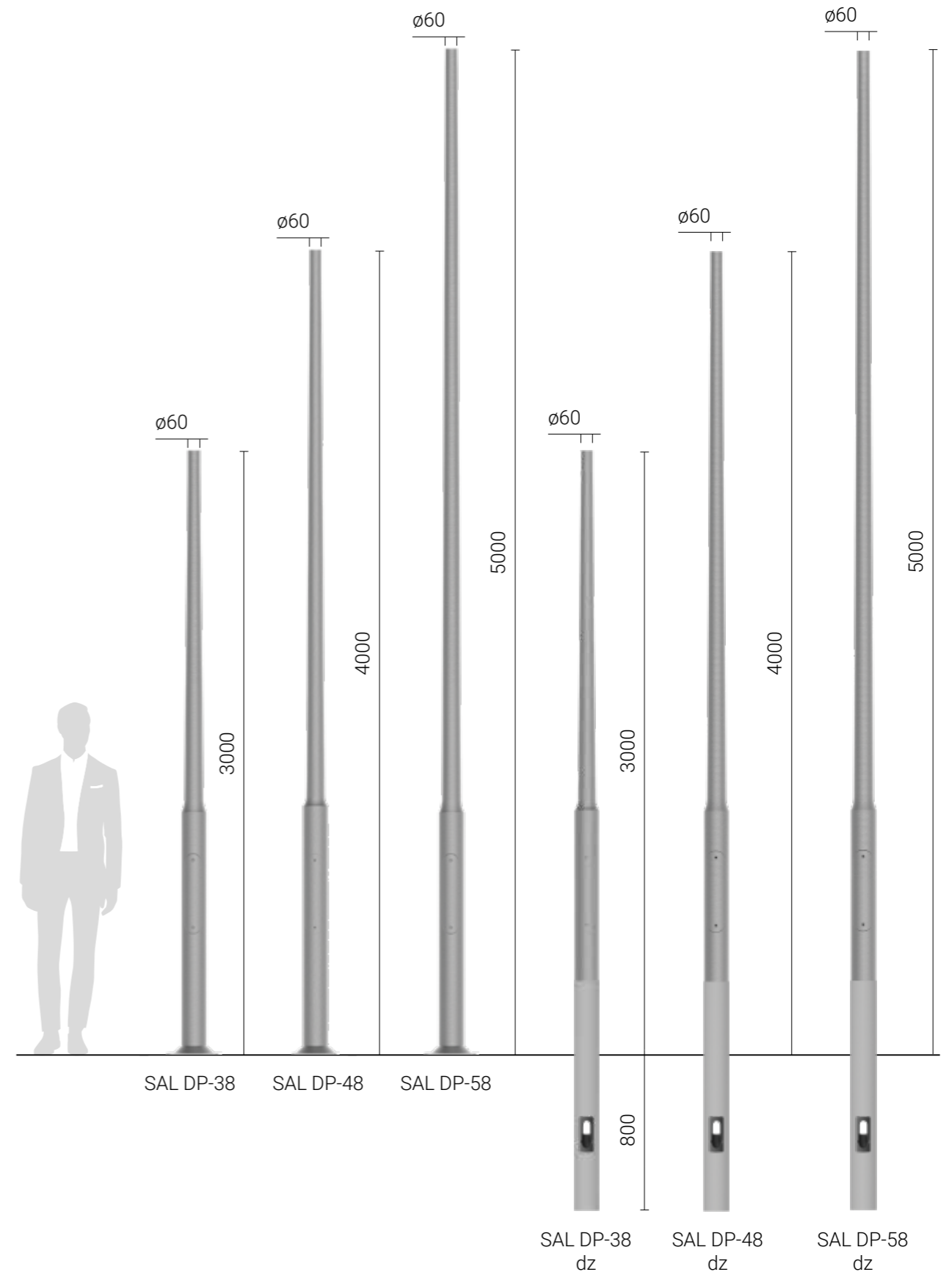
* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



The characteristic taper of the column for this DP group



Column: SAL DP-48



Decorative aluminium columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: $\phi 60 \times 180$ mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

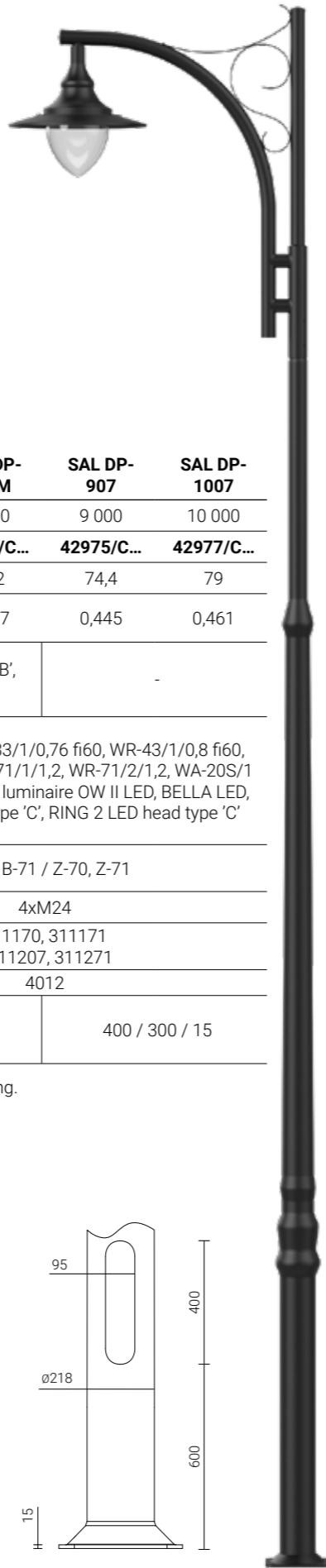
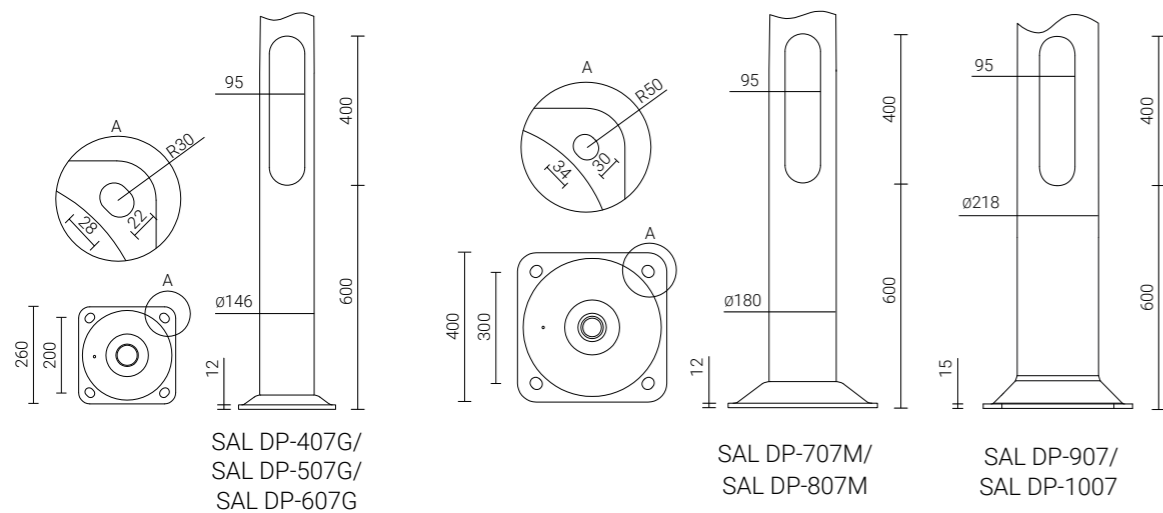
Luminaire mounting: directly on the extension arm or on the column, luminaires with $\phi 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet



* NE for columns with diameters of $\phi 146$ and $\phi 180$

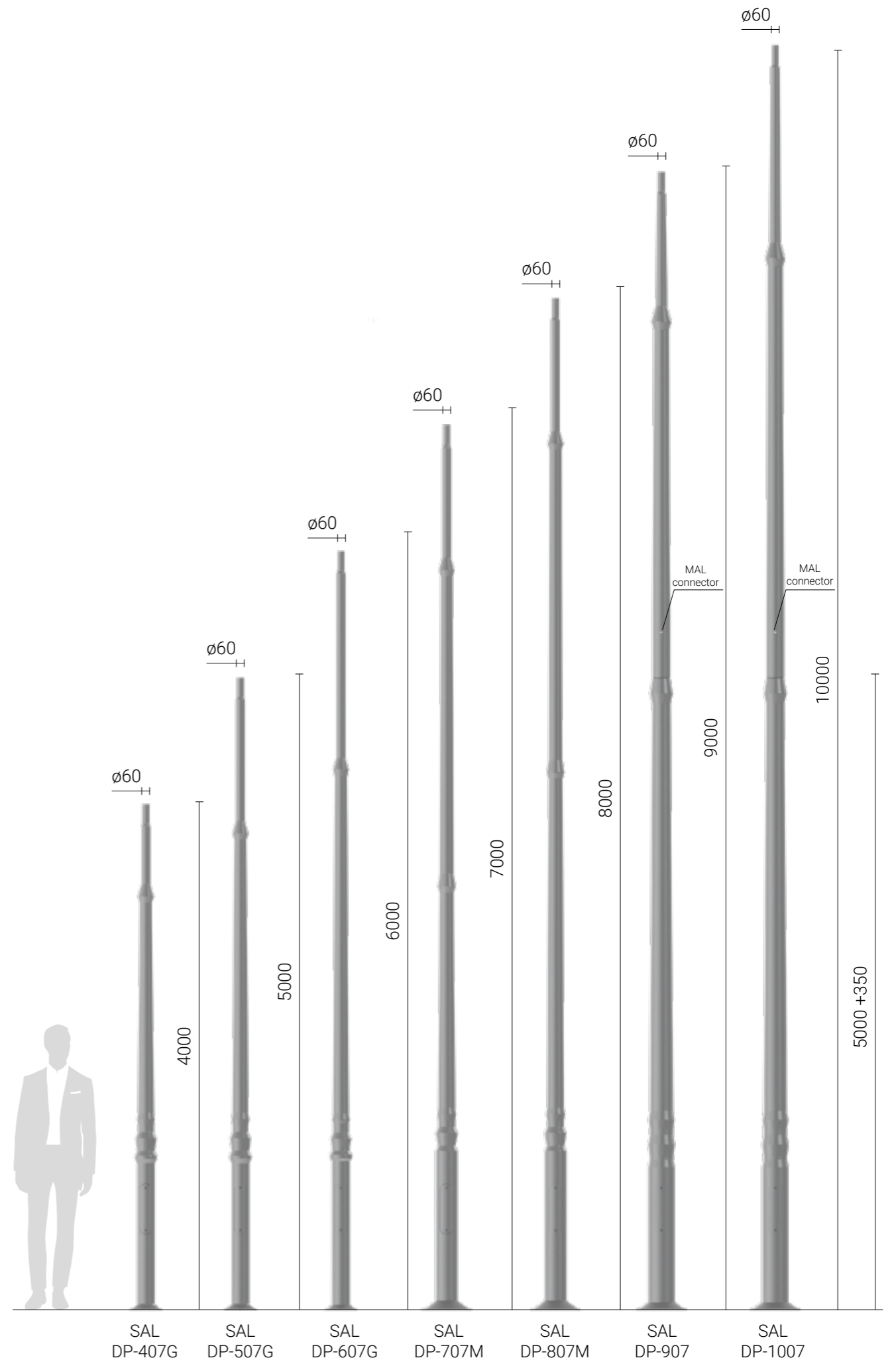
Column type	SAL DP-407G	SAL DP-507G	SAL DP-607G	SAL DP-707M	SAL DP-807M	SAL DP-907	SAL DP-1007	
Height of the column [mm]	4 000	5 000	6 000	7 000	8 000	9 000	10 000	
Code	42970/C...	42971/C...	42972/C...	42973/C...	42974/C...	42975/C...	42977/C...	
Net weight [kg]	20,8	24,6	28,5	38,5	44,2	74,4	79	
Approximate unit volume [m ³]*	0,139	0,164	0,187	0,46	0,537	0,445	0,461	
Recommended luminaires for column top mounting	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B'							
Recommended extension arms and luminaires	WR-7/2/0,5 - luminaire OS-1 LED; WA-17/1, WA-20S/1, WA-31 fi42, WR-23/1/0,76 fi42, WR-33/1/0,76 fi42, WR-43/1/0,8 fi42, WR-53/1/1 fi42, WR-73/1/0,5 - luminaire OW LED			WR-23/1/0,76, WR-33/1/0,76 fi60, WR-43/1/0,8 fi60, WR-53/1/1 fi60, WR-71/1/1,2, WR-71/2/1,2, WA-20S/1 fi60, WA-20S/2 fi60 - luminaire OW II LED, BELLA LED, RING 1 LED head type 'C', RING 2 LED head type 'C'				
Concrete footing / reinforcement basket type	B-51 / Z-51			B-70, B-71 / Z-70, Z-71				
Threaded anchor ending	4xM18			4xM24				
Concrete footing / reinforcement basket code	311151 / 311251			311170, 311171 / 311207, 311271				
Fasteners	4008			4012				
Dimension of the base plate (side / bolt spacing / thickness) [mm]	260 / 200 / 12			400 / 300 / 12		400 / 300 / 15		

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Luminaire: OW LED

Column: SAL DP-507G



Decorative aluminium columns

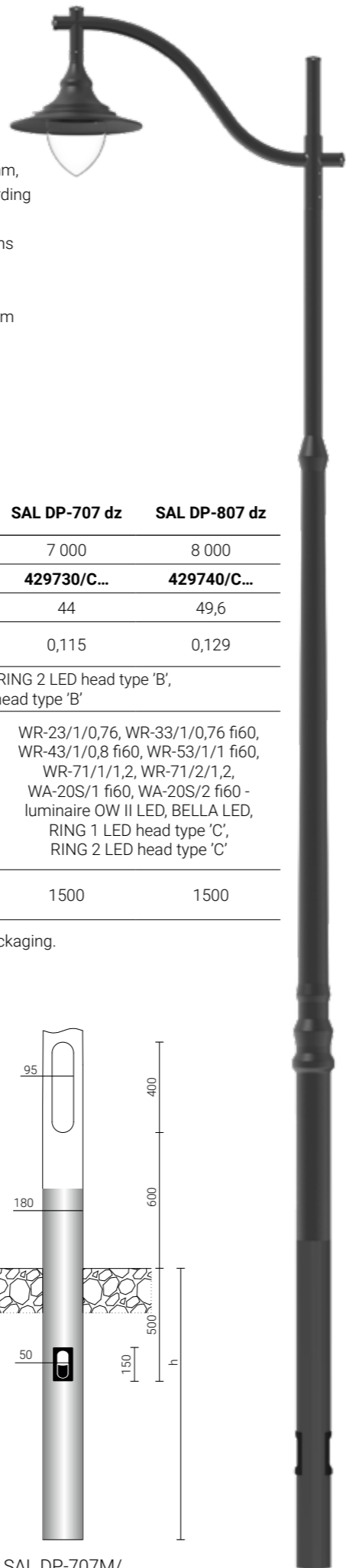
Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: $\phi 60 \times 180$ mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the extension arm or on the column, luminaires with $\phi 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

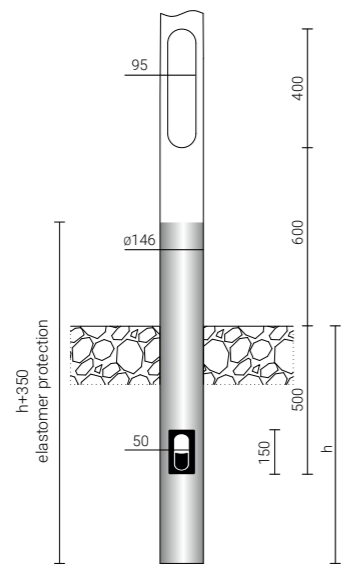


Luminaire: OW LED

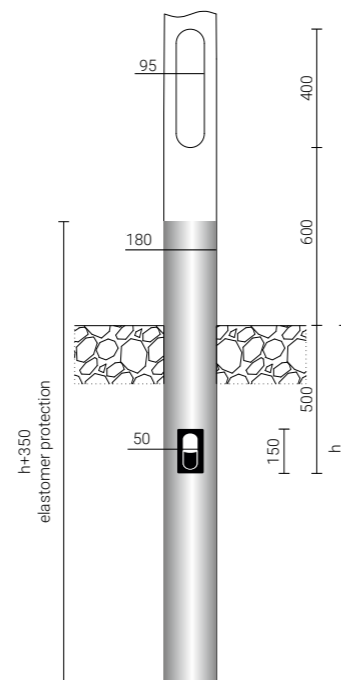


Column type	SAL DP-407 dz	SAL DP-507 dz	SAL DP-607 dz	SAL DP-707 dz	SAL DP-807 dz
Height of the column [mm]	4 000	5 000	6 000	7 000	8 000
Code	429700/C...	429710/C...	429720/C...	429730/C...	429740/C...
Net weight [kg]	22,7	26,5	30,4	44	49,6
Approximate unit volume [m ³]*	0,065	0,079	0,092	0,115	0,129
Recommended luminaires for column top mounting	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B'				
Recommended extension arms and luminaires	WR-7/2/0,5 - luminaire OS-1 LED; WA-17/1, WA-20S/1, WA-31 f42, WR-23/1/0,76 f42, WR-33/1/0,76 f42, WR-43/1/0,8 f42, WR-53/1/1 f42, WR-73/1/0,5 - luminaire OW LED		WR-23/1/0,76, WR-33/1/0,76 f60, WR-43/1/0,8 f60, WR-53/1/1 f60, WR-71/1/1,2, WR-71/2/1,2, WA-20S/1 f60, WA-20S/2 f60 - luminaire OW II LED, BELLA LED, RING 1 LED head type 'C', RING 2 LED head type 'C'		
Rooted section h [mm]	800	800	800	1500	1500

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour

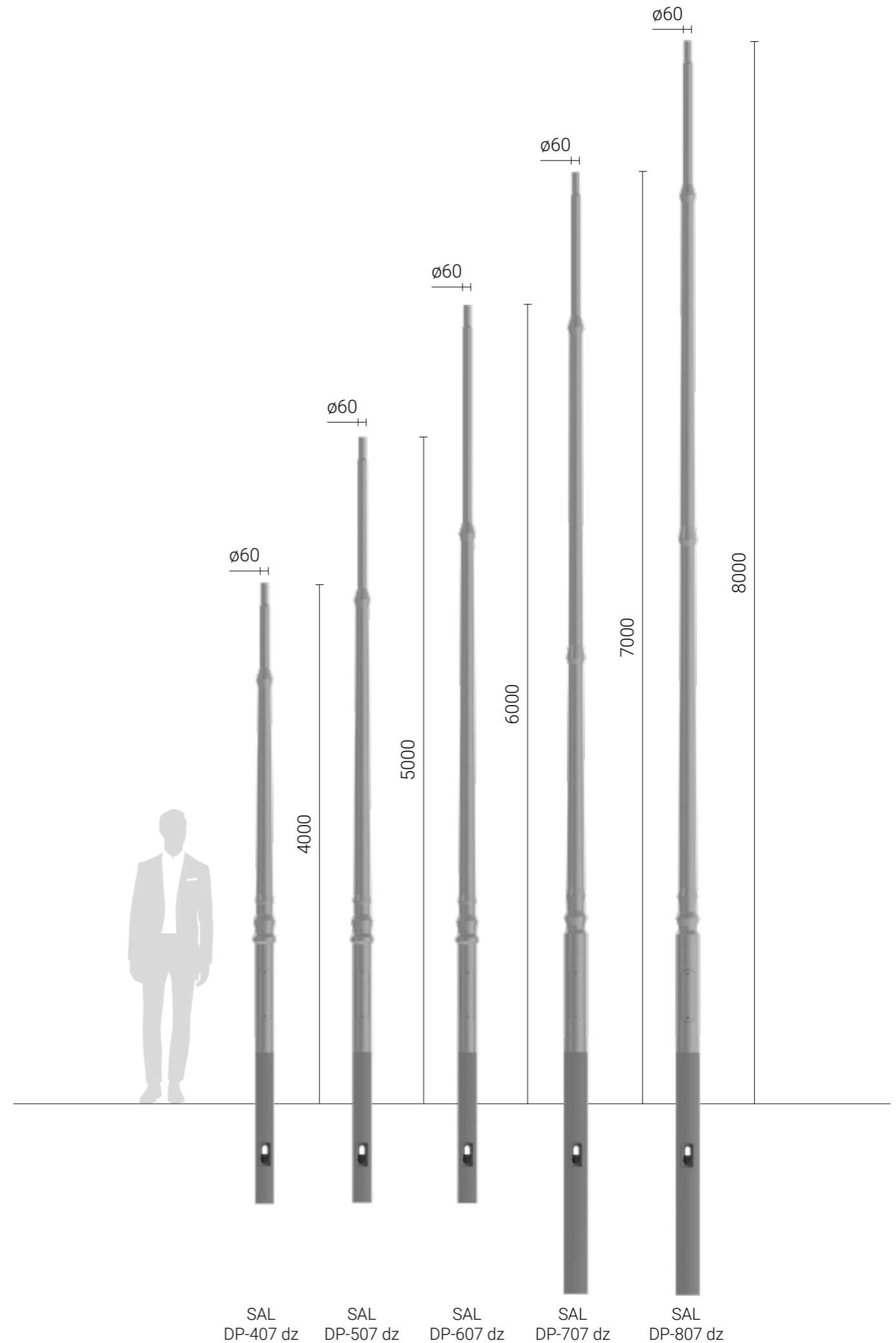


SAL DP-407G/
SAL DP-507G/
SAL DP-607G



SAL DP-707M/
SAL DP-807M

Column: SAL DP-507 dz



SAL DP-407 dz

SAL DP-507 dz

SAL DP-607 dz

SAL DP-707 dz

SAL DP-807 dz

Decorative aluminium columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: $\phi 60 \times 180$ mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Protection class: IP 54 for the wiring chamber

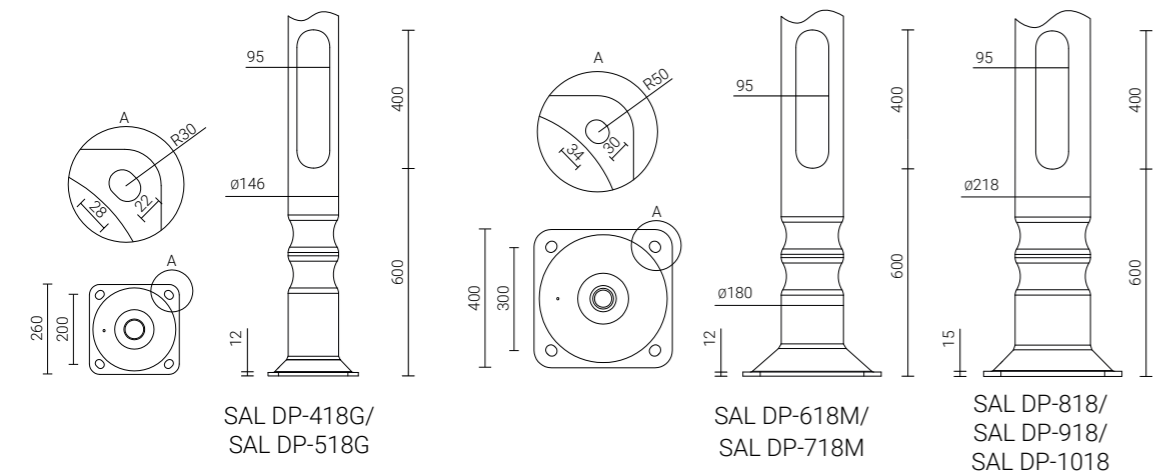
Luminaire mounting: directly on the extension arm or on the column, luminaires with $\phi 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet



* NE for columns with diameters of $\phi 146$ and $\phi 180$

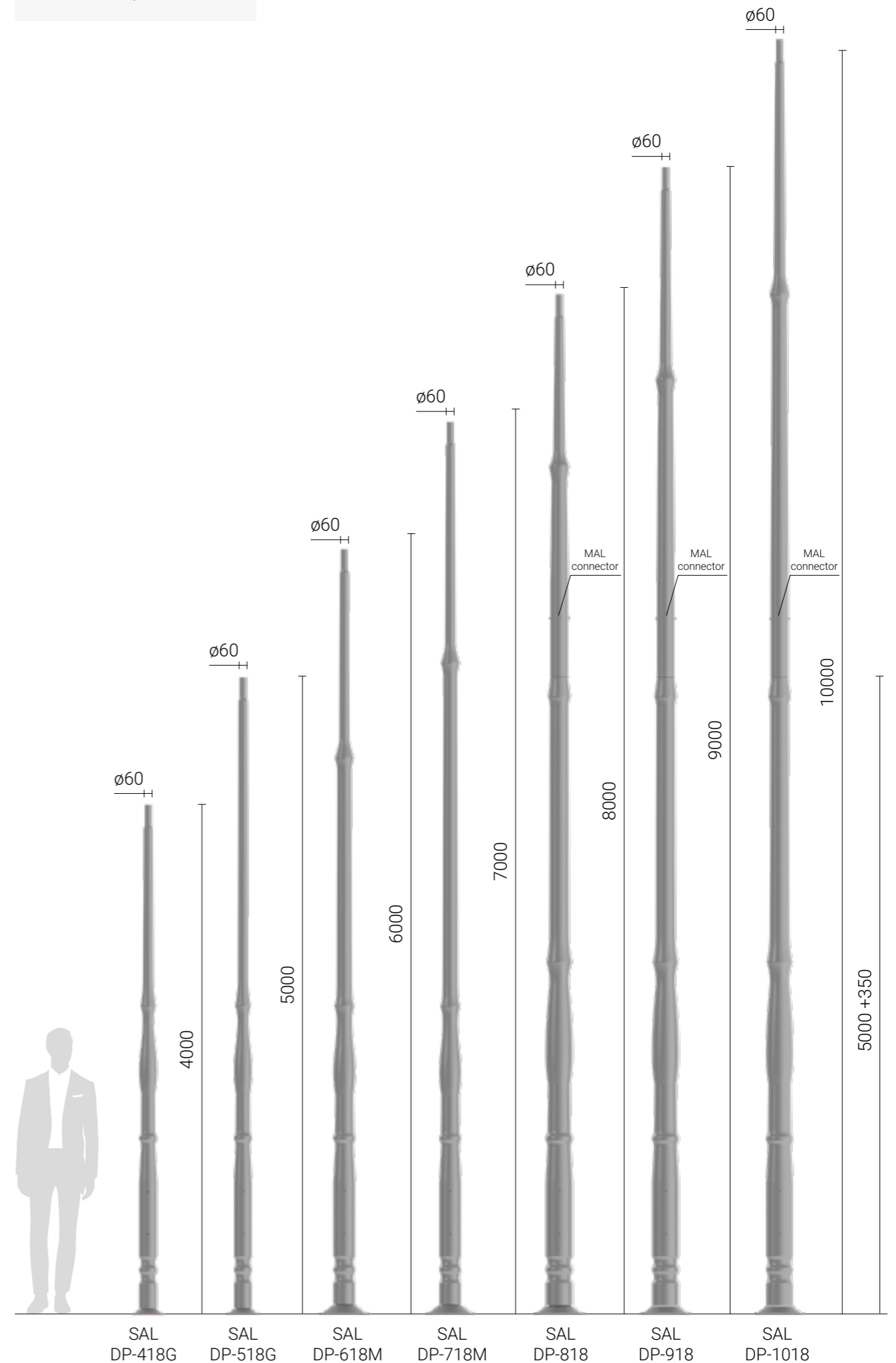
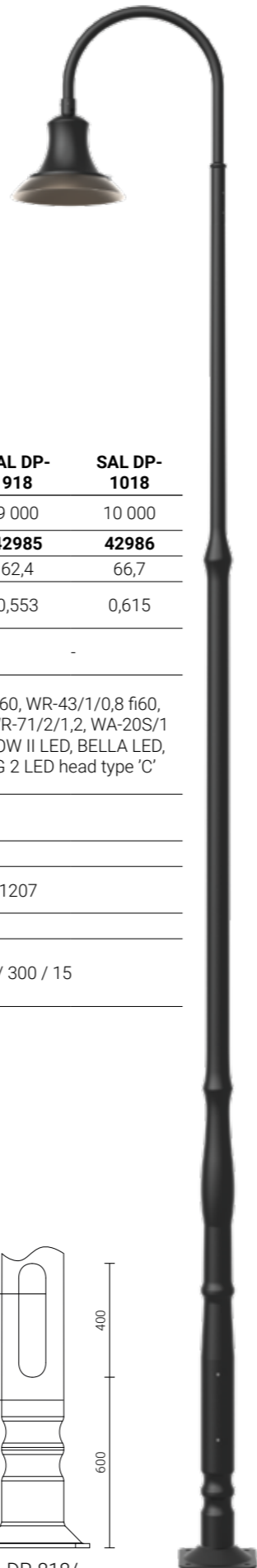
Column type	SAL DP-418G	SAL DP-518G	SAL DP-618M	SAL DP-718M	SAL DP-818	SAL DP-918	SAL DP-1018
Height of the column [mm]	4 000	5 000	6 000	7 000	8 000	9 000	10 000
Code	42980	42981	42982	42983	42984	42985	42986
Net weight [kg]	20,0	23,2	36,2	40,7	58	62,4	66,7
Approximate unit volume [m ³]*	0,113	0,14	0,369	0,43	0,492	0,553	0,615
Recommended luminaires for column top mounting	RING 1 LED head type 'B', RING 2 LED head type 'B', RING 3 LED head type 'B'						
Recommended extension arms and luminaires	WR-7/2/0,5 - luminaire OS-1 LED; WA-17/1, WA-20S/1, WA-31 fi42, WR-23/1/0,76 fi42, WR-33/1/0,76 fi42, WR-43/1/0,8 fi42, WR-53/1/1 fi42, WR-73/1/0,5 - luminaire OW LED			WR-23/1/0,76, WR-33/1/0,76 fi60, WR-43/1/0,8 fi60, WR-53/1/1 fi60, WR-71/1/1,2, WR-71/2/1,2, WA-20S/1 fi60, WA-20S/2 fi60 - luminaire OW II LED, BELLA LED, RING 1 LED head type 'C', RING 2 LED head type 'C'			
Concrete footing / reinforcement basket type	B-51 / Z-51		B-71, B-70 / Z-71, Z-70				
Threaded anchor ending	4xM18		4xM24				
Concrete footing / reinforcement basket code	311151 / 311251		311171, 311170 / 311271, 311207				
Fasteners	4008		4012				
Dimension of the base plate (side / bolt spacing / thickness) [mm]	260 / 200 / 12		400 / 300 / 12		400 / 300 / 15		

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Luminaire: BELLA LED

Column: SAL DP-718



DP decorative aluminium columns with new embossing

Our new series of anodised aluminium columns was designed with historic spaces, squares, and parks in mind. The structures **evoke traditional design while utilising modern production technologies**. We've expanded our offer to include models with a wider range of decorative options, allowing the columns to fit a variety of design concepts.

Elegant decors

The decorative forms used give the columns an aesthetic and refined style, creating a distinctive structure and serving as a decorative element in the space.

These decorative columns stand out from our other solutions. They replace the previously offered steel columns with a plastic outer coating.

Recommended luminaires

The OW LED and OW II LED luminaires are recommended for use with our existing column line. Along with expanding our offer with new stylish columns, we've also decided to introduce another luminaire, the BELLA LED, providing even more options for customising your setup.

Matching extension arms series

A series of new extension arms has also been developed for the "DP" columns, enabling the configuration of a complete lighting set and adapting the installation parameters to the specific needs of a given space. The extension arms have been designed to maintain complete visual consistency.



Aesthetic finish

Durability is often associated with a crude design. Anodised aluminium columns prove that quality can go hand in hand with aesthetics. Our anodising process gives the aluminium column surface a smooth, unique, and elegant finish. Importantly, the final effect is due to the brushing process used during production.

Anodising colours

The columns are available in ten colour variants from our anodising palette. The anodising process makes the coating more durable and corrosion-resistant, as the anode layer permanently bonds to the material's surface. Unlike painting, this allows for colour to be added without creating an additional coating, effectively eliminating the risk of subsequent flaking and discoloration.

Repeatability of execution

Products are manufactured on specially designed production lines, ensuring complete consistency in production. Each batch is rolled in the same cyclical manner, in accordance with previously prepared technical requirements.

The result is a perfectly reproduced product delivered to you in the quantity ordered.





Laser cut wiring chamber

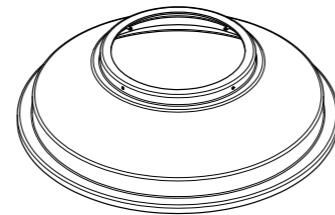
The wiring chamber cover is laser-cut on our production line. The use of laser cutting technology ensures high dimensional repeatability, precise geometry reproduction, and clean, even edges, significantly improving the quality of the element's finish.

This process enables strictly controlled dimensional tolerances to be maintained, ensuring that the cover **fits the column perfectly**. This solution guarantees stable, secure and aesthetic mounting of the cover during installation.

Dedicated cover

Paying attention to every detail and bearing in mind the diverse needs of our customers, we have developed a dedicated cover in the form of a column base cover, equipped with subtle decorations.

This solution allows the product to be even better adapted to the character of the location - especially where a more traditional or decorative aesthetic is expected.



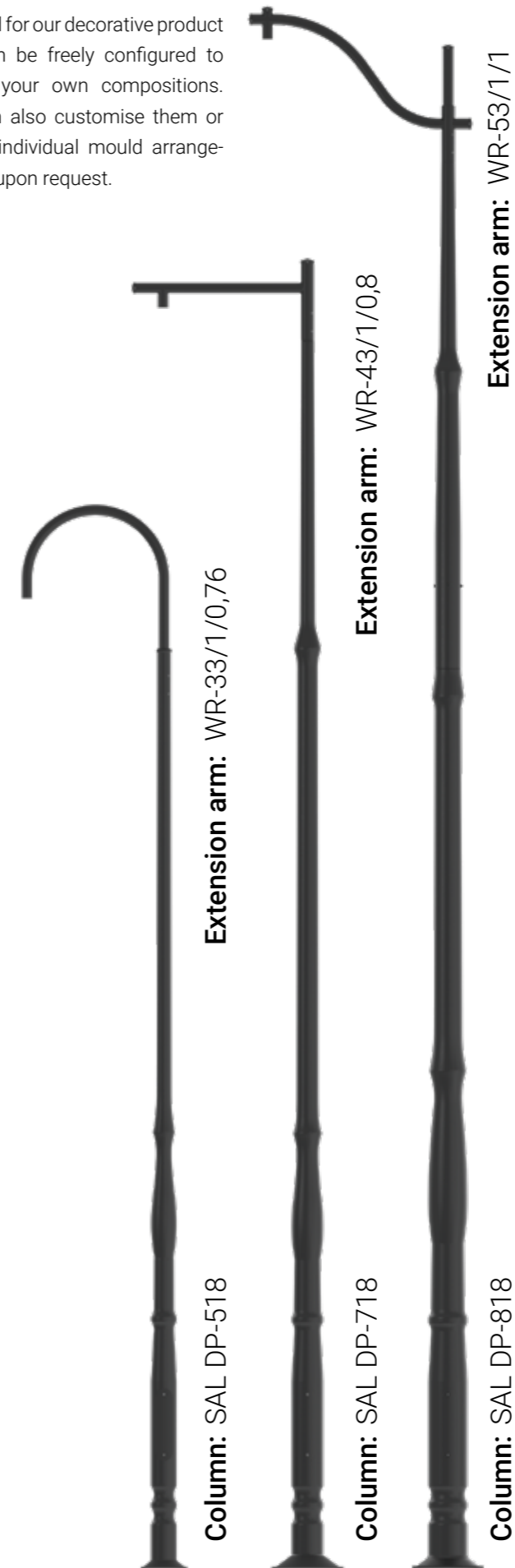
High quality weld

The base is joined to the column using an automated welding process, guaranteeing repeatable, top-quality, and uniform weld aesthetics. Precise, robotic welding ensures uniform joint geometry, adequate mechanical strength, and stability of the entire structure.

This type of connection is an important element influencing the reliability of aluminium columns in the long term.

Stylised sets

Created for our decorative product line can be freely configured to create your own compositions. We can also customise them or create individual mould arrangements upon request.



DECORATIVE ALUMINIUM COLUMNS

Decorative aluminium columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

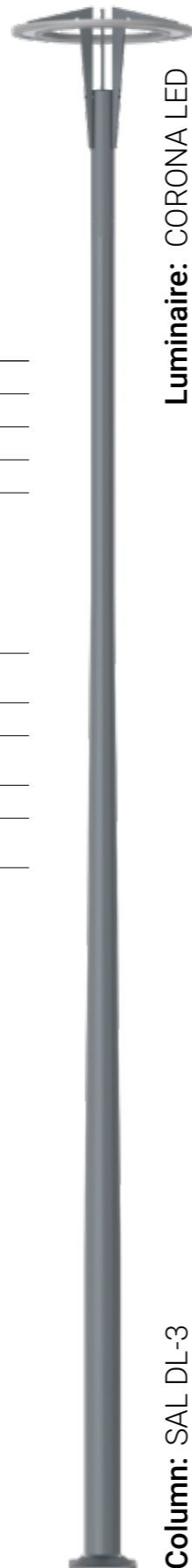
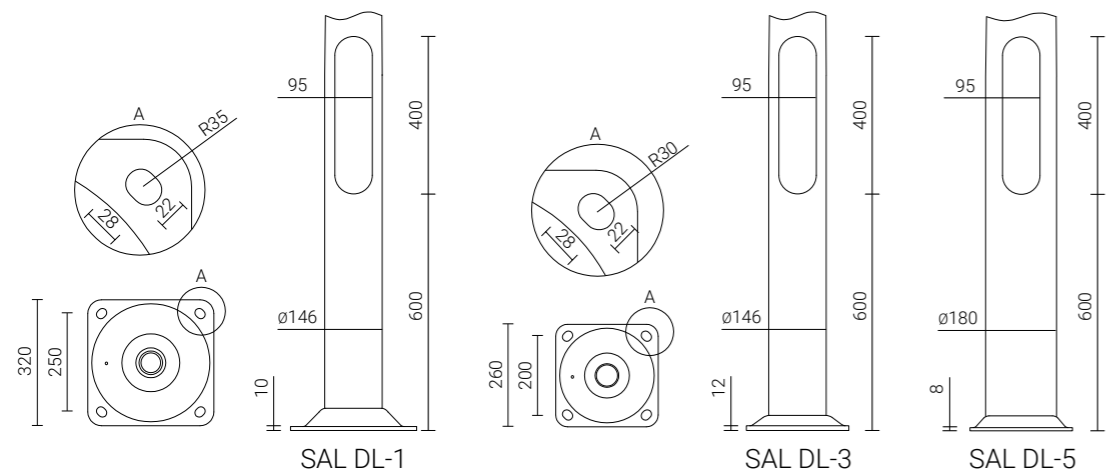
Protection class: IP 44 for the wiring chamber

Luminaire mounting: directly on the column or via an extension arm, luminaires with $\varnothing 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet



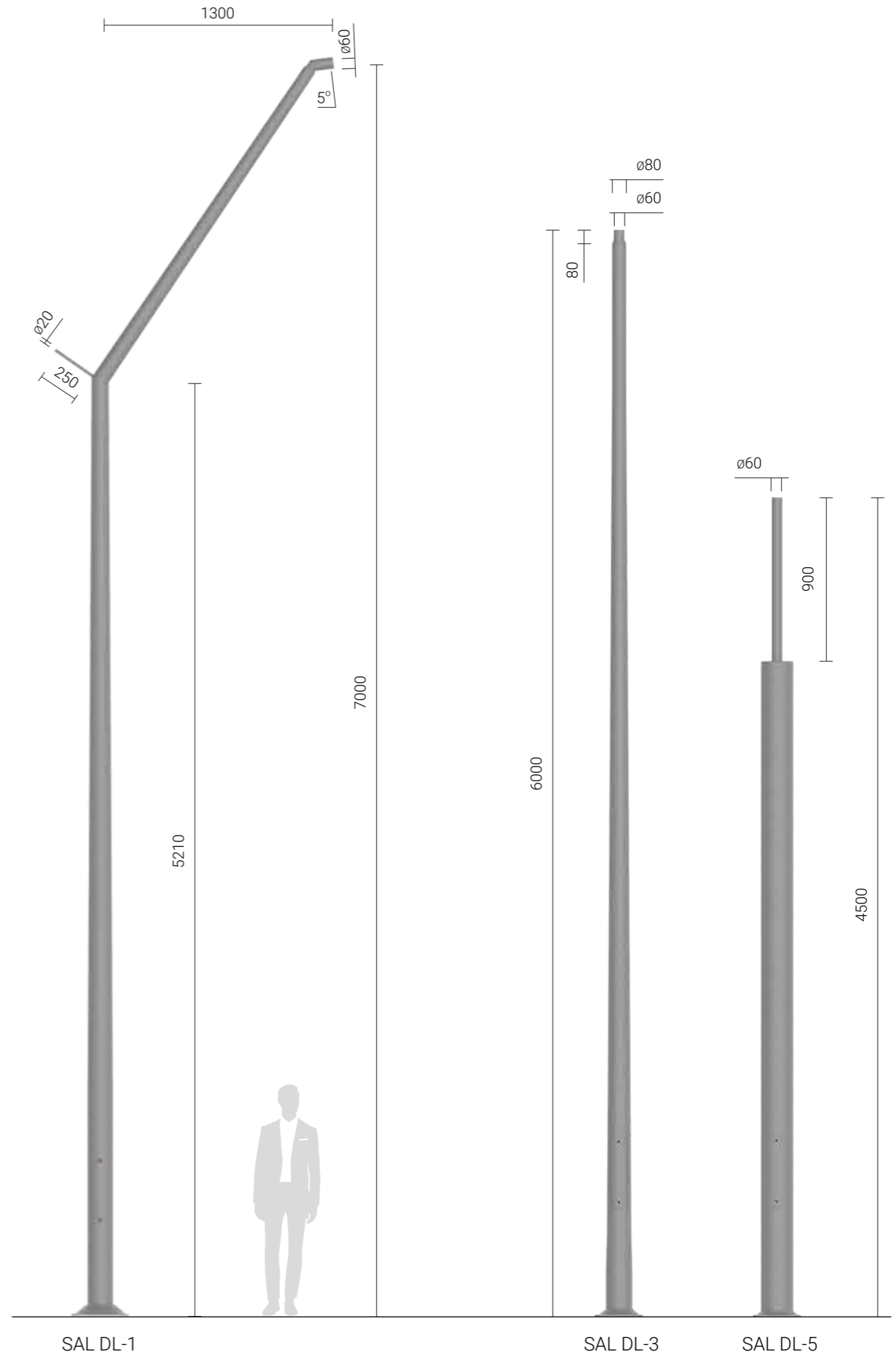
Column type	SAL DL-1	SAL DL-3	SAL DL -5
Height of the column [mm]	7 000	6 000	4 500
Code	42993/C...	42995/C...	42997/C...
Net weight [kg]	33,7	24,8	24,2
Approximate unit volume [m ³]*	1,09	0,186	0,159
Recommended luminaires for column top mounting	CUDDLE MINI LED, CUDDLE MINI LED REG, CUDDLE II LED, CUDDLE II LED REG, COSMO LED	CORONA LED, COSMO DELTA LED	RING 1 LED head type 'A', RING 2 LED head type 'A', RING 3 LED head type 'A',
Concrete footing / reinforcement basket type	B-60 / Z-60	B-51/ Z-51	
Threaded anchor ending	4xM18		
Concrete footing / reinforcement basket code	311160 / 311206	311151/311251	
Fasteners	4008		
Dimension of the base plate (side / bolt spacing / thickness) [mm]	320 / 250 / 10	260 / 200 / 12	260 / 200 / 8

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Luminaire: CORONA LED

Column: SAL DL-3



Decorative aluminium columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

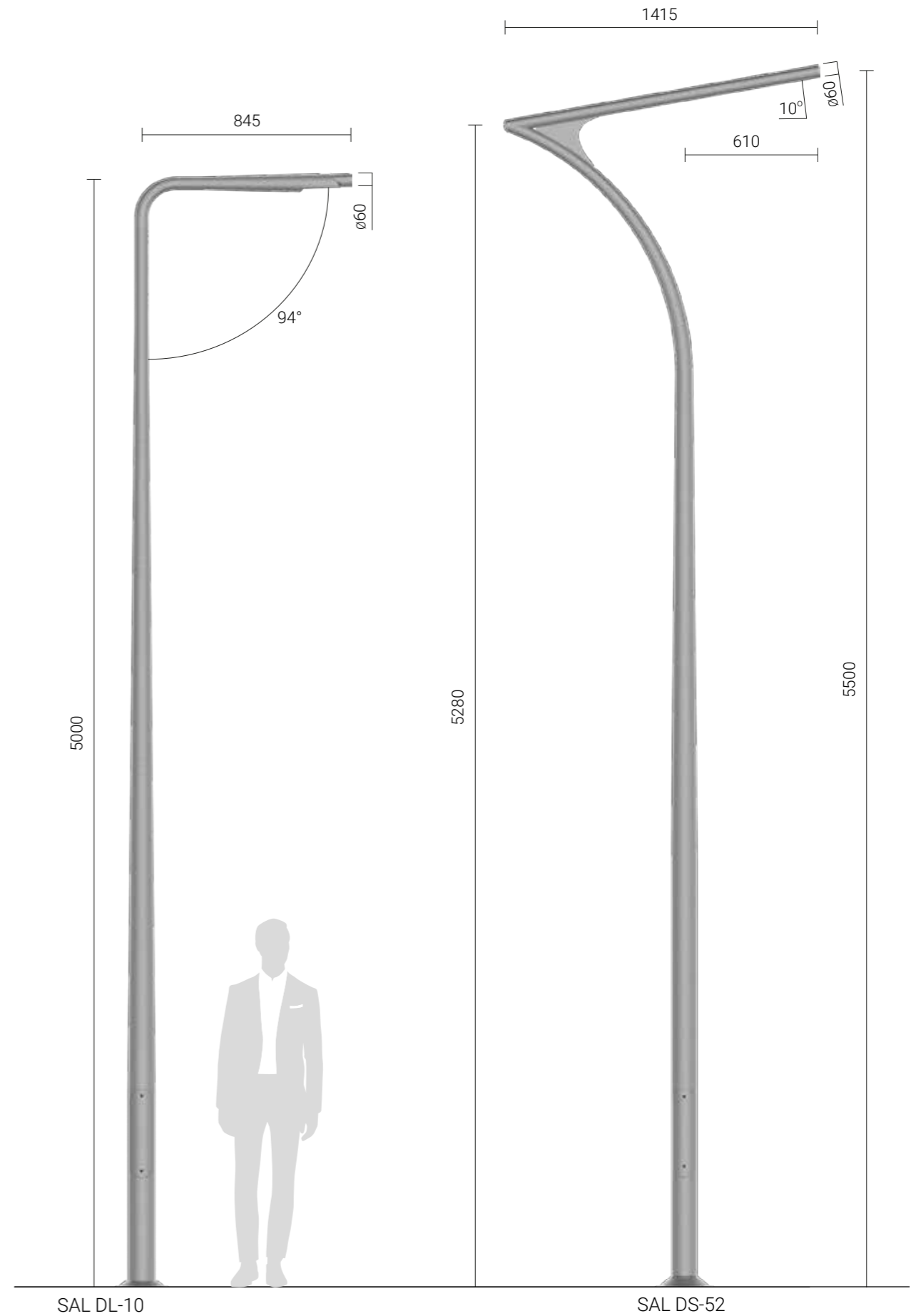
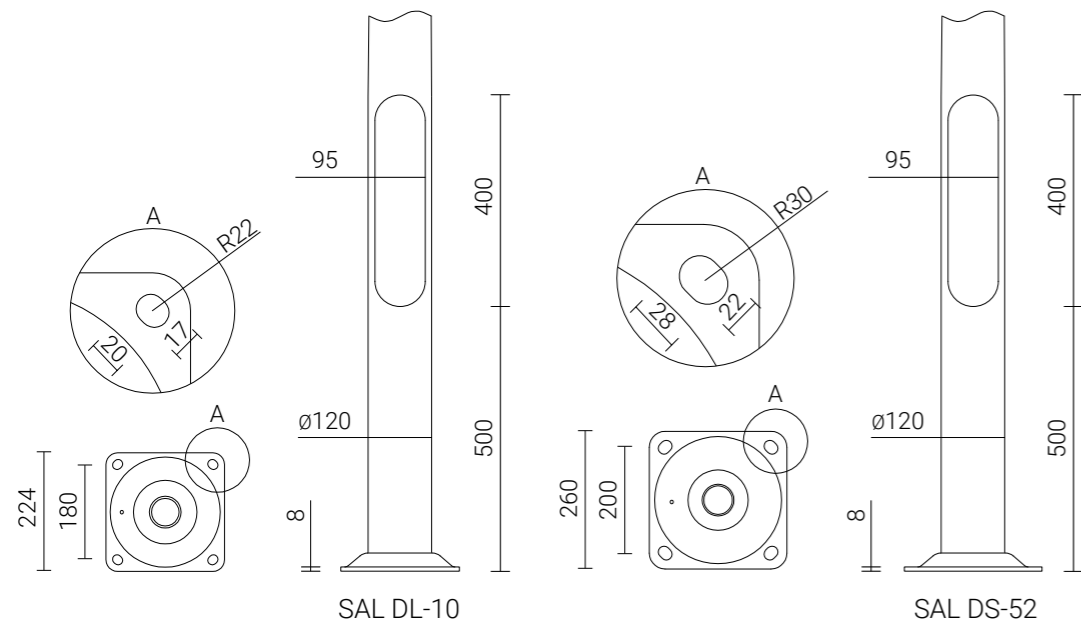
Protection class: IP 44 for the wiring chamber

Luminaire mounting: directly on the extension arm, luminaires with $\varnothing 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet



Column type	SAL DL-10	SAL DS-52
Height of the column [mm]	5 000	5 500
Code	42999/C45/C35	42225/C...
Net weight [kg]	23,0	23,2
Approximate unit volume [m ³]*	0,3	0,735
Recommended luminaires for column top mounting	ISKRA LED, ISKRA LED P, ISKRA LED PROG, ISKRA LED P PROG	ISKRA LED, ISKRA LED PROG, CUDDLE MINI LED, CUDDLE MINI LED REG
Concrete footing / reinforcement basket type	B-50 / Z-50	B-51 / Z-51
Threaded anchor ending	4xM14	4xM18
Concrete footing / reinforcement basket code	311150 / 311205	311151 / 311251
Fasteners	4006	4008
Dimension of the base plate (side / bolt spacing / thickness) [mm]	224 / 180 / 8	260 / 200 / 8

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Decorative aluminium columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Protection class: IP 44 for the wiring chamber

Luminaire mounting: directly on the extension arm, luminaires with $\varnothing 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

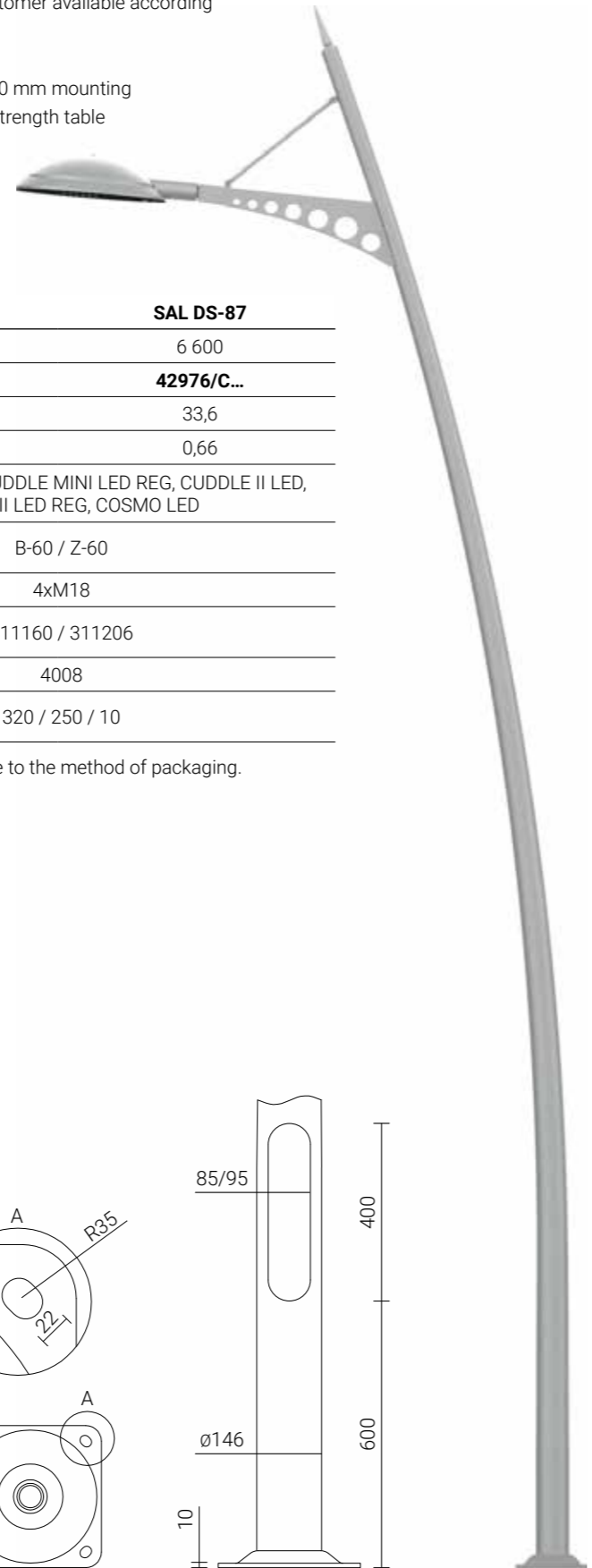
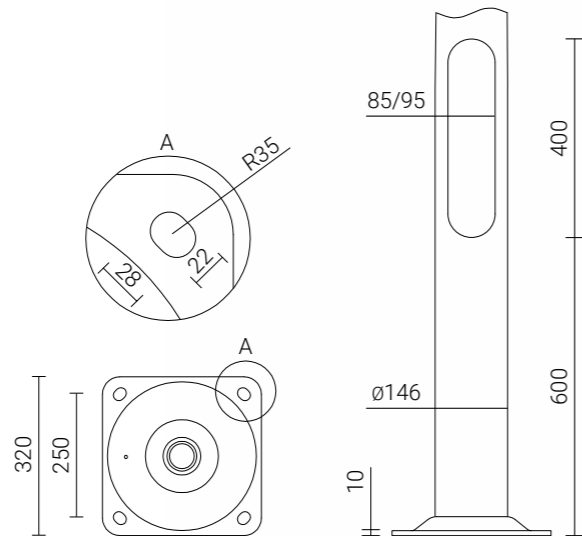


Column type	SAL DS-86	SAL DS-87
Height of the column [mm]	7 700	6 600
Code	42942/C...	42976/C...
Net weight [kg]	36,3	33,6
Approximate unit volume [m ³]*	0,79	0,66
Recommended luminaires for column top mounting	CUDDLE MINI LED, CUDDLE MINI LED REG, CUDDLE II LED, CUDDLE II LED REG, COSMO LED	
Concrete footing / reinforcement basket type	B-60 / Z-60	
Threaded anchor ending	4xM18	
Concrete footing / reinforcement basket code	311160 / 311206	
Fasteners	4008	
Dimension of the base plate (side / bolt spacing / thickness) [mm]	320 / 250 / 10	

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour

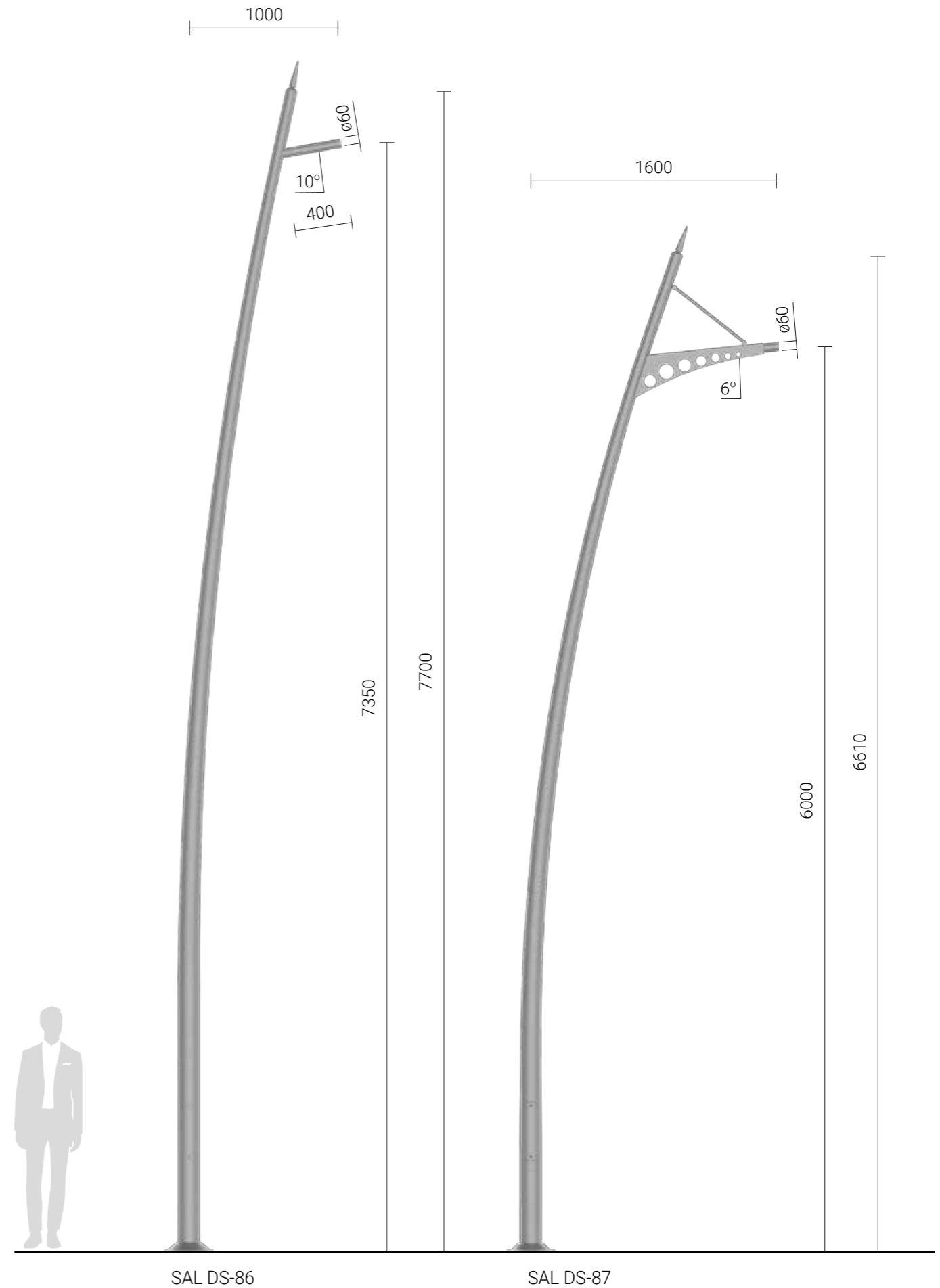


Assembly of aluminium column's cover



Luminaire: COSMO LED

Column: SAL DS-87



SAL DS-86

SAL DS-87

Decorative aluminium columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Protection class: IP 44 for the wiring chamber

Luminaire mounting: directly on the extension arm, luminaires with $\varnothing 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

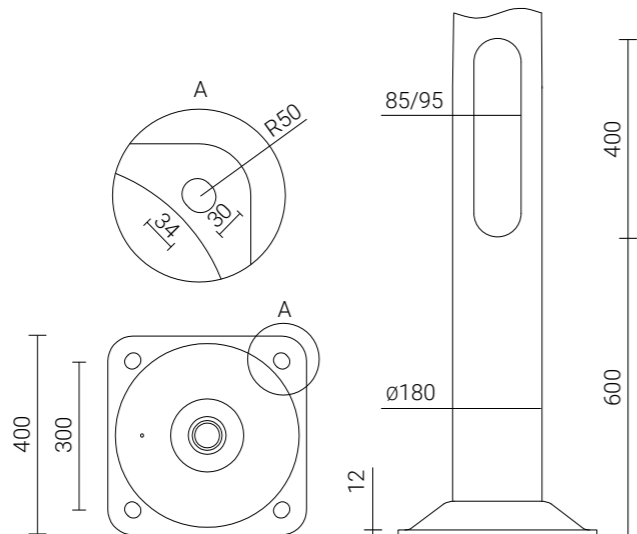


Column type	SAL DS-84	SAL DS-88
Height of the column [mm]	8 400	9 400
Code	42940/C...	42988/C...
Net weight [kg]	52	63,8
Approximate unit volume [m ³]*	1,57	1,895
Recommended luminaires for column top mounting	CUDDLE II LED, CUDDLE II LED REG, COSMO LED	
Concrete footing / reinforcement basket type	B-70 / Z-70	
Threaded anchor ending	4xM24	
Concrete footing / reinforcement basket code	311170 / 311207	
Fasteners	4012	
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12	

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging. /C... - choice of anodising colour

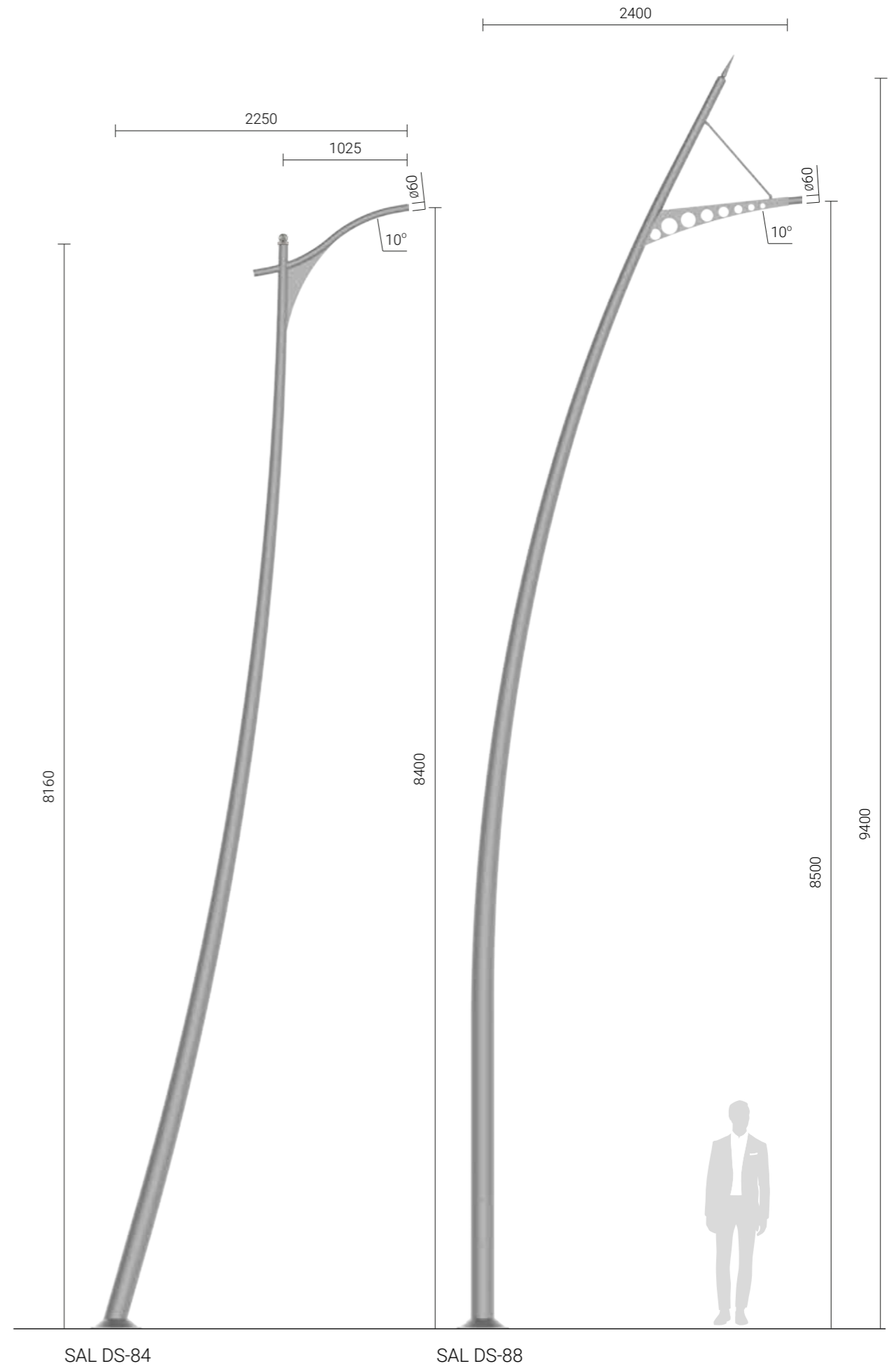


Base-plate of aluminium column
400x300x12



Column: SAL DS-84

Luminaire: COSMO LED



SAL DS-84

SAL DS-88

Two piece aluminium columns with curved extension arms

ø180 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

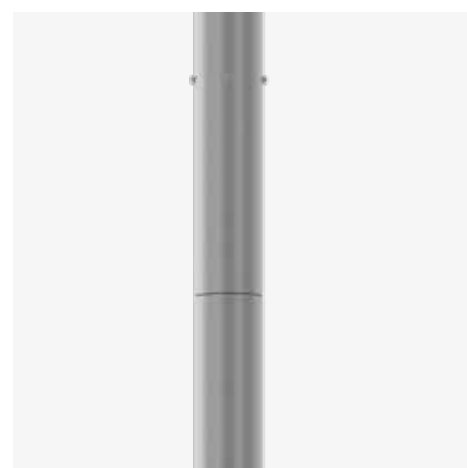
Protection class: IP 54 for the wiring chamber

Luminaire mounting: directly on the extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

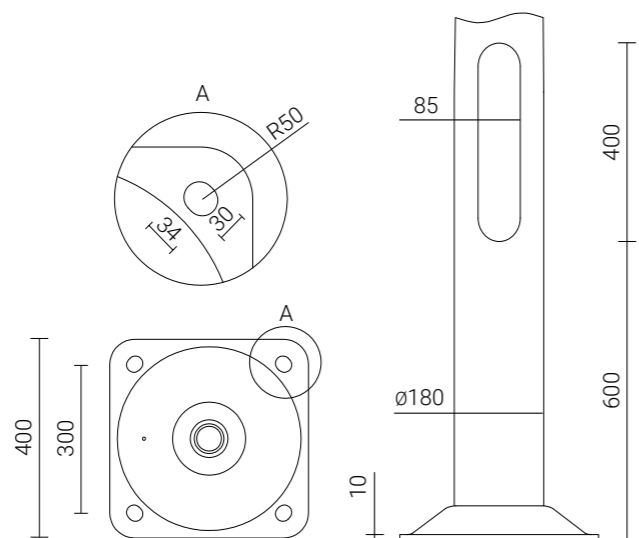


Column type	SAL-9 WLN 1/1,5/1,7/5	SAL-10 WLN 1/1,5/2,7/5
Height of the column H [mm]	9 000	10 000
Arm length [mm]	1 500	1 500
Code	42720/C...	42721/C...
Net weight [kg]	52,9	56
Approximate unit volume [m ³]*	0,67	0,74
Recommended luminaires for column top mounting	CUDDLE II LED, CUDDLE II LED REG, COSMO LED	
Concrete footing / reinforcement basket type	B-71 / Z-71	
Threaded anchor ending	4xM24	
Concrete footing / reinforcement basket code	311171 / 311271	
Fasteners	4012	
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 10	

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Two – piece aluminium column joint with curved extension arm WLN



7300 + 300

H



TWO PIECE ALUMINIUM COLUMNS

Two piece aluminium columns with curved extension arms

ø176 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Protection class: IP 54 for the wiring chamber

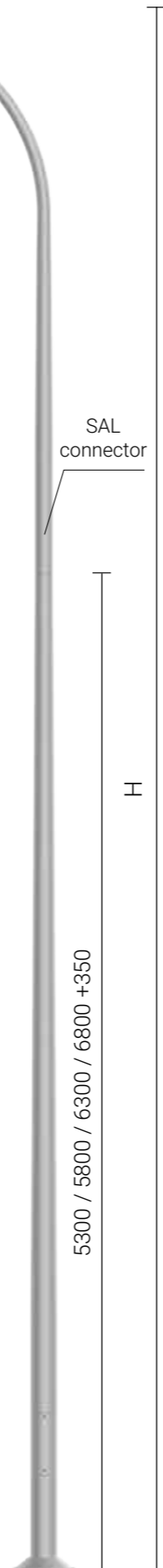
Luminaire mounting: directly on the extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet



Column type	SAL-9 WŁ1/1,5/3,2/5	SAL-9 WŁ1/2,0/3,2/5	SAL-9 WŁ1/2,5/3,2/5	SAL-10 WŁ1/1,5/3,7/5	SAL-10 WŁ1/2,0/3,7/5
Height of the column H [mm]	9 000	9 000	9 000	10 000	10 000
Arm length [mm]	1 500	2 000	2 500	1 500	2 000
Code	42419/C...	42422/C...	42425/C...	42437/C...	42440/C...
Net weight [kg]	52,7	54,9	56,2	57,3	58,6
Approximate unit volume [m³]*	0,67	0,73	0,8	0,74	0,82
Recommended luminaires for column top mounting	CUDDLE II LED, CUDDLE II LED REG, COSMO LED				
Concrete footing / reinforcement basket type	B-71 / Z-71	B-70 / Z-70	B-70 / Z-70	B-71 / Z-71	B-70 / Z-70
Threaded anchor ending	4xM24				
Concrete footing / reinforcement basket code	311171 / 311271	311170 / 311207	311170 / 311207	311171 / 311271	311170 / 311207
Fasteners	4012				
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12				

Column type	SAL-10 WŁ1/2,5/3,7/5	SAL-11 WŁ1/1,5/4,7/5	SAL-11 WŁ1/2,0/4,7/5	SAL-12 WŁ1/1,5/5,2/5
Height of the column H [mm]	10 000	11 000	11 000	12 000
Arm length [mm]	2 500	1 500	2 000	1 500
Code	42443/C...	42451/C...	42453/C...	42455/C...
Net weight [kg]	60,7	59,1	63,1	65,5
Approximate unit volume [m³]*	0,89	0,82	0,92	0,89
Recommended luminaires for column top mounting	CUDDLE II LED, CUDDLE II LED REG, COSMO LED			
Concrete footing / reinforcement basket type	B-70 / Z-70	B-71 / Z-71	B-70 / Z-70	B-71 / Z-71
Threaded anchor ending	4xM24			
Concrete footing / reinforcement basket code	311170 / 311207	311171 / 311271	311170 / 311207	311171 / 311271
Fasteners	4012			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12			

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



TWO PIECE ALUMINIUM COLUMNS

Two piece aluminium columns with curved extension arms

ø176 mm at the base

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Protection class: IP 54 for the wiring chamber

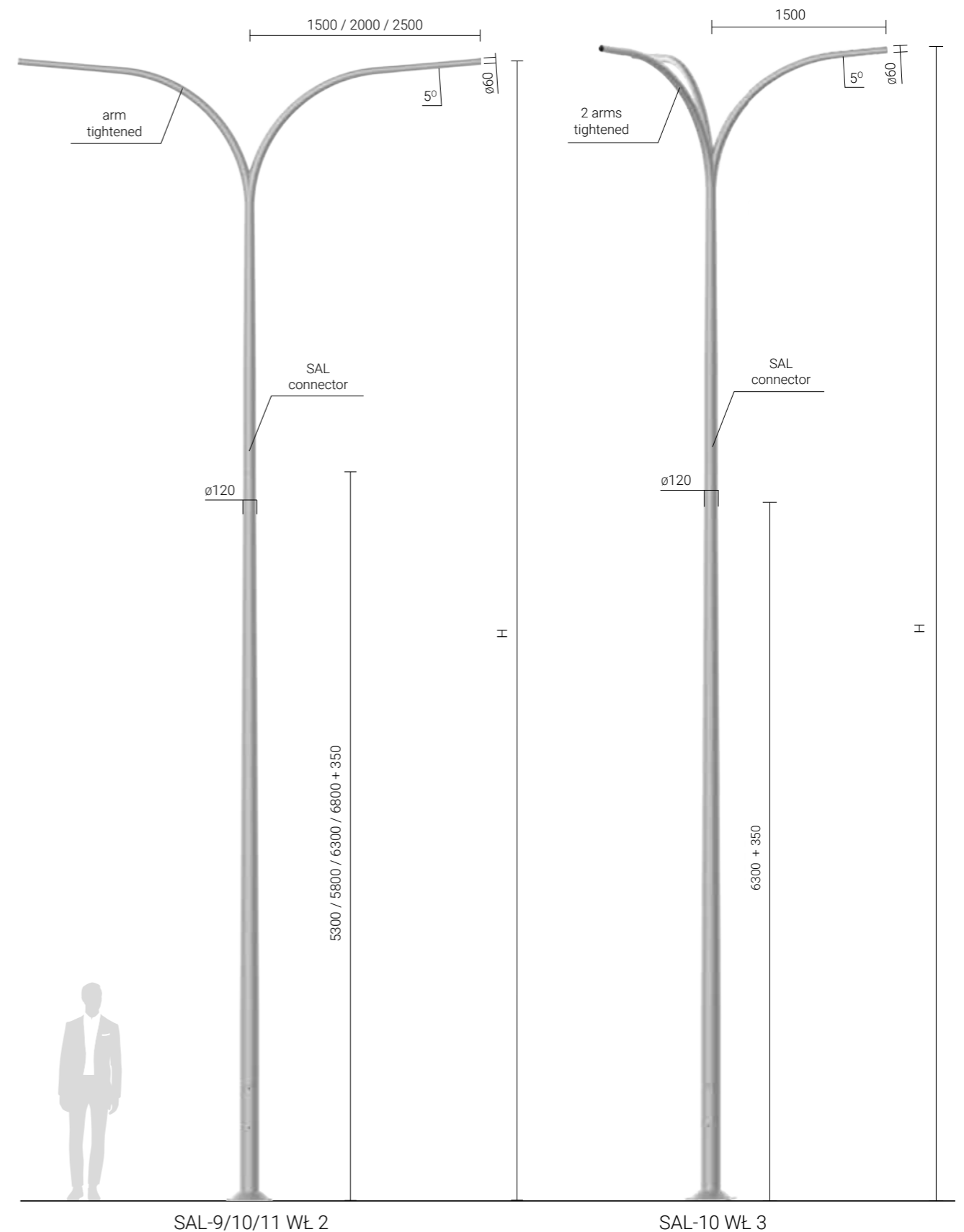
Luminaire mounting: directly on the extension arm, luminaires with ø60 mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet



Column type	SAL-9 WŁ2/1,5/3,2/5	SAL-9 WŁ2/2,0/3,2/5	SAL-9 WŁ2/2,5/3,2/5	SAL-10 WŁ2/1,5/3,7/5
Height of the column H [mm]	9 000	9 000	9 000	10 000
Arm length [mm]	1 500	2 000	2 500	1 500
Code	42420/C...	42423/C...	42426/C...	42438/C...
Net weight [kg]	59,1	62,8	64,9	63,6
Approximate unit volume [m³]*	0,73	0,81	0,89	0,8
Recommended luminaires for column top mounting	CUDDLE II LED, CUDDLE II LED REG, COSMO LED			
Concrete footing / reinforcement basket type	B-71 / Z-71	B-70 / Z-70	B-70 / Z-70	B-71 / Z-71
Threaded anchor ending	4xM24			
Concrete footing / reinforcement basket code	311171 / 311271	311170 / 311207	311170 / 311207	311171 / 311271
Fasteners	4012			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12			

Column type	SAL-10 WŁ2/2,0/3,7/5	SAL-10 WŁ2/2,5/3,7/5	SAL-11 WŁ2/1,5/4,7/5	SAL-10 WŁ3/1,5/3,7/5
Height of the column H [mm]	10 000	10 000	11 000	10 000
Arm length [mm]	2 000	2 500	1 500	1 500
Code	42441/C...	42444/C...	42452/C...	42439/C...
Net weight [kg]	65,6	69,4	66,1	67,6
Approximate unit volume [m³]*	0,89	0,99	0,88	1,19
Recommended luminaires for column top mounting	CUDDLE II LED, CUDDLE II LED REG, COSMO LED			
Concrete footing / reinforcement basket type	B-70 / Z-70	B-70 / Z-70	B-71 / Z-71	B-70 / Z-70
Threaded anchor ending	4xM24			
Concrete footing / reinforcement basket code	311170 / 311207	311170 / 311207	311171 / 311271	311170 / 311207
Fasteners	4012			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12			

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



SAL-9/10/11 WŁ 2

SAL-10 WŁ 3

Lowering and raising columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: $\varnothing 60$ mm

Luminaire mounting: directly on the column or via an extension arm, luminaires with $\varnothing 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

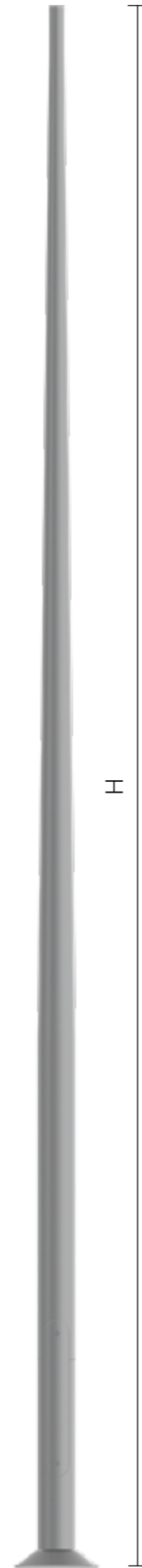
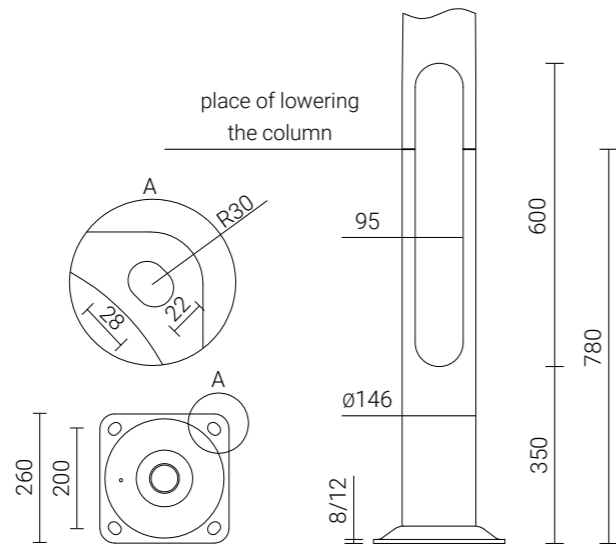


Column type	SAL-45/P	SAL-50/P	SAL-60/P	SAL-70P
Height of the column H [mm]	4 500	5 000	6 000	7 000
Code	42915/C...	42916/C...	42925/C...	42927/C...
Net weight [kg]	23,3	25,2	32,8	36,5
Approximate unit volume [m ³]*	0,13	0,145	0,174	0,203
Recommended luminaires for column top mounting	ISKRA LED ALFA, ISKRA LED ALFA PROG, ELBA LED, ELBA II LED, ATLANTIS LED, MIRA LED, MIZAR LED, OS-1 LED, OS-11 LED		ISKRA LED ALFA, ISKRA LED ALFA PROG, CORONA LED, COSMO DELTA LED, COSMO ALFA LED	
Recommended extension arms and luminaires	WN-1 – luminaire ISKRA LED LB; WR-4/1/0,5/5 – luminaire: ISKRA LED, ISKRA LED PROG			
Concrete footing / reinforcement basket type	B-51 / Z-51			
Threaded anchor ending	4xM18			
Concrete footing / reinforcement basket code	311151 / 311251			
Fasteners	4008			
Dimension of the base plate (side / bolt spacing / thickness)	260 / 200 / 8		260 / 200 / 12	

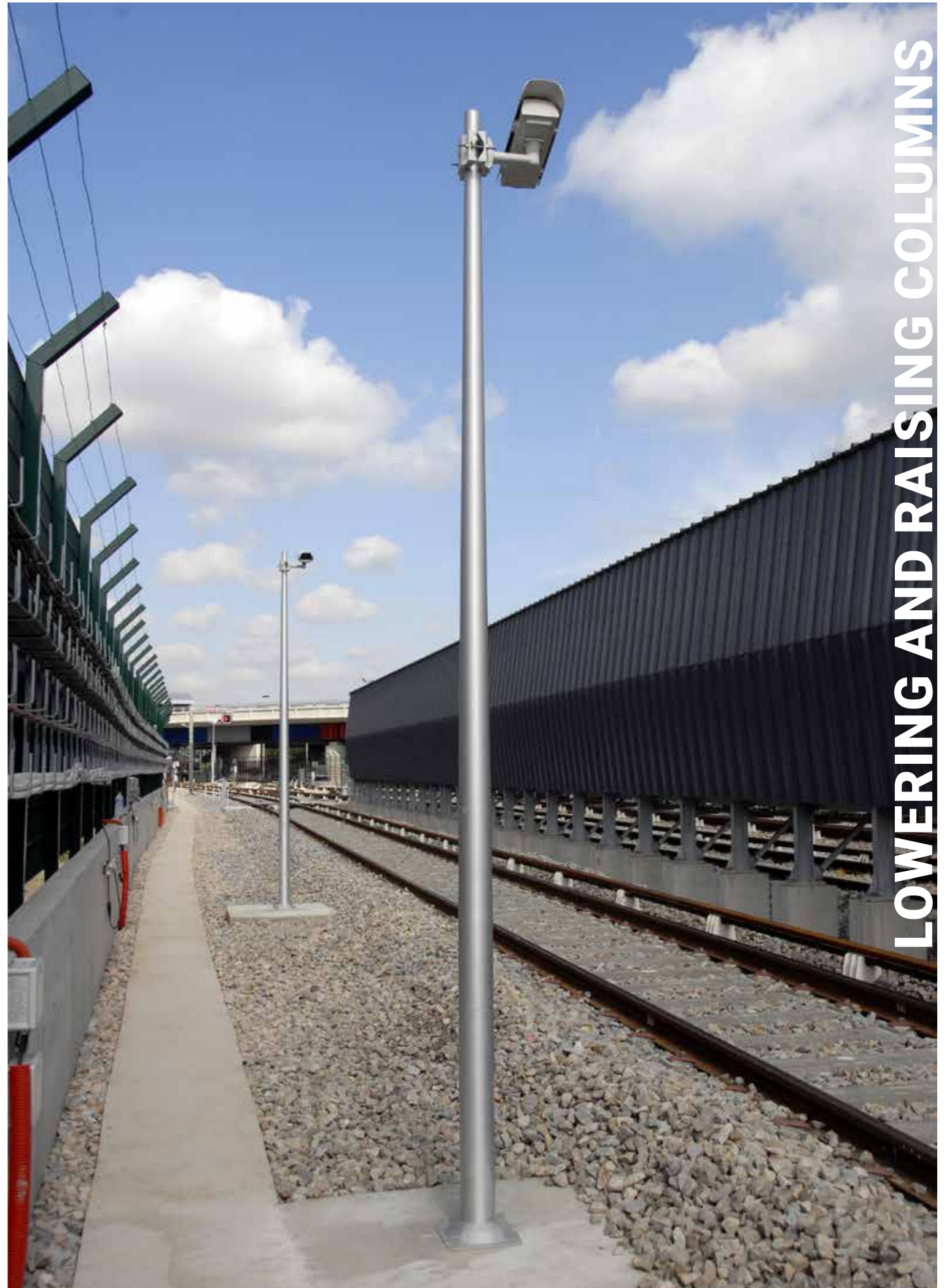
* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Easy and safe way of lowering the column



H



LOWERING AND RAISING COLUMNS

Lowering and raising columns

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: $\phi 60 \times 180$ mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Luminaire mounting: directly on the column or via an extension arm, luminaires with $\phi 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

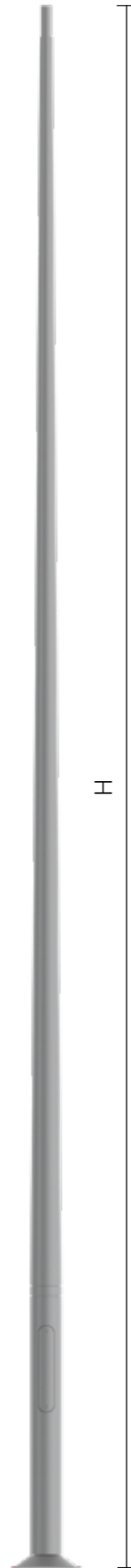
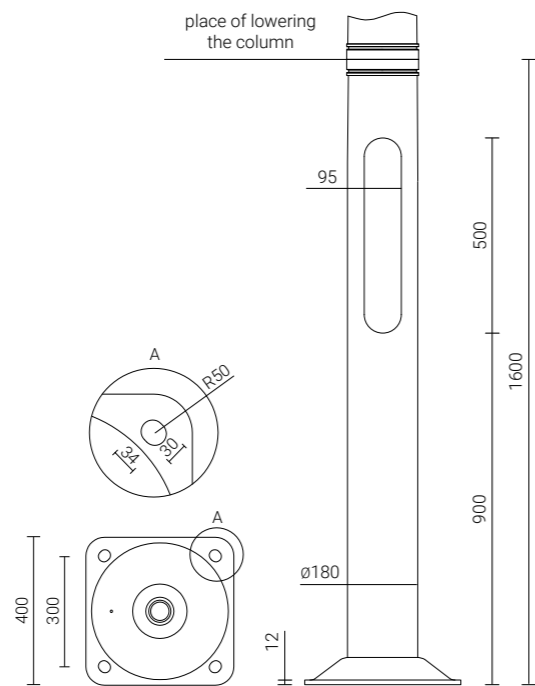


Column type	SAL-80M/P	SAL-90M/P	SAL-100M/P	SAL-115M/P
Height of the column H [mm]	8 000	9 000	10 000	11 500
Code	42934/C...	42931/C...	42933/C...	42949/C...
Net weight [kg]	49,2	57,4	63,7	75,5
Approximate unit volume [m ³]*	0,523	0,589	0,654	0,752
Recommended luminaires for column top mounting	COSMO LED ALFA, CUDDLE II LED REG			
Recommended extension arms and luminaires	WR-4/1/1,0/5 ZP, WR-15/1/1,0/5, WR-15/2/1,0/5 - luminaire CUDDLE II LED, CUDDLE II LEG REG, COSMO LED; WN-21, WN-21 REG - luminaire ARTEMIS			
Concrete footing / reinforcement basket type	B-70 / Z-70			
Threaded anchor ending	4xM24			
Concrete footing / reinforcement basket code	311170 / 311207			
Fasteners	4012			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12			

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Articulated mechanism for SAL-...M/P column



LOWERING AND RAISING COLUMNS

Aluminium lighting masts

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

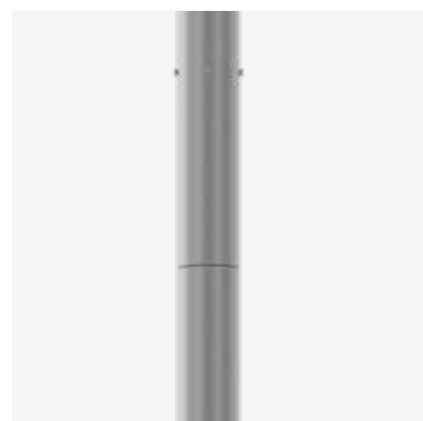
Diameter of the mast ending: \varnothing 100 mm



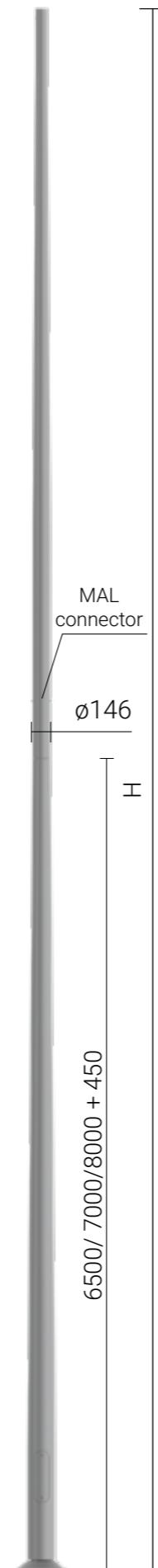
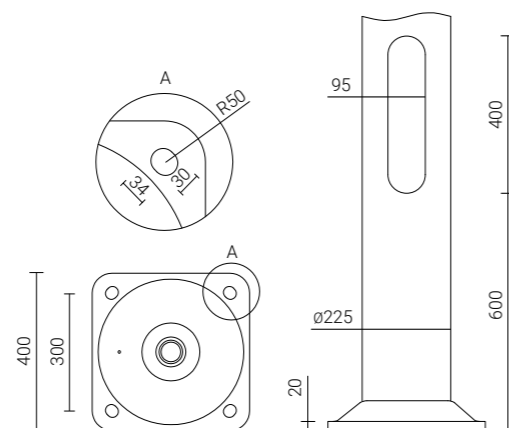
Column type	MAL-10	MAL-12,5	MAL-14	MAL-16
Height of the column H [mm]	10 000	12 500	14 000	16 000
Code	42497/C...	42501/C...	42504/C...	42508/C...
Net weight [kg]	81	93,8	107,6	115,2
Approximate unit volume [m ³]*	0,59	0,64	0,76	0,78
Recommended extension arms for light masts	WM, WRK – luminaire CUDDLE II LED, CUDDLE II LEG REG,			
Concrete footing / reinforcement basket type	B-80 / Z-80			
Threaded anchor ending	4xM24			
Concrete footing / reinforcement basket code	311180 / 311208			
Fasteners	4012			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 20			

Column type	MAL-12,5 wzm	MAL-14 wzm	MAL-16 wzm
Height of the column H [mm]	12 500	14 000	16 000
Code	42551/C...	42554/C...	42558/C...
Net weight [kg]	101,2	114,9	122,5
Approximate unit volume [m ³]*	0,64	0,76	0,78
Recommended extension arms for light masts	WM, WRK		
Concrete footing / reinforcement basket type	B-80 / Z-80		
Threaded anchor ending	4xM24		
Concrete footing / reinforcement basket code	311180 / 311208		
Fasteners	4012		
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 20		

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Connection of an aluminium mast with a MAL connector



ALUMINIUM LIGHTING MASTS

Columns for traffic signal lights

Anodising: 10 colours

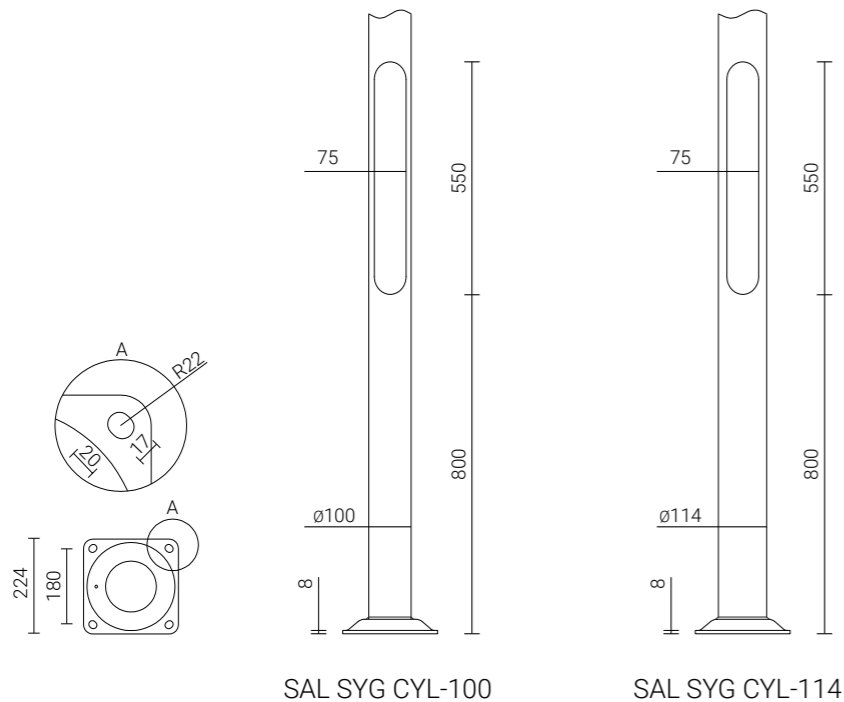
Finish: anodised aluminium, option of paint protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Purpose: designed for hanging a 1-,2-, 3-chamber signal traffic light at road intersections, pedestrian crossings, cameras etc.



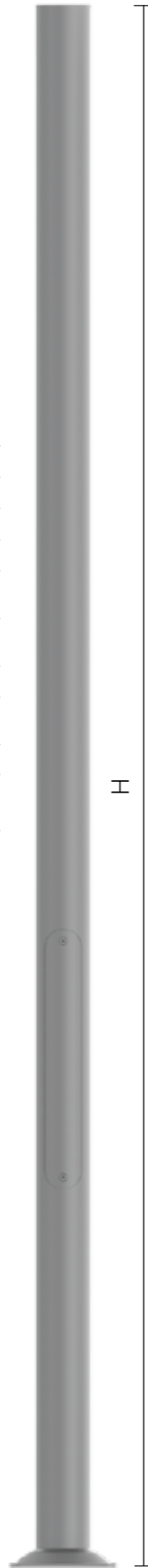
Column type	SAL SYG CYL 100-2,5	SAL SYG CYL 100-2,7	SAL SYG CYL 100-3,05	SAL SYG CYL 114-3,3	SAL SYG CYL 114-3,5
Height of the column H [mm]	2 500	2 700	3 050	3 300	3 500
Code	42805/C...	42806/C...	42807/C...	42808/C...	42809/C...
Net weight [kg]	6,7	7,2	7,9	10,4	11
Approximate unit volume [m³]*	0,125	0,136	0,153	0,166	0,176
Traffic signal lights and signs top column mounting	with $\varnothing 100$ or $\varnothing 114$ mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet				
Concrete footing / reinforcement basket type	B-50 / Z-50				
Threaded anchor ending	4xM14				
Concrete footing / reinforcement basket code	311150 / 311205				
Fasteners	4006				
Dimension of the base plate (side / bolt spacing / thickness) [mm]	224 / 180 / 8				

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



SAL SYG CYL-100

SAL SYG CYL-114



COLUMNS FOR TRAFFIC SIGNAL LIGHTS

Columns for traffic signal lights

Anodising: 10 colours

Finish: : anodised aluminium, option of paint protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

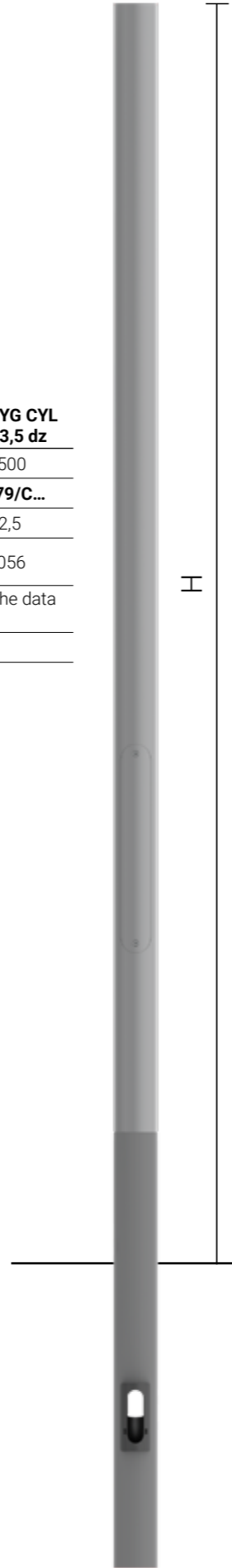
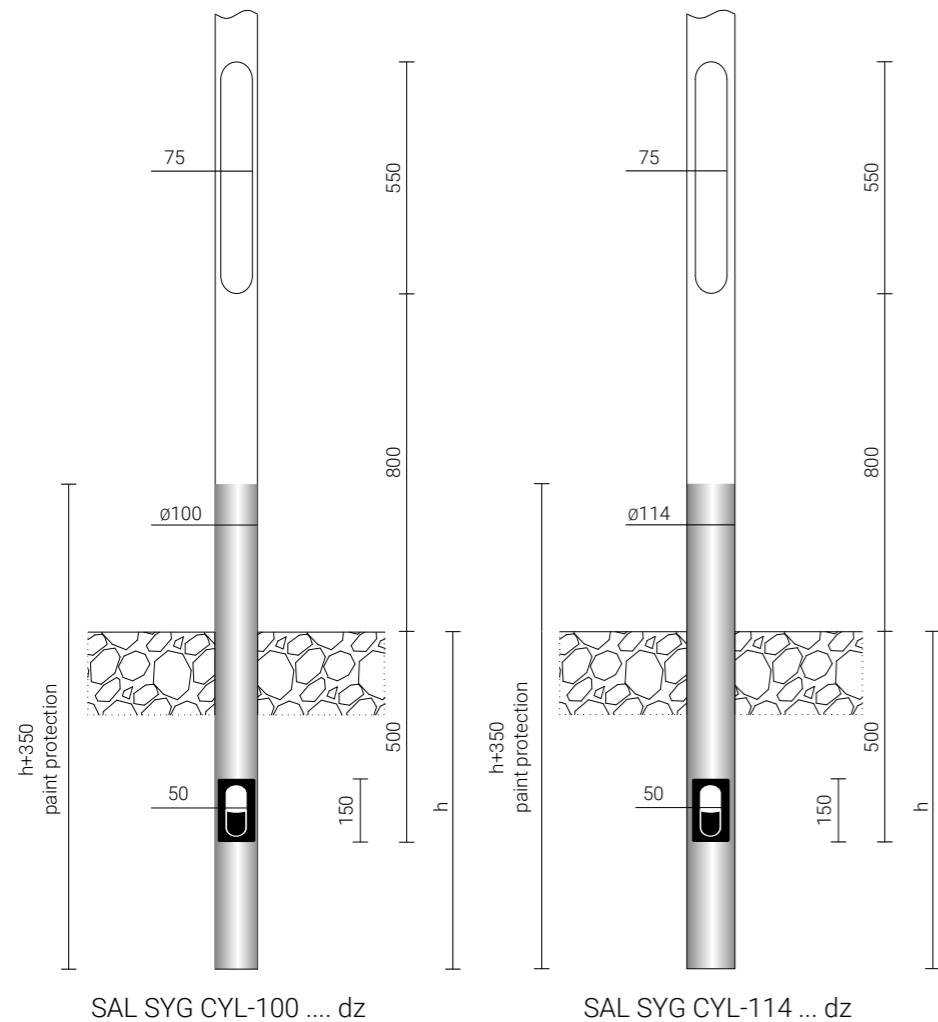
Protection class: IP 54 for the wiring chamber

Purpose: designed for hanging a 1-,2-, 3-chamber signal traffic light at road intersections, pedestrian crossings, cameras etc.



Column type	SAL SYG CYL 100-2,5 dz	SAL SYG CYL 100-2,7 dz	SAL SYG CYL 100-3,05 dz	SAL SYG CYL 114-3,3 dz	SAL SYG CYL 114-3,5 dz
Height of the column H [mm]	2 500	2 700	3 050	3 300	3 500
Code	42875/C...	42876/C...	42877/C...	42878/C...	42879/C...
Net weight [kg]	7,5	7,9	8,7	11,9	12,5
Approximate unit volume [m³]*	0,033	0,035	0,039	0,053	0,056
Traffic signal lights and signs top column mounting	with ø100 or ø114 mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet				
Rooted section h [mm]	800				

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



COLUMNS FOR TRAFFIC SIGNAL LIGHTS

Columns for traffic signal lights

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Diameter of the column ending: $\varnothing 90$ mm

Protection class: IP 54 for the wiring chamber

Purpose: designed for hanging traffic lights at road intersections, pedestrian crossings etc

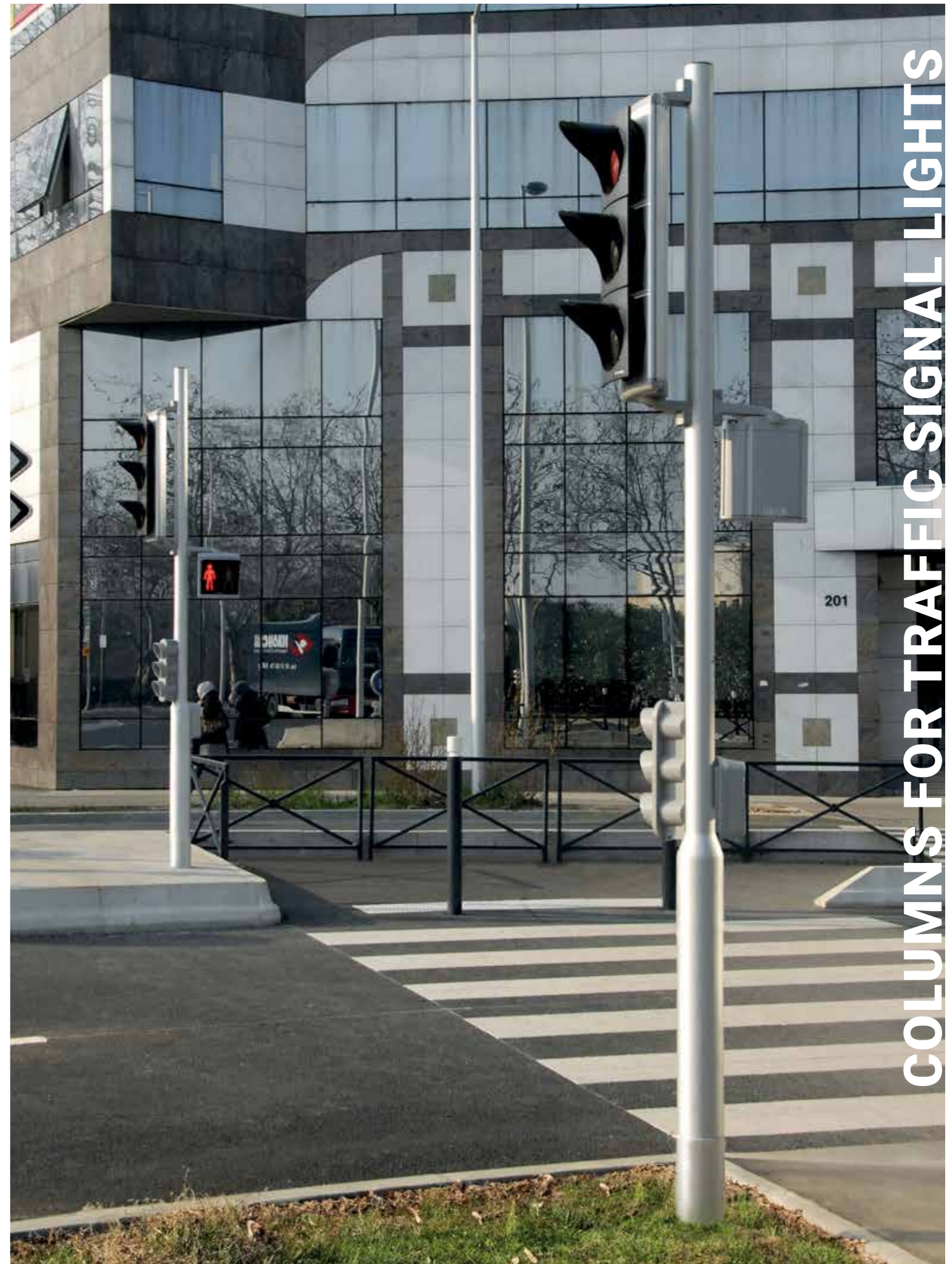
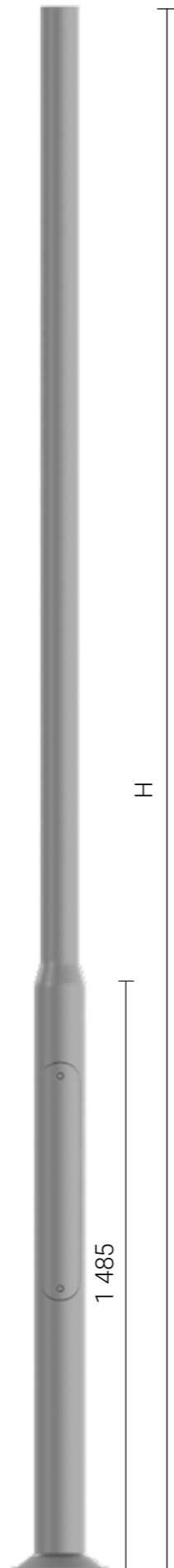
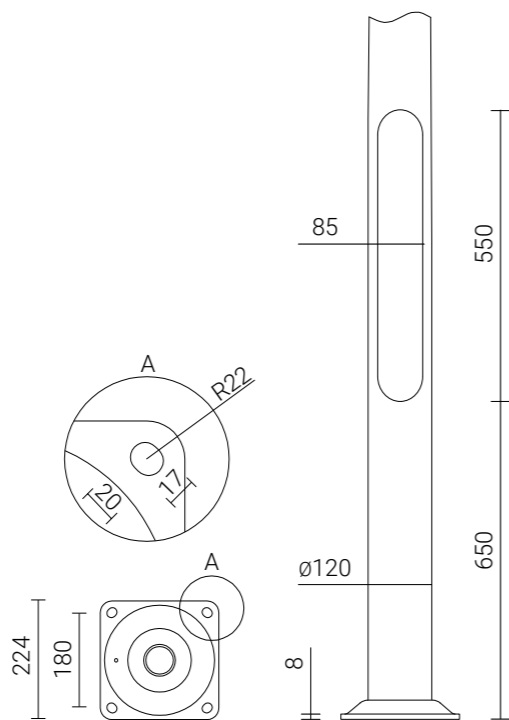


Column type	SAL SYG 3,6-B120	SAL SYG 3,9-B120
Height of the column H [mm]	3 600	3 900
Code	42826/C...	42827/C...
Net weight [kg]	14	15
Approximate unit volume [m ³]*	0,094	0,102
Traffic signal lights and signs top column mounting	with $\varnothing 90$ mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet	
Concrete footing / reinforcement basket type	B-50 / Z-50	
Threaded anchor ending	4xM14	
Concrete footing / reinforcement basket code	311150 / 311205	
Fasteners	4006	
Dimension of the base plate (side / bolt spacing / thickness) [mm]	224 / 180 / 8	

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging. /C... – choice of anodising colour



Base-plate of aluminium column
224x180x8



COLUMNS FOR TRAFFIC SIGNAL LIGHTS

Columns for traffic signal lights

Anodising: 10 colours

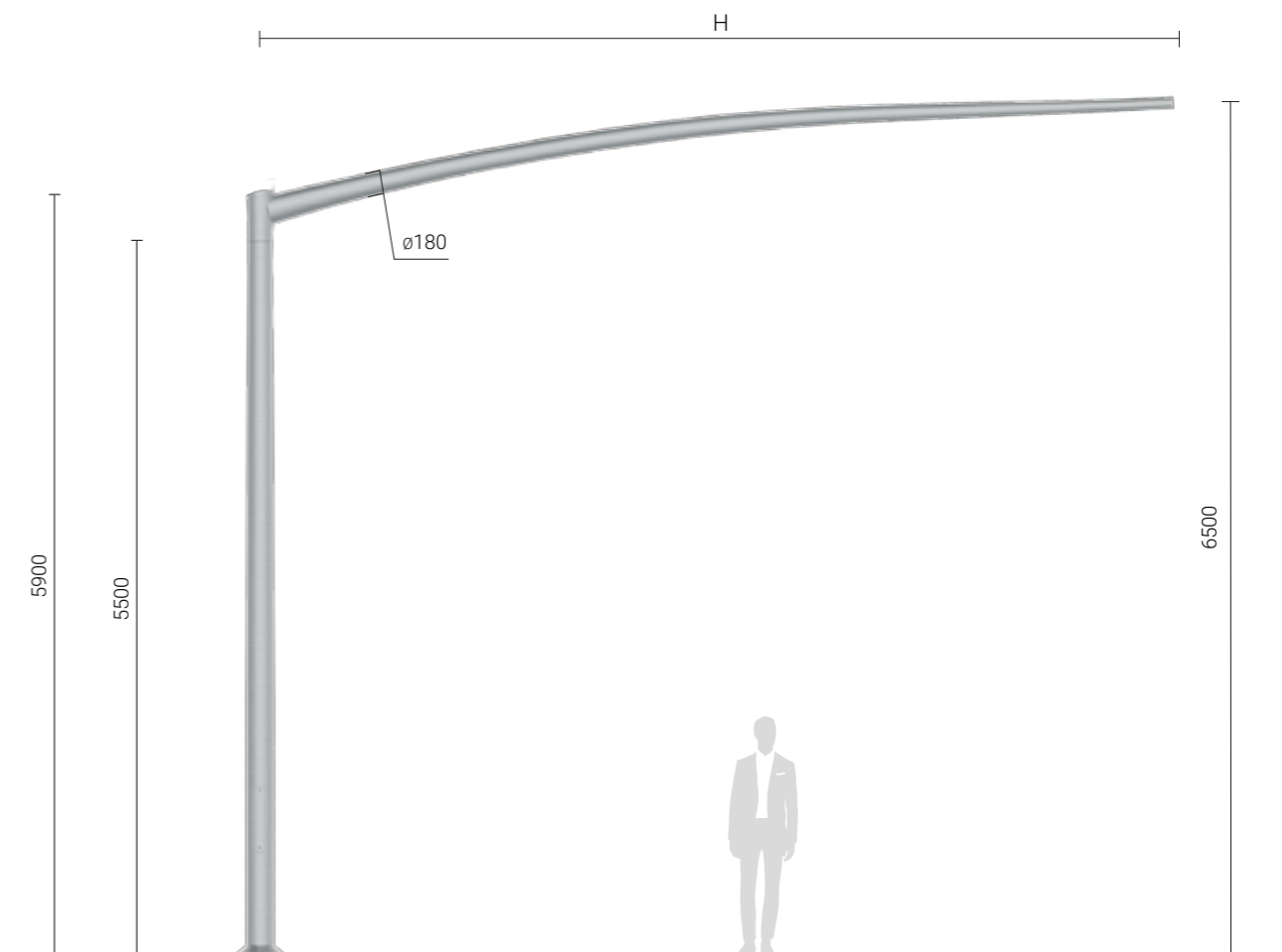
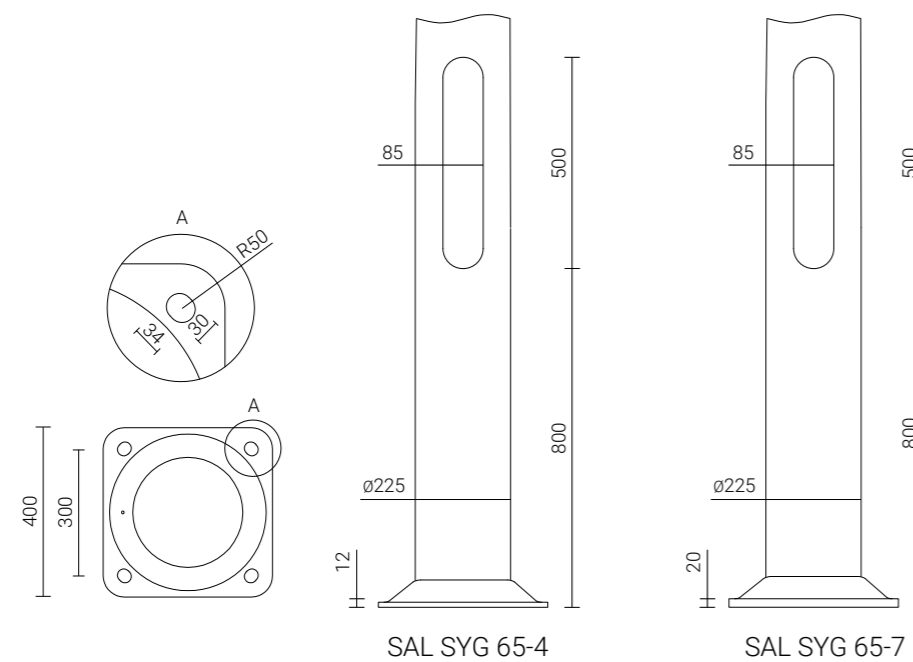
Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Purpose: designed for hanging traffic lights at road intersections, pedestrian crossings, cameras etc.



Column type	SAL SYG 65-4	SAL SYG 65-7
Arm length H [mm]	4 000	7 000
Code	42810/C...	42811/C...
Net weight [kg]	90,2	119,4
Approximate unit volume [m ³]*	0,84	1,04
Traffic signal lights and signs top column mounting	with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet	
Concrete footing / reinforcement basket type	B-80 / Z-80	
Threaded anchor ending	4xM24	
Concrete footing / reinforcement basket code	311180 / 311208	
Fasteners	4012	
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12	400 / 300 / 20

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



Columns for traffic signal lights

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Purpose: designed for hanging traffic lights at road intersections, pedestrian crossings etc



Column type	SAL SYG 260-6,5-7	SAL SYG 260-6,5-8	SAL SYG 260-6,5-9
Arm length H [mm]	7 000	8 000	9 000
Code	42851/C...	42852/C...	42853/C...
Net weight [kg]	147,2	152,6	157,6
Approximate unit volume [m ³]*	1,55	1,75	2,05
Traffic signal lights and signs top column mounting	with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet		
Reinforcement basket type		Z-80	
Threaded anchor ending		4xM24	
Reinforcement basket code		311208	
Fasteners		4012	
Dimension of the base plate (side / bolt spacing / thickness) [mm]		400 / 300 / 30	

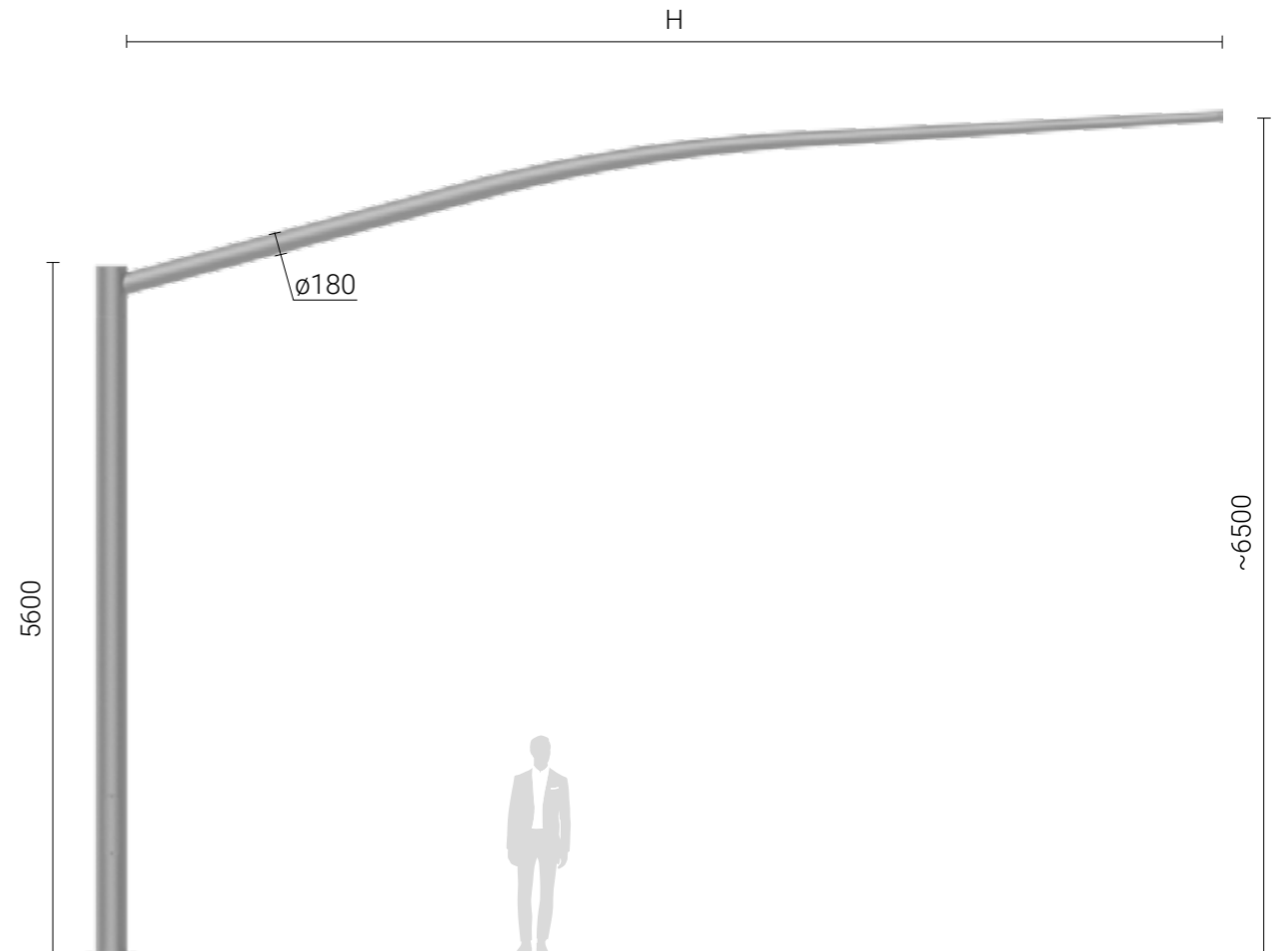
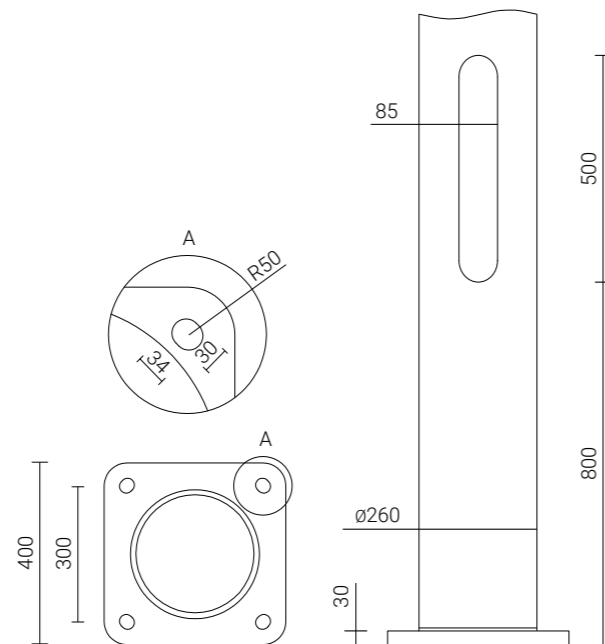
* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



COLUMNS FOR TRAFFIC SIGNAL LIGHTS



Connection of the arm to the column



Columns for traffic signal lights

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Purpose: designed for hanging traffic lights at road intersections, pedestrian crossings etc



Column type	SAL SYG 300-6,5-7	SAL SYG 300-6,5-8	SAL SYG 300-6,5-9
Arm length H [mm]	7 000	8 000	9 000
Code	42861/C...	42862/C...	42863/C...
Net weight [kg]	203	217	223
Approximate unit volume [m ³]*	1,86	2,04	2,18
Traffic signal lights and signs top column mounting	with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet		
Reinforcement basket type	Z-81		
Threaded anchor ending	4xM24		
Reinforcement basket code	311281		
Fasteners	4012		
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 30		

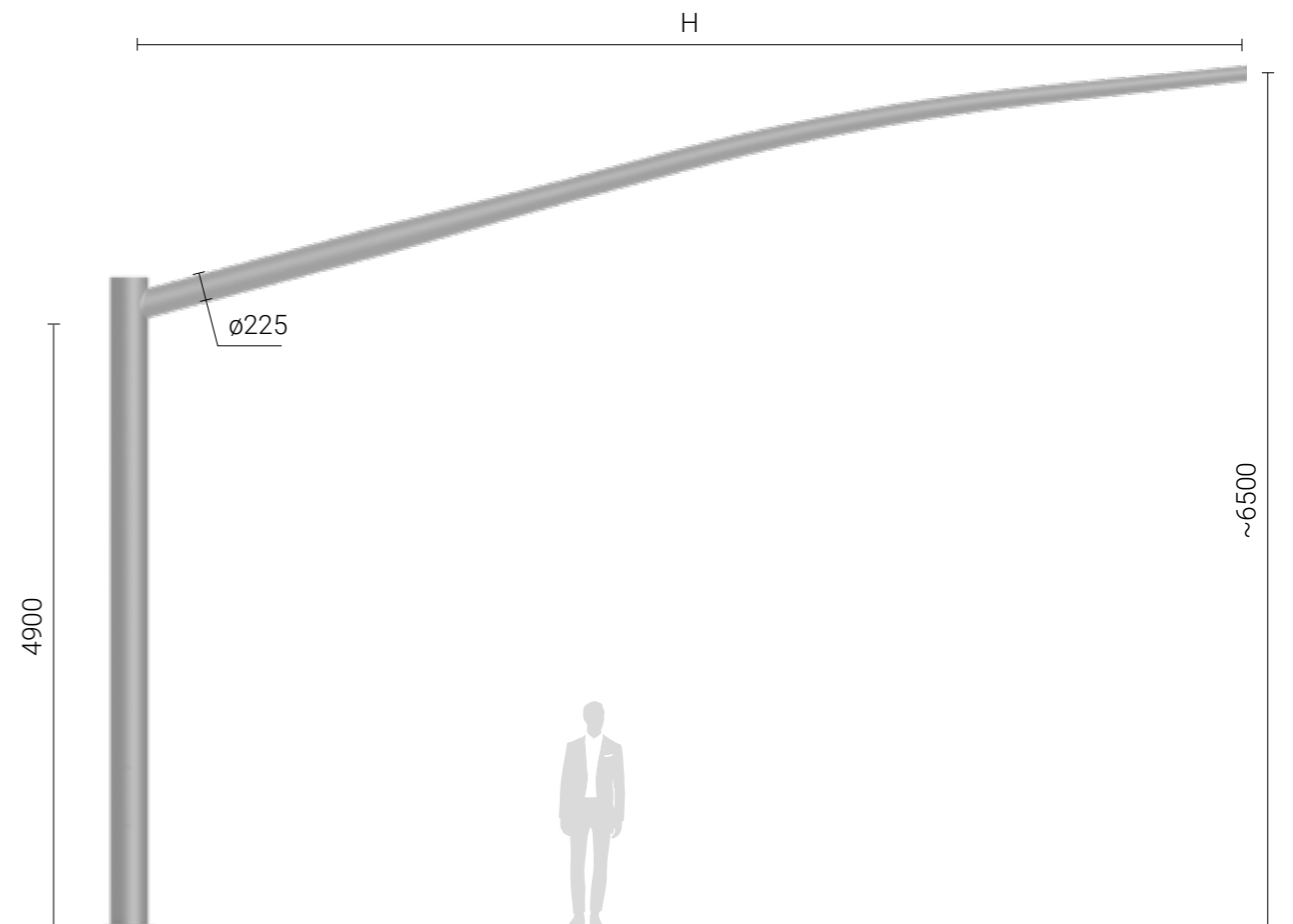
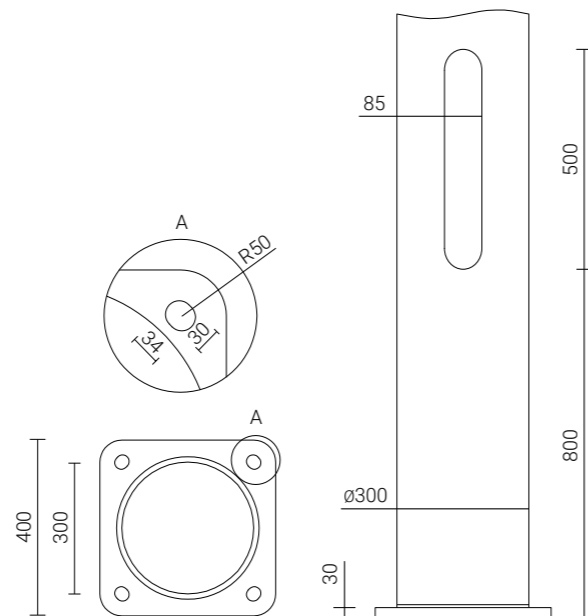
* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... – choice of anodising colour



COLUMNS FOR TRAFFIC SIGNAL LIGHTS



Connection of the arm to the column



Bollards for road infrastructure

Anodising: 10 colours

Finish: anodised aluminium, paint protection (type DZ) and option elastomer protection in column's colour up to a height of 350 mm (other height on customer's request)

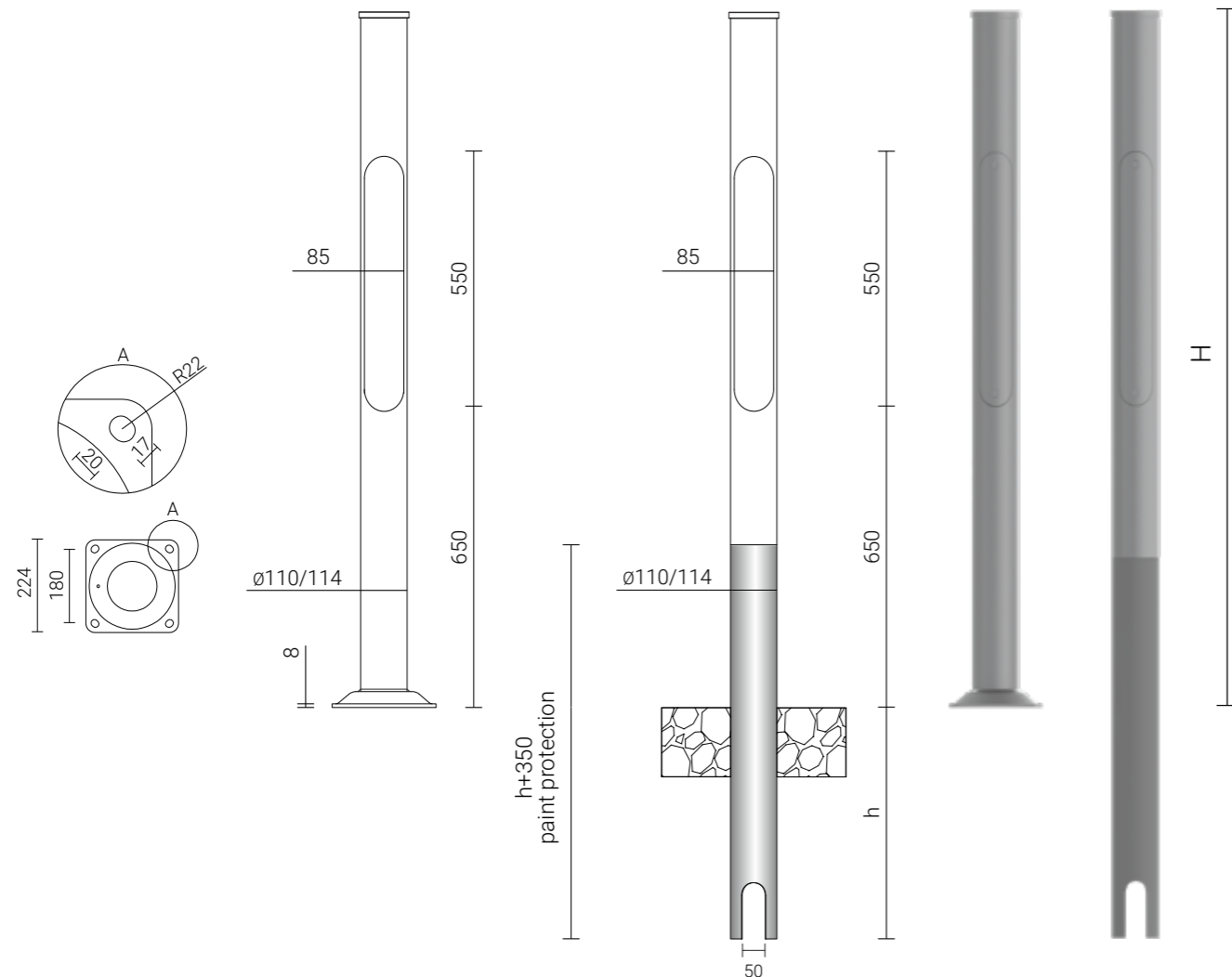
Protection class: IP 54 for the wiring chamber

Purpose: for installing push buttons on pedestrian crossings



Column type	SAL1,5 CYL100	SAL1,5 CYL100-dz	SAL1,5 CYL114	SAL1,5 CYL114-dz
Height of the column H [mm]	1 500	1 500	1 500	1 500
Code	42870/C...	42872/C...	42871/C...	42873/C..
Net weight [kg]	4,7	4,9	5,6	6,3
Approximate unit volume [m ³]*	0,076	0,022	0,076	0,028
Rooted section h [mm]	500			

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



BOLLARDS FOR ROAD INFRASTRUCTURE

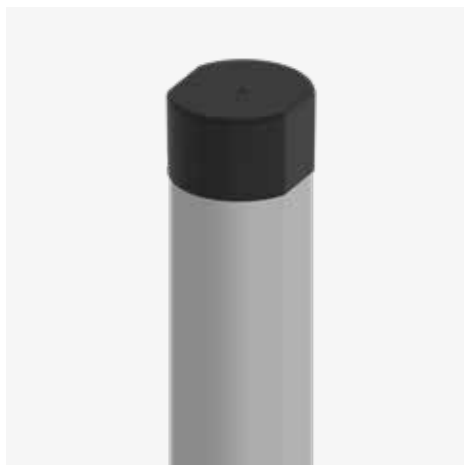
Bollards for road infrastructure

Anodising: 10 colours
Finish: shot blasted anodised aluminium
Purpose: for installing traffic signs

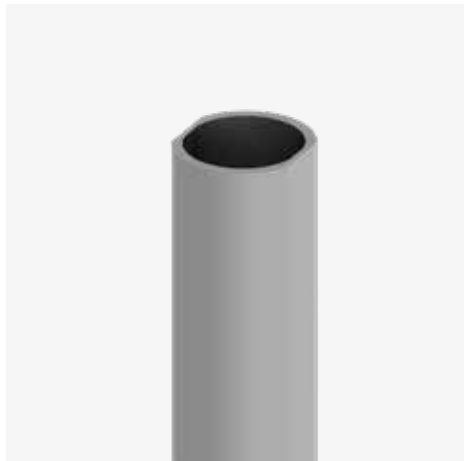


Column type	ROS 3,2	ROS 3,3	ROS 3,4
Height of the column H [mm]	3 200	3 300	3 400
Code	428932/C...	428933/C...	428934/C...
Net weight [kg]	6,7	6,9	7,1
Approximate unit volume [m³]*	0,011	0,012	0,012
Rooted section h [mm]	600		

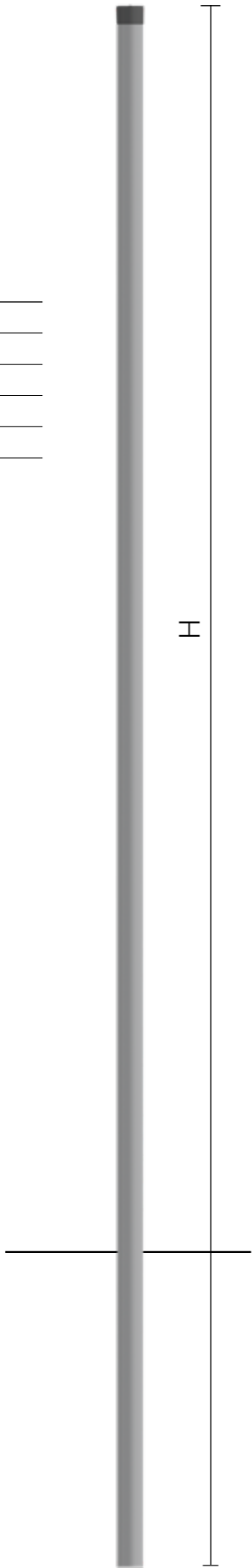
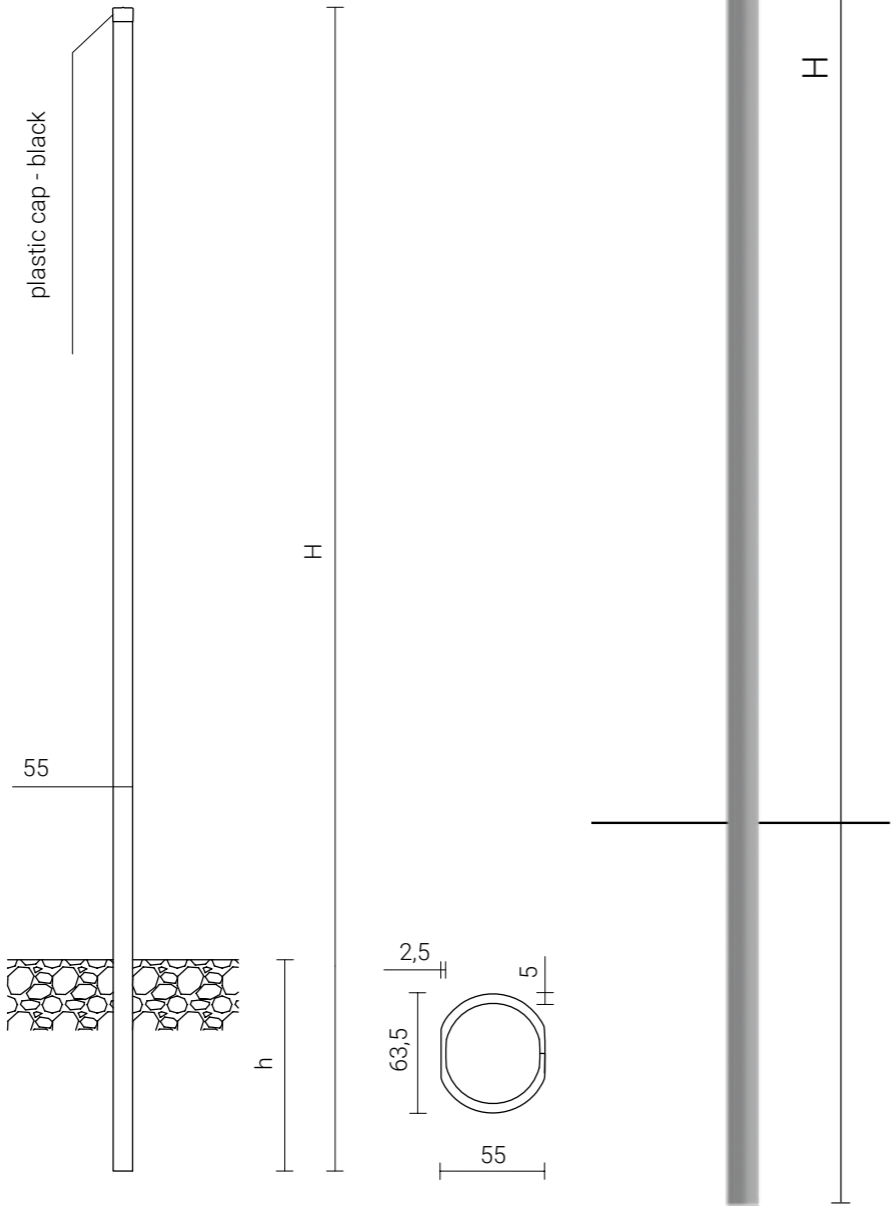
* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
 /C... - choice of anodising colour



Black plastic cap



ROS column profile for traffic signs



BOLLARDS FOR ROAD INFRASTRUCTURE

Aluminum columns for CCTV

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection in column's colour up to a height of 350 mm (other height on customer's request) for columns with a base-plate, grounded columns are protected with elastomer as standard

Purpose: for monitoring installation

Diameter of the column ending: $\varnothing 76$ mm

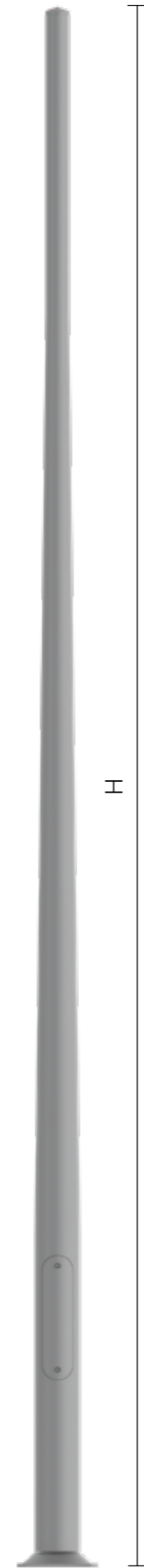
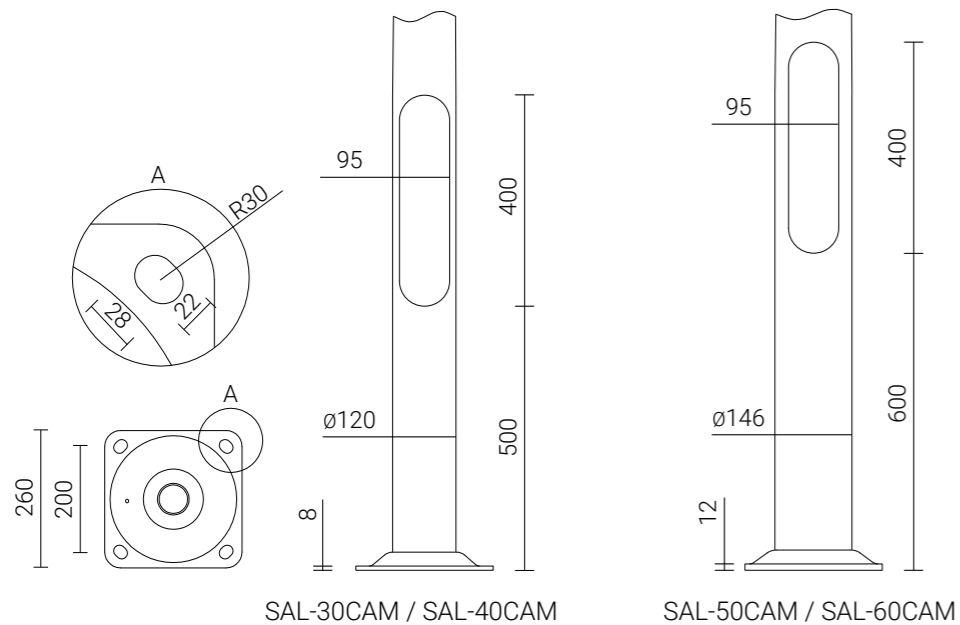
Protection class: IP 54 for the wiring chamber

Ending: aluminium cap anodised in column's colour included as standard



Column type	SAL-30CAM	SAL-40CAM	SAL-50CAM	SAL-60CAM
Height of the column [mm]	3 000	4 000	5 000	6 000
Code	42841/C...	42842/C...	42843/C...	42844/C...
Net weight [kg]	12,3	15,7	21,4	25,2
Approximate unit volume [m ³]*	0,093	0,124	0,155	0,186
Concrete footing / reinforcement basket type	B-51 / Z-51			
Threaded anchor ending	4xM18			
Concrete footing / reinforcement basket code	311151 / 311251			
Fasteners	4008			
Dimension of the base plate (side / bolt spacing / thickness) [mm]	260 / 200 / 8		260 / 200 / 12	

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



ALUMINIUM COLUMNS FOR CCTV

Aluminium flag poles

Anodising: 10 colours

Finish: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Purpose: masts are designed for hanging flags of surface area up to 6 m² according to the technical data sheet

Cord: braided spiral, durable, diameter \varnothing 4 mm, colour: white

Weight: metal, coated with grey coloured plastic

Plastic mounting band: 8 pcs as standard (6 pcs + 1 pc on weight + 1 pc on cross-bar)

Wiring chamber: equipped in cord's lock.

Additional accessories:

- cross-bar for flag - lengths: 1 m, 1,5 m

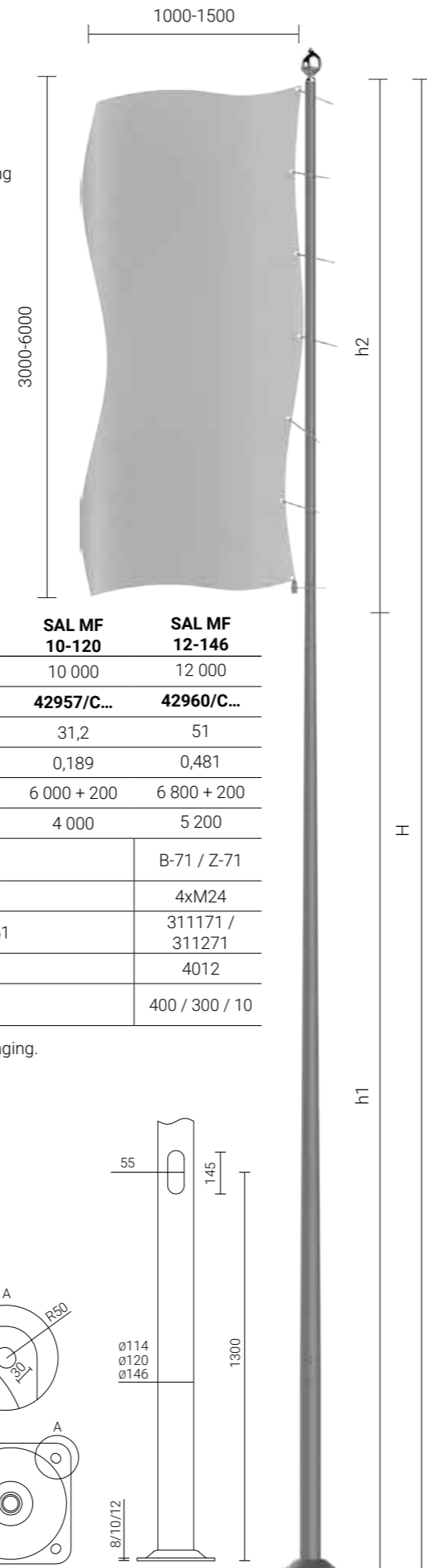
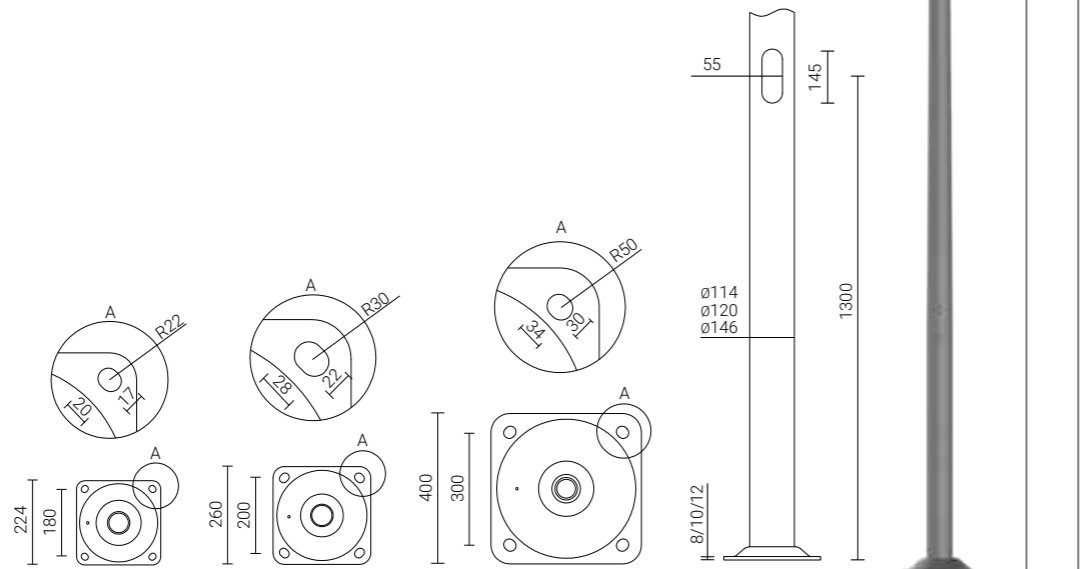


Column type	SAL MF 6-114	SAL MF 8-114	SAL MF 9-120	SAL MF 10-120	SAL MF 12-146
Height of the column H [mm]	6 000	8 000	9 000	10 000	12 000
Code	42950/C...	42953/C...	42956/C...	42957/C...	42960/C...
Net weight [kg]	18,1	22,5	29,5	31,2	51
Approximate unit volume [m ³]*	0,108	0,144	0,186	0,189	0,481
Height of lower section h1 + tube [mm]	4 500 + 200	4 500 + 200	6 000 + 200	6 000 + 200	6 800 + 200
Height of upper section h2 [mm]	1 500	3 500	3 000	4 000	5 200
Concrete footing / reinforcement basket type	B-50 / Z-50		B-51 / Z-51		B-71 / Z-71
Threaded anchor ending	4xM14		4xM18		4xM24
Concrete footing / reinforcement basket code	311150 / 311205		311151 / 311251		311171 / 311271
Fasteners	4006		4008		4012
Dimension of the base plate (side / bolt spacing / thickness) [mm]	224 / 180 / 8		260 / 200 / 12		400 / 300 / 10

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour



Pole ending



ALUMINIUM FLAG POLES

SAL60 PV

Aluminium column with photovoltaic modules

Protection class: IP 65

Photovoltaic module: type glass-glass, monocrystalline double-sided power 380 Wp (min. 360 Wp)

Material: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Anodising: 10 colours

Diameter of the column ending: $\varnothing 60$ x 180 mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Battery capacity: 33 Ah (min. 400 Wh)

Battery life: over 1500 full discharge cycles

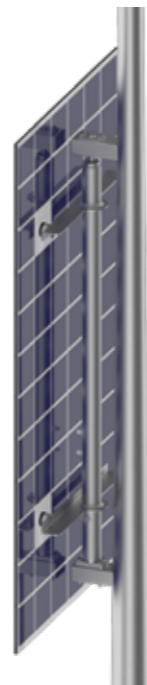
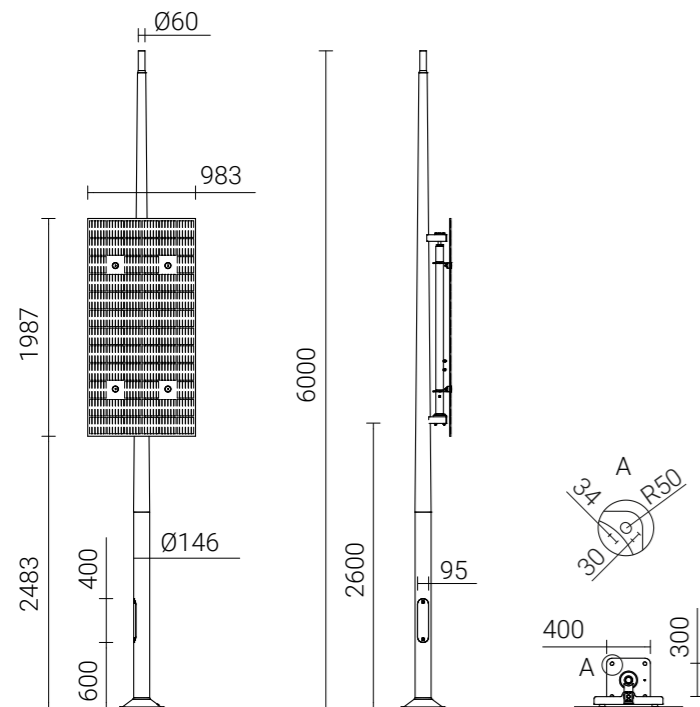
Luminaire mounting: directly on the column or via an extension arm, luminaires with $\varnothing 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet



View detailed specifications and product codes

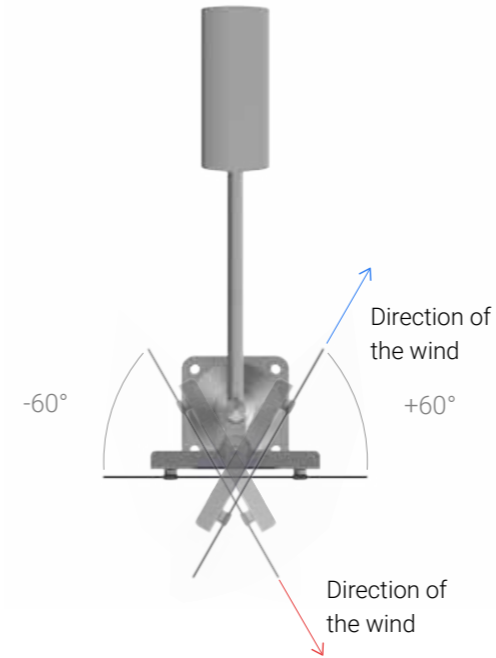
Column type	SAL60 PV
Code	45560/360/400/C...
Height of the column H [mm]	6 000
Net weight [kg]	69,8
Approximate unit volume [m ³]*	0,49
Concrete footing / reinforcement basket type	B-71, B-70 / Z-71, Z-70
Threaded anchor ending	4xM24
Concrete footing / reinforcement basket code	311171, 311170 / 311271, 311207
Fasteners	4012
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12

* For orders of more than 10 pcs. the given volumes may change due to the method of packaging.
/C... - choice of anodising colour

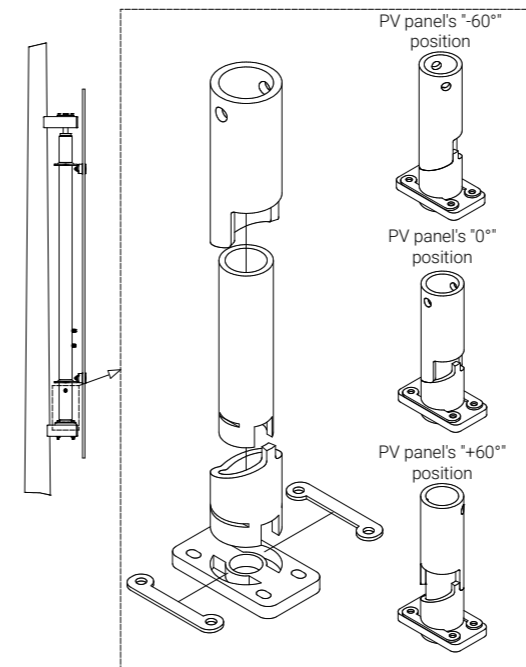


Mechanism's operation principle

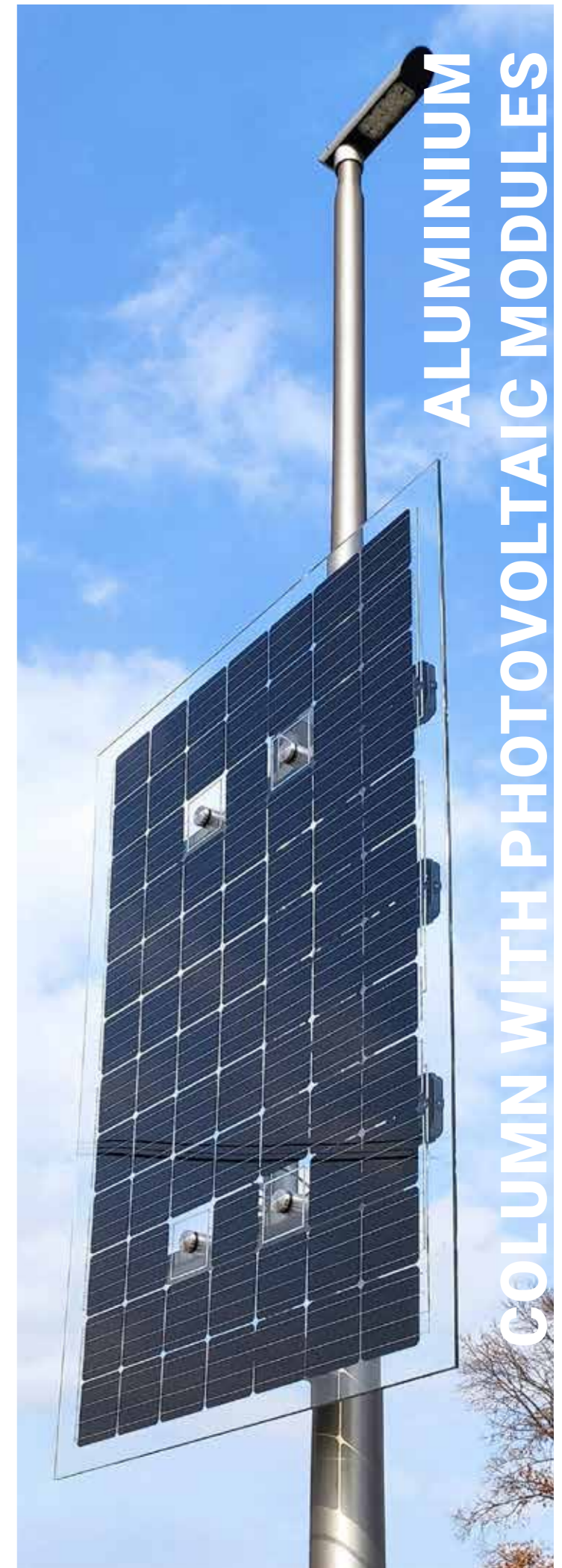
The column's protection mechanism sets the modules in the optimal position relative to the wind, in such a way that the whole can withstand strong gusts of wind.



Mechanism's rotation scheme



Adjustment of the photovoltaic module relative to the 0° position is possible in each direction by an angle of 60°



Straight aluminium columns EV

Electric vehicle charging stations

Protection class: IP 54 for the wiring chamber

Material: brushed anodised aluminium, option of elastomer protection up to a height of 350 mm, in a colour similar to the anode colour (other heights or colours of elastomer available according to the RAL palette at the customer's request)

Anodising: 10 colours

Charging socket: IEC62196 Type-2

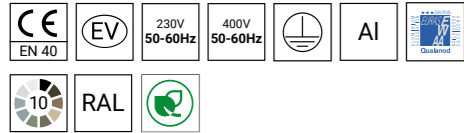
Possibility of integration with the operator system: OCPP v.1.6

Diameter of the column ending: $\varnothing 60 \times 180$ mm, designed for mounting ROSA extension arms (with a flush-mounted head effect) and luminaire

Luminaire mounting: directly on the column or via an extension arm, luminaires with $\varnothing 60$ mm mounting with weight and surface parameters not exceeding the data from the strength table included in the technical data sheet

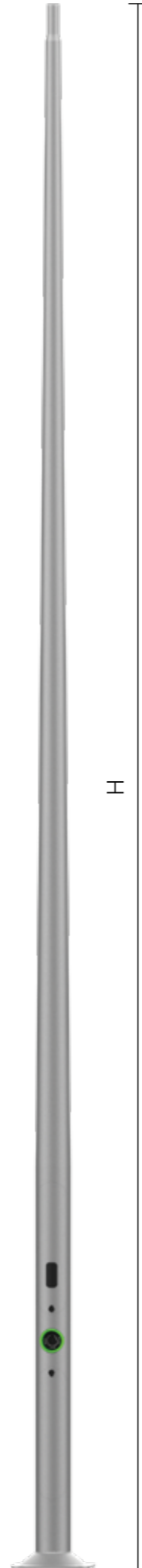
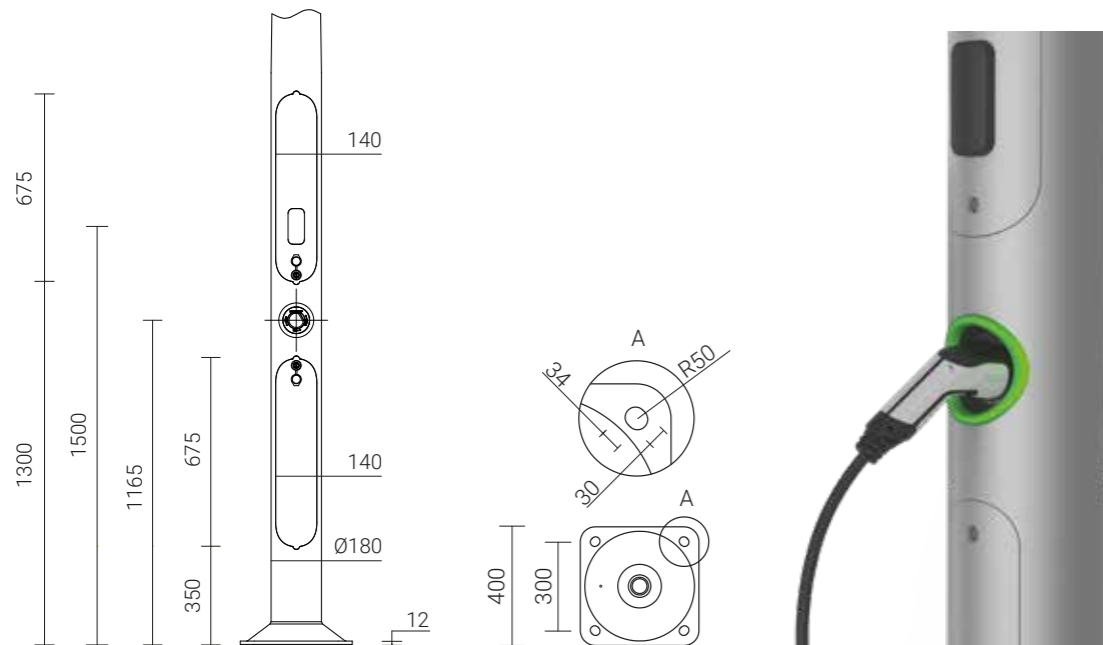


View detailed specifications and product codes



	SAL-60M EV	SAL-70M EV	SAL-80M EV	SAL-90M EV	SAL-100M EV
Code	42771/... ¹⁾ /C...	42773/... ¹⁾ /C...	42775/... ¹⁾ /C...	42777/... ¹⁾ /C...	42779/... ¹⁾ /C...
Height of the column H [mm]	6 000	7 000	8 000	9 000	10 000
Net weight [kg]	45,6	49,4	53,2	57	60,7
Charging point rated powers [kW]	3,7 / 7,4 / 11 / 22				
Concrete footing / reinforcement basket type	B-71, B-70 / Z-71, Z-70				
Threaded anchor ending	4xM24				
Concrete footing / reinforcement basket code	311171, 311170 / 311271, 311207				
Fasteners	4012				
Dimension of the base plate (side / bolt spacing / thickness) [mm]	400 / 300 / 12				

1) Charging point rated powers: 03 - 3,7 kW; 07 - 7,4 kW; 11 - 11 kW; 22 - 22 kW
/C... - choice of anodising colour



STRAIGHT ALUMINIUM COLUMNS EV

KARIN LED EV

Electric vehicle charging stations

Protection class: IP 54 for the wiring chamber

Material: anodised aluminium alloy

Diffuser: frosted (PMMA)

Anodising: 10 colours

Available optics: dedicated optics (KARIN LED EV)

Expected useful lifetime: L90B10 - 100 000 h



View detailed specifications
and product codes

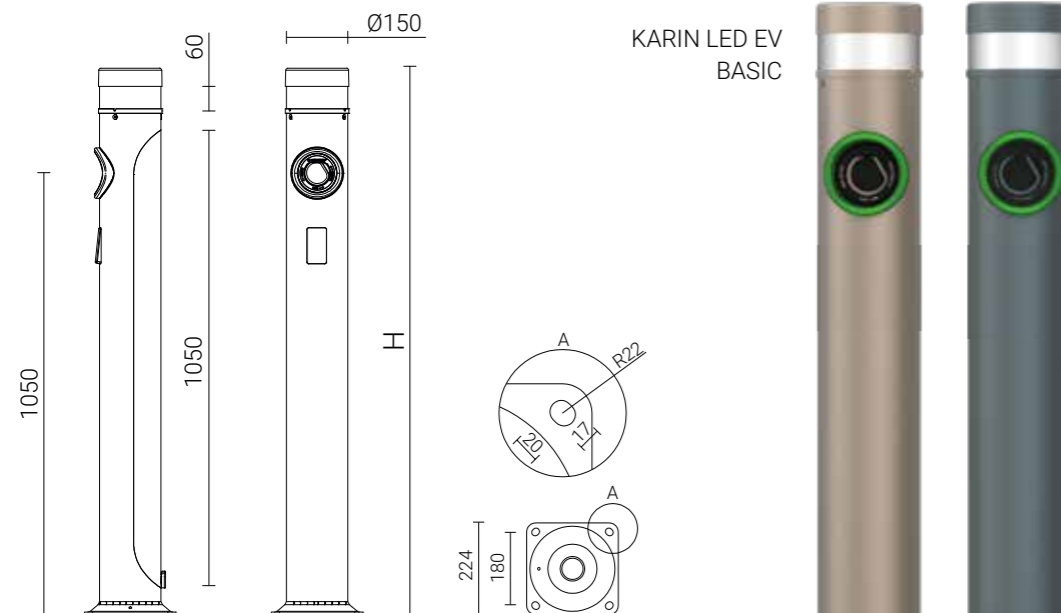
	KARIN LED EV	KARIN LED EV BASIC
Code	45400/... ¹⁾ /... ²⁾ /C...	45400/... ¹⁾ /... ²⁾ /B/C...
LED power		16 W
Luminaire power consumption		20 W
LED forward current		700 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	
CRI	> 70	
Luminaire luminous flux	1500 lm - 1850 lm	
Luminous efficacy	75 lm/W - 93 lm/W	
Charging point rated powers	3,7 kW / 7,4 kW / 11 kW / 22 kW	3,7 kW / 7,4 kW
Concrete footing / reinforcement basket type	B-50 / Z-50	
Threaded anchor ending	4xM14	
Concrete footing / reinforcement basket code	311150 / 311205	
Net weight [kg]	10,8	
Height H [mm]	1300	
Fasteners	4006	
Dimension of the base plate (side / bolt spacing / thickness) [mm]	224 / 180 / 8	

1) Colour temperature: 1 - 2700 K; 3 - 3500 K; 4 - 4000 K; 6 - 5000 K

2) Charging point rated powers: 03 - 3,7 kW; 07 - 7,4 kW; 11 - 11 kW; 22 - 22 kW

/C... - choice of anodising colour

/B - Charging station intended for private use, without integration with the operator system



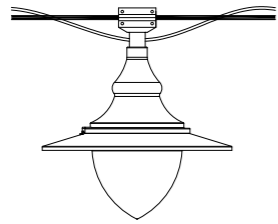
KARIN LED EV

Extension arms WA

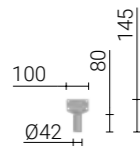
Application: for mounting on SAL aluminium columns with ending $\varnothing 60 \times 180$ mm spigot (WA-0 mounted on a suspension bracket)

Material: anodised aluminium alloy

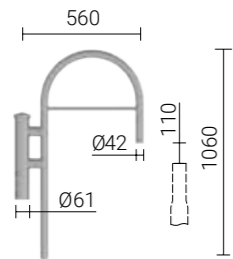
Anodising: 10 colours



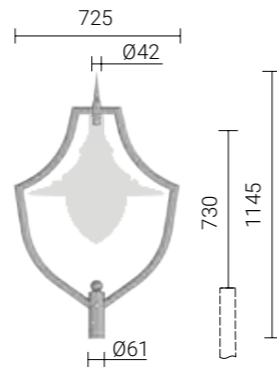
Mounting example of WA-0 with OW LED luminaire, cone lamp diffuser



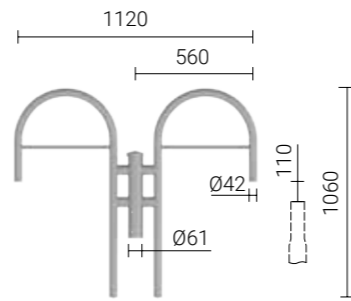
WA-0



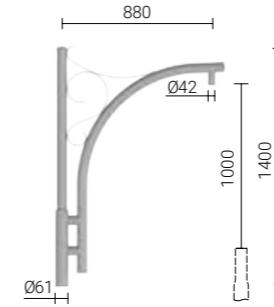
WA-14S/1



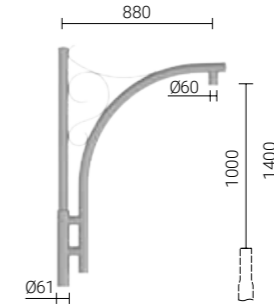
WA-41 fi42



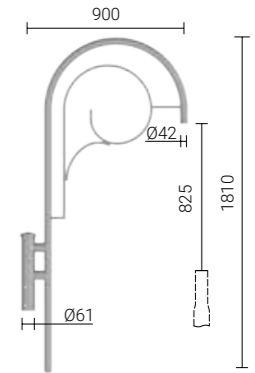
WA-14S/2



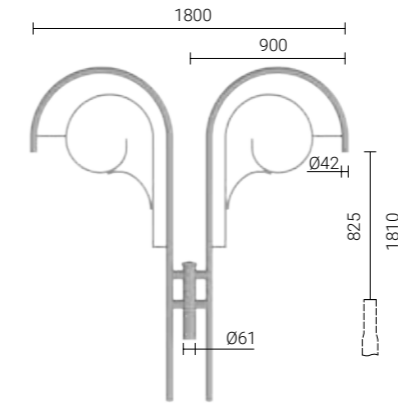
WA-17/1



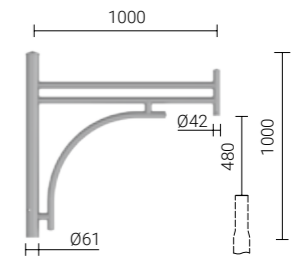
WA-17/1 fi60



WA-20S/1



WA-20S/2



WA-31 fi42

Extension arm type	WA-0	WA-41 fi42	WA-14S/1	WA-14S/2
Number of arms	1	1	1	2
Code	40270/C...	471041/C...	47114101/C	47114201/C...
Net weight [kg]	0,4	3,9	3,9	5,7
Extension arm effective projected area [m ²]		0,13	0,12	0,206
Approximate unit volume [m ³]	0,001	0,045	0,018	0,035
Luminaire mounting diameter [mm]	$\varnothing 42$	$\varnothing 42$	$\varnothing 42$	$\varnothing 42$

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.) /C... – choice of anodising colour

Extension arm type	WA-17/1	WA-17/1 fi60	WA-20S/1	WA-20S/2	WA-31 fi42
Number of arms	1	1	1	2	1
Code	471701/C...	471701/60/C...	47120101/C...	47120201/C...	471031/C...
Net weight [kg]	7,2	7,2	5,5	9,1	8,7
Extension arm effective projected area [m ²]	0,209	0,209	0,19	0,346	0,213
Approximate unit volume [m ³]	0,165	0,165	0,078	0,122	0,022
Luminaire mounting diameter [mm]	$\varnothing 42$	$\varnothing 60$	$\varnothing 42$	$\varnothing 42$	$\varnothing 42$

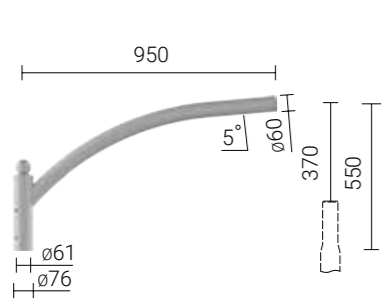
The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.) /C... – choice of anodising colour

Extension arms WR

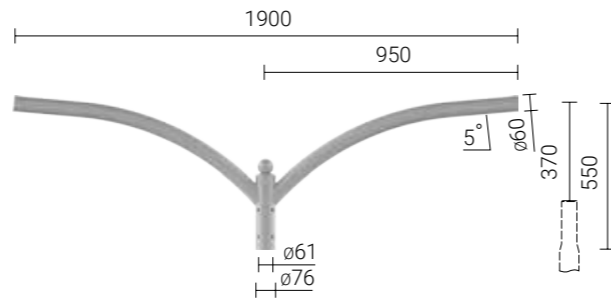
Application: for mounting on SAL aluminium columns with ending
 ø60x180 mm spigot

Material: anodised aluminium alloy

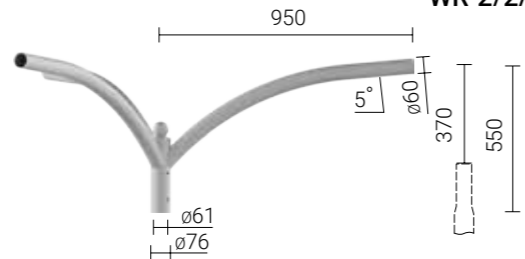
Anodising: 10 colours



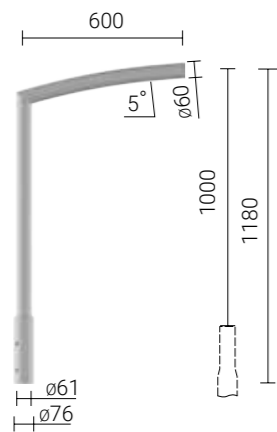
WR-2/1/0,95/5



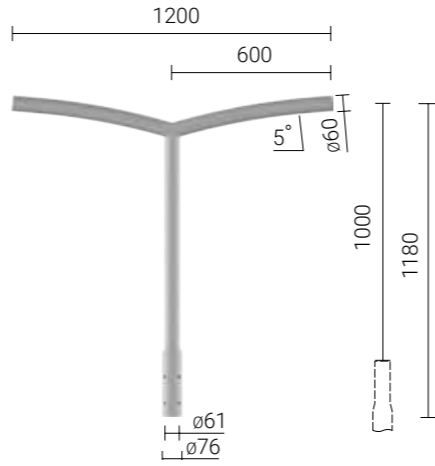
WR-2/2/0,95/5



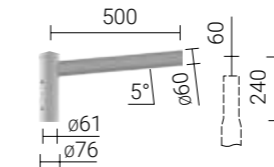
WR-2/3/0,95/5



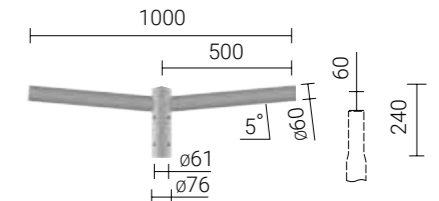
WR-5A/1/0,6/5



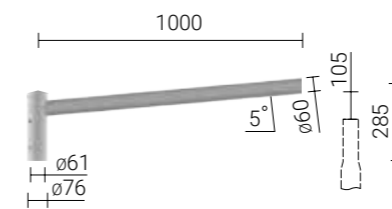
WR-5A/2/0,6/5



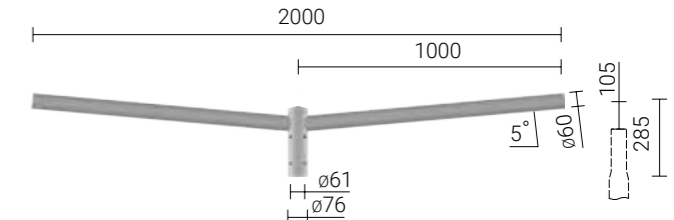
WR-4/1/0,5/5 ZP



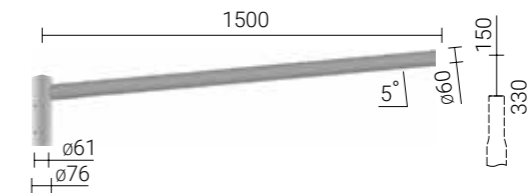
WR-4/2/0,5/5 ZP



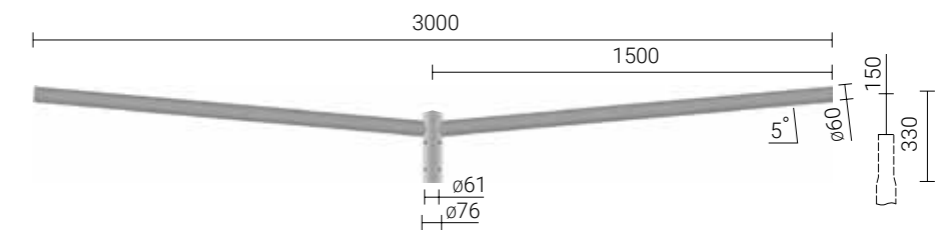
WR-4/1/1,0/5 ZP



WR-4/2/1,0/5 ZP



WR-4/1/1,5/5 ZP



WR-4/2/1,5/5 ZP

Extension arm type	WR-2/1/0,95/5	WR-2/2/0,95/5	WR-2/3/0,95/5	WR-5A/1/0,6/5	WR-5A/2/0,6/5
Number of arms	1	2	3	1	2
Code	472021/C...	472022/C...	472023/C...	47250106/C...	47250206/C...
Net weight [kg]	2,8	4,4	6,3	3,4	4,5
Extension arm effective projected area [m ²]	0,085	0,145	0,145	0,11	0,14
Approximate unit volume [m ³]	0,023	0,05	0,26	0,03	0,06
Luminaire mounting diameter [mm]	ø60	ø60	ø60	ø60	ø60

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.)
 /C... – choice of anodising colour

Extension arm type	WR-4/1/0,5/5 ZP	WR-4/1/1,0/5 ZP	WR-4/1/1,5/5 ZP	WR-4/2/0,5/5 ZP	WR-4/2/1,0/5 ZP	WR-4/2/1,5/5 ZP
Number of arms	1	1	1	2	2	2
Code	472041059/C...	472041109/C...	472041159/C...	472042059/C...	472042109/C...	472042159/C...
Net weight [kg]	1,7	2,5	3,4	2,5	4,2	5,9
Extension arm effective projected area [m ²]	0,05	0,08	0,108	0,08	0,14	0,196
Approximate unit volume [m ³]	0,01	0,02	0,02	0,03	0,03	0,05
Luminaire mounting diameter [mm]	ø60	ø60	ø60	ø60	ø60	ø60

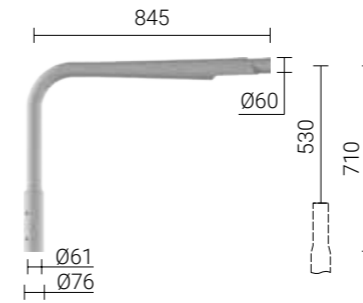
The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.)
 /C... – choice of anodising colour

Extension arms WR

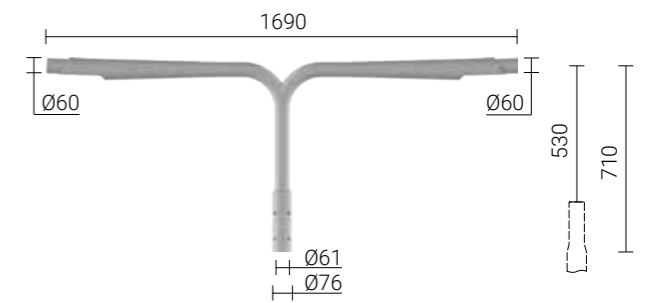
Application: for mounting on SAL aluminium columns with ending $\varnothing 60 \times 180$ mm spigot

Material: anodised aluminium alloy

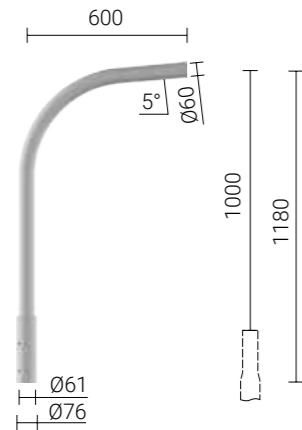
Anodising: 10 colours



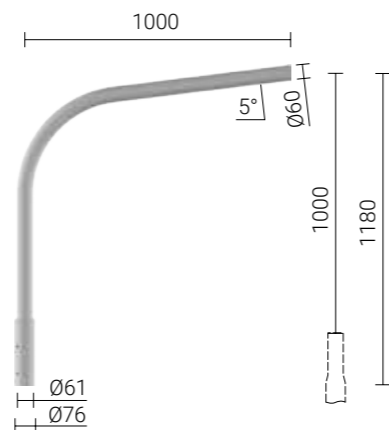
WR-10/1/0,85/0



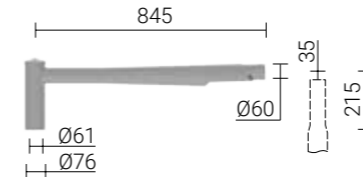
WR-10/2/0,85/0



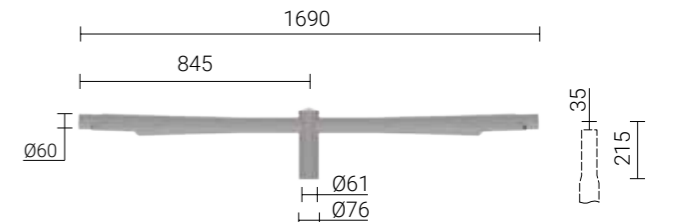
WR-8A/1/0,6/5



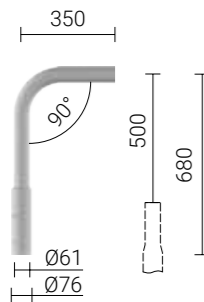
WR-8A/1/1,0/5



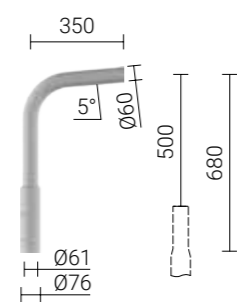
WR-10P/1/0,85/0 ZP



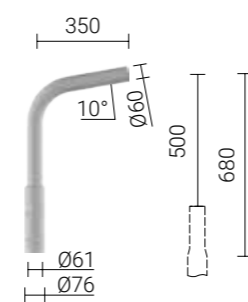
WR-10P/2/0,85/0 ZP



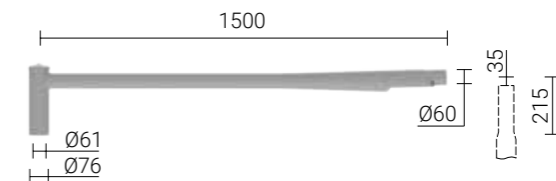
WR-8B/1/0,35/0



WR-8B/1/0,35/5



WR-8B/1/0,35/10



WR-10P/1/1,5/0 ZP

Extension arm type	WR-8A/1/0,6/5	WR-8A/1/1,0/5	WR-8B/1/0,35/0	WR-8B/1/0,35/5	WR-8B/1/0,35/10
Number of arms	1	1	1	1	1
Code	47280106/C...	47280110/C...	472831/C...	472841/C...	472851/C...
Net weight [kg]	3,2	3,8	2,1	2,1	2,1
Extension arm effective projected area [m ²]	0,1	0,12	0,05	0,05	0,05
Approximate unit volume [m ³]	0,03	0,05	0,015	0,015	0,015
Luminaire mounting diameter [mm]	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl)
/C... - choice of anodising colour

Extension arm type	WR-10/1/0,85/0	WR-10/2/0,85/0	WR-10P/1/0,85/0 ZP	WR-10P/2/0,85/0 ZP	WR-10P/1/1,5/0 ZP
Number of arms	1	2	1	2	1
Code	472221/C45/C35	472222/C45/C35	4722419/C45/C35	4722429/C45/C35	4722519/C45/C35
Net weight [kg]	4	6,7	3,3	5,7	4,8
Extension arm effective projected area [m ²]	0,11	0,19	0,073	0,127	0,112
Approximate unit volume [m ³]	0,05	0,1	0,013	0,026	0,022
Luminaire	ISKRA LED, ISKRA LED PROG				

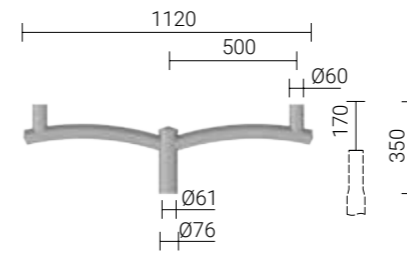
The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl)
/C... - choice of anodising colour

Extension arms WR

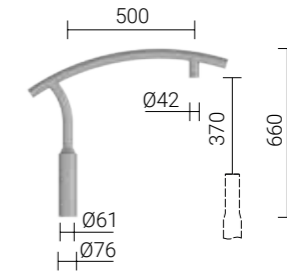
Application: for mounting on SAL aluminium columns with ending $\varnothing 60 \times 180$ mm spigot

Material: anodised aluminium alloy

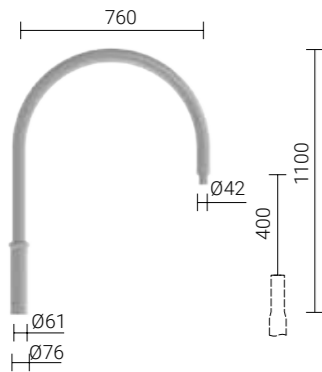
Anodising: 10 colours



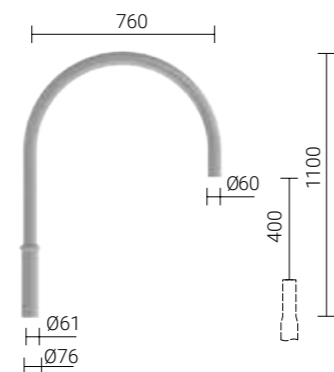
WR-7/2/0,5



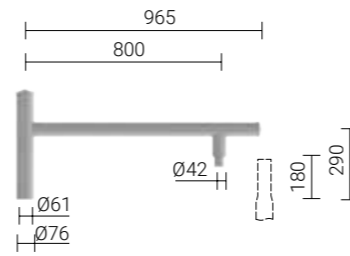
WR-73/1/0,5



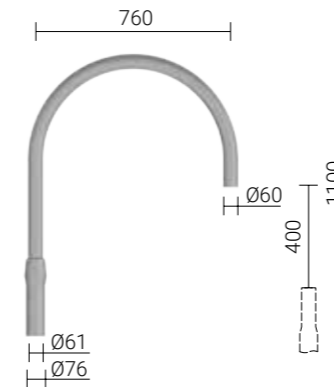
WR-33/1/0,76 fi42



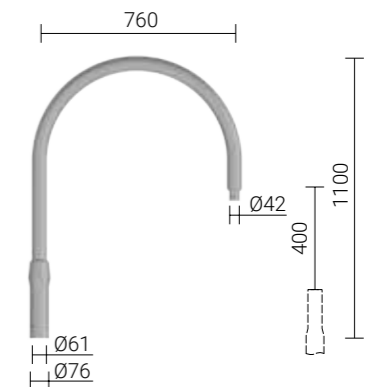
WR-33/1/0,76 fi60



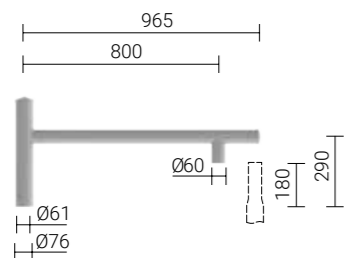
WR-43/1/0,8 fi42



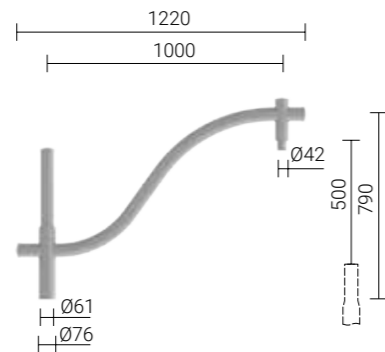
WR-23A/1/0,76



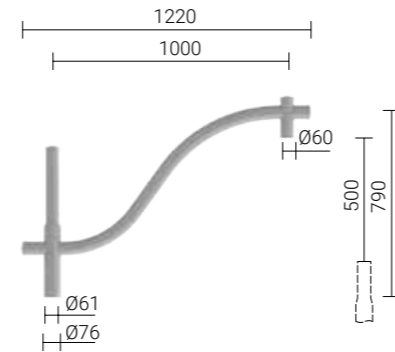
WR-23A/1/0,76 fi42



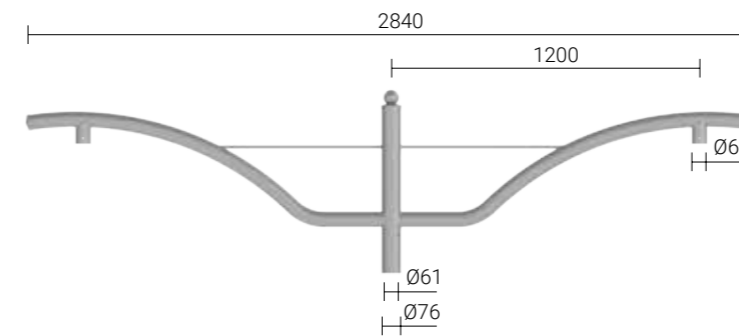
WR-43/1/0,8 fi60



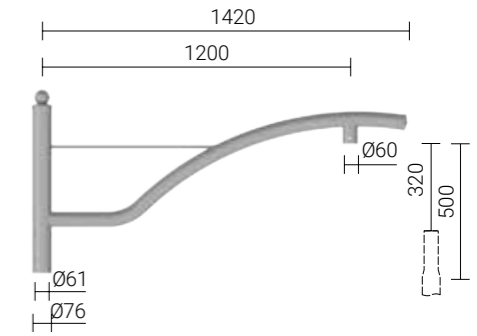
WR-53/1/1 fi42



WR-53/1/1 fi60



WR-71/2/1,2



WR-71/1/1,2

Extension arm type	WR-33/1/0,76 fi42	WR-33/1/0,76 fi60	WR-43/1/0,8 fi42	WR-43/1/0,8 fi60	WR-53/1/1 fi42	WR-53/1/1 fi60
Number of arms	1	1	1	1	1	1
Code	472331/42/C...	472331/C...	472431/42/C...	472431/C...	472531/42/C...	472531/C...
Net weight [kg]	4,2	4	3,4	3,2	4,6	4,4
Extension arm effective projected area [m ²]	0,127	0,125	0,097	0,095	0,136	0,134
Approximate unit volume [m ³]	0,064	0,062	0,025	0,024	0,037	0,036
Luminaire mounting diameter [mm]	$\varnothing 42$	$\varnothing 60$	$\varnothing 42$	$\varnothing 60$	$\varnothing 42$	$\varnothing 60$

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.) /C... – choice of anodising colour

Extension arm type	WR-7/2/0,5	WR-23A/1/0,76 fi42	WR-23A/1/0,76	WR-71/1/1,2	WR-71/2/1,2	WR-73/1/0,5
Number of arms	2	1	1	1	2	1
Code	472072/C...	472230/42/C...	472230/C...	472711/C...	472712/C...	472731/C...
Net weight [kg]	3,2	4,4	4,2	5	7,8	3,7
Extension arm effective projected area [m ²]	0,094	0,126	0,126	0,153	0,254	0,114
Approximate unit volume [m ³]	0,022	0,06	0,06	0,04	0,076	0,06
Luminaire mounting diameter [mm]	$\varnothing 60$	$\varnothing 42$	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$	$\varnothing 42$

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.) /C... – choice of anodising colour

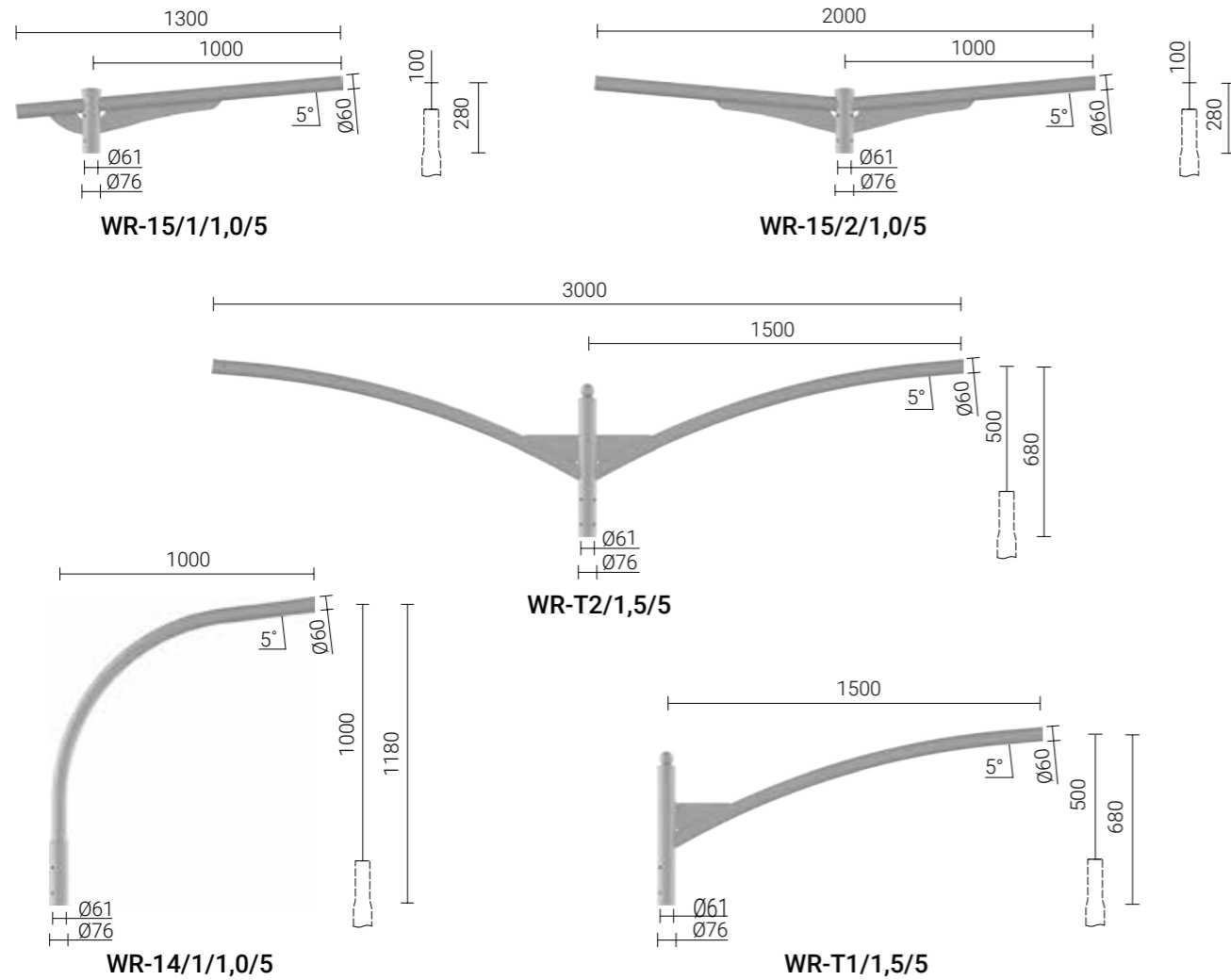
Extension arms WR

Application: for mounting on SAL aluminium columns with ending

ø60x180 mm spigot

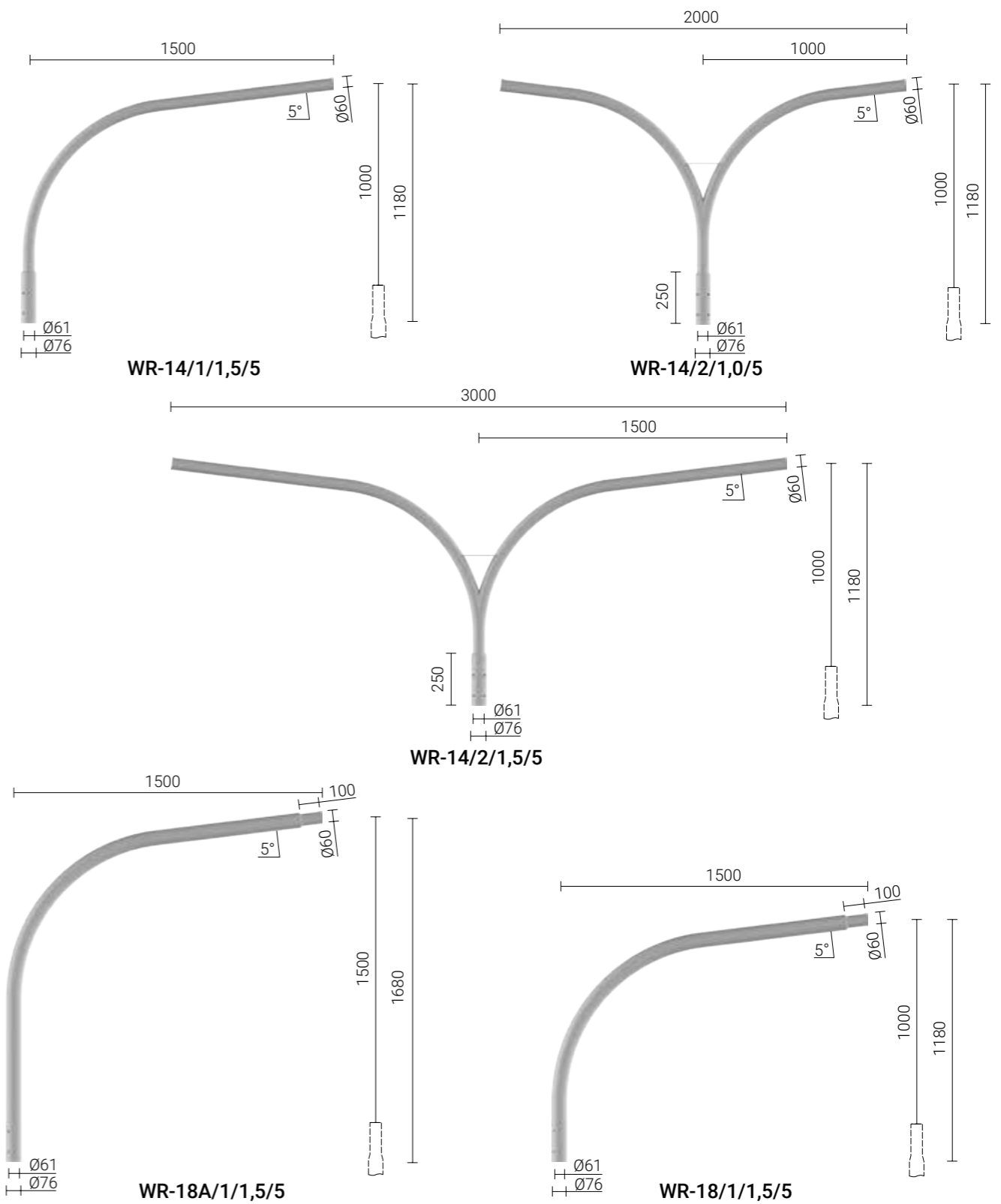
Material: anodised aluminium alloy

Anodising: 10 colours



Extension arm type	WR-15/1/1,0/5	WR-15/2/1,0/5	WR-T1/1,5/5	WR-T2/1,5/5	WR-14/1/1,0/5
Number of arms	1	2	1	2	1
Code	472151/C...	472142/C...	472101/C...	472102/C...	472141/C...
Net weight [kg]	4,4	5,7	4,7	8,8	3,7
Extension arm effective projected area [m ²]	0,14	0,191	0,147	0,249	0,114
Approximate unit volume [m ³]	0,066	0,1	0,041	0,096	0,06
Luminaire mounting diameter [mm]	ø60	ø60	ø60	ø60	ø60

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.)
/C... – choice of anodising colour



Extension arm type	WR-14/1/1,5/5	WR-14/2/1,0/5	WR-14/2/1,5/5	WR-18/1/1,5/5	WR-18A/1/1,5/5
Number of arms	1	2	2	1	1
Code	47214115/C...	472142/C...	47214215/C...	47218115/C...	47281115/C...
Net weight [kg]	4,4	5,7	7,3	5,2	6,3
Extension arm effective projected area [m ²]	0,14	0,191	0,247	0,17	0,21
Approximate unit volume [m ³]	0,066	0,1	0,148	0,06	0,09
Luminaire mounting diameter [mm]	ø60	ø60	ø60	ø60x100	ø60x100

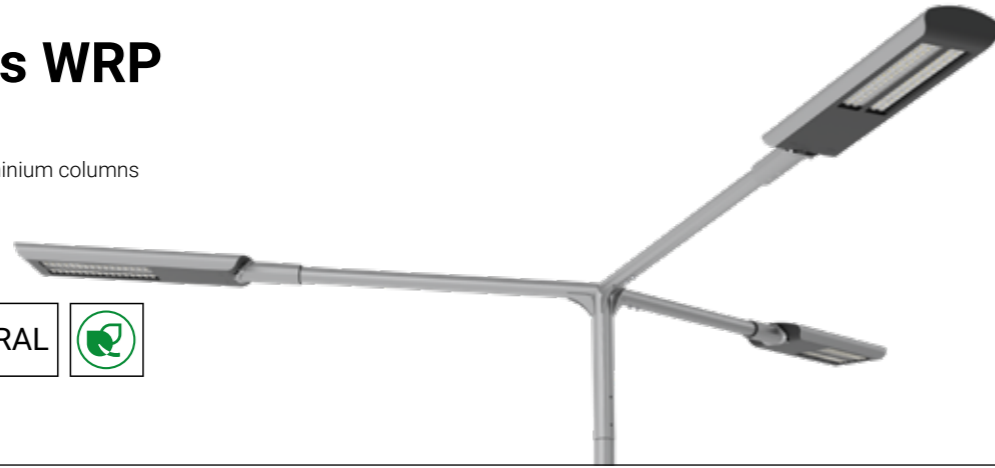
The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.)
/C... – choice of anodising colour

Extension arms WRP

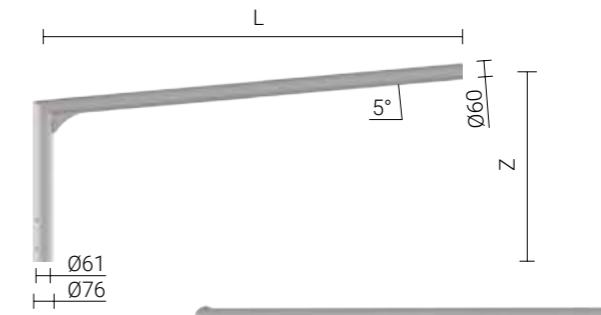
Application: for mounting on SAL aluminium columns with ending $\varnothing 60 \times 180$ mm spigot

Material: anodised aluminium alloy

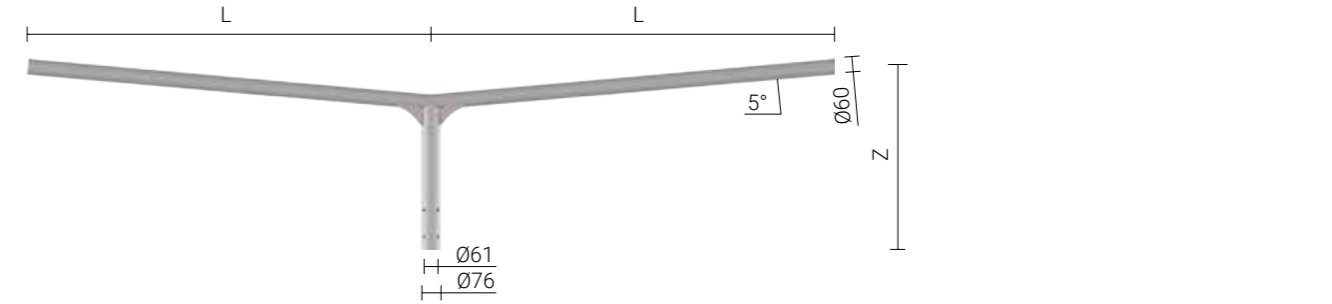
Anodising: 10 colours



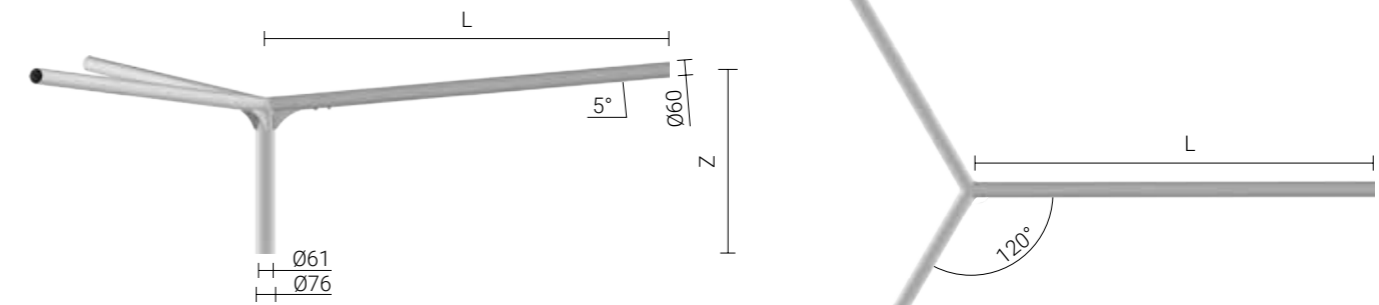
EXTENSION ARMS WRP



WRP 1/L/Z/5



WRP 2/L/Z/5



WRP 3/L/Z/5

L – outreach length
 Z – height of extension arm
 5° – the angle of the arm
 1 / 2 / 3 – number of arms

Extension arm type	WRP-1/1,0/0,7/5	WRP-1/1,0/1,2/5	WRP-1/1,5/0,7/5	WRP-1/1,5/1,2/5	WRP-2/1,0/0,7/5
Number of arms	1	1	1	1	2
Code	47219111/C...	47219112/C...	47219121/C...	47219122/C...	47219211/C...
Net weight [kg]	3,7	5,3	4,4	6	5,4
Extension arm effective projected area [m ²]	0,106	0,144	0,133	0,17	0,163
Approximate unit volume [m ³]	0,05	0,09	0,07	0,12	0,09
Luminaire mounting diameter [mm]	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl).
 /C... – choice of anodising colour

Extension arm type	WRP-2/1,0/1,2/5	WRP-2/1,5/0,7/5	WRP-2/1,5/1,2/5	WRP-3/1,0/0,7/5	WRP-3/1,5/0,7/5
Number of arms	2	2	2	3	3
Code	47219212/C...	47219221/C...	47219222/C...	47219311/C...	47219321/C...
Net weight [kg]	7	6,9	8,5	8	10,4
Extension arm effective projected area [m ²]	0,196	0,221	0,259	0,132	0,176
Approximate unit volume [m ³]	0,11	0,11	0,17	0,09	0,13
Luminaire mounting diameter [mm]	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$

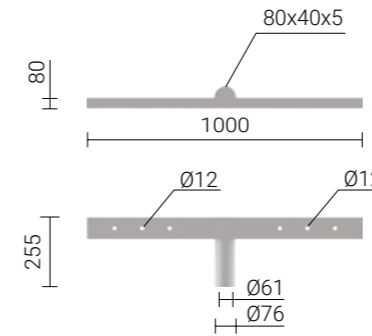
The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl).
 /C... – choice of anodising colour

Extension arms WN

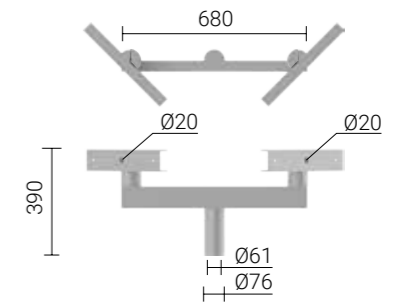
Application: for mounting on SAL aluminium columns with $\varnothing 60 \times 180$ mm spigot

Material: anodised aluminium alloy

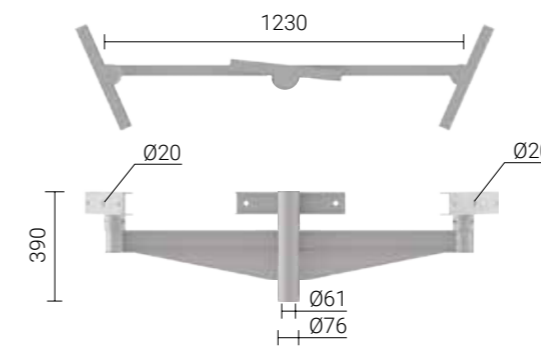
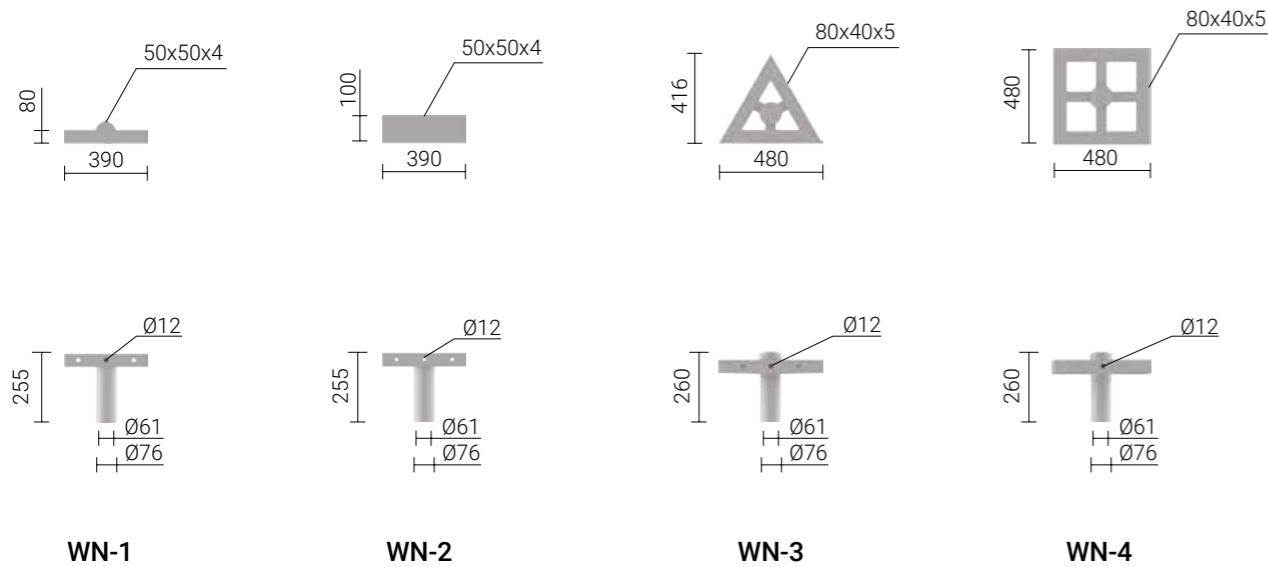
Anodising: 10 colours



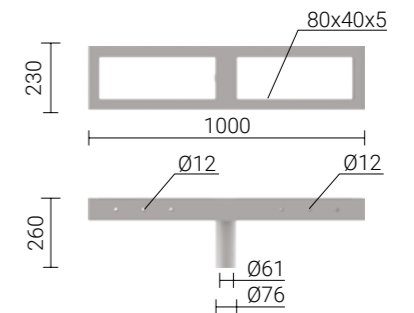
WN-21 REG



WN-21



WN-31 REG



WN-42

Extension arm type	WN-1	WN-2	WN-3	WN-4
Number of arms	1	2	3	4
Code	473010/C...	473020/C...	473030/C...	473040/C...
Net weight [kg]	1,2	1,6	2,7	3,8
Extension arm effective projected area [m ²]	0,03	0,03	0,04	0,04
Approximate unit volume [m ³]	0,01	0,01	0,02	0,03
Luminaire type	floodlights			

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.) /C... – choice of anodising colour

Extension arm type	WN-21	WN-21 REG	WN-31 REG	WN-42
Number of arms	2	2	3	4
Code	473210/C...	473211/C...	473311/C...	473420/C...
Net weight [kg]	3	5,5	8,6	6,3
Extension arm effective projected area [m ²]	0,09	0,14	0,28	0,09
Approximate unit volume [m ³]	0,02	0,02	0,04	0,03
Luminaire type	floodlights			

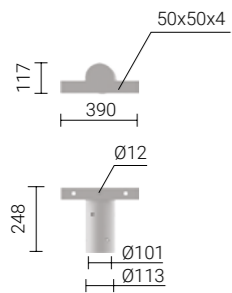
The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.) /C... – choice of anodising colour

Extension arms WM

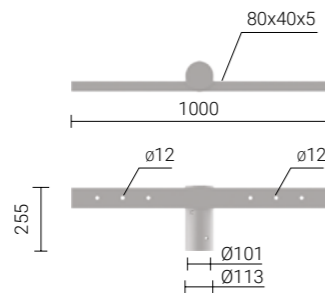
Application: MAL anodised aluminium masts with $\varnothing 100 \times 180$ mm spigot

Material: anodised aluminium alloy

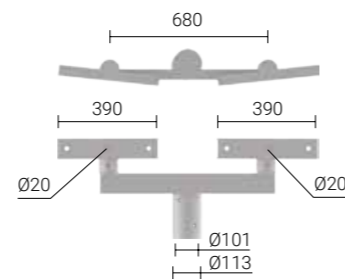
Anodising: 10 colours



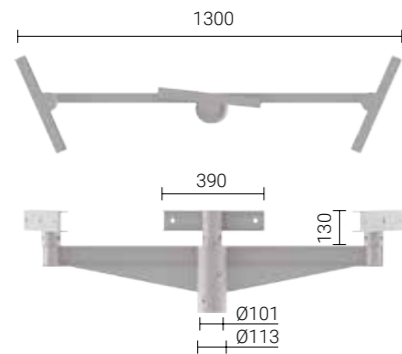
WM-1



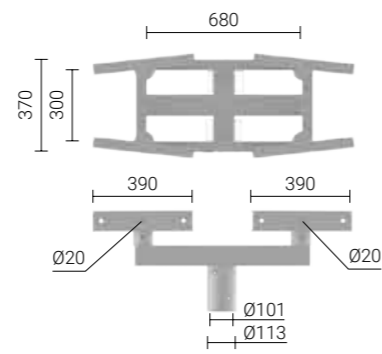
WM-21



WM-21 REG



WM-31 REG



WM-42 REG

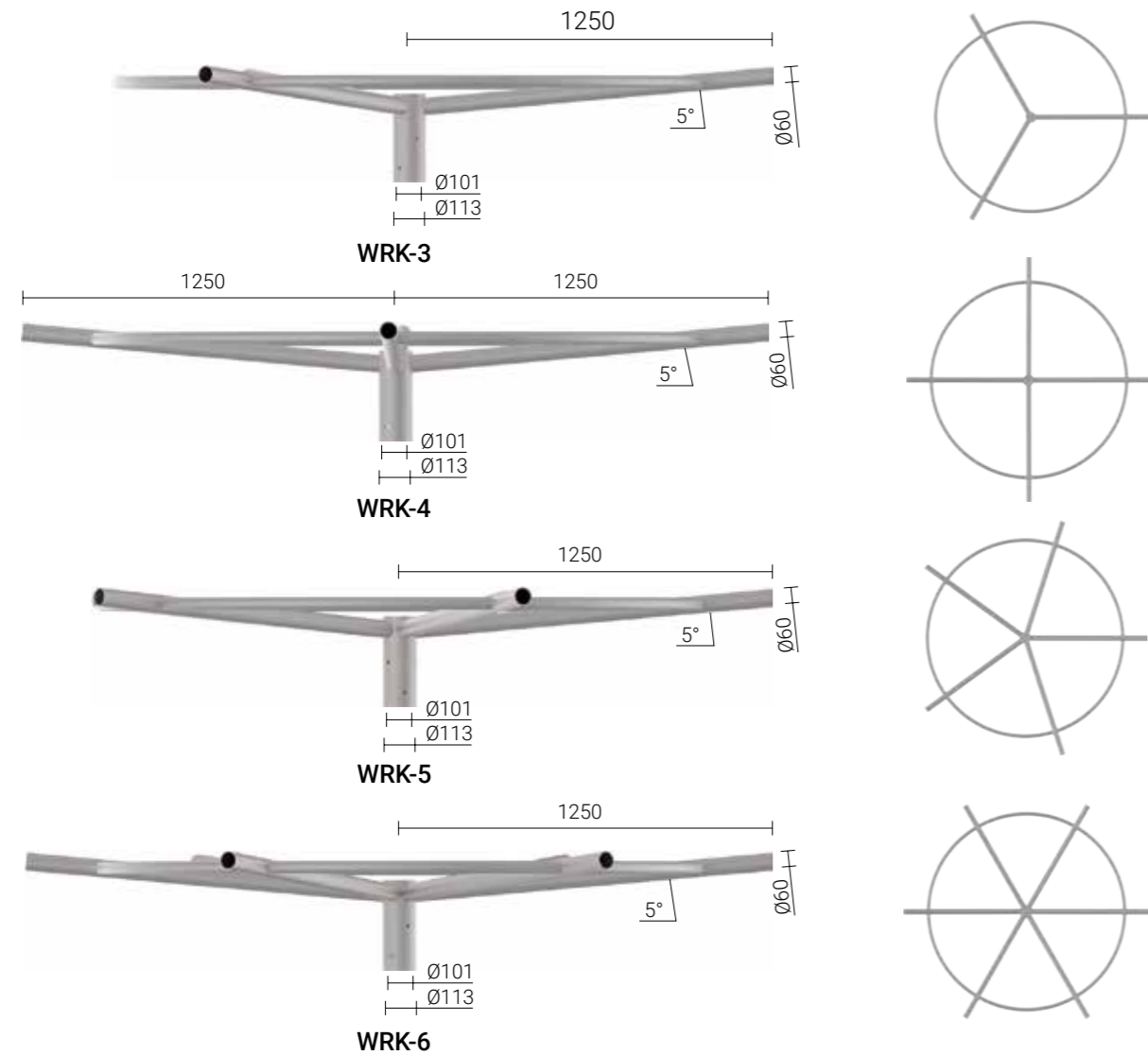
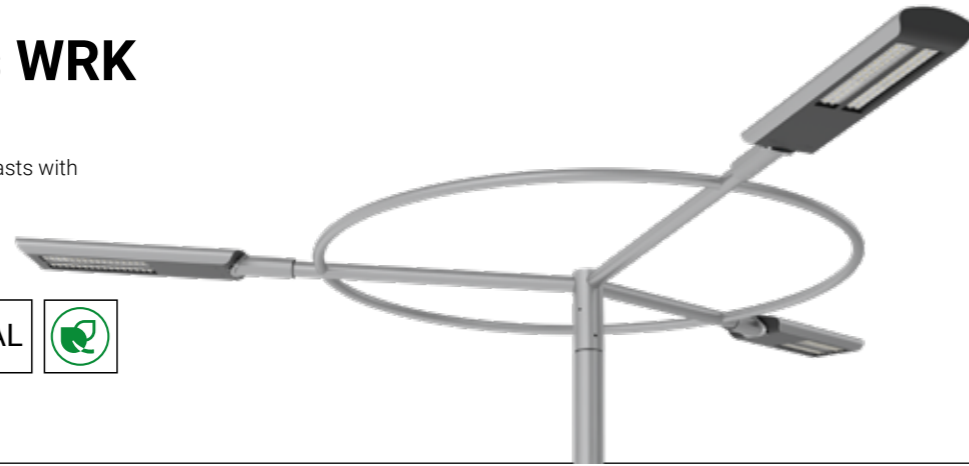
Extension arm type	WM-1	WM-21	WM-21 REG	WM-31 REG	WM-42 REG
Number of arms	1	2	2	3	4
Code	474010/C...	474210/C...	474211/C...	474311/C...	474421/C...
Net weight [kg]	2	3,7	6,2	10	15,8
Extension arm effective projected area [m ²]	0,04	0,1	0,145	0,281	0,15
Approximate unit volume [m ³]	0,01	0,02	0,05	0,087	0,07
Luminaire type	floodlights				

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl.)
/C... – choice of anodising colour



Extension arms WRK

Application: MAL anodised aluminium masts with $\varnothing 100 \times 180$ mm spigot
Material: anodised aluminium alloy
Anodising: 10 colours

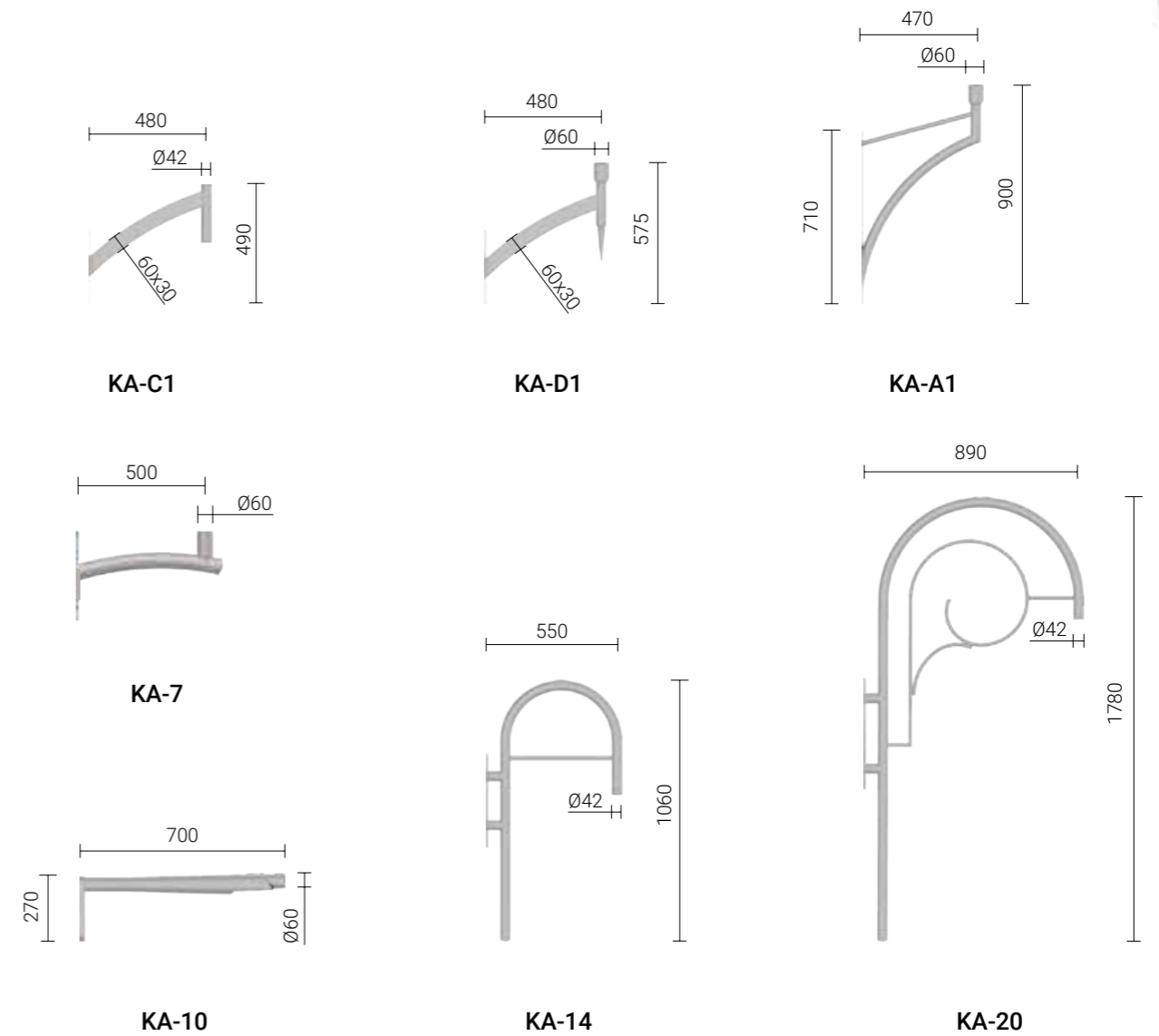
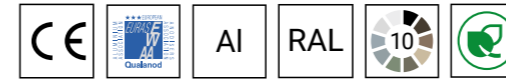


Extension arm type	WRK-3	WRK-4	WRK-5	WRK-6
Number of arms	3	4	5	6
Code	475030/C...	475040/C...	475050/C...	475060/C...
Net weight [kg]	16	18	20	22,1
Extension arm effective projected area [m ²]	0,23	0,26	0,25	0,26
Approximate unit volume [m ³]	0,81	0,81	0,81	0,81
Luminaire mounting diameter [mm]	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$	$\varnothing 60$

The use of extension arm should always be verified with a permissible loading for specified wind zone (technical cards available at www.rosa.pl).
 /C... – choice of anodising colour

Wall brackets KA

Application: aluminium wall brackets for wall mounting
Material: anodised aluminium alloy
Anodising: 10 colours



Wall bracket type	KA-A1	KA-C1	KA-D1	KA-7	KA-10	KA-14	KA-20
Number of arms	1	1	1	1	1	1	1
Code	478100/C...	478102/C...	478103/C...	478070/C...	478220/C45/C35	478140/C...	478200/C...
Net weight [kg]	2,1	1,1	1,6	1,5	2,6	2,6	4,3
Approximate unit volume [m ³]	0,017	0,009	0,008	0,008	0,021	0,04	0,09
Luminaire mounting diameter [mm]	$\varnothing 60$	$\varnothing 42$	$\varnothing 60$	$\varnothing 60$	ISKRA LED, ISKRA LED PROG	$\varnothing 42$	$\varnothing 42$

/C... - choice of anodising colour

ISKRA LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

Colour: inox / black

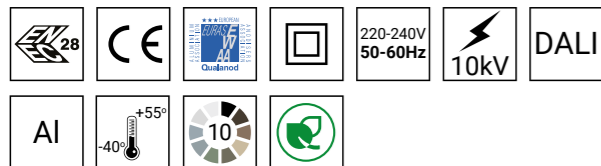
Optical system: PMMA optic

Available optics: T2, T3, T4, ME, DW, SP, PP, PL
T2_E*, T3_E*, ME_E*, DW_E*, SP_E*

Expected useful lifetime: L90B10 - 100 000 h

Power factor: ≥ 0,95

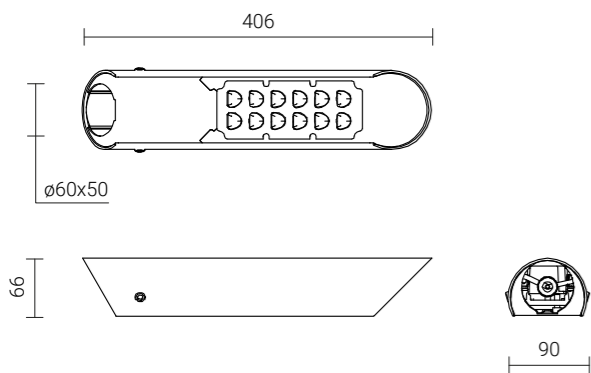
* The „E“ designation indicates that the luminaire with this optic is ENEC-certified.



View detailed specifications and product codes

Technical information

	ISKRA LED	ISKRA LED PROG	ISKRA LED P	ISKRA LED P PROG
LED power	27 W - 36 W	12 W - 36 W	36 W - 45 W	36 W
Luminaire power consumption	30 W - 39,5 W	14 W - 40 W	39,5 W - 52 W	40 W
LED forward current	760 mA - 960 mA	350 mA - 1000 mA	960 mA - 1250 mA	1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K			
CRI	> 70			
LEDs luminous flux	4450 lm - 6050 lm	2250 lm - 6250 lm	5350 lm - 7200 lm	5550 lm - 6250 lm
Luminaire luminous flux	4050 lm - 5550 lm	2050 lm - 5700 lm	4900 lm - 6600 lm	5100 km - 5700 lm
Luminous efficacy	124 lm/W - 153 lm/W	128 lm/W - 168 lm/W	124 lm/W - 141 lm/W	128 lm/W - 143 lm/W
Net weight	2,1 kg	2 kg	2,1 kg	2 kg



Additional product versions



ISKRA LED ALFA

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

Colour: inox / black

Optical system: PMMA optic

Available optics: T2, T3, T4, ME, DW, SP, PP, PL
T2_E*, T3_E*, ME_E*, DW_E*, SP_E*

Expected useful lifetime: L90B10 - 100 000 h

Power factor: ≥ 0,95

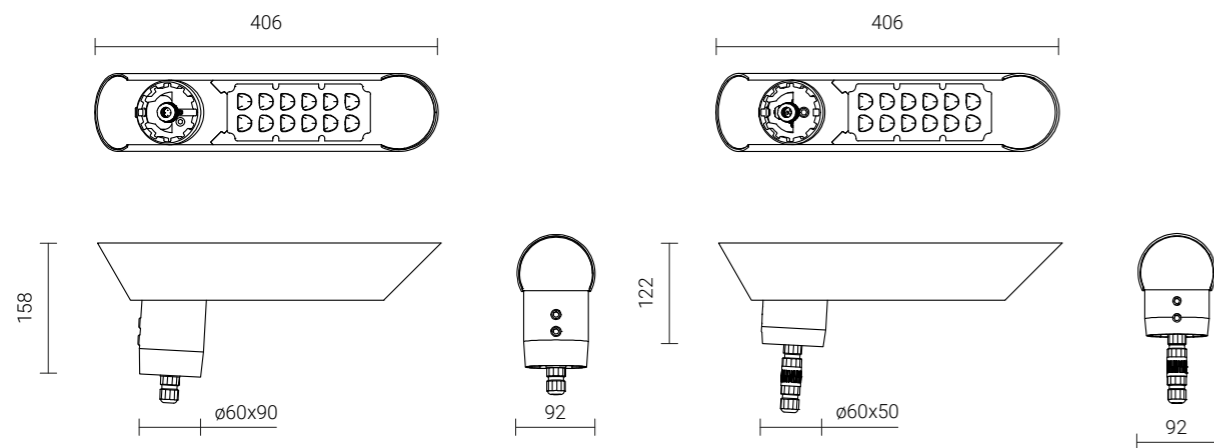
* The „E“ designation indicates that the luminaire with this optic is ENEC-certified.



View detailed specifications and product codes

Technical information

	ISKRA LED ALFA	ISKRA LED ALFA PROG	ISKRA LED P ALFA	ISKRA LED P ALFA PROG
LED power	27 W - 36 W	12 W - 36 W	36 W - 45 W	36 W
Luminaire power consumption	30 W - 39,5 W	14 W - 40 W	39,5 W - 52 W	40 W
LED forward current	760 mA - 960 mA	350 mA - 1000 mA	960 mA - 1250 mA	1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K			
CRI	> 70			
LEDs luminous flux	4450 lm - 6050 lm	2250 lm - 6250 lm	5350 lm - 7200 lm	5550 lm - 6250 lm
Luminaire luminous flux	4050 lm - 5550 lm	2050 lm - 5700 lm	4900 lm - 6600 lm	5100 km - 5700 lm
Luminous efficacy	124 lm/W - 153 lm/W	128 lm/W - 168 lm/W	113 lm/W - 141 lm/W	128 lm/W - 143 lm/W
Net weight	2,5 kg	2,2 kg	2,5 kg	2,2 kg



Additional product versions



RING 1 LED

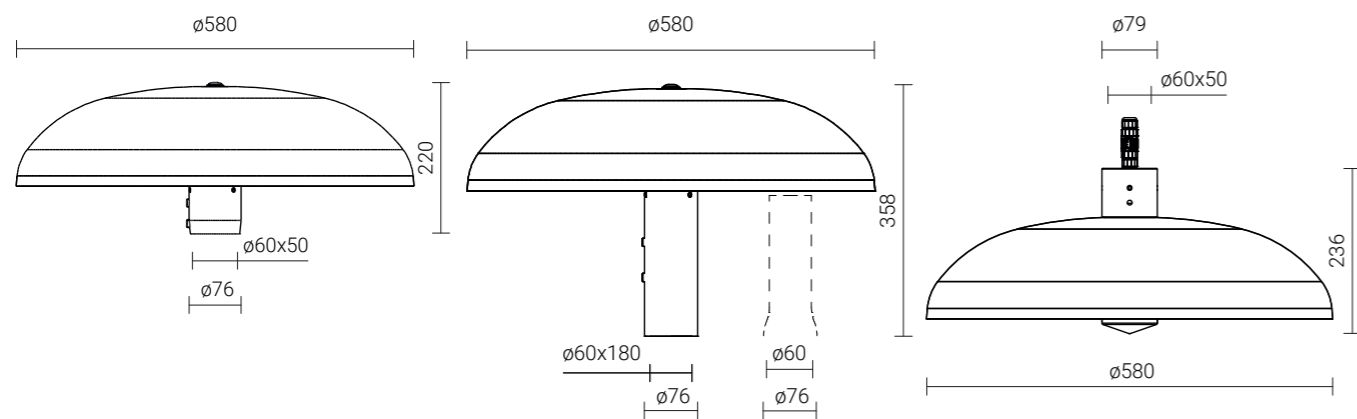
Protection class: IP 66
Material: cap - formed aluminium sheet, anodised, diffuser - tempered glass, base - anodised aluminium alloy
Colour: 10 anodized colors
Optical system: PMMA optics, interchangeable LED module
Available optics: T4, VS, SP
Expected useful lifetime: L90B10 - 100 000 h
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	RING 1 LED
LED power	12 W - 48 W
Luminaire power consumption	15 W - 55 W
LED forward current	280 mA - 1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	2400 lm - 8200 lm
Luminaire luminous flux	1850 lm - 6650 lm
Luminous efficacy	107 lm/W - 148 lm/W
Net weight	6,6 kg - 7,1 kg



RING 1 LED head type 'A'

RING 1 LED head type 'B'

RING 1 LED head type 'C'

Additional product versions



RING 1 LED

RING 3 LED

Protection class: IP 66

Material: cap - formed aluminium sheet, anodised,
diffuser - tempered glass, base - anodised aluminium alloy

Colour: 10 anodized colors

Optical system: PMMA optics, interchangeable LED module

Available optics: T4, VS, SP

Expected useful lifetime: L90B10 - 100 000 h

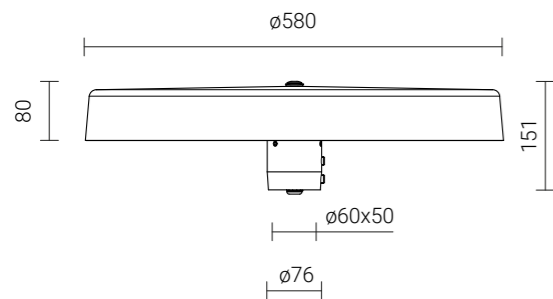
Power factor: ≥ 0,95



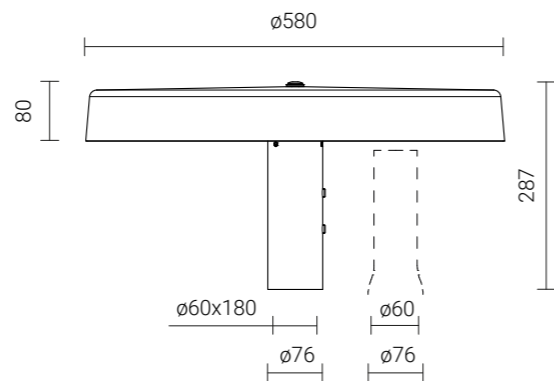
View detailed specifications
and product codes

Technical information

	RING 3 LED
LED power	12 W - 48 W
Luminaire power consumption	15 W - 55 W
LED forward current	280 mA - 1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	2400 lm - 8200 lm
Luminaire luminous flux	1850 lm - 6650 lm
Luminous efficacy	107 lm/W - 148 lm/W
Net weight	6,7 kg - 7,2 kg



RING 3 LED head type 'A'

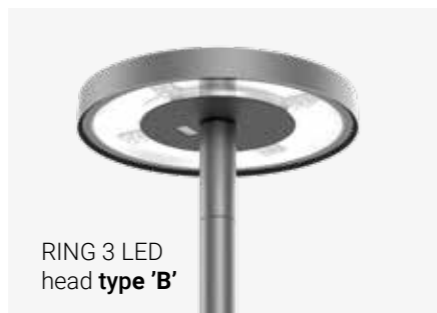


RING 3 LED head type 'B'

Additional product versions



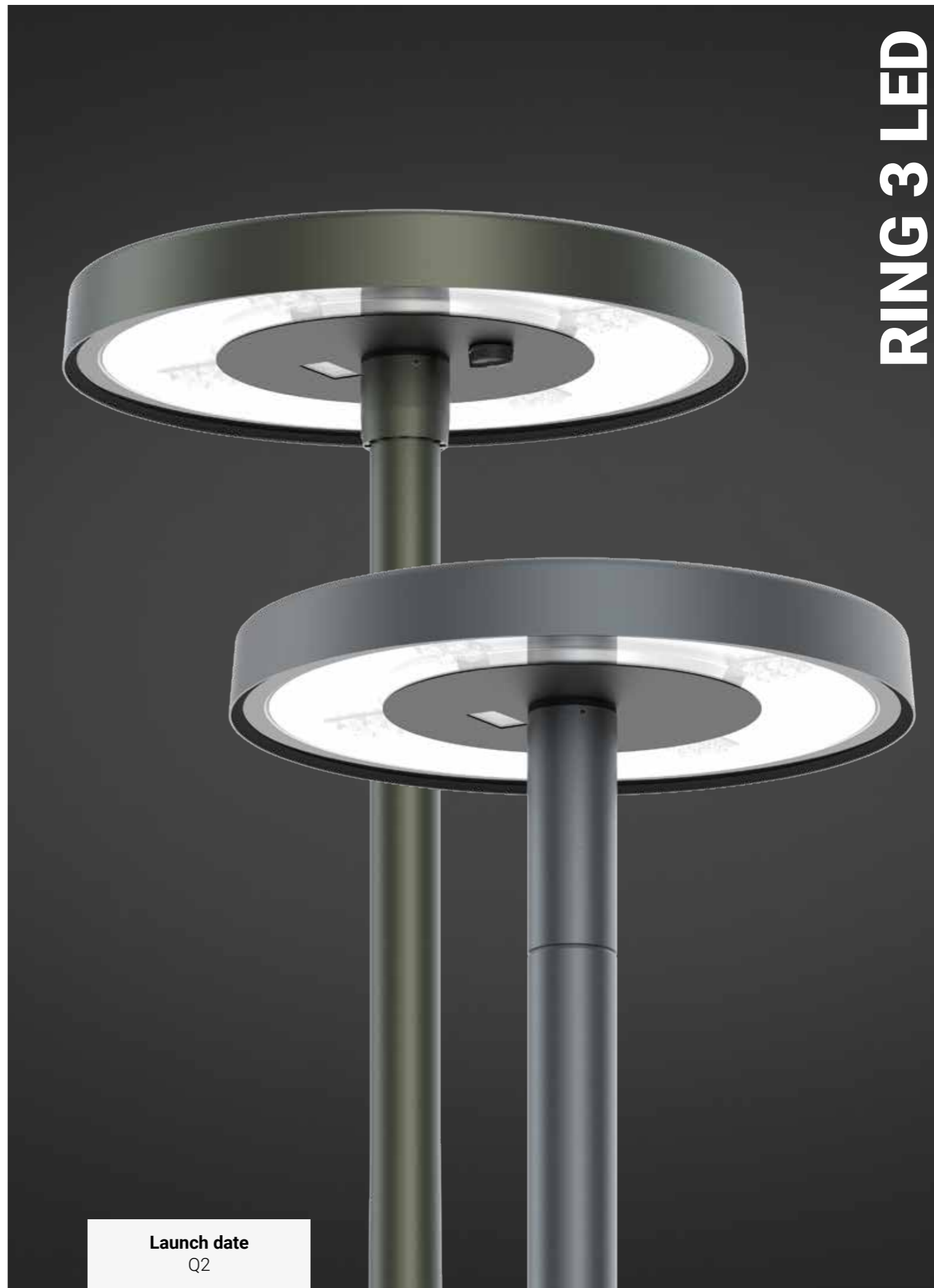
RING 3 LED D4i
head type 'A'



RING 3 LED
head type 'B'



RING 3 LED D4i
head type 'B'



Launch date
Q2

ELBA LED

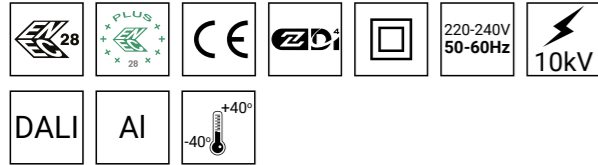
Protection class: IP 65

Material: cap – formed aluminium sheet, anodised
diffuser – frosted cylindrical $\varnothing 200$ mm (PMMA)
base – high-pressure die-casted aluminium alloy, painted

Available optics: dedicated optics (ELBA LED)

Expected useful lifetime: L90B10 - 100 000 h

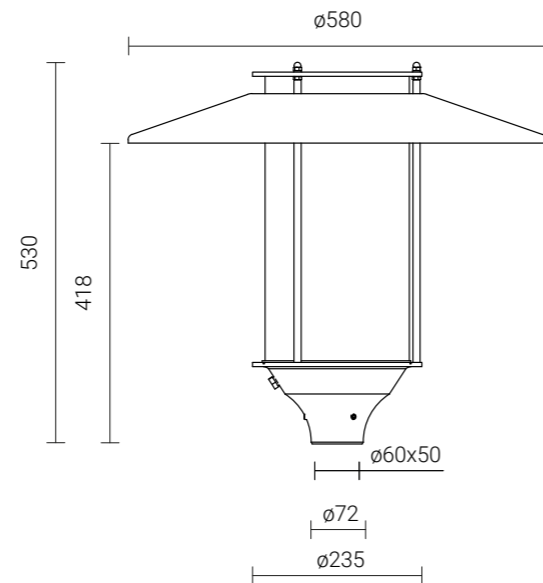
Power factor: $\geq 0,95$



View detailed specifications and product codes

Technical information

	ELBA LED
LED power	33 W
Luminaire power consumption	36 W
LED forward current	940 mA
Colour temperature	2700 K / 3500 K / 4000 K
CRI	> 70
LEDs luminous flux	5300 lm - 5850 lm
Luminaire luminous flux	3450 lm - 4000 lm
Luminous efficacy	96 lm/W - 111 lm/W
Net weight	5 kg



Additional product versions



ELBA LED



ELBA II LED

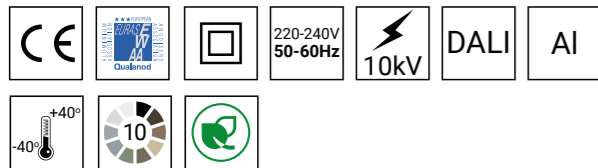
Protection class: IP 65

Material: cap - formed aluminum sheet,
diffuser – frosted cylindrical $\varnothing 200$ mm (PMMA),
base - anodised aluminium die-cast

Available optics: dedicated optics (ELBA LED)

Expected useful lifetime: L90B10 - 100 000 h

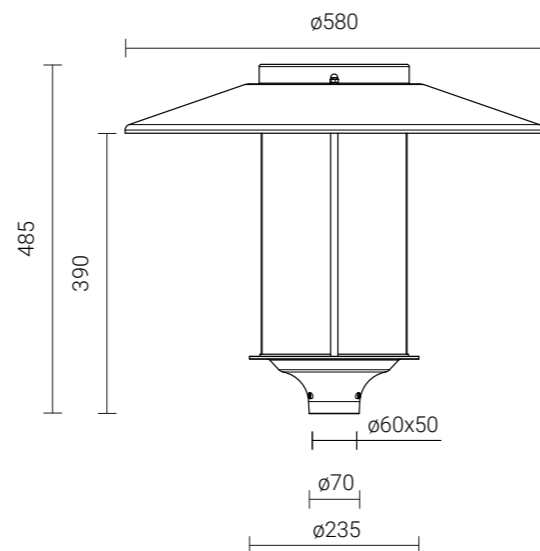
Power factor: $\geq 0,95$



View detailed specifications
and product codes

Technical information

	ELBA II LED
LED power	33 W
Luminaire power consumption	36 W
LED forward current	940 mA
Colour temperature	2700 K / 3500 K / 4000 K
CRI	> 70
LEDs luminous flux	5300 lm - 5850 lm
Luminaire luminous flux	3650 lm - 3950 lm
Luminous efficacy	96 lm/W - 111 lm/W
Net weight	4,5 kg



Additional product versions



ELBA II LED D4i



Launch date
Q2

OS-1 LED

Protection class: IP 66 for the optical part, IP 54 for the power supply system

Material: body – UV resistant polypropylene with glass fibre

Colour: black

Optical system: PMMA optics, interchangeable LED module

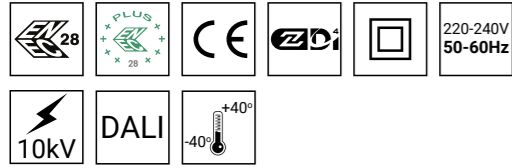
Available optics: dedicated optics (OS-1 LED)

Expected useful lifetime: L90B10 - 100 000 h

Power factor: ≥ 0,95

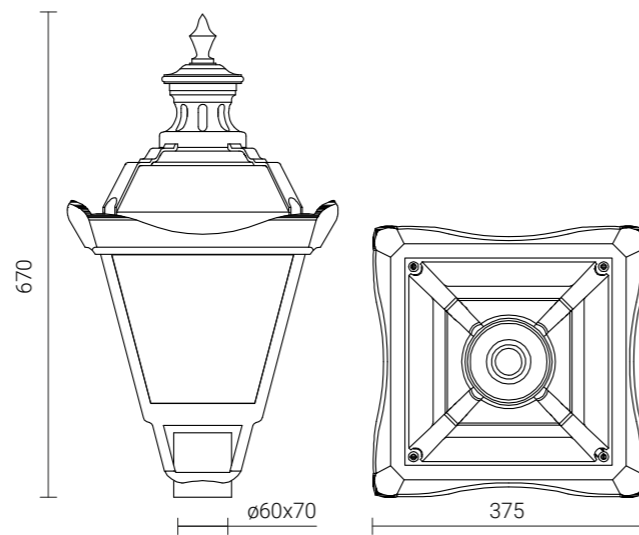


View detailed specifications and product codes

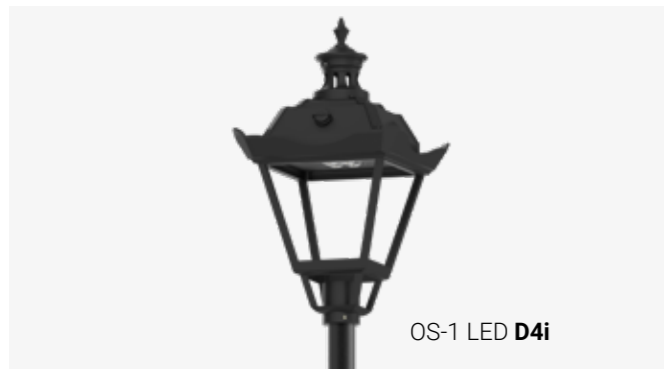


Technical information

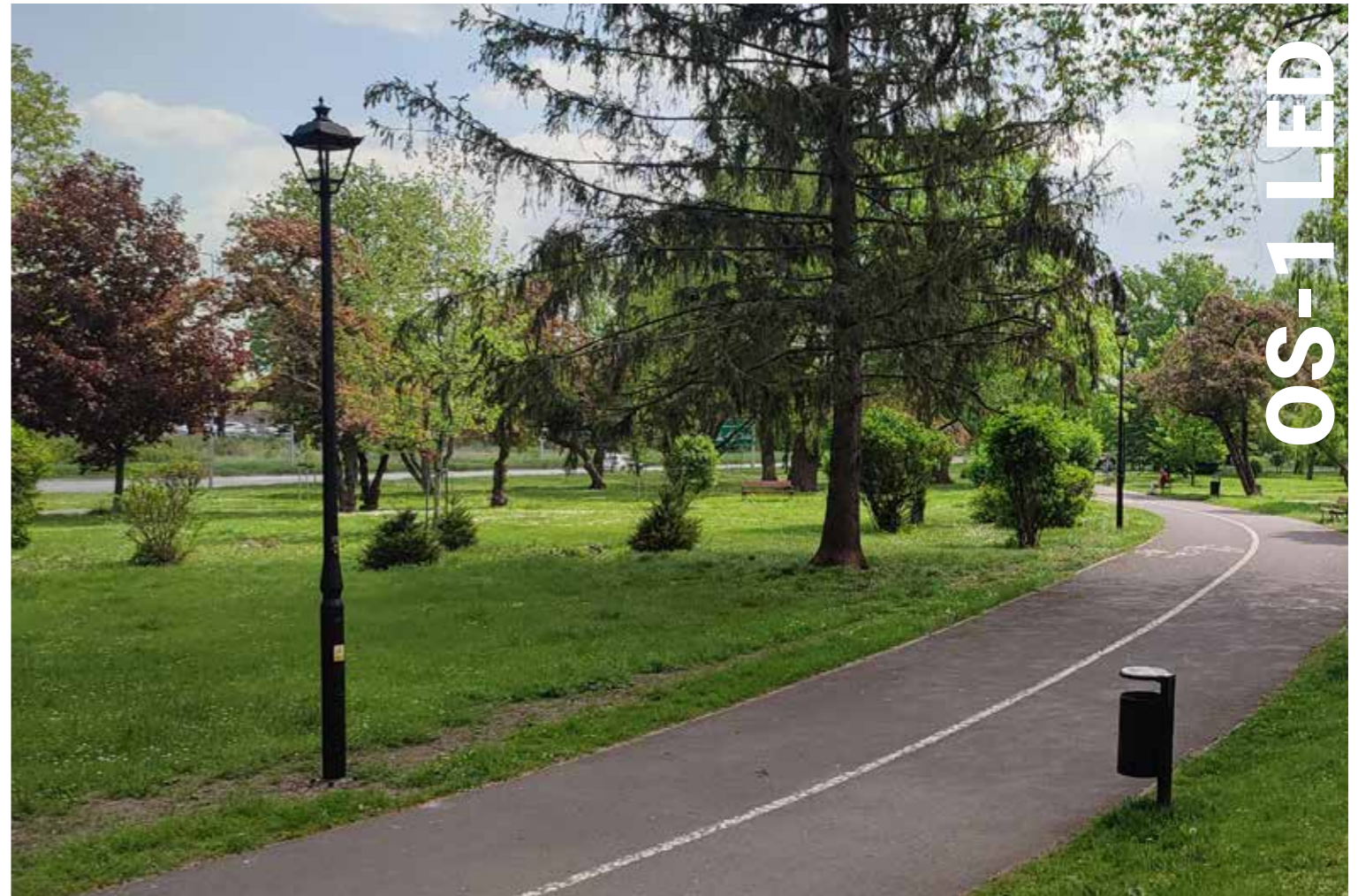
	OS-1 LED
LED power	38 W
Luminaire power consumption	42 W
LED forward current	800 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	5850 lm - 6700 lm
Luminaire luminous flux	5050 lm - 5750 lm
Luminous efficacy	120 lm/W - 137 lm/W
Net weight	5,2 kg



Additional product versions



OS-1 LED D4i



OS-1 LED



OS-11 LED

Protection class: IP 66 for the optical part, IP 54 for the power supply system

Material: body – UV resistant polypropylene with glass fibre, diffuser - frosted PMMA or transparent PMMA

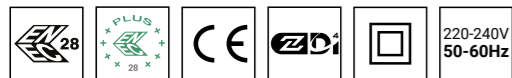
Colour: black

Optical system: PMMA optics, interchangeable LED module

Available optics: dedicated optics (OS-11 LED)

Expected useful lifetime: L90B10 - 100 000 h

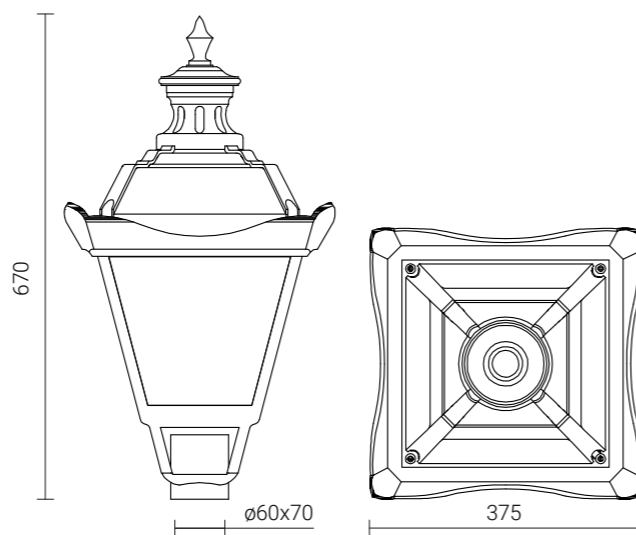
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	OS-11 LED
LED power	38 W
Luminaire power consumption	42 W
LED forward current	800 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	5850 lm - 6700 lm
Luminaire luminous flux	4600 lm - 5450 lm
Luminous efficacy	110 lm/W - 130 lm/W
Net weight	4,6 kg - 4,8 kg



Additional product versions



OS-11 LED D4i



OS-11 LED

OW LED

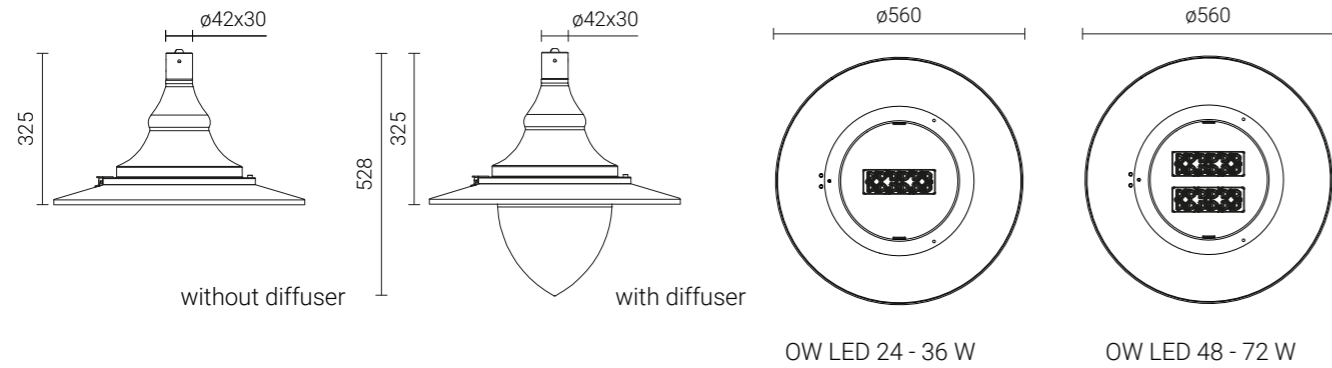
Protection class: IP 66
Material: body and cap – anodised aluminium formed sheet
Colour: 10 anodized colors
Optical system: PMMA optics, interchangeable LED module
Available optics: T2, T3, T4, ME, DW, VS, SP, PP, PL
Expected useful lifetime: L90B10 - 100 000 h
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	OW LED
LED power	24 W - 72 W
Luminaire power consumption	28 W - 79 W
LED forward current	700 mA - 1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	4050 lm - 12100 lm
Luminaire luminous flux	3550 lm - 10600 lm
Luminous efficacy	118 lm/W - 145 lm/W
Net weight	4,6 kg - 5,1 kg

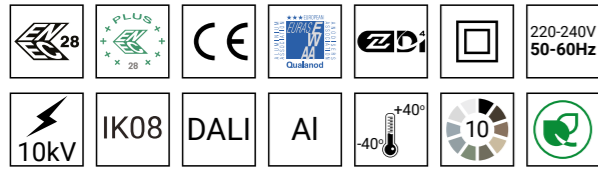


Additional product equipment



OW+ LED

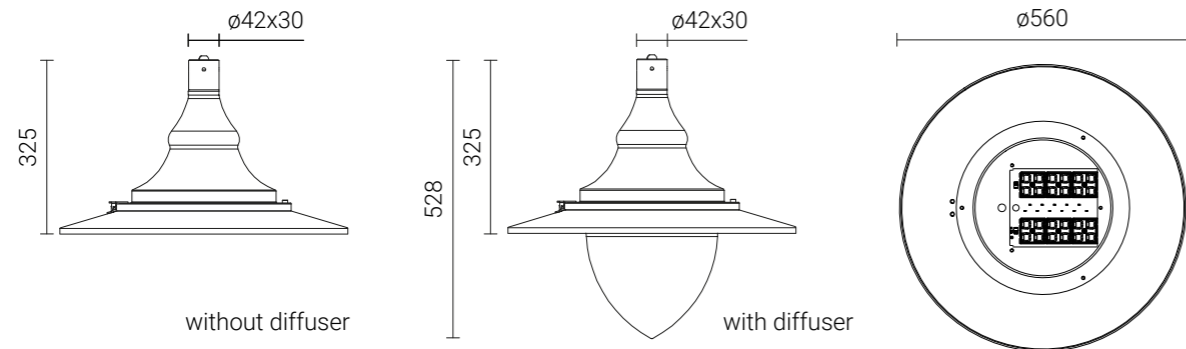
Protection class: IP 66
Material: body and cap – anodised aluminium formed sheet, diffuser – tempered glass
Colour: 10 anodized colors
Optical system: PMMA optics
Available optics: T2, T3, T4, ME, DW, PL, LM, LW, VS, P2
Expected useful lifetime: L90B10 - 100 000 h
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

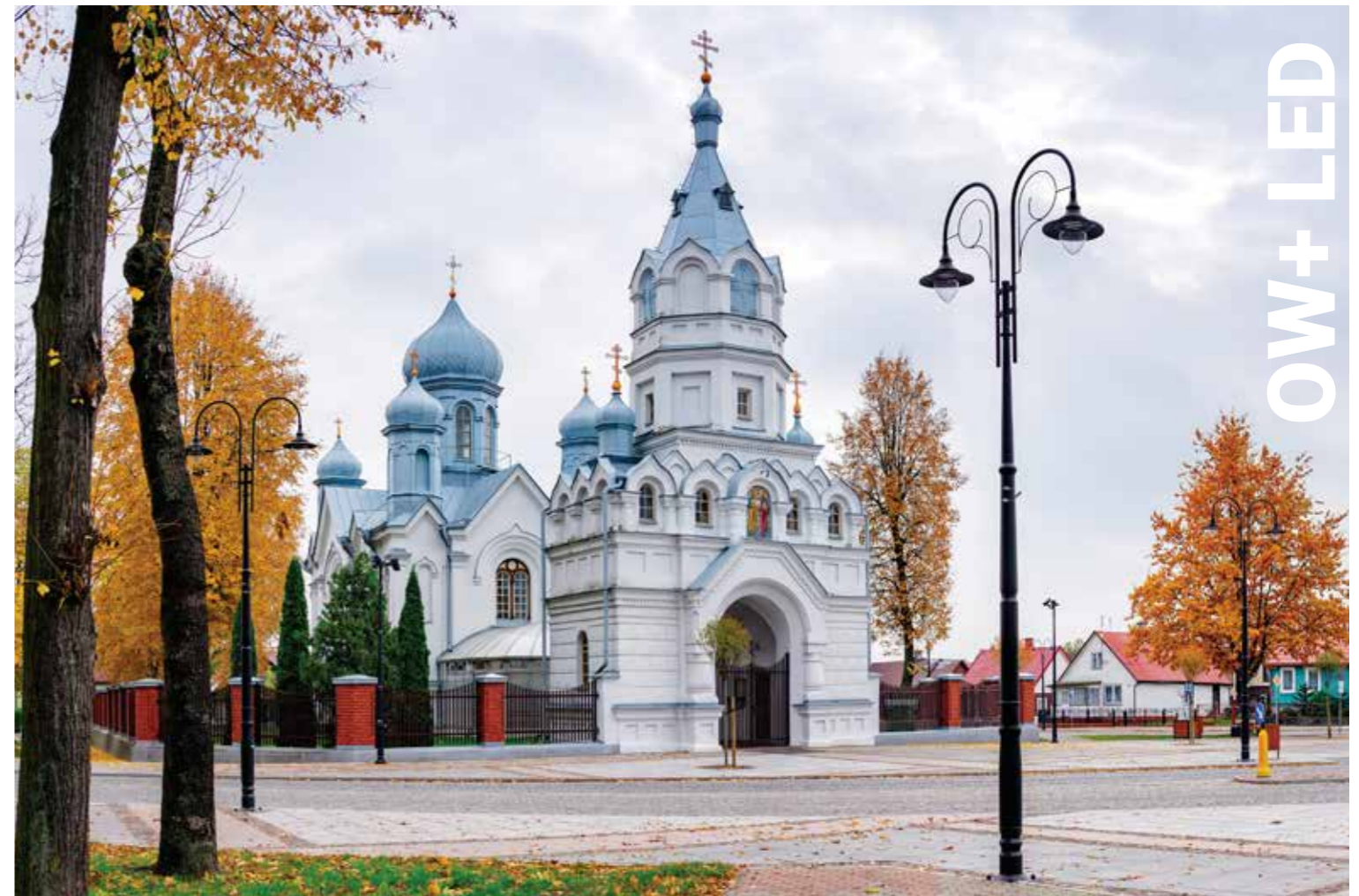
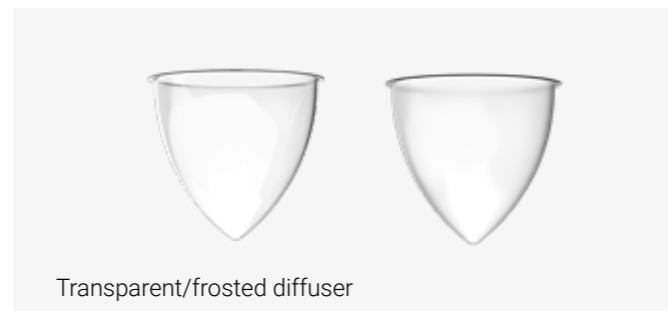
	OW+ LED
LED power	24 W - 72 W
Luminaire power consumption	28 W - 79 W
LED forward current	350 mA - 1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	4450 lm - 12100 lm
Luminaire luminous flux	3650 lm - 9850 lm
Luminous efficacy	110 lm/W - 145 lm/W
Net weight	6,8 kg



Additional product versions

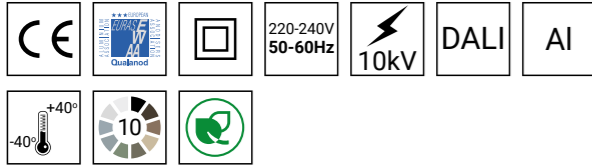


Additional product equipment



OW II LED

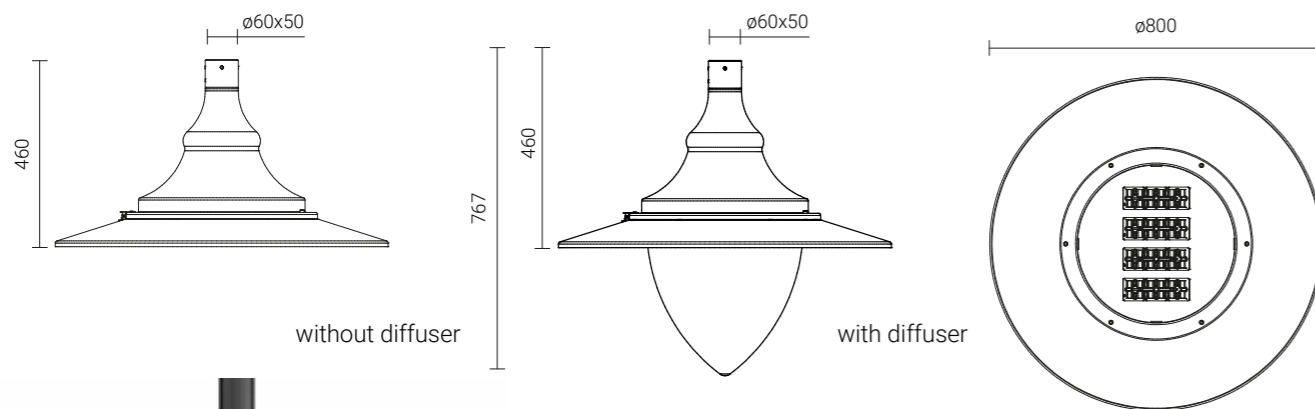
Protection class: IP 66
Material: body and cap – anodised aluminium formed sheet
Colour: 10 anodized colors
Optical system: PMMA optics, interchangeable LED module
Available optics: T2, T3, T4, ME, DW, VS, SP, PP, PL
Expected useful lifetime: L90B10 - 100 000 h
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	OW II LED
LED power	96 W - 144 W
Luminaire power consumption	105 W - 154 W
LED forward current	700 mA - 1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	16050 lm - 24000 lm
Luminaire luminous flux	14000 lm - 20900 lm
Luminous efficacy	121 lm/W - 150 lm/W
Net weight	13,2 kg



Additional product equipment



Version without a diffuser – standard



Transparent diffuser



BELLA LED

Protection class: IP 66

Material: body and cap – anodised aluminium formed sheet, diffuser – tempered glass

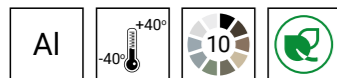
Colour: black / champagne

Optical system: PMMA optics, interchangeable LED module

Available optics: DW, LN, T3, LW, T4, PL, P2, VS

Expected useful lifetime: L90B10 - 100 000 h

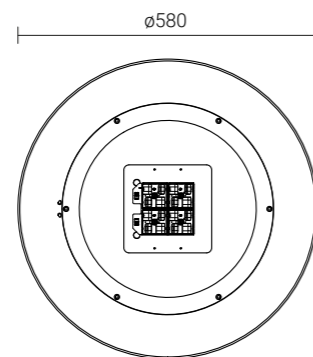
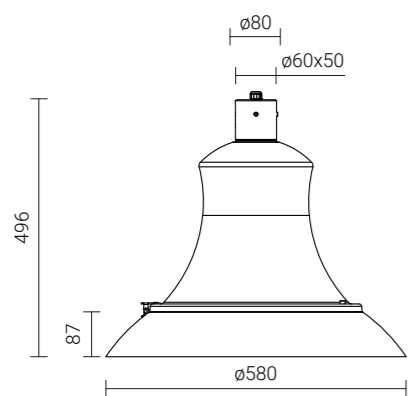
Power factor: ≥ 0,95



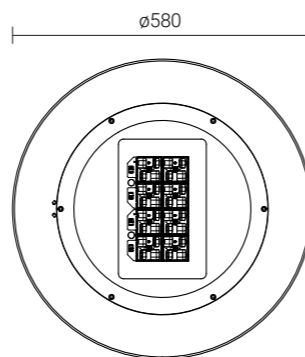
View detailed specifications and product codes

Technical information

	BELLA LED
LED power	48 W - 120 W
Luminaire power consumption	54 W - 129 W
LED forward current	375 mA - 625 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	7950 lm - 20500 lm
Luminaire luminous flux	6600 lm - 17200 lm
Luminous efficacy	119 lm/W - 131 lm/W
Net weight	8,5 kg



BELLA LED 48 - 60 W



BELLA LED 72 - 120 W

Additional product version



BELLA LED **D4i**



Launch date
Q2

DROP LED

Protection class: IP 66 for the optical part, IP 54 for the power supply system

Material: anodised aluminium alloy, diffuser – tempered glass

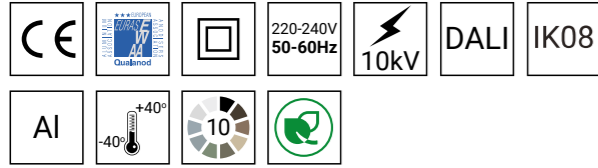
Colour: inox / graphite

Optical system: PMMA optics, interchangeable LED module

Available optics: T4, DW, VS

Expected useful lifetime: L90B10 - 100 000 h

Power factor: ≥ 0,95



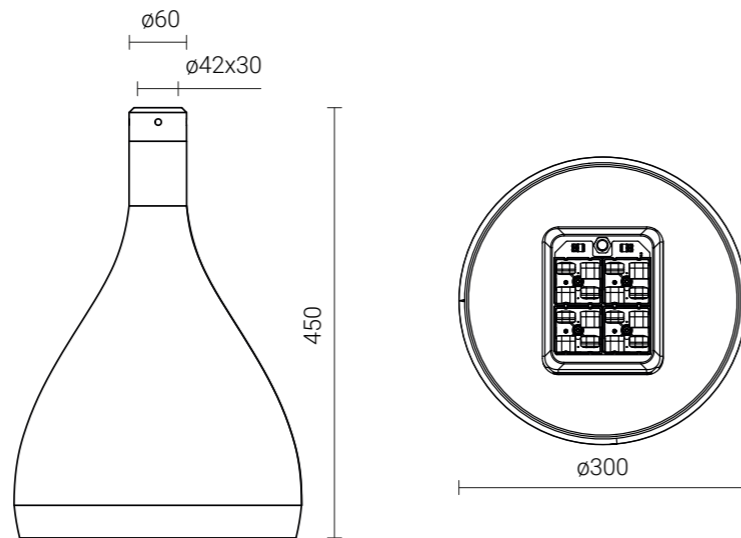
View detailed specifications and product codes

Technical information

	DROP LED
LED power	24 W - 48 W
Luminaire power consumption	26 W - 54 W
LED forward current	250 mA - 500 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	4250 lm - 8550 lm
Luminaire luminous flux	3550 lm - 7100 lm
Luminous efficacy	122 lm/W - 146 lm/W
Net weight	4,9 kg - 5,2 kg



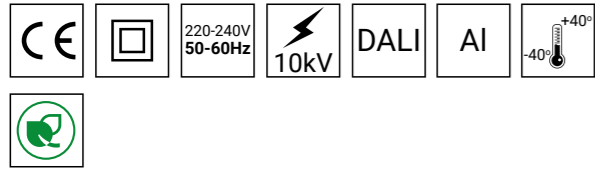
An example colour version of the luminaire shown from a different angle



DROP LED

ATLANTIS LED

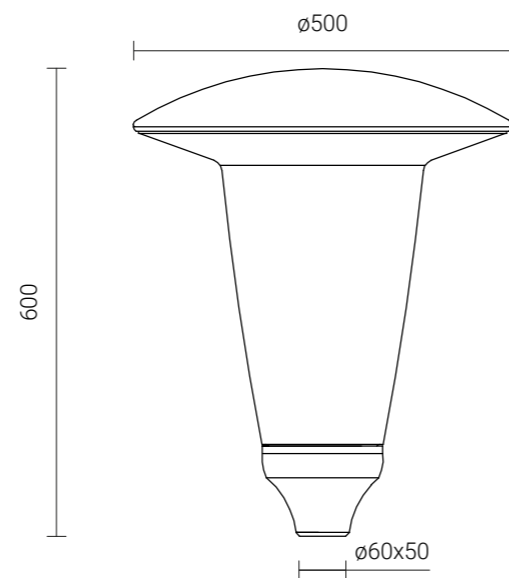
Protection class: IP 66
Material: cap – formed aluminium sheet, diffuser – frosted (PMMA), base – high-pressure die-casted aluminium alloy, painted
Colour: cap – inox, base – painted in RAL 9006
Optical system: PMMA optics
Available optics: dedicated optics (ATLANTIS LED)
Expected useful lifetime: L90B10 - 100 000 h
Power factor: ≥ 0,95



View detailed specifications and product codes

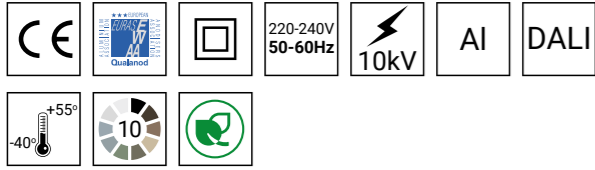
Technical information

	ATLANTIS LED
LED power	38 W
Luminaire power consumption	42 W
LED forward current	800 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	5850 lm - 6700 lm
Luminaire luminous flux	4850 lm - 5550 lm
Luminous efficacy	115 lm/W - 132 lm/W
Net weight	4,1 kg



CORONA LED

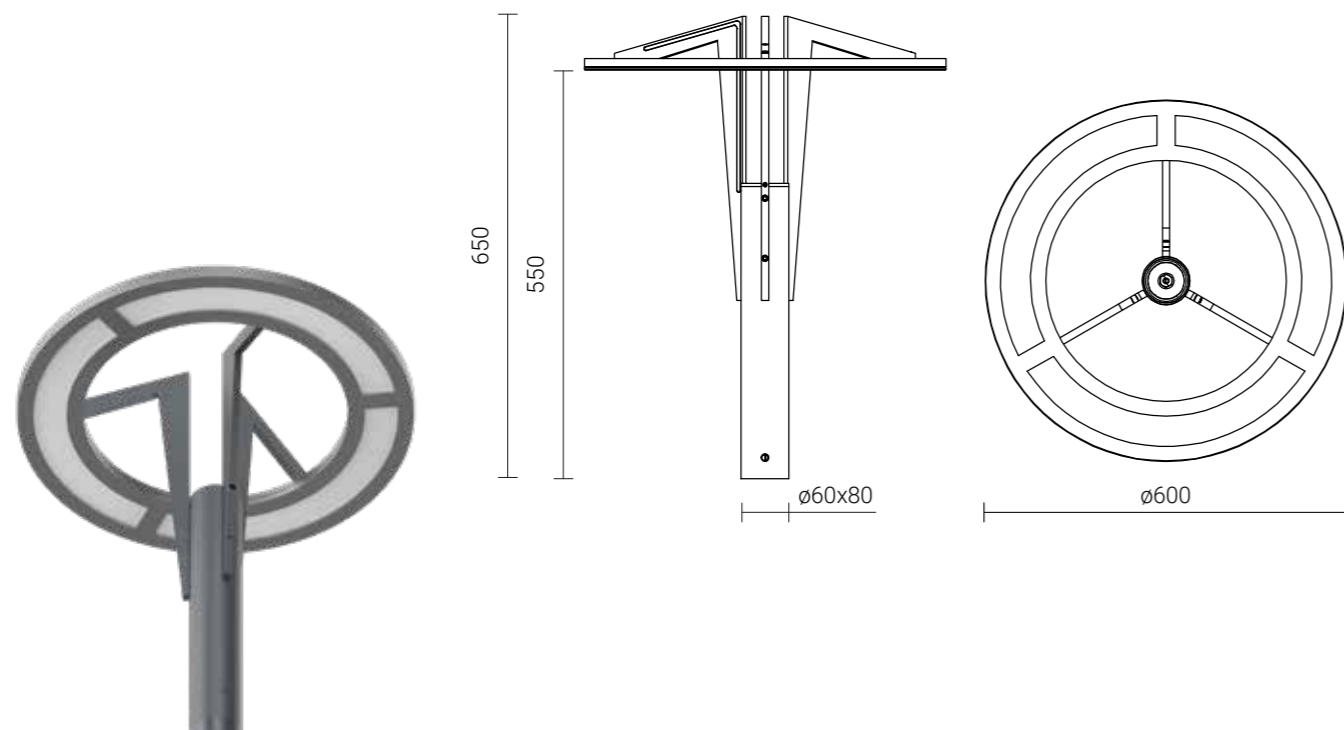
Protection class: IP 66
Material: frosted diffuser (PMMA), anodised aluminium alloy
Colour: inox / graphite
Available optics: dedicated optics (CORONA LED)
Expected useful lifetime: L90B10 - 100 000 h
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	CORONA LED
LED power	72 W
Luminaire power consumption	80 W
LED forward current	1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	9650 lm - 10500 lm
Luminaire luminous flux	8250 lm - 9000 lm
Luminous efficacy	103 lm/W - 112 lm/W
Net weight	11,2 kg



An example colour version of the luminaire shown from a different angle



CORONA LED



MIRA LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy, diffuser – tempered glass

Colour: inox / graphite

Optical system: PMMA optics, interchangeable LED module,

Available optics: DW, T4

Expected useful lifetime: L90B10 - 100 000 h

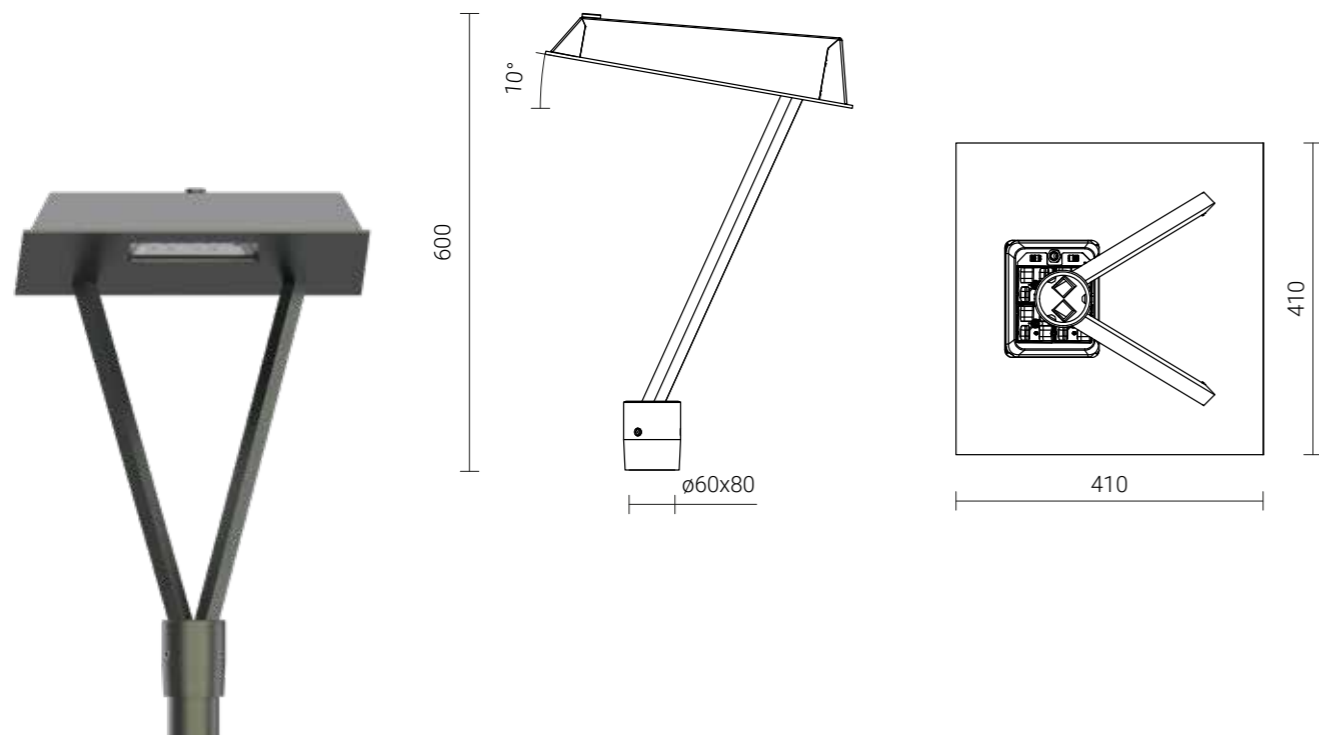
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	MIRA LED
LED power	24 W - 36 W
Luminaire power consumption	26 W - 39 W
LED forward current	250 mA - 375 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	4250 lm - 6650 lm
Luminaire luminous flux	3550 lm - 5500 lm
Luminous efficacy	132 lm/W - 146 lm/W
Net weight	5,4 kg



An example colour version of the luminaire shown from a different angle



MIZAR LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

Colour: inox / graphite

Optical system: PMMA optics, interchangeable LED module

Available optics: VS

Expected useful lifetime: L90B10 - 100 000 h

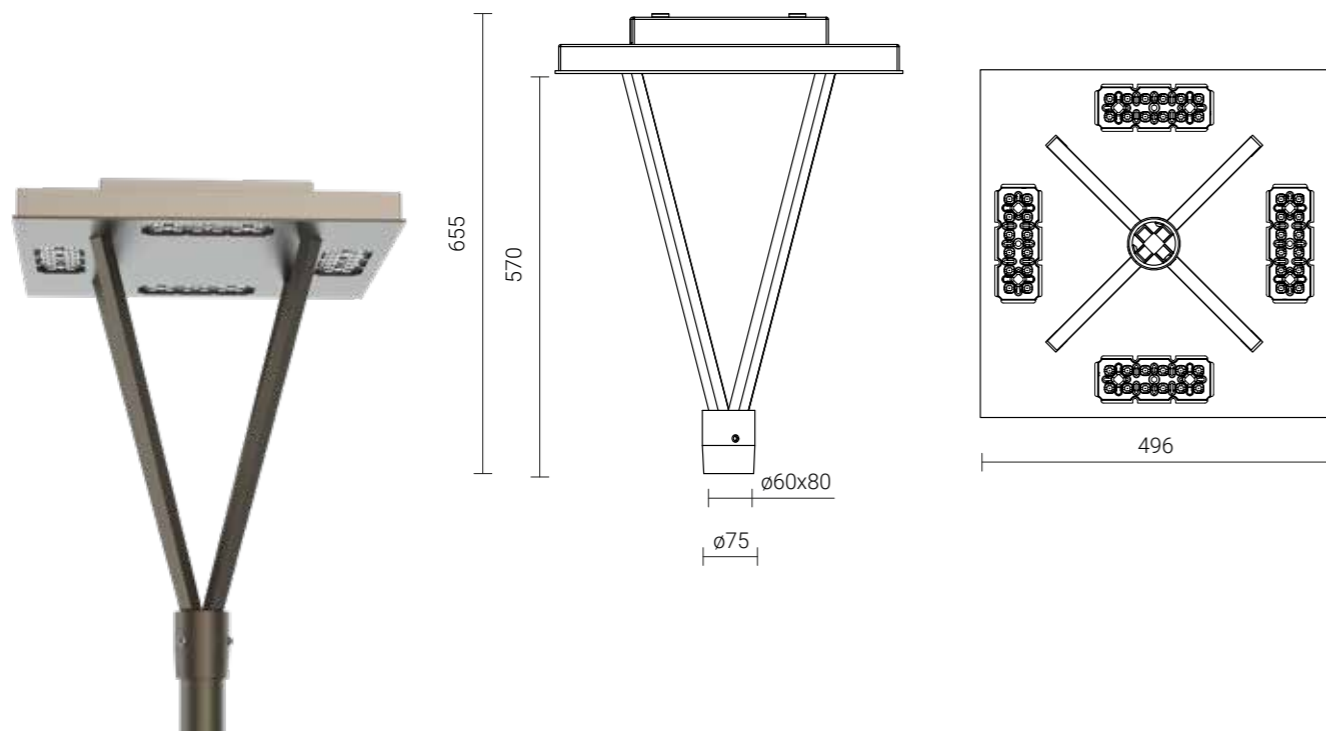
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	MIZAR LED
LED power	36 W - 48 W
Luminaire power consumption	41 W - 53 W
LED forward current	280 mA - 370 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	7250 lm - 10450 lm
Luminaire luminous flux	6500 lm - 9350 lm
Luminous efficacy	158 lm/W - 176 lm/W
Net weight	7,2 kg



An example colour version of the luminaire shown from a different angle



CUDDLE MINI LED



Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy, diffuser – tempered glass

Colour: inox / black

Optical system: PMMA optics, interchangeable LED module,

Available optics: T3, T4, P2, PL, LW, LN, DW

Expected useful lifetime: L90B10 - 100 000 h

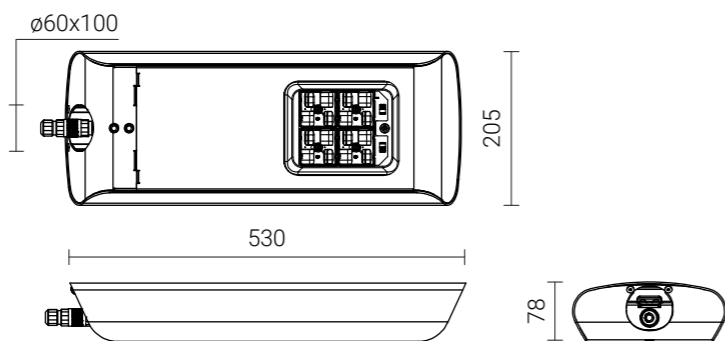
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	CUDDLE MINI LED
LED power	12 W - 60 W
Luminaire power consumption	15 W - 67 W
LED forward current	140 mA - 625 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	2450 lm - 10350 lm
Luminaire luminous flux	2050 lm - 8600 lm
Luminous efficacy	119 lm/W - 147 lm/W
Net weight	3,7 kg



Additional product versions



CUDDLE MINI LED REG



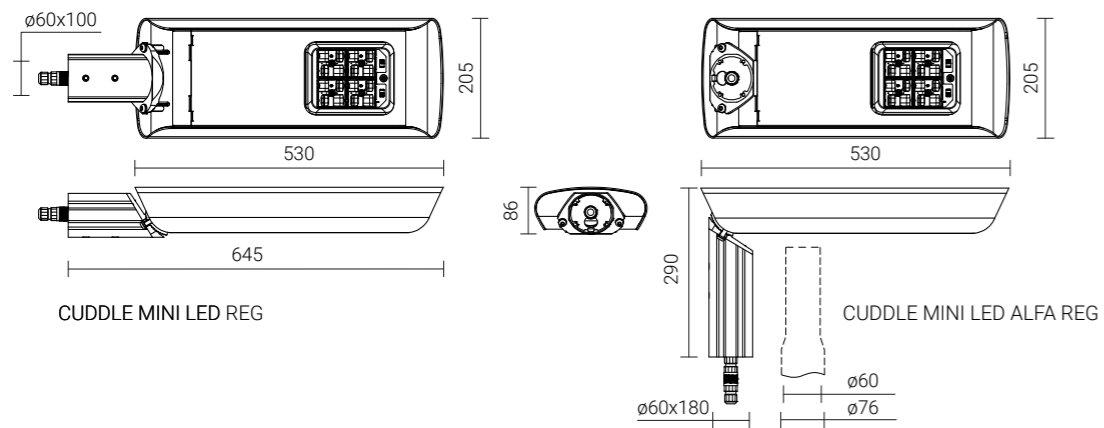
Protection class: IP 66 for the optical part and the power supply system
Material: anodised aluminium alloy, diffuser – tempered glass
Colour: inox / black
Optical system: PMMA optics, interchangeable LED module,
Available optics: T3, T4, P2, PL, LW, LN, DW
Expected useful lifetime: L90B10 - 100 000 h
Power factor: ≥ 0,95
Tilt angle adjustment: up to +20° when mounted directly on a column, and from 15° to +10° when mounted on an extension arm



View detailed specifications and product codes

Technical information

	CUDDLE MINI LED REG
LED power	12 W - 60 W
Luminaire power consumption	15 W - 67 W
LED forward current	140 mA - 625 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	2450 lm - 10350 lm
Luminaire luminous flux	2050 lm - 8600 lm
Luminous efficacy	119 lm/W - 147 lm/W
Net weight	4,8 kg



Additional product versions



CUDDLE MINI LED REG



CUDDLE II LED



Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy, diffuser PC-UV

Colour: inox / black

Optical system: PMMA optics, interchangeable LED module,

Available optics: T2, T3, T4, PL, P2, ME, LW, LM, DW

Expected useful lifetime: L90B10 - 100 000 h

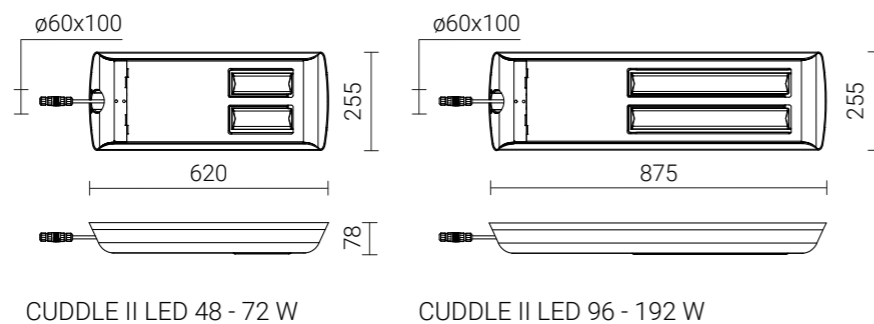
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	CUDDLE II LED 48 - 72 W	CUDDLE II LED 96 - 192 W
LED power	48 W - 72 W	96 W - 192 W
Luminaire power consumption	55 W - 79 W	105 W - 205 W
LED forward current	700 mA - 1000 mA	500 mA - 1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70	> 70
LEDs luminous flux	8150 lm - 12100 lm	16000 lm - 31350 lm
Luminaire luminous flux	6950 lm - 10300 lm	13650 lm - 26700 lm
Luminous efficacy	115 lm/W - 142 lm/W	116 lm/W - 146 lm/W
Net weight	5 kg	8 kg - 8,2 kg



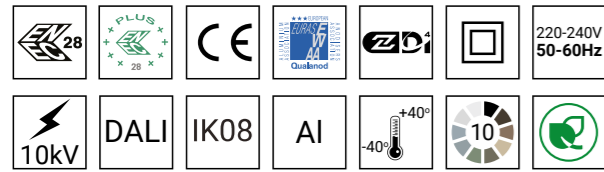
Additional product versions



CUDDLE II LED REG



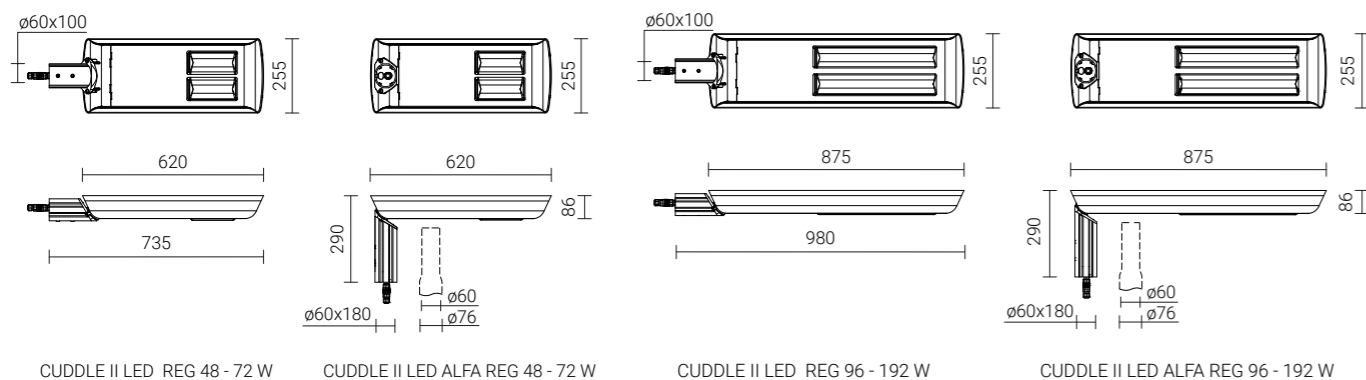
Protection class: IP 66 for the optical part and the power supply system
Material: anodised aluminium alloy, diffuser PC-UV
Colour: inox / black
Optical system: PMMA optics, interchangeable LED module,
Available optics: T2, T3, T4, PL, P2, ME, LW, LM, DW
Expected useful lifetime: L90B10 - 100 000 h
Power factor: ≥ 0,95
Tilt angle adjustment: up to +20° when mounted directly on a column,
 and from 15° to +10° when mounted on an extension arm



View detailed specifications and product codes

Technical information

	CUDDLE II LED REG 48 - 72 W	CUDDLE II LED REG 96 - 192 W
LED power	48 W - 72 W	96 W - 192 W
Luminaire power consumption	55 W - 79 W	105 W - 205 W
LED forward current	700 mA - 1000 mA	500 mA - 1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70	> 70
LEDs luminous flux	8150 lm - 12100 lm	16000 lm - 31350 lm
Luminaire luminous flux	6950 lm - 10300 lm	13650 lm - 26700 lm
Luminous efficacy	115 lm/W - 142 lm/W	116 lm/W - 146 lm/W
Net weight	5,6 kg	8,6 kg - 8,8 kg



Additional product versions



CUDDLE II LED REG D4i



CUDDLE II LED ALFA REG NEMA



CUDDLE II LED REG



COSMO LED

Protection class: IP 66 for the optical part and the power supply system

Material: cap - formed aluminium sheet, anodised,
base - anodised aluminium alloy,
diffuser – tempered glass

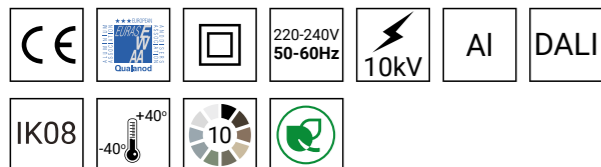
Colour: inox / black

Optical system: PMMA optics, interchangeable LED module,

Available optics: T3, T4, PL, P2, LN, DW, LW

Expected useful lifetime: L90B10 - 100 000 h

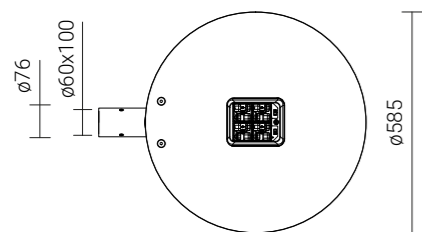
Power factor: ≥ 0,95



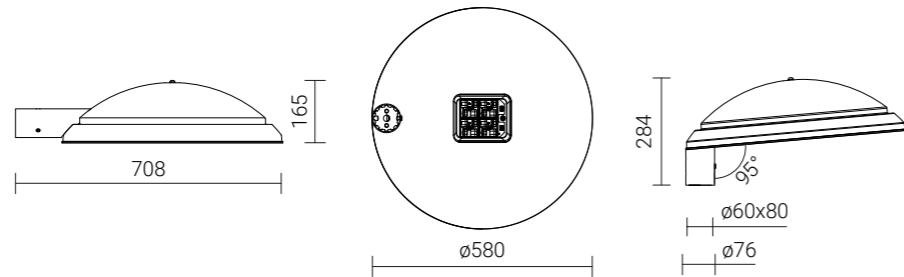
View detailed specifications and product codes

Technical information

	COSMO LED	COSMO LED ALFA
LED power	36 W - 60 W	36 W - 60 W
Luminaire power consumption	39 W - 67 W	39 W - 67 W
LED forward current	375 mA - 625 mA	375 mA - 625 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70	> 70
LEDs luminous flux	6200 lm - 10350 lm	6200 lm - 10350 lm
Luminaire luminous flux	5150 lm - 8600 lm	5150 lm - 8600 lm
Luminous efficacy	119 lm/W - 141 lm/W	119 lm/W - 141 lm/W
Net weight	8,3 kg	7,9 kg



COSMO LED



COSMO LED ALFA

Additional product versions



COSMO LED ALFA



COSMO LED

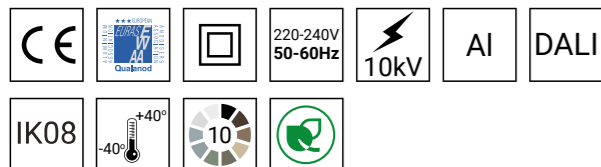


COSMO DELTA LED

Protection class: IP 66
Material: cap - formed aluminium sheet, anodised, base - anodised aluminium alloy, diffuser - tempered glass
Colour: inox / black
Optical system: PMMA optics, interchangeable LED module
Available optics: DW, T4, VS
Expected useful lifetime: L90B10 - 100 000 h
Power factor: ≥ 0,95

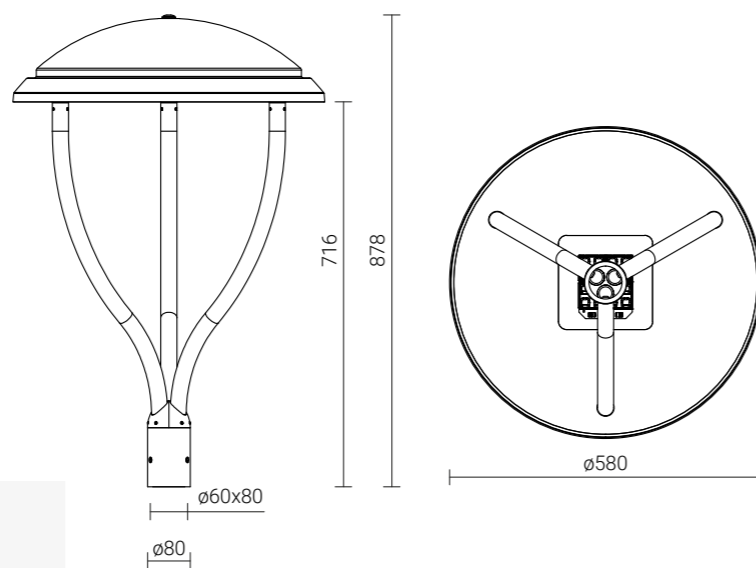


View detailed specifications and product codes



Technical information

COSMO DELTA LED	
LED power	24 W - 60 W
Luminaire power consumption	26 W - 67 W
LED forward current	250 mA - 625 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	4250 lm - 10350 lm
Luminaire luminous flux	3350 lm - 8150 lm
Luminous efficacy	113 lm/W - 138 lm/W
Net weight	9,6 kg

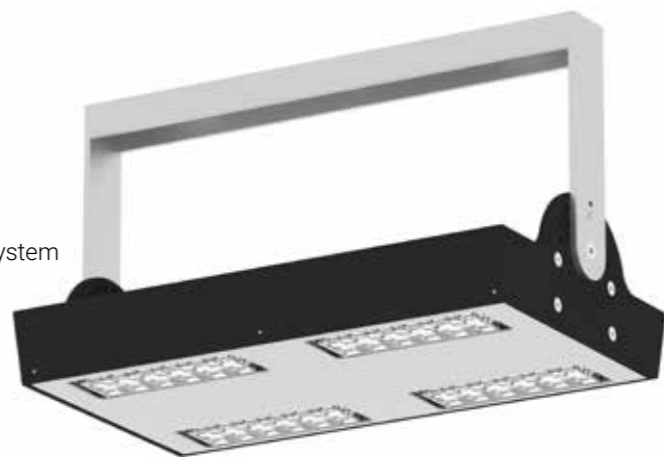


Additional product versions



Launch date
Q2

ARTEMIS LED



Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

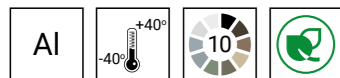
Colour: inox / black

Optical system: PMMA optics, interchangeable LED module

Available optics: HB

Expected useful lifetime: L90B10 - 100 000 h

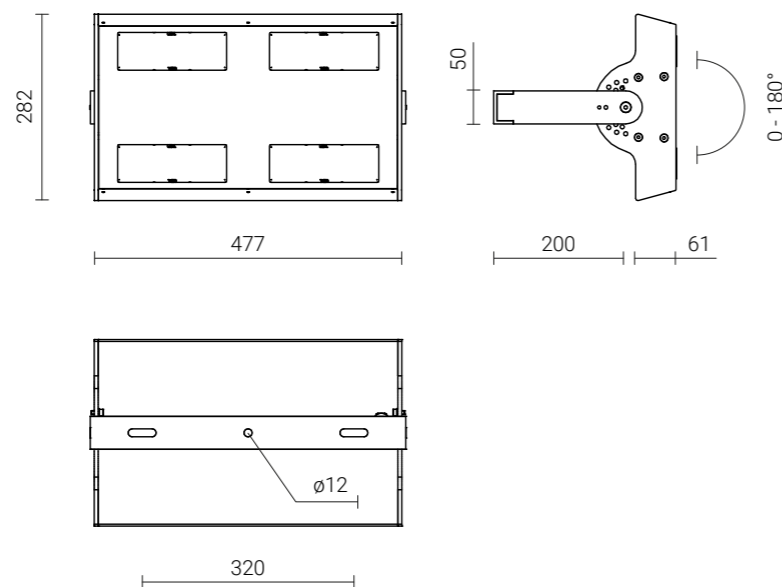
Power factor: $\geq 0,95$



View detailed specifications and product codes

Technical information

	ARTEMIS LED
LED power	144 W
Luminaire power consumption	154 W
LED forward current	1000 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	21400 lm - 24200 lm
Luminaire luminous flux	19250 lm - 21800 lm
Luminous efficacy	125 lm/W - 142 lm/W
Net weight	8,7 kg



ARTEMIS LED



ISKRA LED LB

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

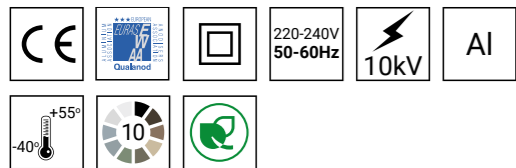
Colour: inox / black

Optical system: PMMA optics

Available optics: HB-WWW, HB-0, HB

Expected useful lifetime: L90B10 - 100 000 h

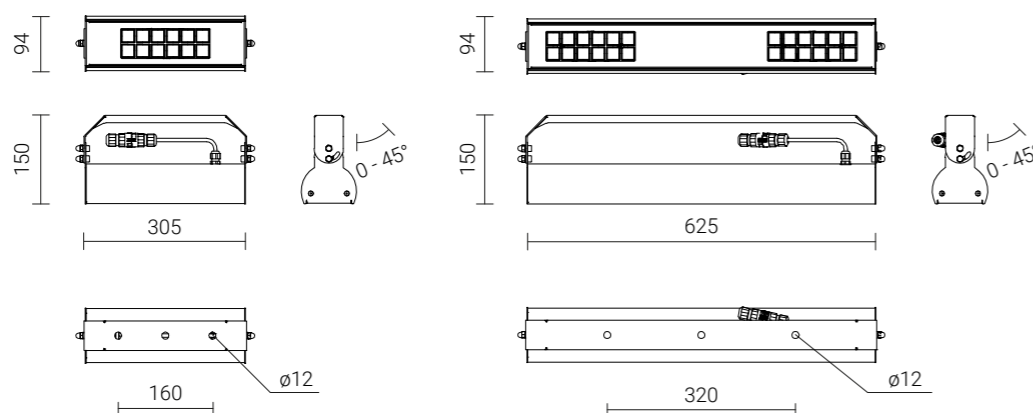
Power factor: $\geq 0,95$



View detailed specifications and product codes

Technical information

	ISKRA LED LB
LED power	36 W - 80 W
Luminaire power consumption	39,5 W - 86 W
LED forward current	960 mA - 1075 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	5350 lm - 12900 lm
Luminaire luminous flux	4900 lm - 11800 lm
Luminous efficacy	122 lm/W - 141 lm/W
Net weight	2,5 kg - 3,8 kg



ISKRA LED LB 36

ISKRA LED LB 80



ISKRA LED LB

Safe pedestrian crossing

Safety is a particularly important issue for all road users – both drivers and pedestrians. Unfortunately, **pedestrian crossings** are among the locations **most prone to traffic incidents**, in both urban and rural areas.

One of the key factors influencing the number of pedestrian-related incidents is the quality of lighting at these locations. Ensuring adequate visibility for road users helps reduce the occurrence

Rules for correct lighting of a pedestrian crossing

1

Dedicated lighting provides a **positive contrast of the pedestrian's silhouette** on the road and in the waiting zone on the pavement.

2

The luminaires are installed in front of the pedestrian crossing separately for each direction of traffic, optics directs the emitted light from the luminaire in such a way as **to illuminate the silhouette of pedestrians from the side of oncoming vehicles**.

3

The luminaires are **placed below the line of road lighting luminaires**, usually at a height of 5-7 m and at a distance of 0.5-1.5 m in front of a pedestrian crossing.

4

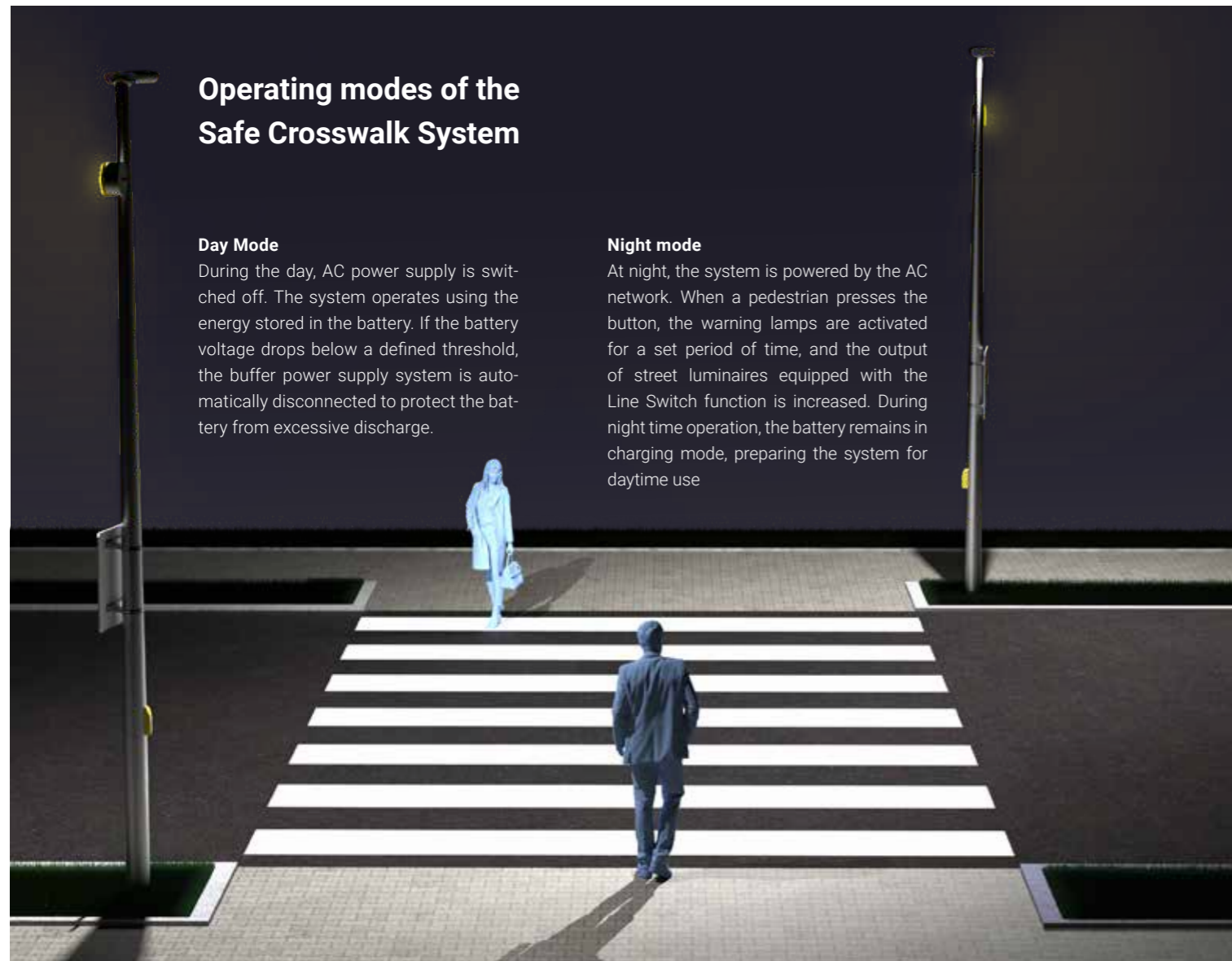
The vertical illuminance should be **significantly higher** than the horizontal illuminance produced by the road lighting.

5

To improve the visibility of the crossing, sometimes a **different colour temperature** of light sources is used than in the case of the main road lighting, e.g., road – 4000K, crossing – 5700K.

of unpredictable situations and unsafe behaviour in traffic.

As a manufacturer of lighting systems, we continuously invest in research and development of solutions designed for such applications. Our portfolio includes products specifically developed for installation in the vicinity of pedestrian crossings, ensuring optimal visibility of pedestrians.



Operating modes of the Safe Crosswalk System

Day Mode

During the day, AC power supply is switched off. The system operates using the energy stored in the battery. If the battery voltage drops below a defined threshold, the buffer power supply system is automatically disconnected to protect the battery from excessive discharge.

Night mode

At night, the system is powered by the AC network. When a pedestrian presses the button, the warning lamps are activated for a set period of time, and the output of street luminaires equipped with the Line Switch function is increased. During night time operation, the battery remains in charging mode, preparing the system for daytime use.

How is the Safe Crosswalk System built?



CUDDLE MINI LED REG luminaire

The luminaire equipped with **optics specifically designed for illuminating pedestrian crossings**. It provides efficient, optimally directed light.

The **Line Switch function** enables **intelligent luminaire control** - in this case, temporarily **increasing luminous output** in response to a **push-button signal**.



Traffic signal push button

It serves as the **activation point of the system**. When pressed by a pedestrian, **it increases the luminous output of the luminaires and activates the warning lamps**.

This solution effectively highlights the pedestrian's presence and improves their visibility in the crossing area.



SAL PP signal lights set

The **flashing yellow warning lamp** serves as a visual alert for drivers.

Its light signals **increase driver awareness** and enable **quicker reaction** to the presence of pedestrians.



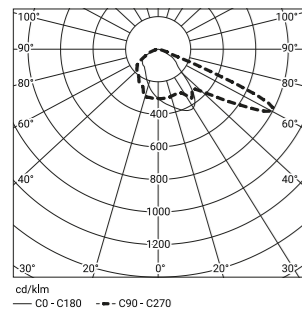
Space for D6 traffic sign

The construction allows for the installation of traffic sign D6. The sign itself is not included in the set.



Detailed system components

P2 optics



A specialised optical system for pedestrian crossings, designed specifically to meet the WR-D-41-4 requirements. **It enables effective illumination of a three-lane road** (one direction) using just a **single luminaire**.

Luminaire on extension arm or directly on column

CUDDLE MINI LED and **CUDDLE II LED** luminaires are available in the standard version for extension arm mounting, or in the **"REG"** version, which also allows installation at an adjustable angle, either on the column or the extension arm.

The set includes a mounting element for the warning lamp

Handle A

Handle designed for mounting the warning lamp on a column with a diameter of Ø60, using ST6.3x19 screws (recommended installation on SAL DL-10 column).



Handle B

Universal handle for mounting on a column with a diameter of Ø76-100, using clamp bands.



SAL PP Signal Set

Activation of the set

The set is activated by a push button or a motion sensor mounted on the column. **The operating time** of the warning lamp **can be adjusted** within a range of 10 to 31 seconds, **depending on the needs** of the location.

¹⁾ Motion sensor not included in the set

Buffer power supply

The lamps are available in versions equipped with a buffer power supply using a **battery energy storage unit**. This ensures **round-the-clock operation**, even in circuits where daytime power supply is disconnected - **at night the buffer system stores energy, which is then used during the day**.

Quantity variants

Due to different road types and local conditions, in addition to a single set we also offer **packages of two or four warning sets**. This makes it easy to adapt the solution to any location, while purchasing in a package comes with a more cost-effective price.

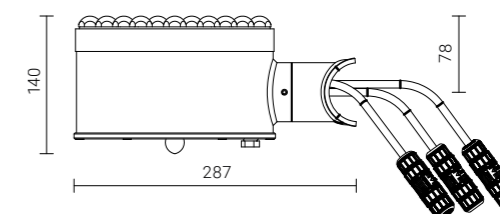
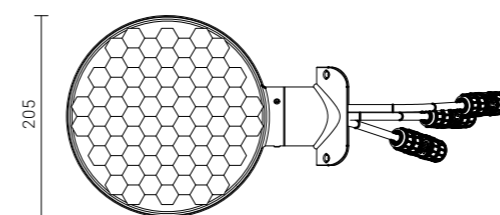
SAL PP

SAL 2xPP

SAL 4xPP

Wireless communication

Control within a single pedestrian crossing is based on wireless technology, **eliminating the need for control cables** between systems on both sides of the roadway. **The devices can be easily paired by assigning them to appropriate groups**, enabling **flexible configuration** and **quick system installation**.



Designing pedestrian crossings

WR-D-41-4 Guidelines*

The Foundation for the Development of Civil Engineering, Gdańsk University of Technology, Warsaw University of Technology, and the Road and Bridge Research Institute have developed the WR-D-41-4* guidelines for pedestrian crossing lighting, aimed at improving pedestrian safety.

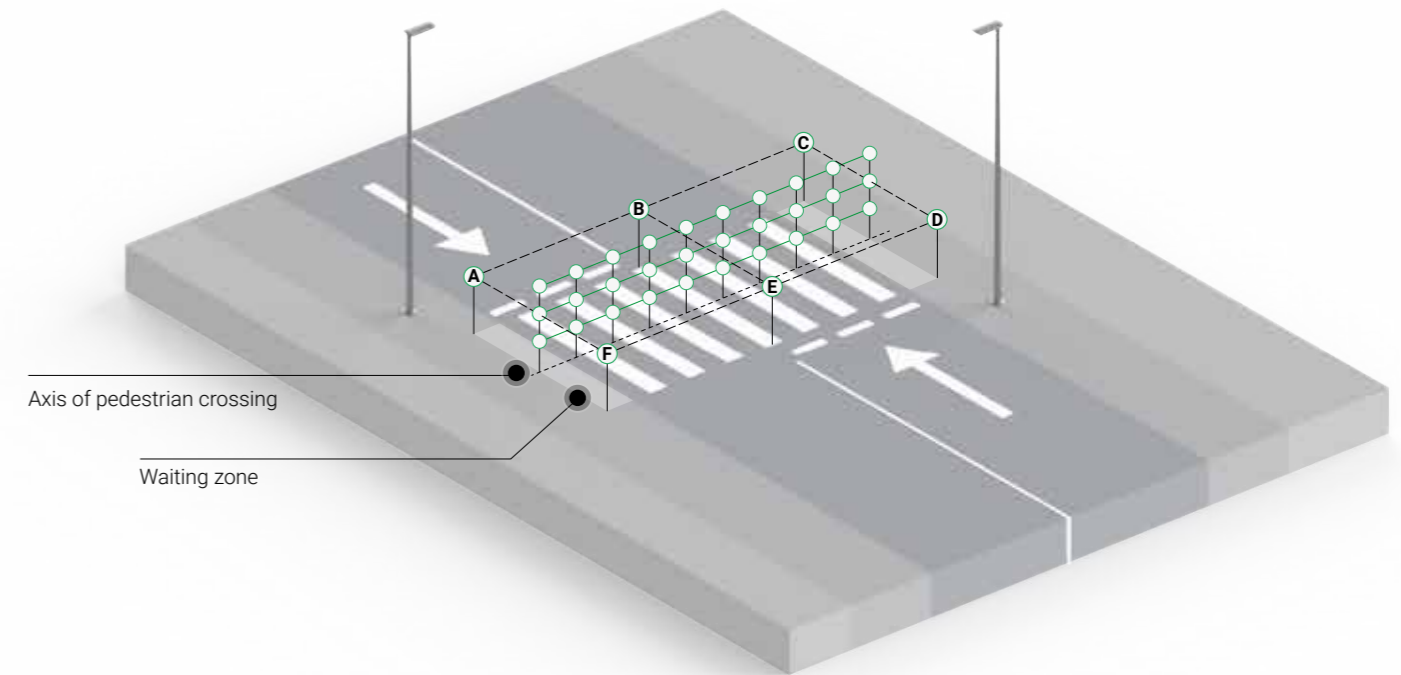
These guidelines introduce, among other things, a new lighting class PC and define the required levels of illuminance parameters at pedestrian crossings using luminaires with asymmetric distribution / dedicated lighting, applied to roads illuminated in class M (luminance).

Road lighting		Pedestrian crossing lighting					
Values before and after the pedestrian crossing		PC Class	Measuring lanes				Points A, B, C, D, E, F
M Class	L _{av} [cd/m ²] (average illuminance)		Vertical		Horizontal		
			E _{avr} [lx] (average vertical illuminance)	U _{ov} [-] (vertical uniformity) (min.)	E _{hgr} [lx] (average horizontal illuminance)	U _{oh} [-] (horizontal uniformity)	
M1	2,00	No need to use dedicated solutions					
M2	1,50	PC1	75	0,35	75	0,4	5,0
M3	1,00	PC2	50	0,35	50	0,4	4,0
M4	0,75	PC3	35	0,35	35	0,4	4,0
M5	0,50	PC4	25	0,35	25	0,4	3,0
M6	0,30	PC5	15	0,35	15	0,4	2,0

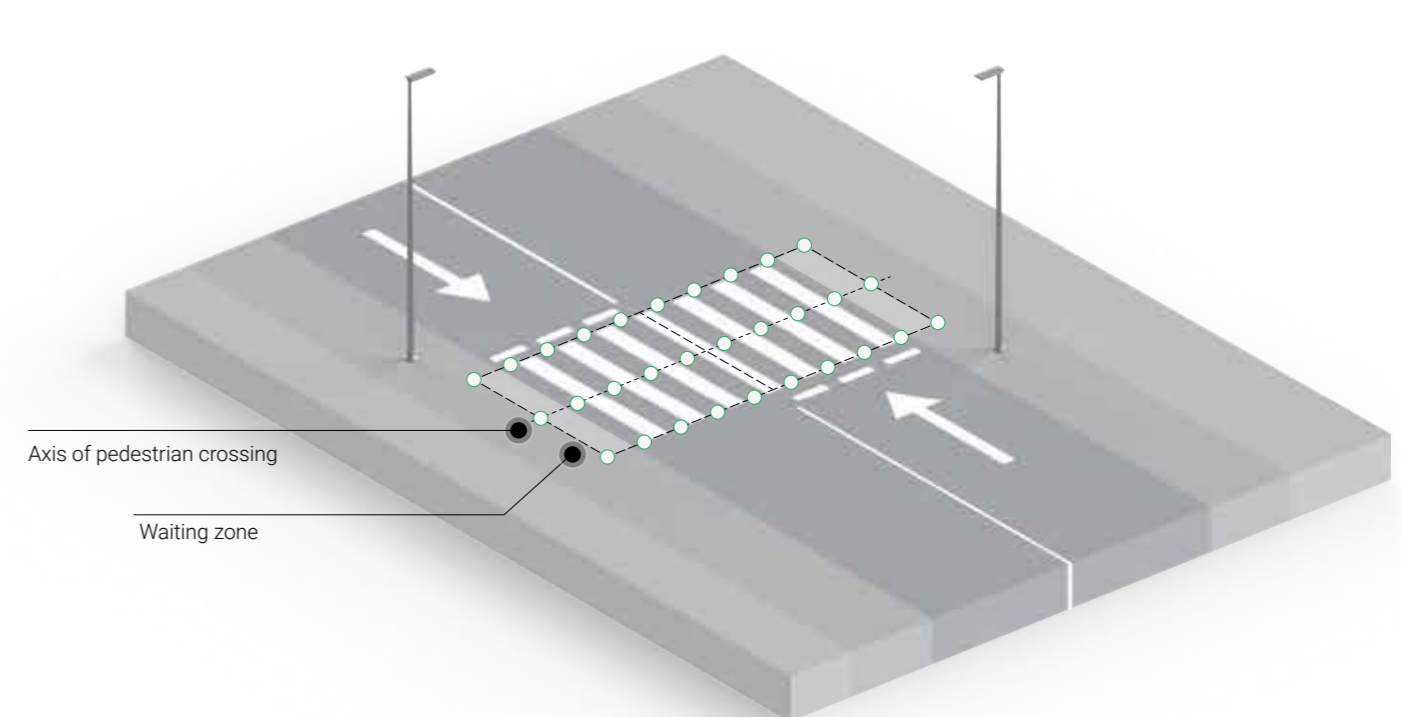
*WR-D-41-4 – Guidelines for Pedestrian Infrastructure Design, Part 4: Designing Pedestrian Crossing Lighting. Models and standards recommended by the Minister responsible for Transport



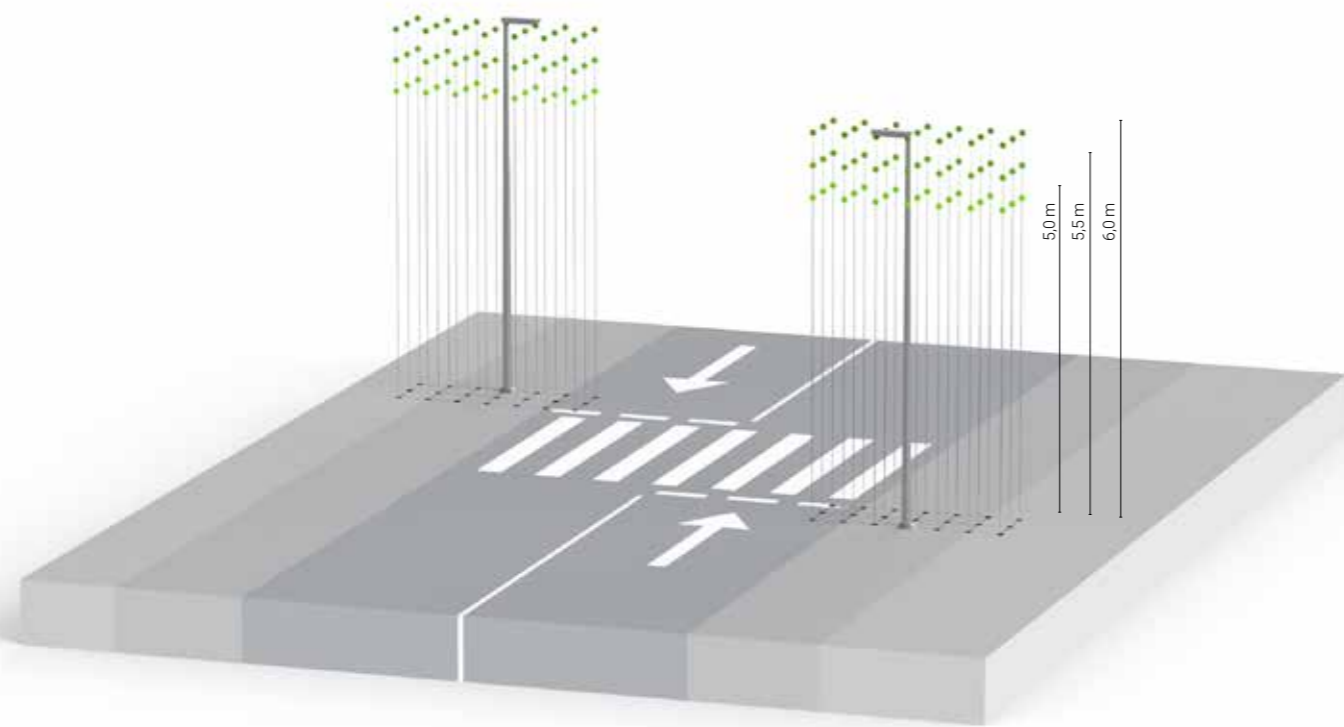
Point grid vertical illuminance



Point grid horizontal illuminance



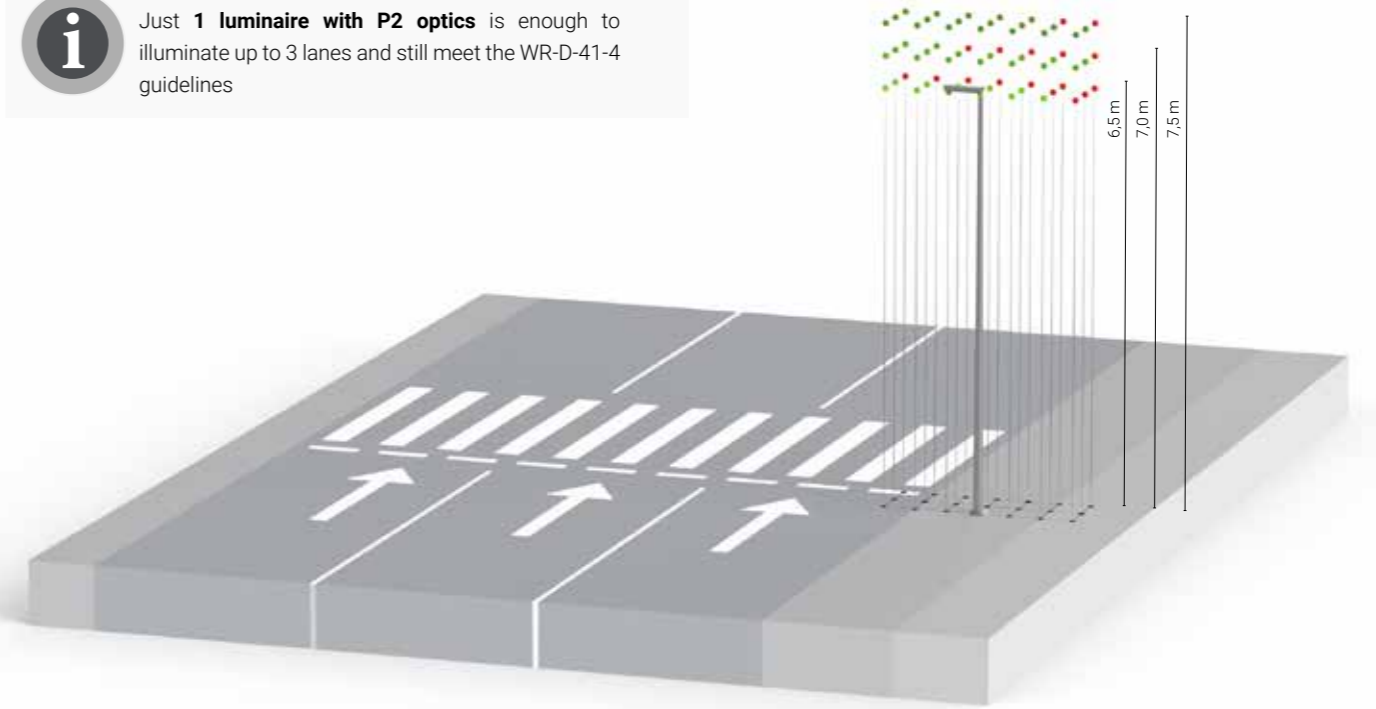
Two-way road with two lanes



● Positions of luminaires with P2 optics for which the requirements of WR-D-41-4 are met

One-way road with three lanes

i Just **1 luminaire with P2 optics** is enough to illuminate up to 3 lanes and still meet the WR-D-41-4 guidelines



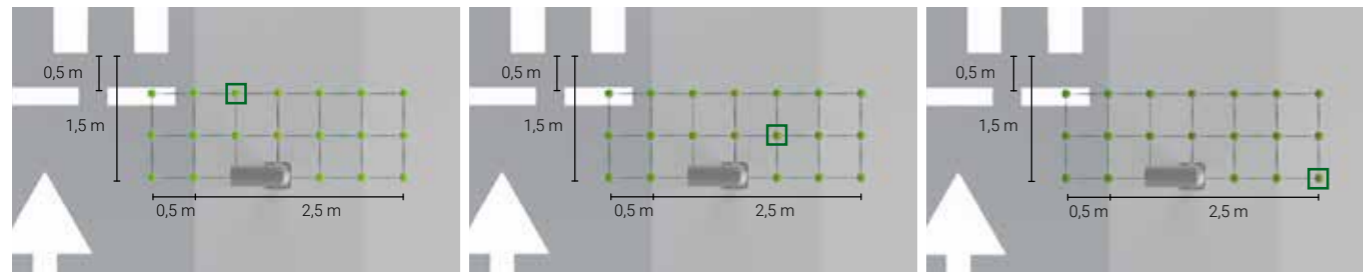
● Positions of luminaires with P2 optics for which the requirements of WR-D-41-4 are met

Acceptable mounting points for the luminaire

Luminaire mounting height: 5,0 m

Luminaire mounting height: 5,5 m

Luminaire mounting height: 6,0 m



Calculation results for the selected point

Mounting height: 5 m | Luminaire inclination: 5°
48W luminaire: PC3 class ≥ 35 lx
60W luminaire: PC2 class ≥ 50 lx

Mounting height: 5,5 m | Luminaire inclination: 5°
48W luminaire: PC4 class ≥ 25 lx
60W luminaire: PC3 class ≥ 35 lx

Mounting height: 6 m | Luminaire inclination: 5°
48W luminaire: PC4 class ≥ 25 lx
60W luminaire: PC3 class ≥ 35 lx
96W luminaire: PC2 class ≥ 50 lx

Uniformity of illuminance:

	WR-D-41-4 Guidelines	Result - P2 optics	WR-D-41-4 Guidelines	Result - P2 optics	WR-D-41-4 Guidelines	Result - P2 optics
U_{ov}	$\geq 0,35$	0,51	$\geq 0,35$	0,63	$\geq 0,35$	0,63
U_{oh}	$\geq 0,4$	0,58	$\geq 0,4$	0,62	$\geq 0,4$	0,69

Acceptable mounting points for the luminaire

Luminaire mounting height: 6,5 m

Luminaire mounting height: 7,0 m

Luminaire mounting height: 7,5 m



Calculation results for the selected point

Mounting height: 6,5 m | Luminaire inclination: 5°
60W luminaire: PC4 class ≥ 25 lx
96W luminaire: PC2 class ≥ 50 lx

Mounting height: 7 m | Luminaire inclination: 5°
72W luminaire: PC4 class ≥ 25 lx
96W luminaire: PC3 class ≥ 35 lx
144W luminaire: PC2 class ≥ 50 lx

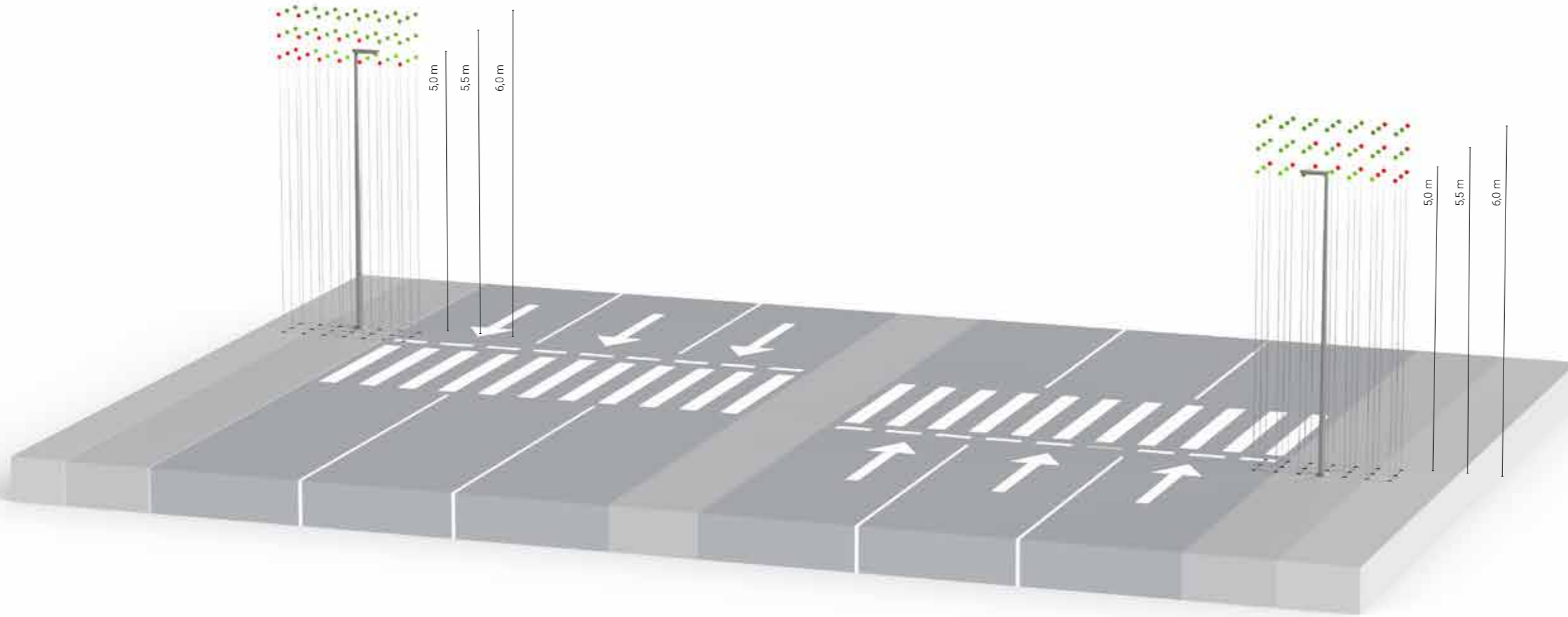
Mounting height: 7,5 m | Luminaire inclination: 5°
96W luminaire: PC3 class ≥ 35 lx
144W luminaire: PC2 class ≥ 50 lx

Uniformity of illuminance:

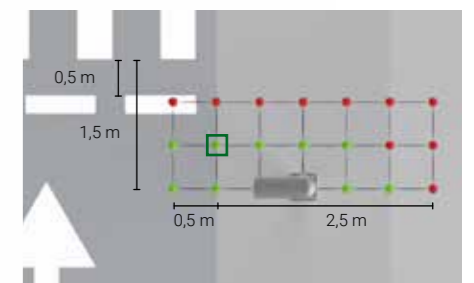
	WR-D-41-4 Guidelines	Result - P2 optics	WR-D-41-4 Guidelines	Result - P2 optics	WR-D-41-4 Guidelines	Result - P2 optics
U_{ov}	$\geq 0,35$	0,37	$\geq 0,35$	0,4	$\geq 0,35$	0,41
U_{oh}	$\geq 0,4$	0,51	$\geq 0,4$	0,55	$\geq 0,4$	0,56

Two-way road with six lanes

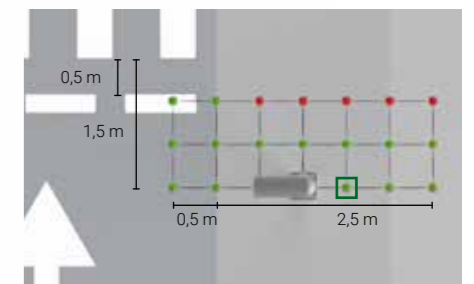
i 2 luminaires with P2 optics are enough to illuminate up to 6 lanes and still meet the WR-D-41-4 guidelines



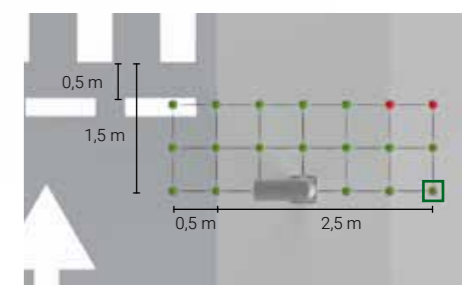
Luminaire mounting height: 6,5 m



Luminaire mounting height: 7,0 m



Luminaire mounting height: 7,5 m



● Positions of luminaires with P2 optics for which the requirements of WR-D-41-4 are met

Calculation results for the selected point □

Mounting height: 6,5 m Luminaire inclination: 5°	Mounting height: 7 m Luminaire inclination: 5°	Mounting height: 7,5 m Luminaire inclination: 5°
60W luminaire: PC4 class	72W luminaire: PC4 class	96W luminaire: PC3 class
96W luminaire: PC2 class	96W luminaire: PC3 class	144W luminaire: PC2 class
≥25 lx	≥25 lx	≥35 lx
≥50 lx	≥35 lx	≥50 lx
	≥50 lx	

Uniformity of illuminance:

	WR-D-41-4 Guidelines	Result - P2 optics	WR-D-41-4 Guidelines	Result - P2 optics	WR-D-41-4 Guidelines	Result - P2 optics
U_{av}	≥ 0,35	0,37	≥ 0,35	0,4	≥ 0,35	0,41
U_{oh}	≥ 0,4	0,51	≥ 0,4	0,55	≥ 0,4	0,56

SIMPLE CUT LED

Protection class: IP 66 for the optical part and the power supply system

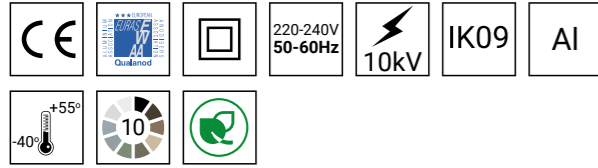
Material: anodised aluminium alloy

Colour: inox / grey

Optical system: PC optics

Available optics: dedicated optics (SIMPLE CUT LED)

Expected useful lifetime: L90B10 - 100 000 h

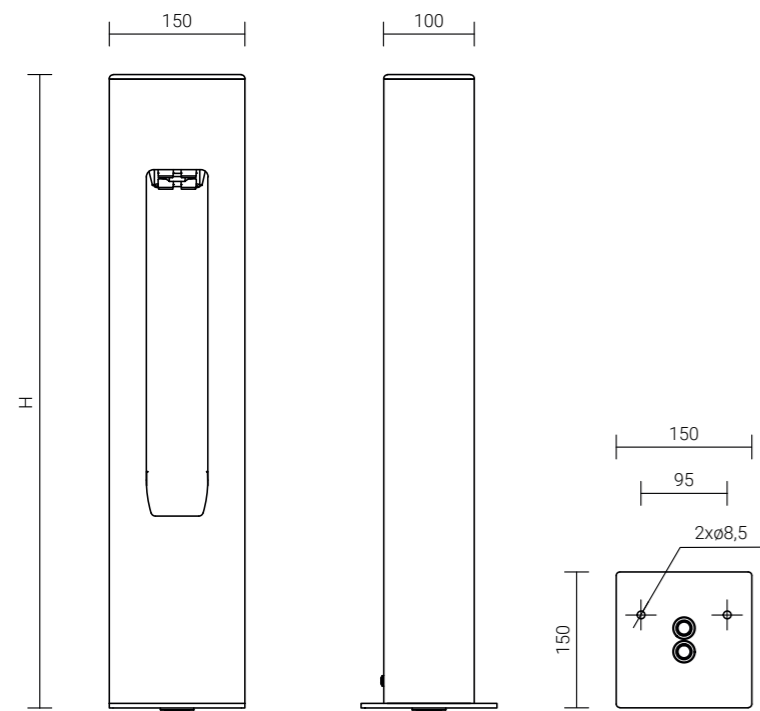


View detailed specifications and product codes

Technical information

SIMPLE CUT LED

LED power	8 W
Luminaire power consumption	12 W
LED forward current	700 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	1350 lm - 1500 lm
Luminaire luminous flux	800 lm - 900 lm
Luminous efficacy	67 lm/W - 75 lm/W
Net weight	4,5 kg
Height H	700 mm
Concrete footing / reinforcement basket type	B-0A / Z-0A



SIMPLE CUT LED

Product description

A compact lighting set, the design of which is based on a rectangular profile, creating a stable body. The front of the shape features a deep, vertical cutout that gradually tapers downwards – its inner wall houses a LED module. This design effectively shields the optical system and directs the light beam along the interior surfaces,

resulting in atmospheric, diffused light. The product is ideal for illuminating parks, recreational areas, pedestrian walkways, and the surroundings of office buildings.

CUT-1 LED

Protection class: IP 66 for the optical part and the power supply system

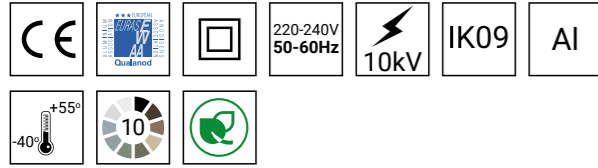
Material: anodised aluminium alloy

Colour: 10 anodized colors

Optical system: PC optics

Available optics: dedicated optics (CUT-1 LED)

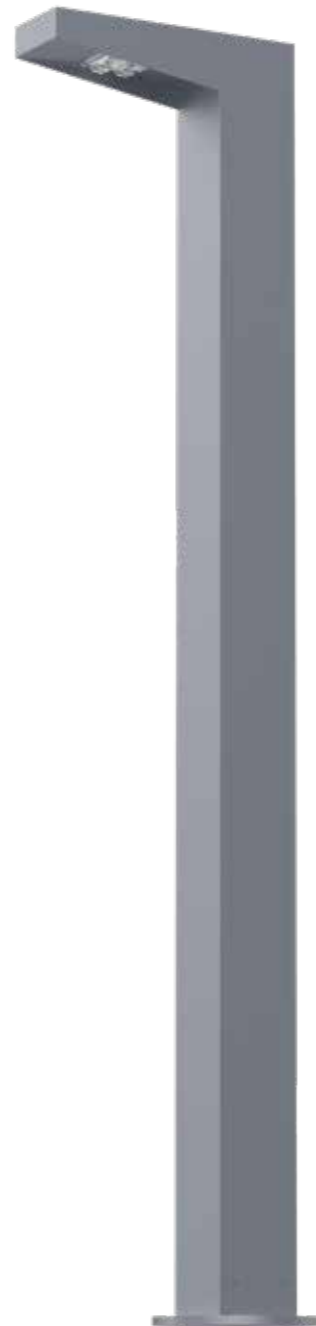
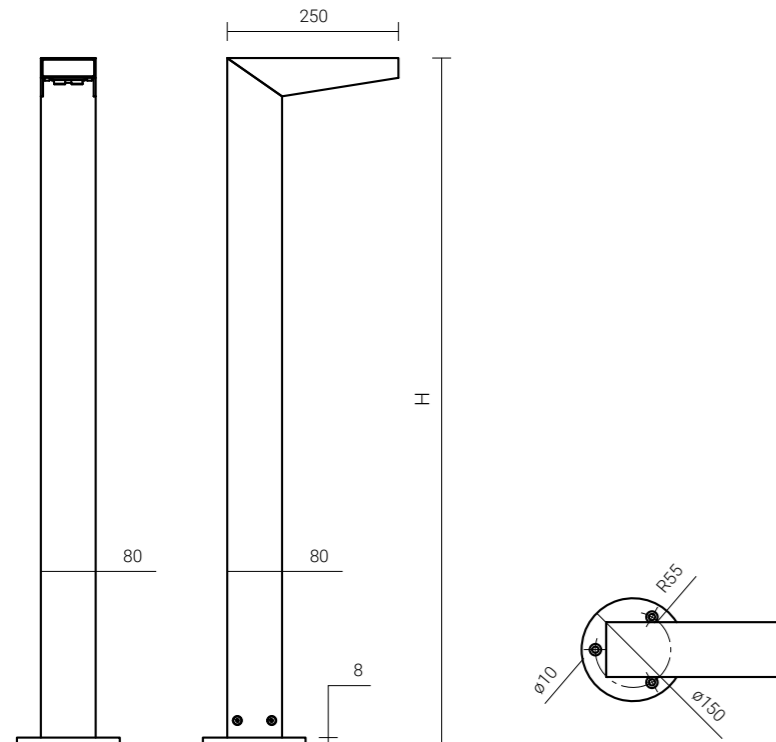
Expected useful lifetime: L90B10 - 100 000 h



View detailed specifications and product codes

Technical information

	CUT-1 LED
LED power	8 W
Luminaire power consumption	12 W
LED forward current	700 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	1350 lm - 1500 lm
Luminaire luminous flux	1050 lm - 1150 lm
Luminous efficacy	88 lm/W - 96 lm/W
Net weight	5,2 kg
Height H	1000 mm
Concrete footing / reinforcement basket type	B-0A / Z-0A



CUT-1 LED

Product description

A compact lighting set complementing the CUT product series. The structure is formed by a vertical profile with a square cross-section, the upper section of which is a converging arm. This design maintains a minimalist and clear linear form. The product blends well with the architecture of office buildings, modern residential

developments, and public spaces. The slim silhouette makes the luminaire a perfect fit for spaces with limited room, without dominating them visually.

CUT LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

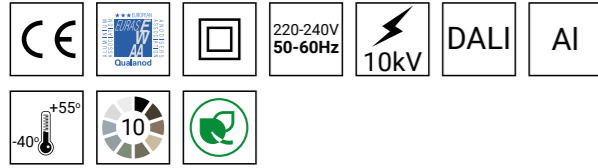
Colour: inox / grey

Optical system: PMMA optics, interchangeable LED module

Available optics: ME, DW, SP, PL, PP, T2, T3, T4

Expected useful lifetime: L90B10 - 100 000 h

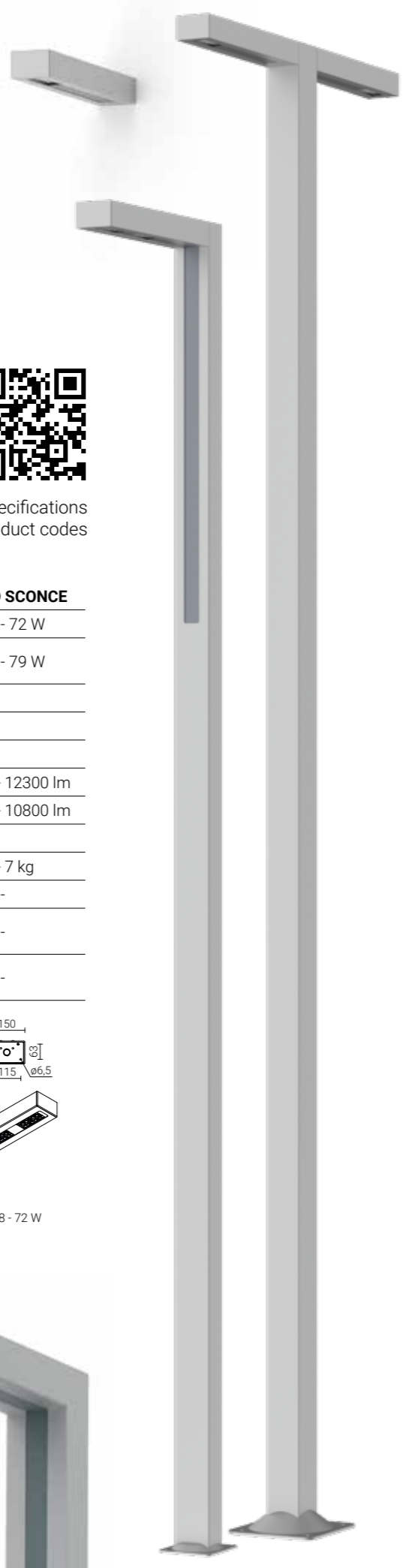
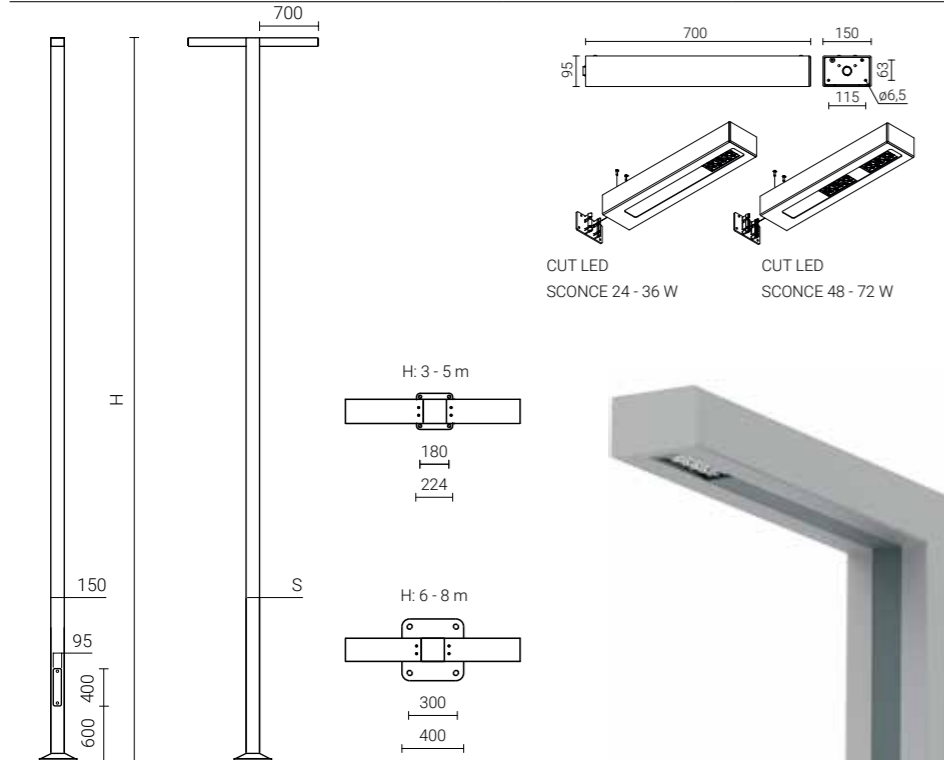
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	CUT LED	CUT II LED	CUT LED SCONCE
LED power	12 W - 72 W	2x 12 W - 72 W	12 W - 72 W
Luminaire power consumption	14 W - 79 W	2x 14 W - 79 W	14 W - 79 W
LED forward current	350 mA - 1000 mA		
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K		
CRI	> 70		
LEDs luminous flux	2250 lm - 12300 lm	2x 2250 lm - 12300 lm	2250 lm - 12300 lm
Luminaire luminous flux	2050 lm - 10800 lm	2x 2050 lm - 10800 lm	2050 lm - 10800 lm
Luminous efficacy	120 lm/W - 155 lm/W		
Net weight	31 - 76 kg	44,5 - 83,5 kg	6,5 - 7 kg
Height H	3000 - 8000 mm	4000 - 8000 mm	-
Width S	100 mm for „H“ 3000 - 5000 mm, 150 mm for „H“ 6000 - 8000 mm	-	-
Concrete footing / reinforcement basket type	B-50 / Z-50 for „H“ 3000 - 5000 mm, B-71, B-70 / Z-71, Z-70 for „H“ 6000 - 8000 mm	-	-



Product description

A modern, minimalist lighting set based on a slim rectangular profile, from which a horizontal arm with a distinctly linear geometry extends. A distinctive element of the single-arm design is a decorative indentation running along the body, highlighted in grey as standard. The same colour accent also appears on the LED module cover in the set's arm. The model is available in several height variants

and in two configurations: single-arm – CUT LED and double-arm – CUT II LED. The set was created for lighting modern housing estates, the surroundings of office buildings, and public buildings. The series is complemented by a sconce with a minimalist, geometric form, whose shape is based on the lighting set's arm.

LINE-1 LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

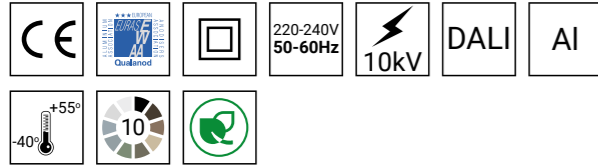
Colour: 10 anodized colors

Optical system: PMMA optics, interchangeable LED module

Available optics: DW

Expected useful lifetime: L90B10 - 100 000 h

Power factor: $\geq 0,95$

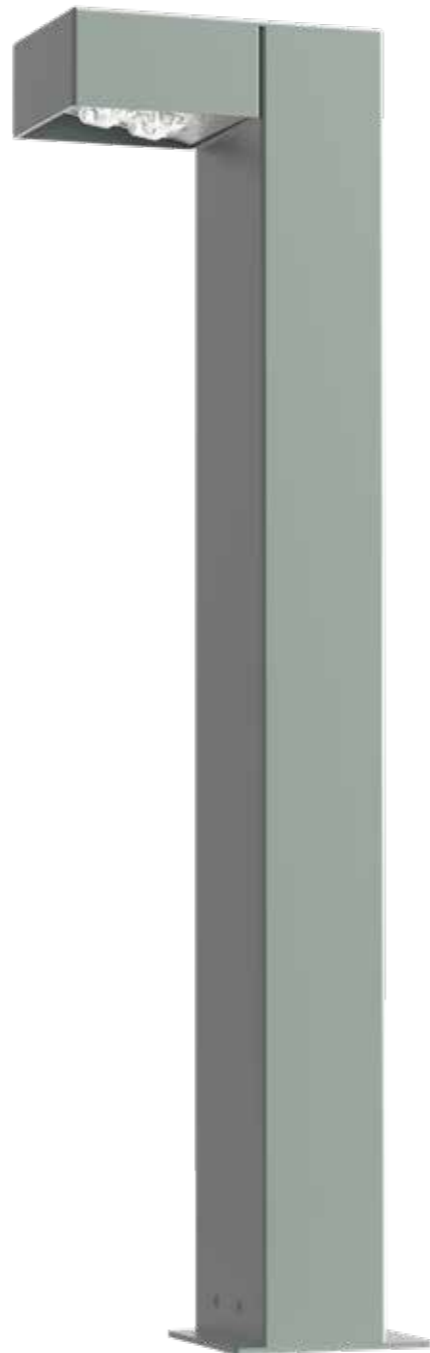
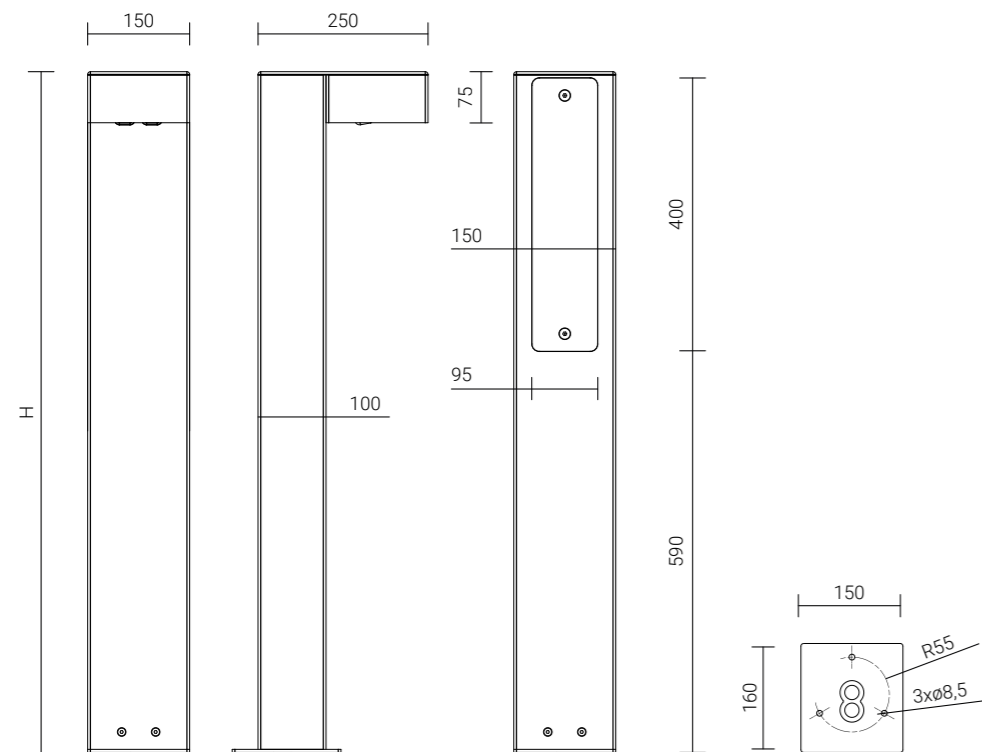


View detailed specifications and product codes

*The LINE-1 LED BASIC version does not feature a DALI interface

Technical information

	LINE-1 LED	LINE-1 LED BASIC*
LED power	12 W	8 W
Luminaire power consumption	14 W	10 W
LED forward current	250 mA	350mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	
CRI	> 70	
LEDs luminous flux	2200 lm - 2500 lm	1500 lm - 1700 lm
Luminaire luminous flux	2000 lm - 2250 lm	1350 lm - 1550 lm
Luminous efficacy	142 lm/W - 161 lm/W	135 lm/W - 155 lm/W
Net weight	8 kg	8 kg
Height H	1000 mm	1000 mm
Concrete footing / reinforcement basket type	B-0A / Z-0A	



LINE-1 LED

Product description

A compact lighting set complementing the LINE product series. The design resembles an inverted "L." It is formed by a vertical rectangular profile, from which extends a short arm with a distinctly linear geometry. A wiring chamber located in the rear wall of the profile guarantees easy

access to connectors and electrical components. The entire unit is characterised by a clean, modern form, based on simple lines and cubic shapes. The set perfectly highlights the character of contemporary housing estates, entrance areas, and the surroundings of office buildings.

LINE LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy, diffuser – tempered glass

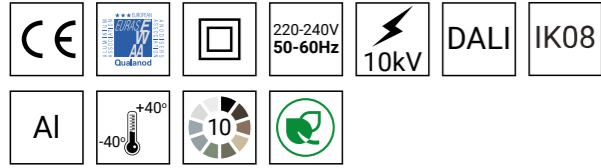
Colour: 10 anodized colors

Optical system: PMMA optics, interchangeable LED module

Available optics: DW, LN, LW, T3, T4, PL, P2

Expected useful lifetime: L90B10 - 100 000 h

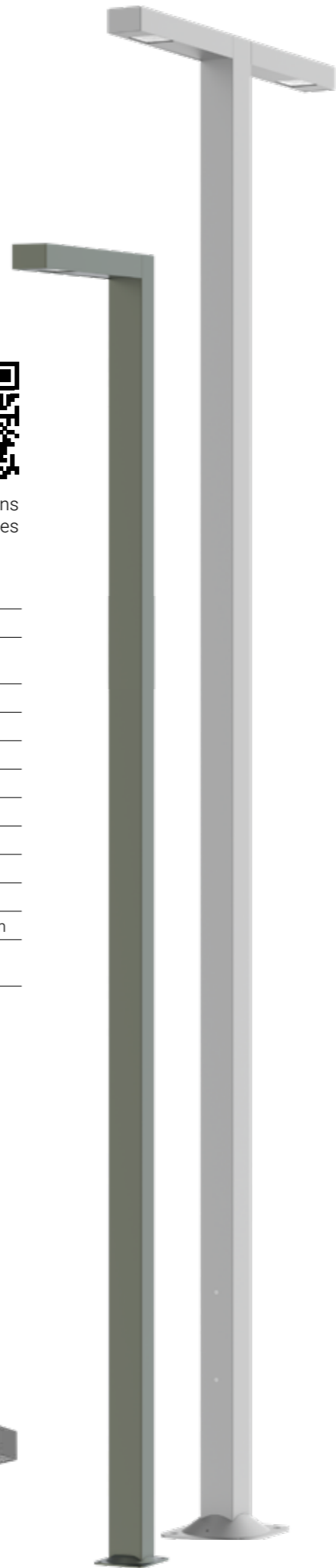
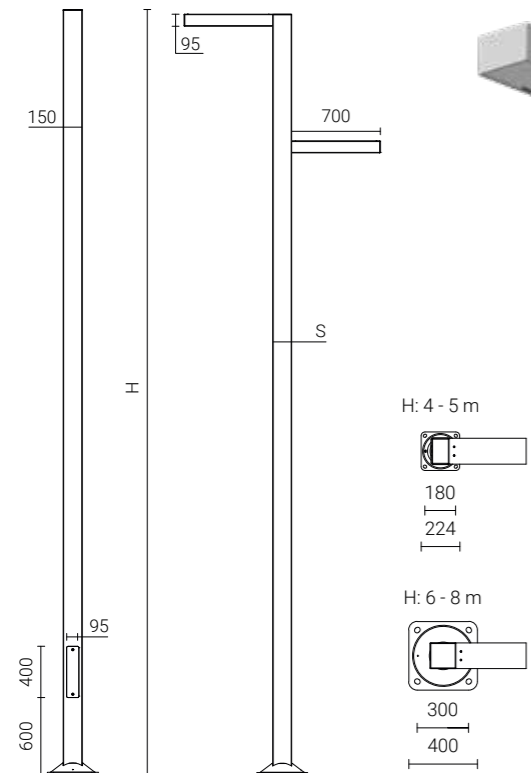
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	LINE LED	LINE II LED
LED power	12 W - 60 W	2x 12 W - 60 W
Luminaire power consumption	15 W - 67 W	2x 15 W - 67 W
LED forward current	140 mA - 625 mA	
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	
CRI	> 70	
LEDs luminous flux	2450 lm - 10350 lm	2x 2450 lm - 10350 lm
Luminaire luminous flux	2050 lm - 8600 lm	2x 2050 lm - 8600 lm
Luminous efficacy	119 lm/W - 147lm/W	
Net weight	27,6 - 64,4 kg	33,4 - 70,5 kg
Height H	4000 - 8000 mm	
Column width S	100 mm for „H“ 4000 - 5000 mm, 150 mm for „H“ 6000 - 8000 mm	
Concrete footing / reinforcement basket type	B-50 / Z-50 for „H“ 4000 - 5000 mm, B-70, B-71 / Z-70, Z-71 for „H“ 6000 - 8000 mm	



LINE LED

Product description

A simple, minimalist lighting set, available in various height variants and in two configurations: single-arm – LINE LED and double-arm – LINE II LED, with the option of mounting the arms at the same or different heights. The structure is formed by a slender, vertical profile with a rectangular cross-section, from which extends the arm with linear geometry – characteristic of contemporary architectural designs.

The lower section of the arm houses a LED module covered with tempered glass, ensuring durability and an aesthetic finish. The entire unit creates a structured, elegant form that is ideal for office buildings, campuses, public spaces, and modern housing estates.

STICK LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

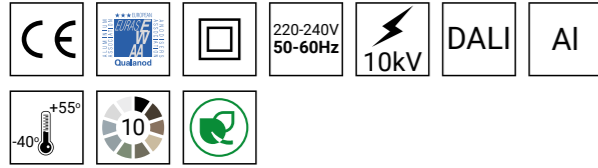
Colour: grey / inox

Optical system: PMMA optics, interchangeable LED module

Available optics: ME, DW, T2, T3

Expected useful lifetime: L90B10 - 100 000 h

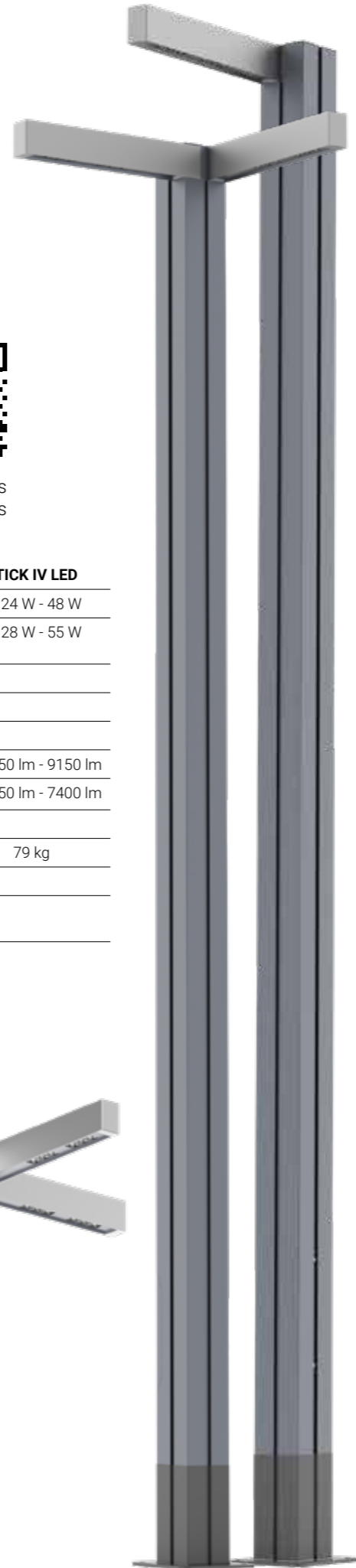
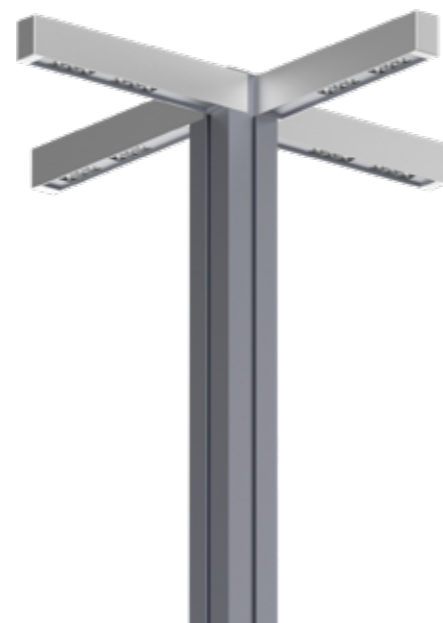
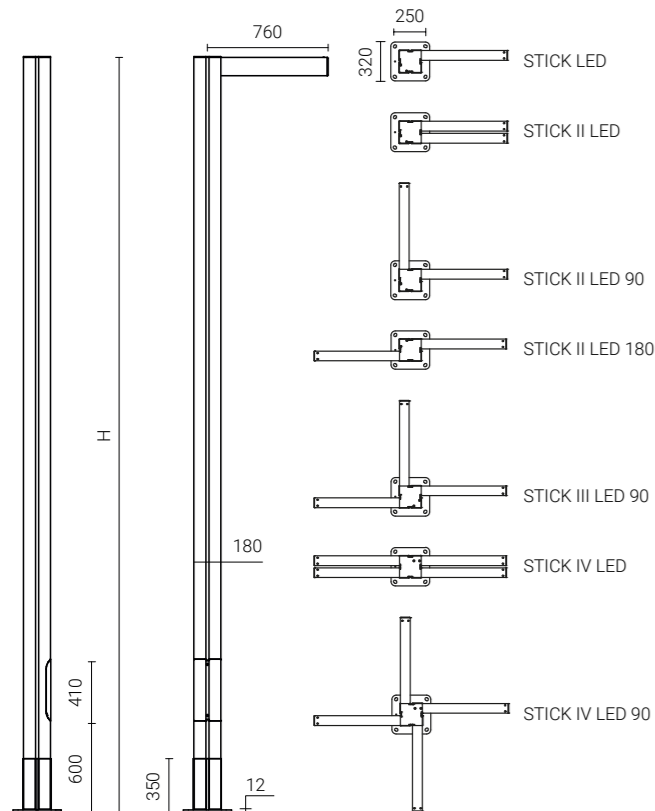
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	STICK I LED	STICK II LED	STICK III LED	STICK IV LED
LED power	24 W - 48 W	2x 24 W - 48 W	3x 24 W - 48 W	4x 24 W - 48 W
Luminaire power consumption	28 W - 55 W	2x 28 W - 55 W	3x 28 W - 55 W	4x 28 W - 55 W
LED forward current	700 mA			
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K			
CRI	> 70			
LEDs luminous flux	4050 lm - 9150 lm	2x 4050 lm - 9150 lm	3x 4050 lm - 9150 lm	4x 4050 lm - 9150 lm
Luminaire luminous flux	3250 lm - 7400 lm	2x 3249 lm - 7400 lm	3x 3250 lm - 7400 lm	4x 3250 lm - 7400 lm
Luminous efficacy	116 lm/W - 135 lm/W			
Net weight	61 kg	67 kg	73 kg	79 kg
Height H	5000 mm			
Concrete footing / reinforcement basket type	B-60 / Z-60			



STICK LED

Product description

A lighting set designed for maximum compositional flexibility. The product is constructed using a square aluminium profile with a visually distinctive vertical separation of each plane of the unit. The column can be equipped with one to four arms, arranged parallel or perpendicular, depending on the designer's vision and the spatial requirements of the project. LED modules are embedded in the arms,

concealed within an aesthetically contoured cover. Thanks to the freedom to customise the number and arrangement of the arms, it is suitable for a wide range of applications, particularly in areas with challenging lighting layouts, such as unusual squares, irregularly shaped plazas, or the pedestrian walkways of modern residential developments.

BEAM LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

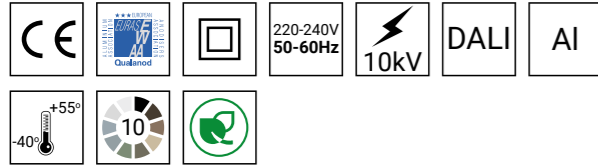
Colour: inox / grey

Optical system: PMMA optics, interchangeable LED module

Available optics: DW, ME, T2, T3

Expected useful lifetime: L90B10 - 100 000 h

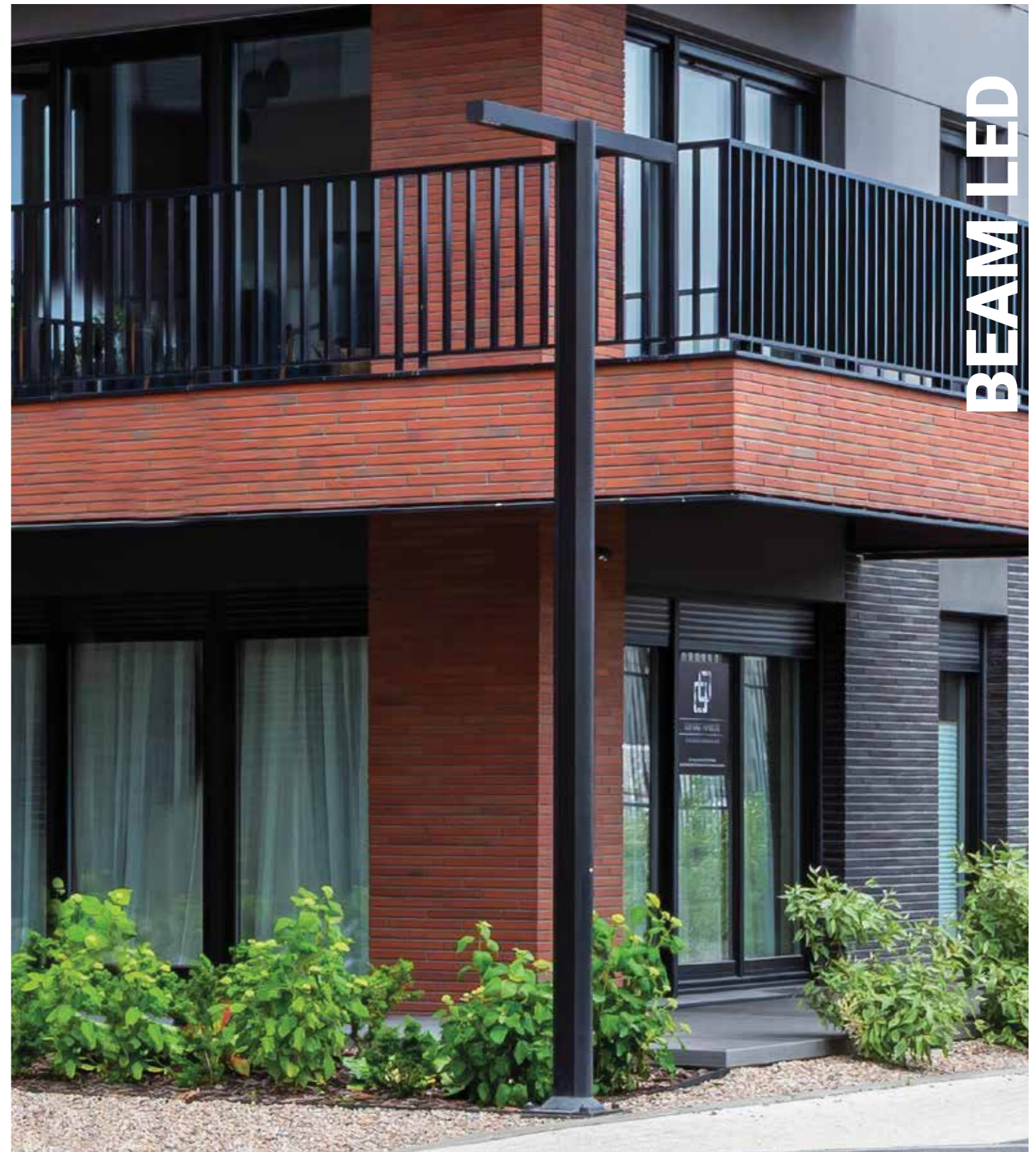
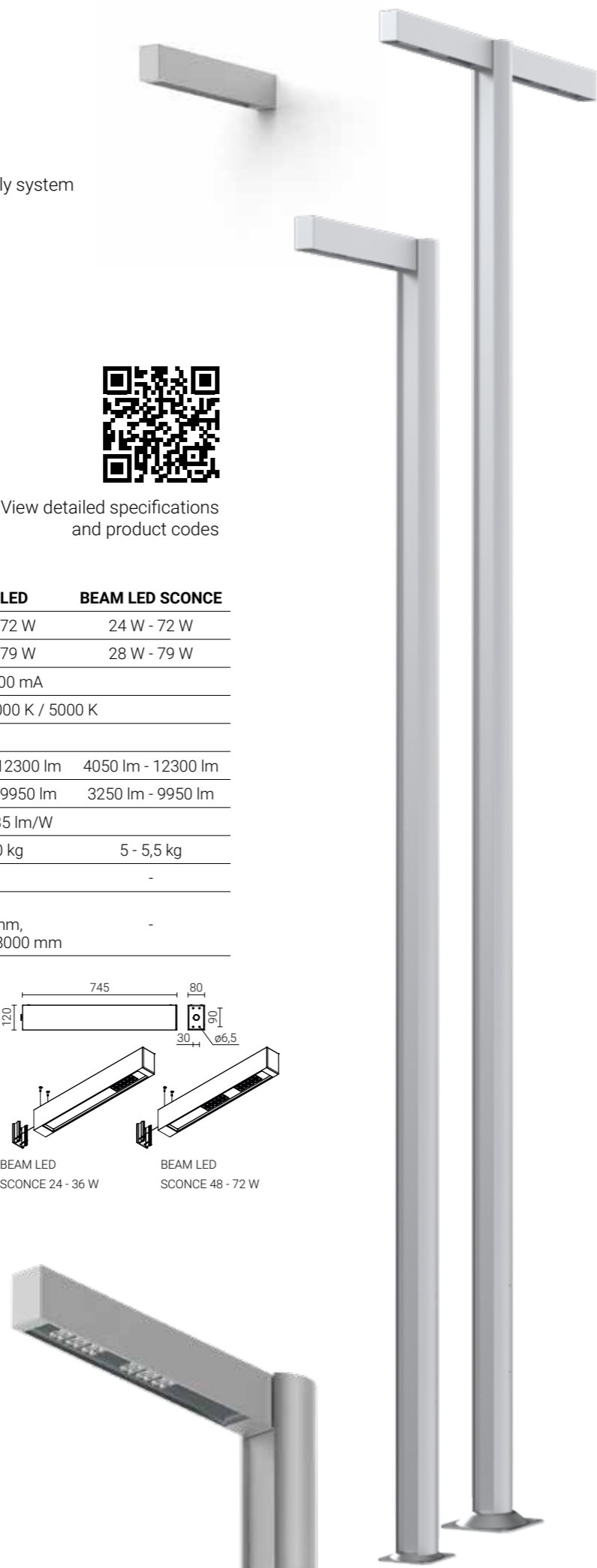
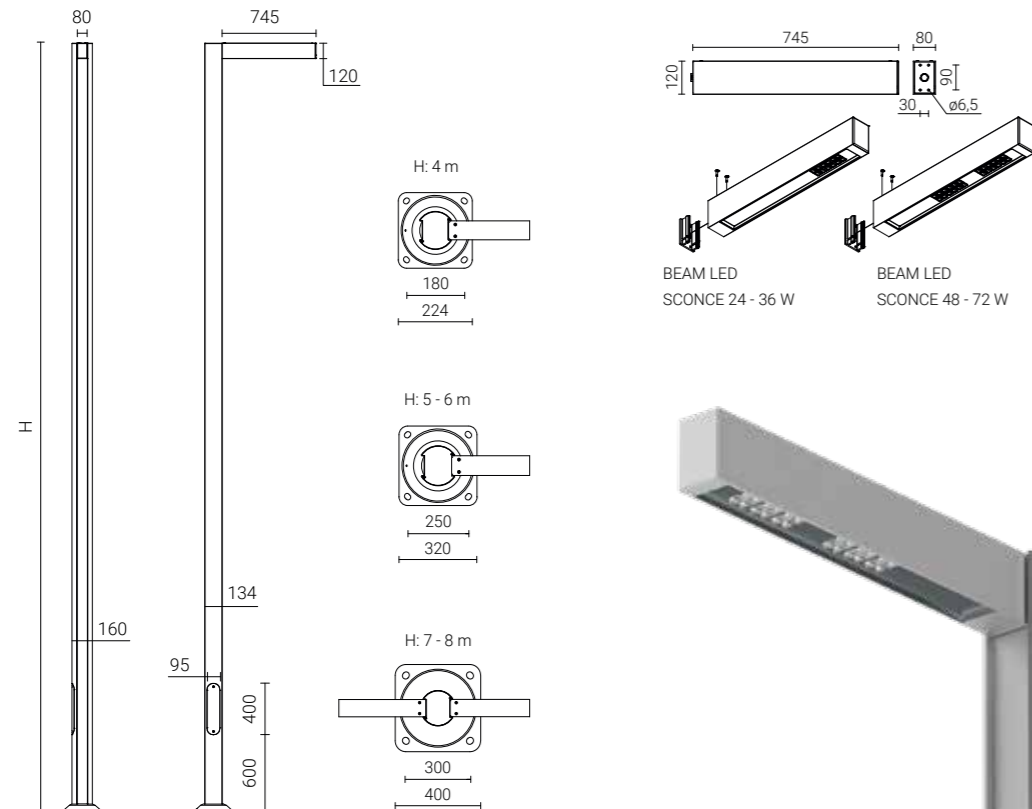
Power factor: $\geq 0,95$



View detailed specifications and product codes

Technical information

	BEAM I LED	BEAM II LED	BEAM LED SCONCE
LED power	24 W - 72 W	2x 24 W - 72 W	24 W - 72 W
Luminaire power consumption	28 W - 79 W	2x 28 W - 79 W	28 W - 79 W
LED forward current	700 mA - 1000 mA		
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K		
CRI	> 70		
LEDs luminous flux	4050 lm - 12300 lm	2x 4050 lm - 12300 lm	4050 lm - 12300 lm
Luminaire luminous flux	3250 lm - 9950 lm	2x 3250 lm - 9950 lm	3250 lm - 9950 lm
Luminous efficacy	110 lm/W - 135 lm/W		
Net weight	28 - 54,5 kg	33,5 - 60 kg	5 - 5,5 kg
Height H	4000 - 8000 mm		
Concrete footing / reinforcement basket type	B-50 / Z-50 for „H“ 4000 B-60 / Z-60 for „H“ 5000 - 6000 mm, B-70, B-71 / Z-70, Z-71 for „H“ 7000 - 8000 mm		



BEAM LED

Product description

The lighting set's shape is defined by a distinctive shaft with an unconventional cross-section, where two surfaces meet gently curved sides. This combination gives the structure a visual lightness and an unconventional expression, clearly distinguishing it from traditional lighting solutions. The profile is available in several height options. A rectangular arm with a decorative recess is mounted at the top, providing cover for the LED module.

A BEAM II LED version with two arms is also available. This solution is a popular choice for illuminating residential developments, courtyards, parks, and the surroundings of office buildings. The product series is complemented by a sconce with a minimalist, geometric form, whose form is based on the arm of the lighting set.

SNAKE LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

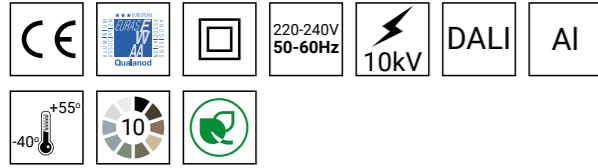
Colour: inox / black

Optical system: PMMA optics

Available optics: ME, DW, SP, PP, T2, T3, T4, 3L

Expected useful lifetime: L90B10 - 100 000 h

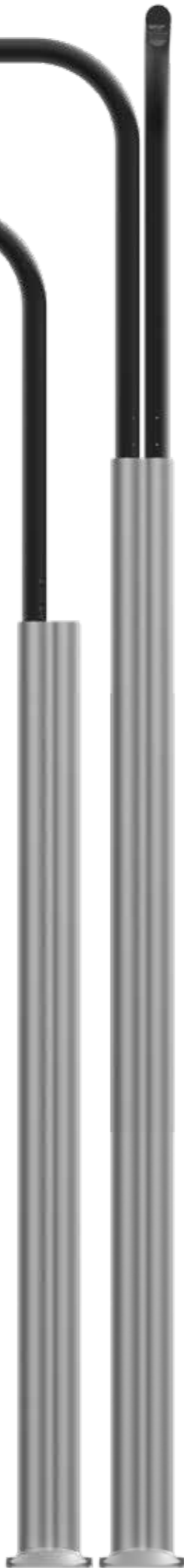
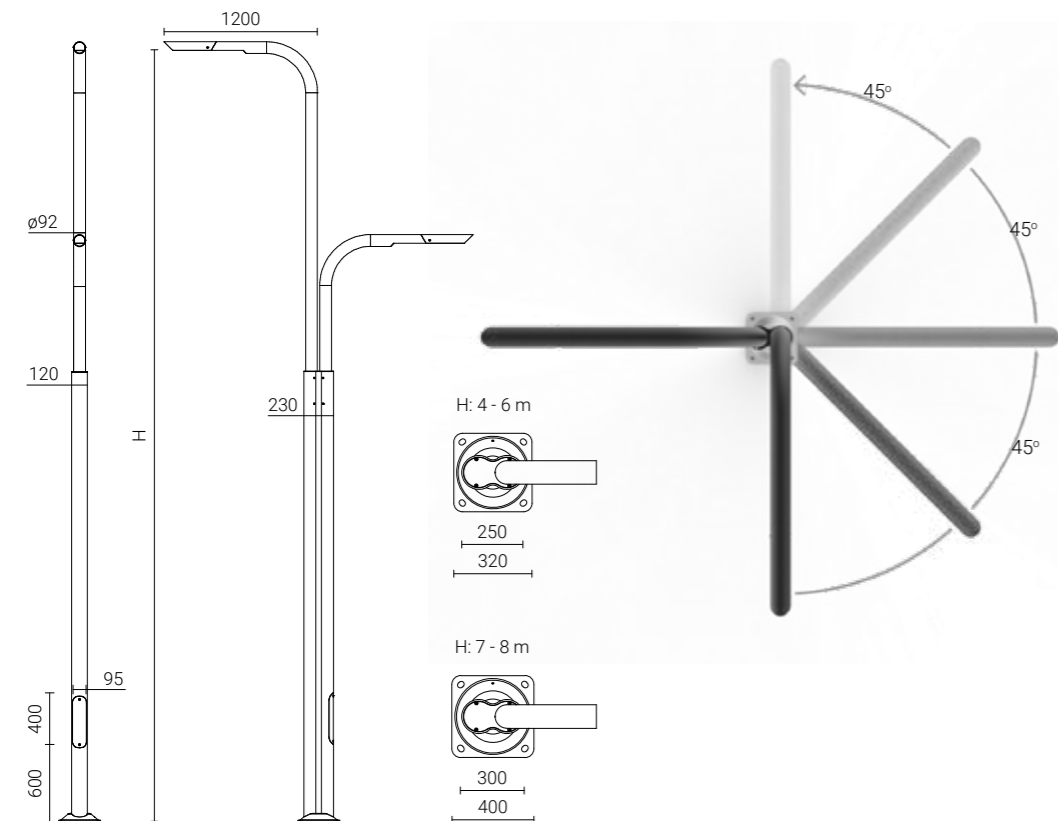
Power factor: $\geq 0,95$



View detailed specifications and product codes

Technical information

	SNAKE I LED	SNAKE II LED
LED power	12 W - 36 W	2x 12 W - 36 W
Luminaire power consumption	14 W - 40 W	2x 14 W - 40 W
LED forward current	350 mA - 1 000 mA	
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	
CRI	> 70	
LEDs luminous flux	2250 lm - 6250 lm	2x 2250 lm - 6250 lm
Luminaire luminous flux	2050 lm - 5700 lm	2x 2050 lm - 5700 lm
Luminous efficacy	128 lm/W - 168 lm/W	
Net weight	39 - 70 kg	42 - 82 kg
Height H	4000 - 8000 mm	
Concrete footing / reinforcement basket type	B-60 / Z-60 for „H“ 4000 - 6000 mm, B-70, B-71 / Z-70, Z71 for „H“ 6500 - 8000 mm	



SNAKE LED

Product description

The SNAKE LED lighting set was designed based on geometry inspired by organic structures. The design is based on a form whose shape refers to the symbol of a lemniscate. The profile features arms with a circular cross-section, ending in integrated light points. The set is available in two versions: SNAKE I LED (with one arm) and SNAKE II LED (with two arms). The solution used allows for varying arm heights – up to

a 2 m difference – and adjusting their angle in 45° increments. An additional advantage is the possibility of individually selecting the colour of the arm and column from a dedicated palette of 10 anodised colours. The model is ideal for office buildings, modern housing estates, parks and pedestrian areas.

LED lighting sets

RING MINI LED

Protection class: IP 66

Material: cap – brushed formed aluminium sheet, anodised; diffuser – tempered glass; base – anodised aluminium alloy; column – brushed anodised aluminium alloy

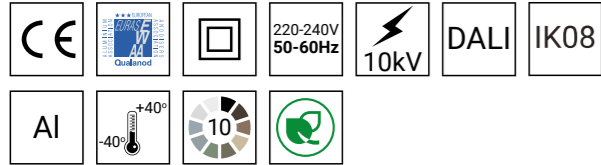
Colour: 10 anodized colors

Optical system: PMMA optics

Available optics: SP, T4, VS

Expected useful lifetime: L90B10 - 100 000 h

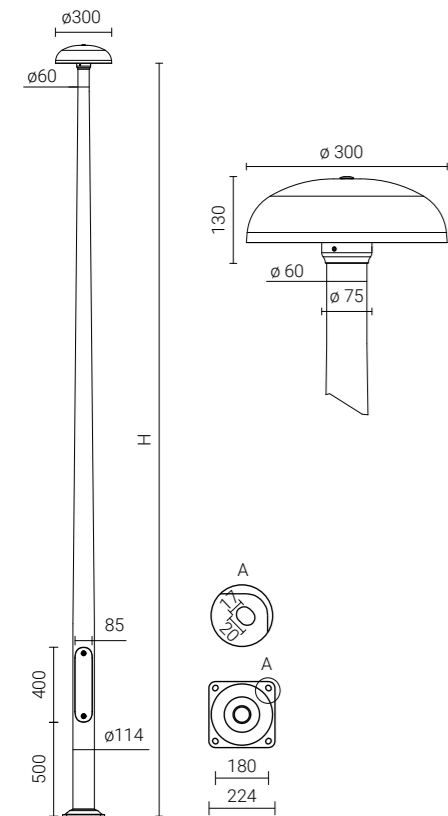
Power factor: ≥ 0,95



View detailed specifications and product codes

Technical information

	RING MINI LED
LED power	12 W - 24 W
Luminaire power consumption	14 W - 28 W
LED forward current	540 mA - 1025 mA
Colour temperature	2700 K / 3500 K / 4000 K
CRI	> 70
LEDs luminous flux	2050 lm - 4700 lm
Luminaire luminous flux	1500 lm - 3400 lm
Luminous efficacy	100 lm/W - 132 lm/W
Net weight	12,3 - 16,7 kg
Height H	3000 - 5000 mm
Concrete footing / reinforcement basket type	B-50 / Z-50



RING MINI LED

Product description

A slim lighting set from the RING product series. The shape draws inspiration from classic design while maintaining a modern, minimalist style. The structure is formed by a smooth tapering shaft, available in several height options. A semicircular LED luminaire is placed at the top of the column,

its rounded silhouette echoing natural forms, harmoniously completing the design composition. Thanks to its balanced proportions and minimalist geometry, the model blends naturally with its surroundings: parks, pedestrian paths, recreational areas, and representative urban spaces.

DROP LED

Protection class: IP 66 for the optical part, IP 54 for the power supply system

Material: anodised aluminium alloy

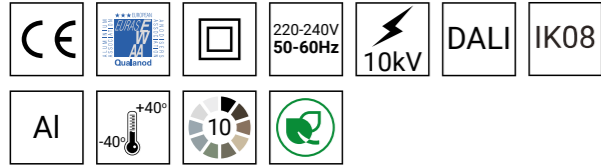
Colour: inox / graphite

Optical system: PMMA optics, diffuser – tempered glass

Available optics: DW, T4, VS

Expected useful lifetime: L90B10 - 100 000 h

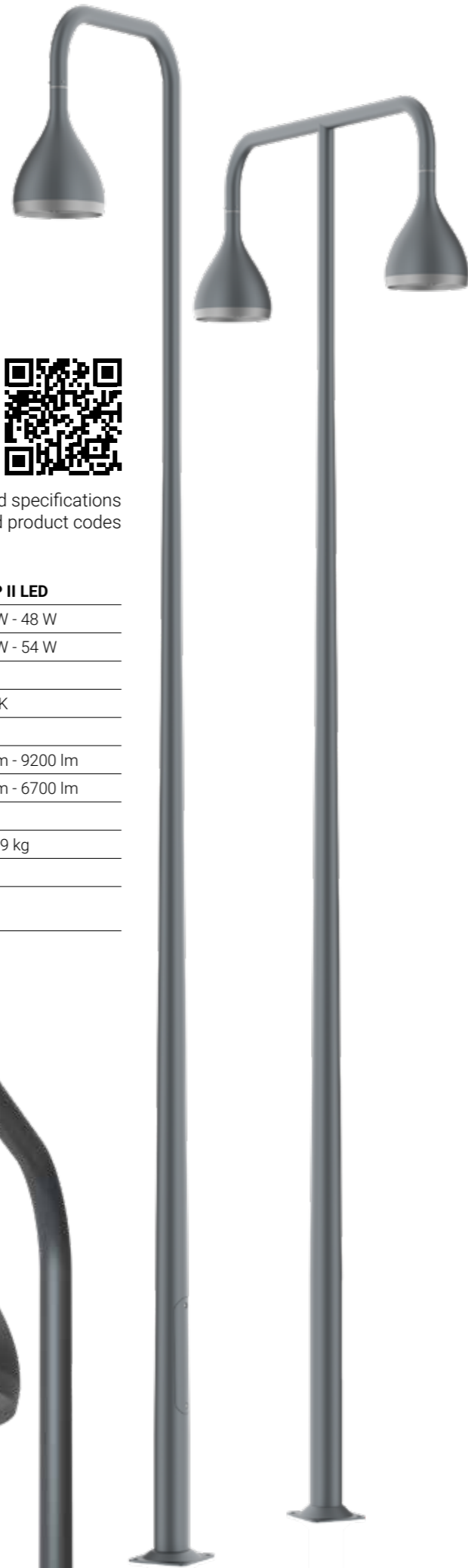
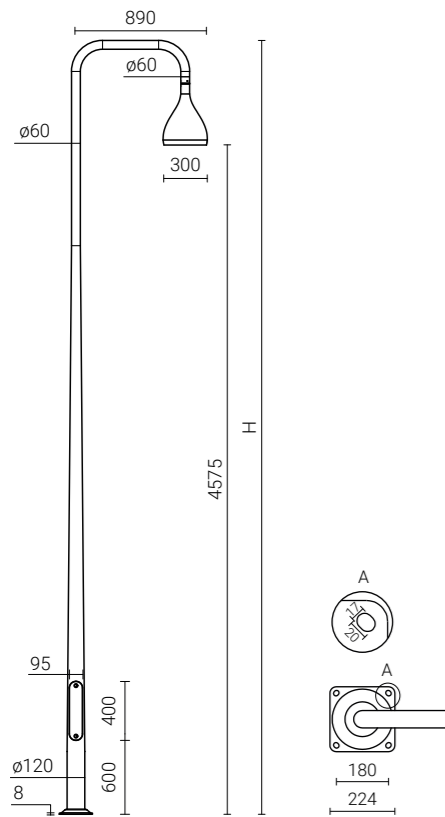
Power factor: $\geq 0,95$



View detailed specifications and product codes

Technical information

	DROP I LED	DROP II LED
LED power	36 W - 48 W	2x 36 W - 48 W
Luminaire power consumption	39 W - 54 W	2x 39 W - 54 W
LED forward current	375 mA - 500 mA	
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	
CRI	> 70	
LEDs luminous flux	6550 lm - 9200 lm	2x 6550 lm - 9200 lm
Luminaire luminous flux	4800 lm - 6700 lm	2x 4800 lm - 6700 lm
Luminous efficacy	116 lm/W - 132 lm/W	
Net weight	25,9 kg	34,9 kg
Height H	5240 mm	
Concrete footing / reinforcement basket type	B-50 / Z-50	



Product description

This design was inspired by nature. The set comprises a slender, slightly tapering column, smoothly transitioning into an arm with a distinctive, gently rounded luminaire resembling a falling water droplet. This creates a cohesive and visually airy composition. This defined shape is distinguished by soft transitions between

elements, giving the structure an elegant, natural character. The model is also available in a DROP II LED version, equipped with two arms. The harmonious proportions and lightness of the form make DROP a perfect complement to park greenery, recreational areas, and pedestrian walkways.

EDGE LED

Protection class: IP 66 for the optical part and the power supply system

Material: anodised aluminium alloy

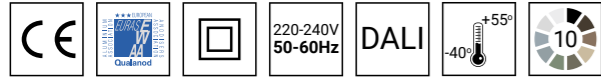
Colour: 10 anodized colors

Optical system: PMMA diffuser

Available optics: dedykowane optyki (ROSA EDGE 1 LED, ROSA EDGE 2 LED)

Expected useful lifetime: L80B20 - 100 000 h

Power factor: $\geq 0,95$

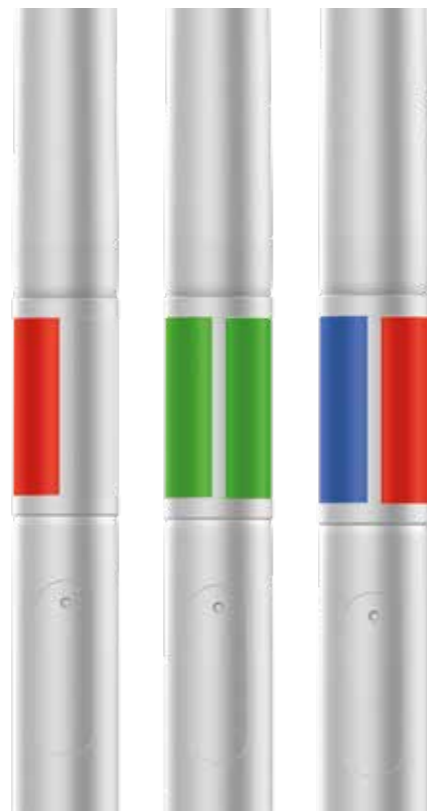
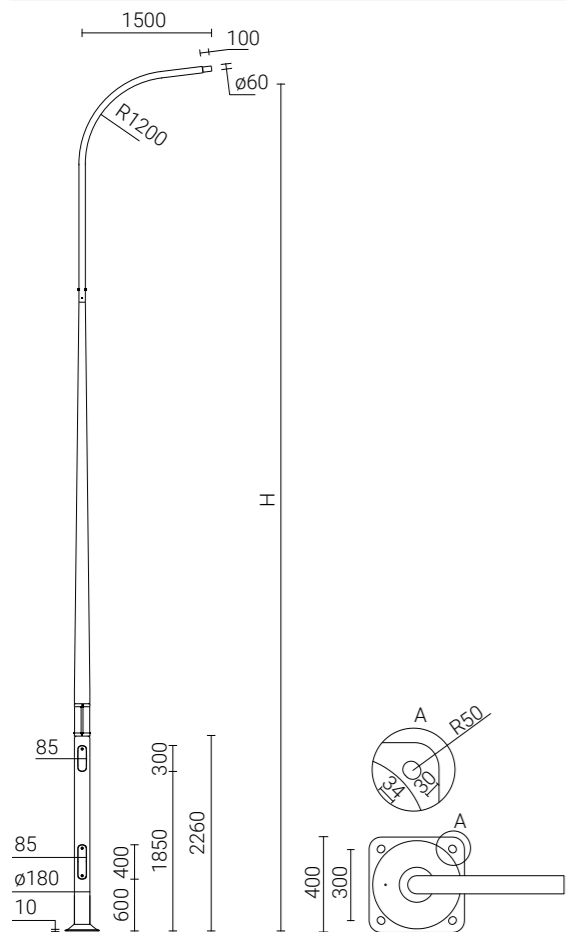


View detailed specifications and product codes

Technical information

EDGE LED

LED power	10 W - 20 W
Luminaire power consumption	14 W - 26 W
Colour temperature	3500 K / 5000 K
CRI	> 70
Luminaire luminous flux	1150 lm - 2350 lm
Luminous efficacy	82 lm/W - 90 lm/W
Net weight	45,3 - 47,4 kg
Height H	9000 - 10000 mm
Concrete footing / reinforcement basket type	B-71 / Z-71



EDGE LED

Product description

The structure consists of a tall, two-piece column with an arched arm, equipped with a distinctive, built-in diffuser with an integrated LED module. The emitted light highlights the route and improves driver orientation, especially in limited visibility conditions, serving an additional safety function. The set is available in two height variants, and its design allows for the selection

of any luminaire from our offer – combining a load-bearing function with striking, signaling illumination. EDGE LED is a modern and distinctive element of infrastructure that perfectly complements the aesthetics of contemporary roads.

DAMA II LED

Protection class: IP 65 for the optical part and the power supply system

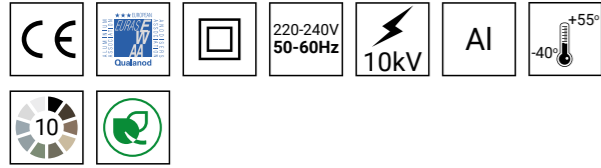
Material: anodised aluminium alloy

Colour: 10 anodized colors

Optical system: PMMA optics

Available optics: dedicated optics (DAMA II LED)

Expected useful lifetime: L90B10 - 100 000 h

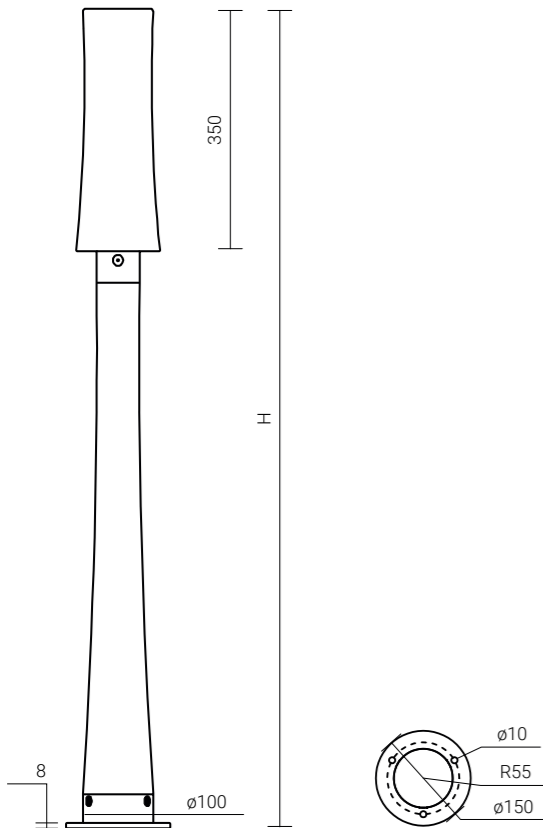


View detailed specifications and product codes

Technical information

DAMA II LED

LED power	6 W
Luminaire power consumption	10 W
LED forward current	350 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	1100 lm - 1250 lm
Luminaire luminous flux	750 lm - 850 lm
Luminous efficacy	75 lm/W - 85 lm/W
Net weight	4,4 kg
Height H	1200 mm
Concrete footing / reinforcement basket type	B-0A / Z-0A



DAMA II LED

Product description

A lighting column with a form distinguished by its smoothly modeled silhouette. Its structure is formed by a slender shaft, gently widening towards the base, topped with a distinctive, similarly shaped cap that conceals a flat diffuser. The harmonious transition between elements gives the structure

an elegant, organic character, representing a contemporary interpretation of classic park lighting forms. This solution is ideal for illuminating pedestrian walkways, parks, recreational areas, and representative public spaces, especially those with a more traditional character.

KARIN 450-1200 LED

Protection class: IP 65 for the optical part and the power supply system

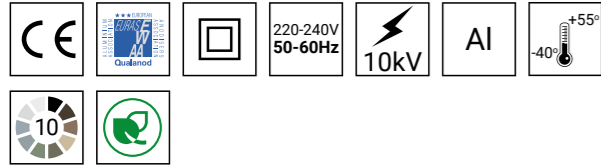
Material: anodised aluminium alloy

Colour: 10 anodized colors

Diffuser: frosted (PMMA)

Available optics: dedicated optics (KARIN 450-1200 LED)

Expected useful lifetime: L90B10 - 100 000 h

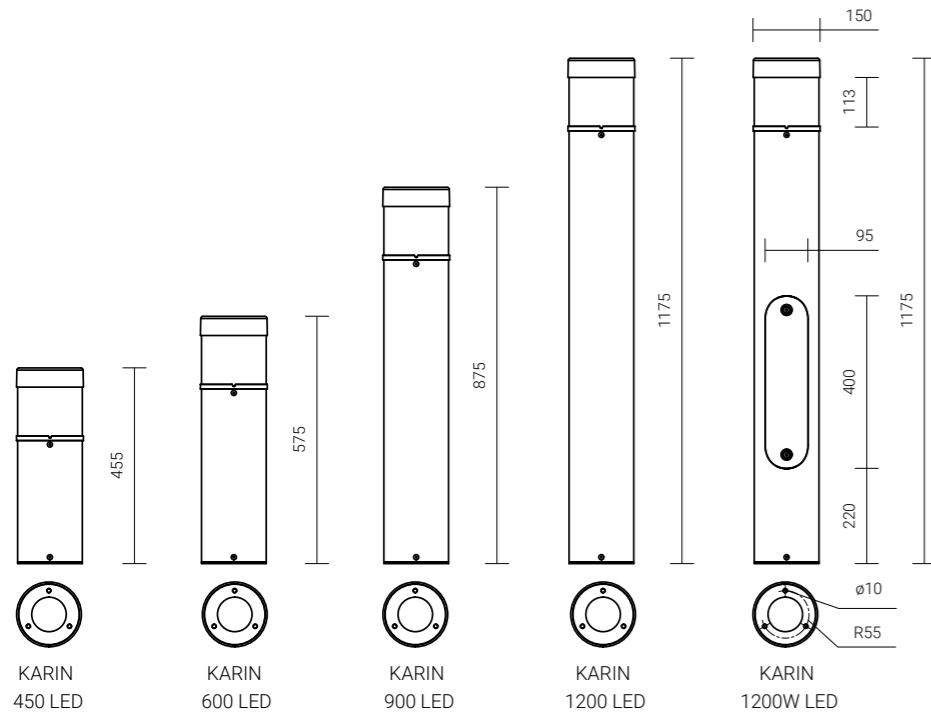


View detailed specifications and product codes

Technical information

KARIN 450-1200 LED

LED power	8 W
Luminaire power consumption	12 W
LED forward current	350 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	1450 lm - 1650 lm
Luminaire luminous flux	950 lm - 1050 lm
Luminous efficacy	79 lm/W - 88 lm/W
Net weight	3 - 6,8 kg
Height	455 - 1175 mm
Concrete footing / reinforcement basket type	B-0 / Z-0 for height 455 - 875 mm, B-0A / Z-0A for height 1175 mm



KARIN LED

Product description

A compact lighting column available in several height variants, designed for universal applications in public spaces. Its structure consists of a cylindrical shaft topped with a frosted diffuser. Simple, clear geometry makes the model fit harmoniously

into both modern and more classic designs – from office buildings, through park paths, to pedestrian walkways in residential areas.

KARIN 2400-4800 LED

Protection class: IP 65 for the optical part and the power supply system

Material: anodised aluminium alloy

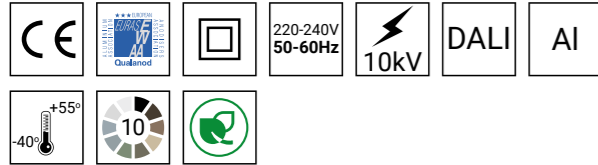
Colour: 10 anodized colors

Optical system: PMMA optics

Available optics: dedicated optics (KARIN 2400 LED, KARIN 3600 LED, KARIN 4800 LED)

Expected useful lifetime: L90B10 - 100 000 h

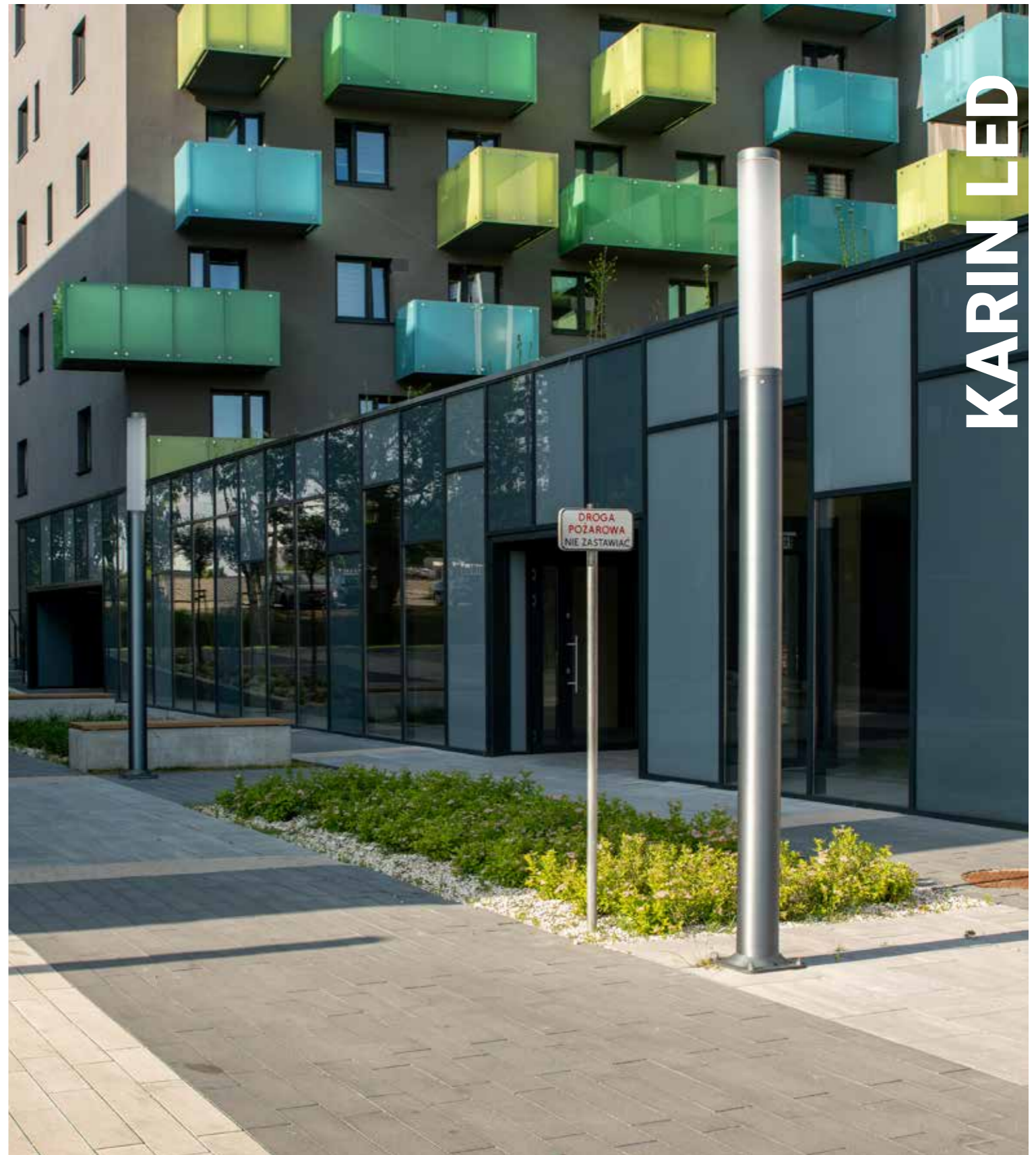
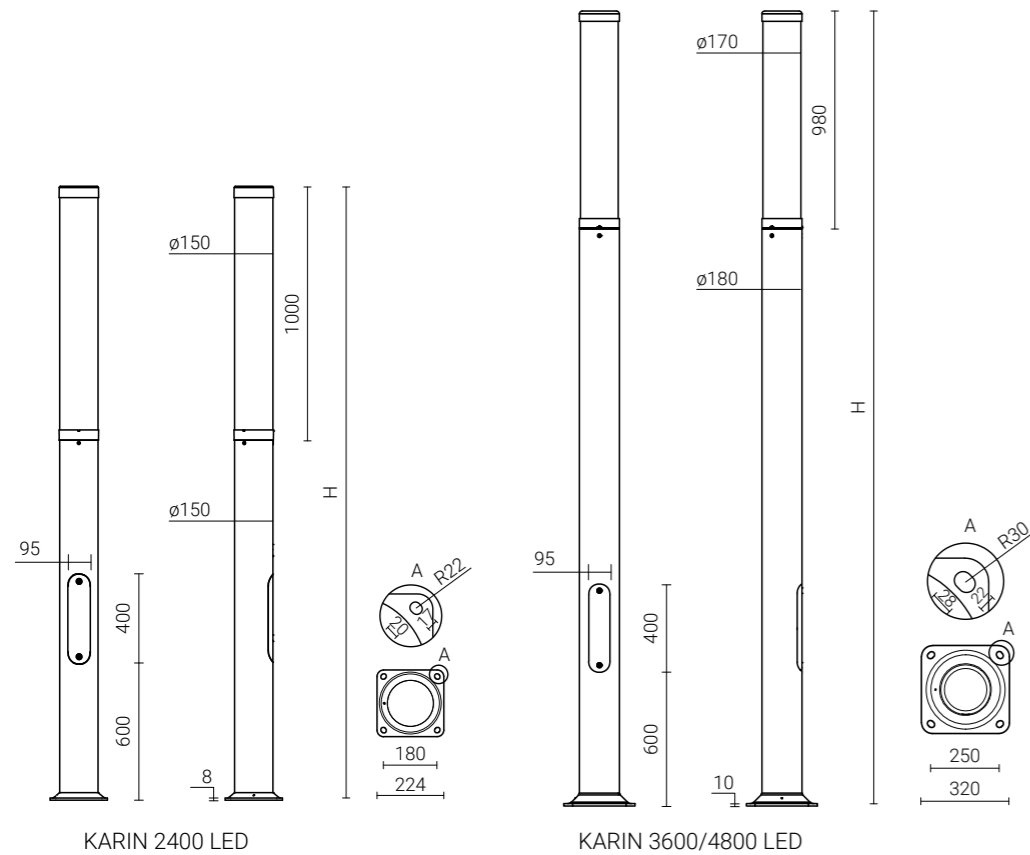
Power factor: $\geq 0,95$



View detailed specifications and product codes

Technical information

	KARIN 2400 LED	KARIN 3600-4800 LED
LED power	32 W	48 W
Luminaire power consumption	38 W	55 W
LED forward current	700 mA	
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	
CRI	> 70	
LEDs luminous flux	5400 lm - 6050 lm	8150 lm - 9150 lm
Luminaire luminous flux	3250 lm - 3650 lm	4900 lm - 5500 lm
Luminous efficacy	86 lm/W - 96 lm/W	89 lm/W - 100 lm/W
Net weight	12 kg	26 kg / 32 kg
Height H	2400 mm	3600 mm / 4800 mm
Concrete footing / reinforcement basket type	B-50 / Z-50	B-60 / Z-60



KARIN LED

Product description

A taller lighting column designed to complement the KARIN LED. Its slender, cylindrical shaft transitions into the frosted diffuser, effectively illuminating larger spaces. Thanks to its subdued, universal style, the model harmonises with the architecture of recreational areas,

residential estates, and office buildings. The set provides subtle, functional lighting for entrance areas and open spaces, including squares and courtyards.

SLICE LED

Protection class: IP 65 for the optical part and the power supply system

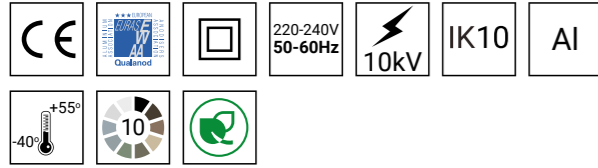
Material: anodised aluminium alloy

Colour: 10 anodized colors

Diffuser: transparent (PMMA)

Available optics: dedicated optics (SLICE 1000, SLICE 1200)

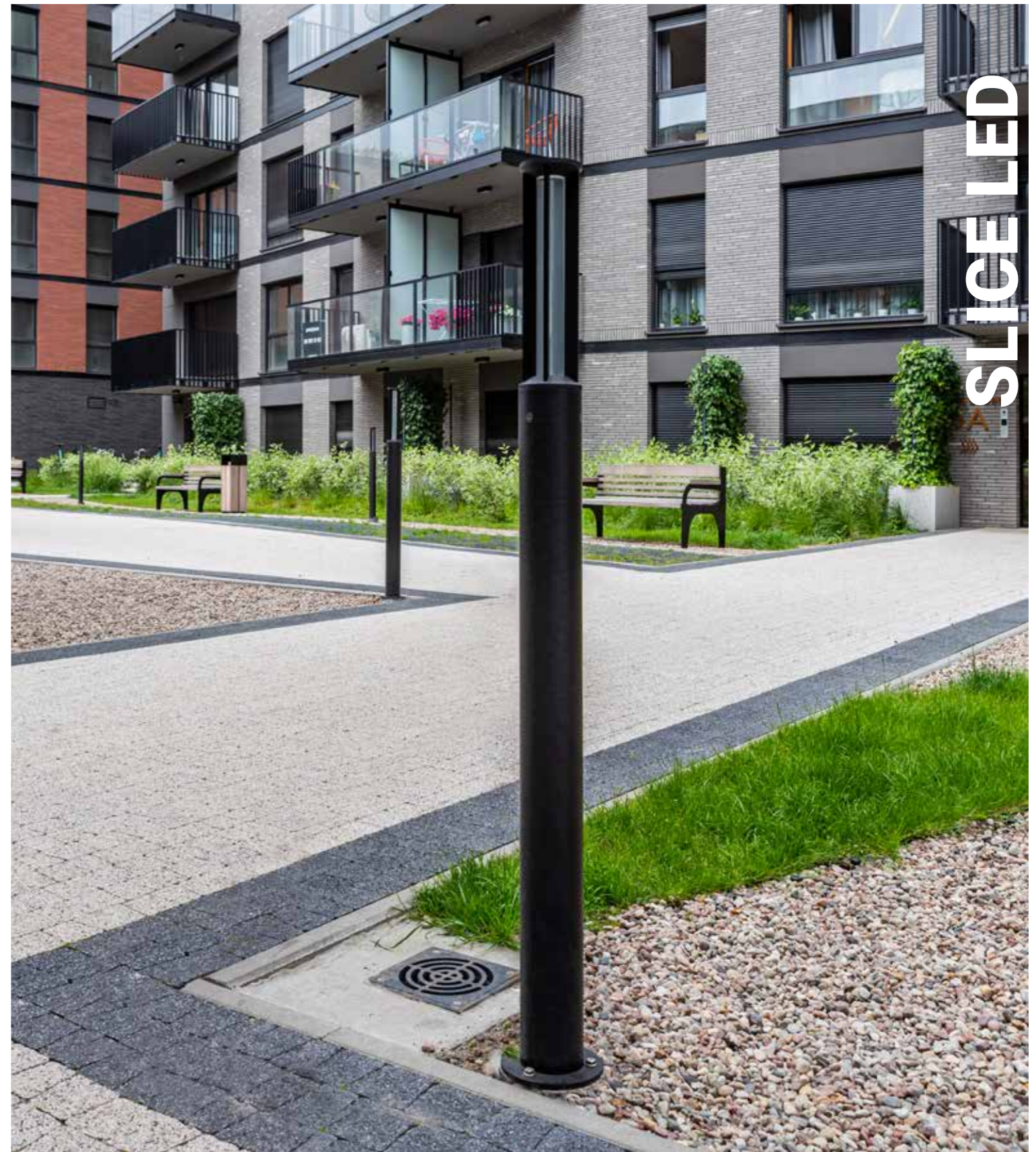
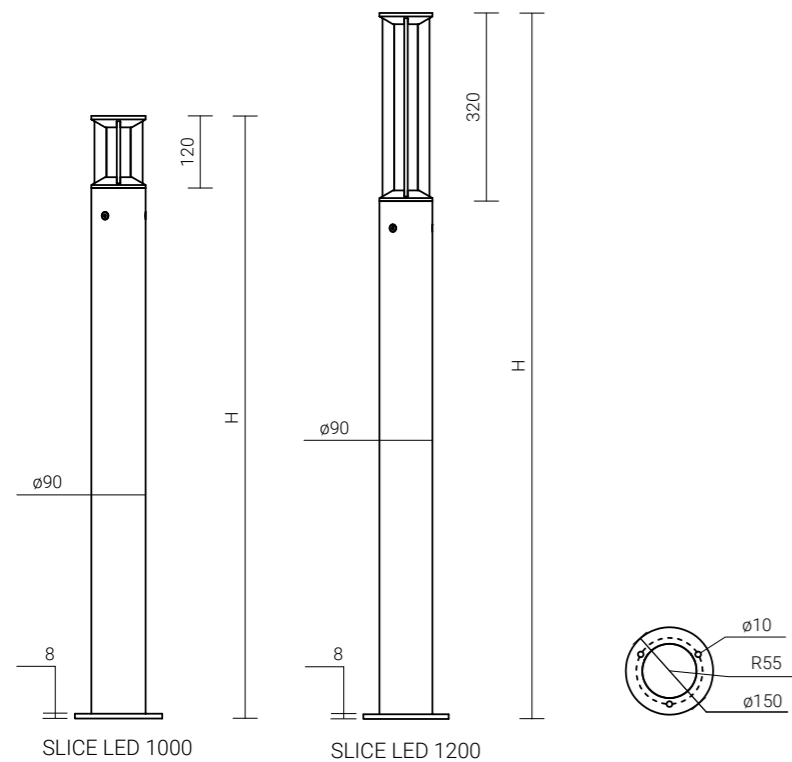
Expected useful lifetime: L90B10 - 100 000 h



View detailed specifications and product codes

Technical information

	SLICE LED 1000	SLICE LED 1200
LED power	12 W	12 W
Luminaire power consumption	14 W	14 W
LED forward current	700 mA	
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K	
CRI	> 70	
LEDs luminous flux	1500 lm - 1750 lm	1500 lm - 1750 lm
Luminaire luminous flux	350 lm - 500 lm	850 lm - 1050 lm
Luminous efficacy	25 lm/W - 35 lm/W	61 lm/W - 75 lm/W
Net weight	4,6 kg	5,3 kg
Height H	1000 mm	1200 mm
Concrete footing / reinforcement basket type	B-0A / Z-0A	



SLICE LED

Product description

A lighting column with a distinctive, two-part design, in which a compact, cylindrical profile transforms into an open, vertical structure with a prominent light source. The upper section features a light source surrounded by four structural surfaces. This open shape of the lighting section gives the structure

lightness and contemporary character. The column creates a decorative spatial accent that works well in modern housing estates, pedestrian walkways, promenades, recreational areas, and service areas.

LED lighting columns

SAL DECO-1 LED

Protection class: IP 65 for the optical part and the power supply system

Material: anodised aluminium alloy

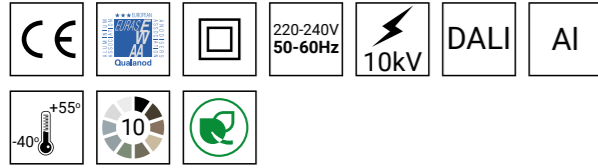
Colour: column and arms – 10 anodising colours, cap RAL 7047 laminate, aluminium plate around reflector – painted in RAL 9016

Optical system: PMMA optics

Available optics: dedicated optics (SAL DECO-1 LED)

Expected useful lifetime: L90B10 - 100 000 h

Power factor: $\geq 0,95$

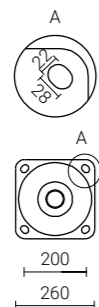
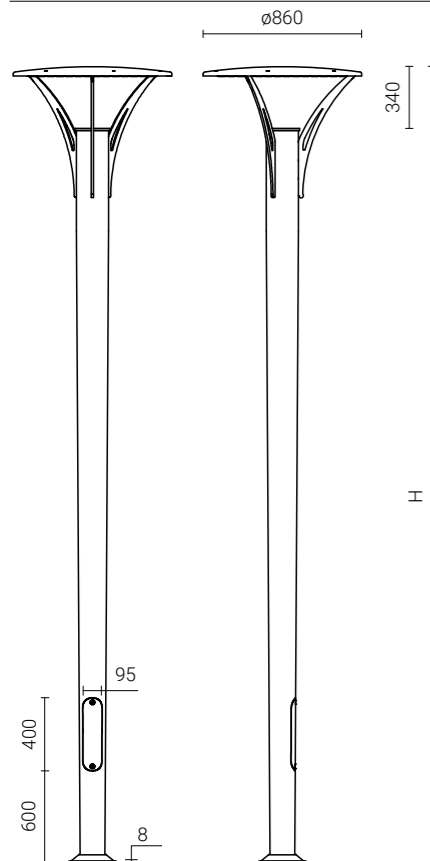


View detailed specifications and product codes

Technical information

SAL DECO-1 LED

LED power	63 W
Luminaire power consumption	70 W
LED forward current	700 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	10850 lm - 12200 lm
Luminaire luminous flux	5700 lm - 6350 lm
Luminous efficacy	81 lm/W - 90 lm/W
Net weight	43 kg
Height H	4380 mm
Concrete footing / reinforcement basket type	B-51 / Z-51



SAL DECO-1 LED

Product description

A lighting column with a rounded design, characterised by a decorative form of reflected light beam. The slender shaft of the column, with a light source mounted at the top, is crowned with three profiled arms that form a visually light frame under a light-reflecting cap. This model combines lighting with a distinctive

aesthetic, making it ideal for representative park areas, squares, promenades, and public buildings, where the column also serves as a character-defining element.

LED lighting columns

SAL DECO-2 LED

Protection class: IP 65 for the optical part and the power supply system

Material: anodised aluminium alloy

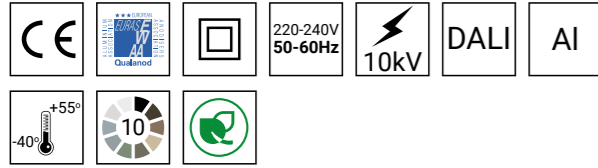
Colour: column and arms – 10 anodising colours, cap RAL 7047 laminate, aluminium plate around reflector – painted in RAL 9016

Optical system: PMMA optics

Available optics: dedicated optics (SAL DECO-2 LED)

Expected useful lifetime: L90B10 - 100 000 h

Power factor: $\geq 0,95$

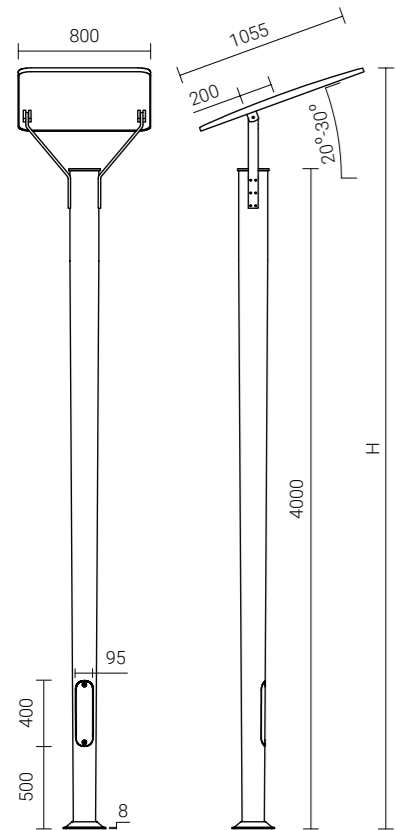


View detailed specifications and product codes

Technical information

SAL DECO-2 LED

LED power	63 W
Luminaire power consumption	70 W
LED forward current	700 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	10850 lm - 12200 lm
Luminaire luminous flux	5000 lm - 5650 lm
Luminous efficacy	71 lm/W - 80 lm/W
Net weight	47 kg
Height H	4600 mm
Concrete footing / reinforcement basket type	B-51 / Z-51



SAL DECO-2 LED

Product description

The column utilises a distinctive lighting module that operates on the basis of reflected light. The light beam is directed upwards and reflected from a surface mounted at the end of the column using two slender supports. The column's shaft has a simple form

that contrasts with the wider lines of the luminaire. This model is designed for illuminating parks, recreational areas, pedestrian walkways, and the surroundings of public buildings.

LED lighting columns

SAL PROF DECOR LED

Protection class: IP 66 for the optical part and the power supply system

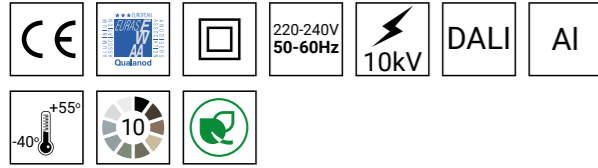
Material: anodised aluminium alloy

Colour: 10 anodized colors

Optical system: PMMA optics

Expected useful lifetime: L90B10 - 100 000 h

Power factor: $\geq 0,95$

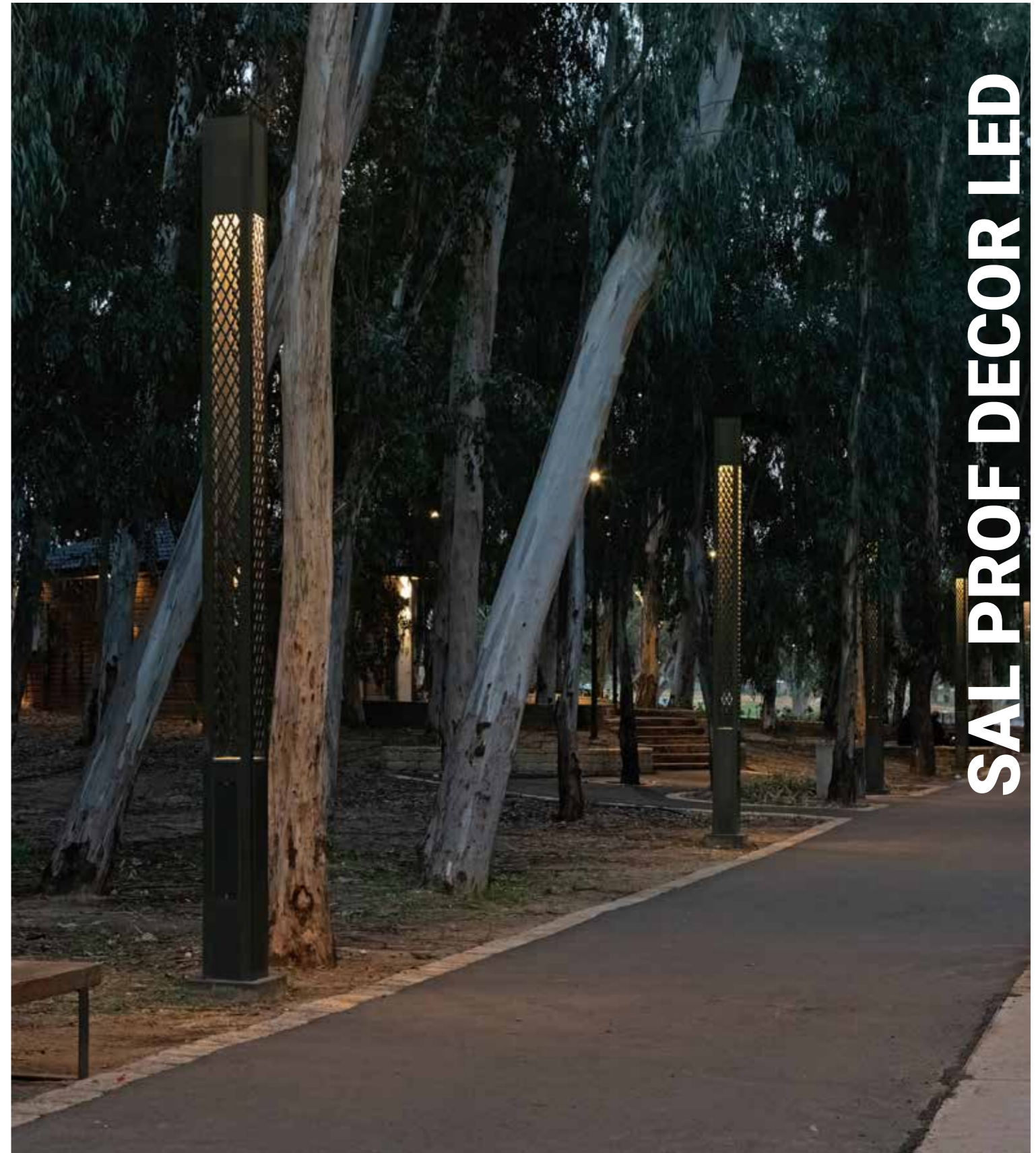
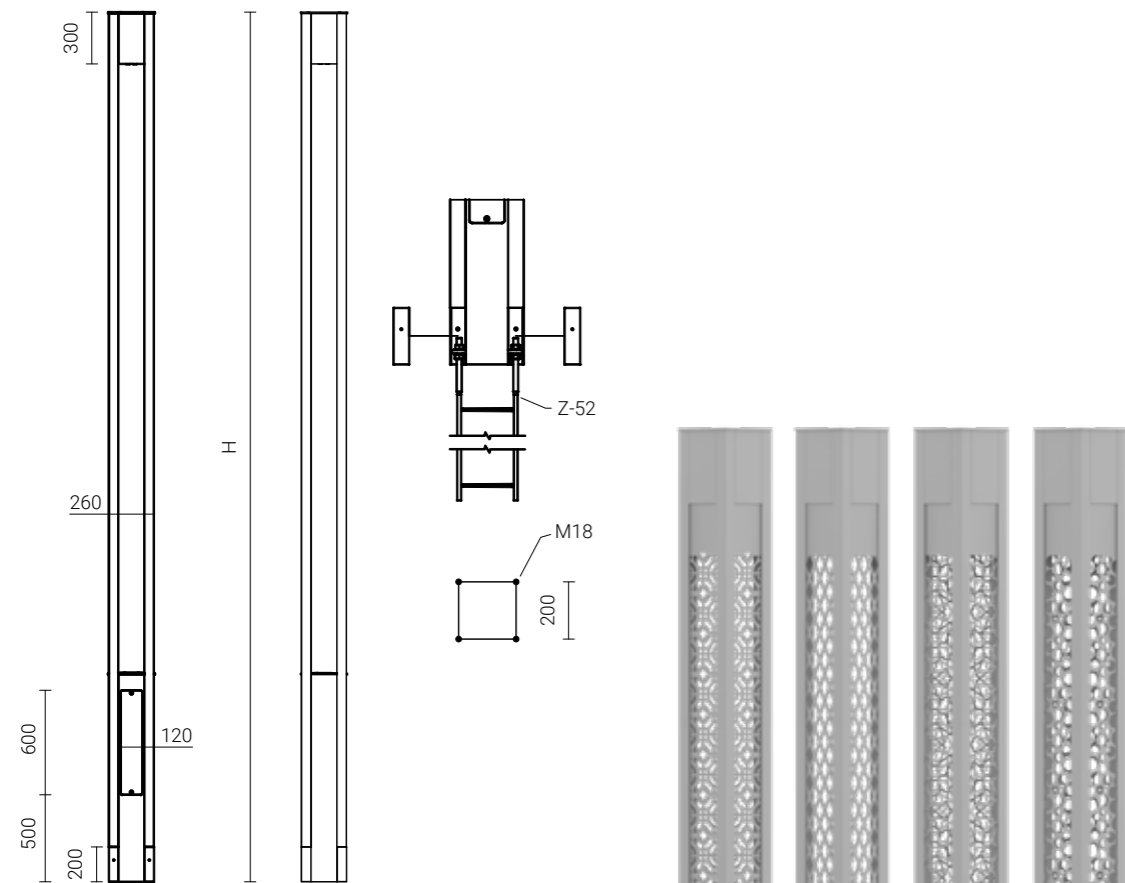


View detailed specifications and product codes

Technical information

SAL PROF DECOR LED

LED power	36 W
Luminaire power consumption	40 W
LED forward current	750 mA
Colour temperature	2700 K / 3500 K / 4000 K / 5000 K
CRI	> 70
LEDs luminous flux	5750 lm - 6450 lm
Net weight	72 kg
Height H	5000 mm
Concrete footing / reinforcement basket type	Z-52



SAL PROF DECOR LED

Product description

SAL PROF DECOR LED is a simple design that surprises with its unique lighting effect. The structure is formed by a square profile equipped with an LED module hidden behind an openwork decorative panel. The panel is available in four decorative variants, each adding a different rhythm and character. A custom decorative pattern can also be created upon request. Precisely cut perforations create light

projections on the surface corresponding to the selected pattern. The set illuminates the space and creates atmosphere, becoming a decorative accent both during the day and at night. It is perfect for representative areas, pedestrian walkways, parks, courtyards, and the surroundings of public buildings, where aesthetics play a key role.

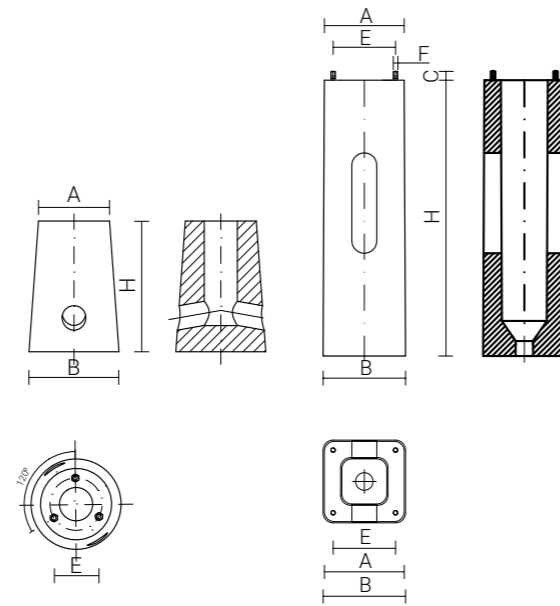
Concrete footings

Purpose:

- concrete footings are used as foundations for lighting columns after digging them into the ground.

Technical information:

- concrete class C30/37 according to EN 206,
- reinforcement basket made of B500 steel,
- hot-dip galvanized screw ends,
- concrete footings for anodised aluminium columns and masts are supplied with thermo-shrinkable sleeves installed on the threaded anchor endings, which is an additional protection against corrosion,
- side holes and vertical hole for inserting power cables,
- external surface covered with impregnating agent (waterproofing bitumen emulsion),
- square or round cross-section.



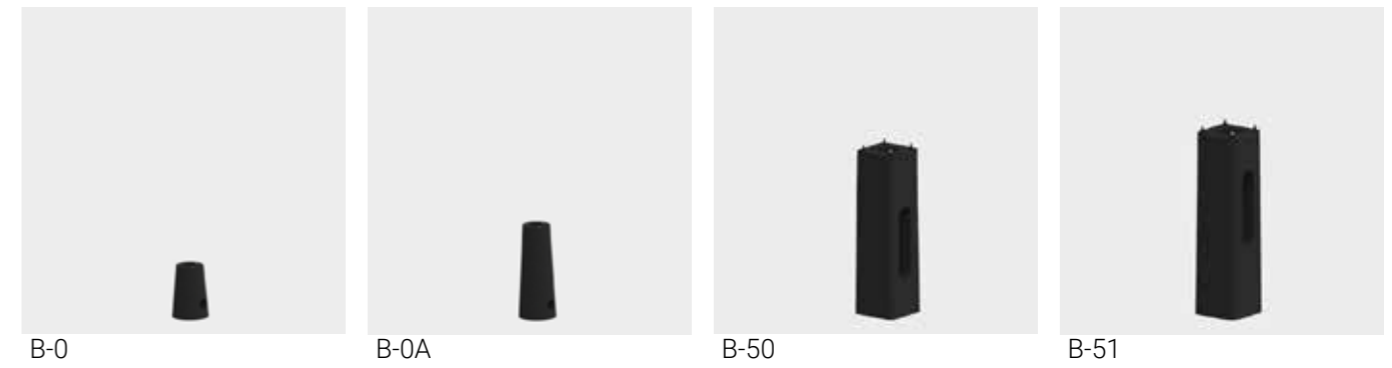
Advantages:

- single-element construction makes easy foundation for products in the ground,
- fast and easy installation with no seasoning required,
- high quality due to the semi-automatic computer-controlled production line using the method of vibropressing.

All concrete footings comply with EN 14991:2007 standard and have certificate of factory production control 1488-CPR-0208/Z.



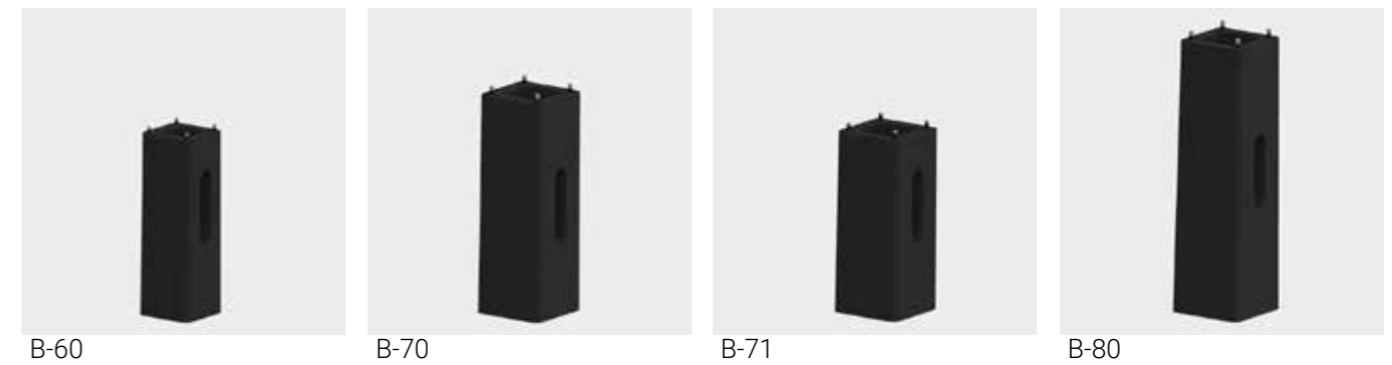
View detailed specifications and product codes



Concrete footing type	B-0	B-0A	B-50	B-51
Code	311100	311100A	311150	311151
Dimension AxBxH	ø145xø190x275 mm	ø145xø190x490 mm	240x255x900 mm	260x280x1000 mm
Bolt spacing E	95,3 mm	95,3 mm	180 mm	200 mm
Height of threaded anchor ending C	-	-	30 mm	35 mm
Weight~	12 kg	22 kg	96 kg	124 kg
Fasteners	M8x20 A2 DIN 6921	M8x20 A2 DIN 6921	4006	4008
Purpose	KARIN 450-900 LED	KARIN 1200 LED	SAL ø114/B60, SAL ø120	SAL ø114/D60, SAL ø114/D75, SAL ø120E
Thread length C	-	-	24 mm	28 mm
Thread diameter F	-	-	14 mm	18 mm



CONCRETE FOOTINGS



Concrete footing type	B-60	B-70	B-71	B-80
Code	311160	311170	311171	311180
Dimension AxBxH	320x330x1000 mm	400x410x1200 mm	400x410x1000 mm	400x430x1500 mm
Bolt spacing E	250 mm	300 mm	300 mm	300 mm
Height of threaded anchor ending C	35 mm	45 mm	45 mm	50 mm
Weight~	176 kg	296 kg	255 kg	392 kg
Fasteners	4008	4012	4012	4012
Purpose	SAL ø146	SAL ø176, SAL ø178K, SAL ø180M	SAL ø146H, SAL ø176, SAL ø178K, SAL ø180M	MAL ø225
Thread length C	28 mm	38 mm	38 mm	38 mm
Thread diameter F	18 mm	24 mm	24 mm	24 mm

Reinforcement baskets

Purpose:

- buried concrete filled reinforcement baskets are used as foundations for lighting columns.

Technical information:

- made of B500 steel,
- Oxide paint as a protection against corrosion,
- hot-dip galvanized screw ends,
- reinforcement baskets for anodised aluminium columns and masts are supplied with thermo-shrinkable sleeves installed on the threaded anchor endings, which is an additional protection against corrosion,
- square section or triangle.

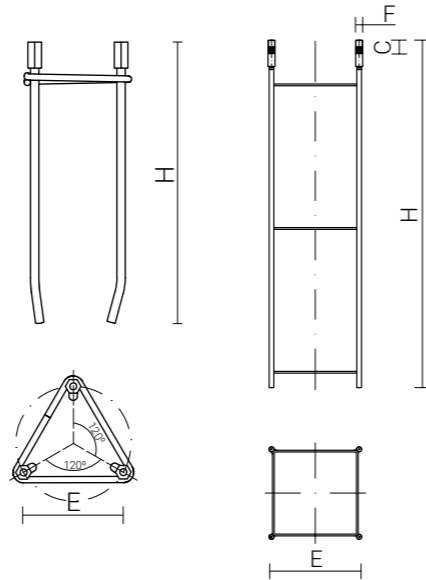
Advantages:

- light weight facilitates transport,
- for use with foundations individually made by the customer at the place of column's installation.

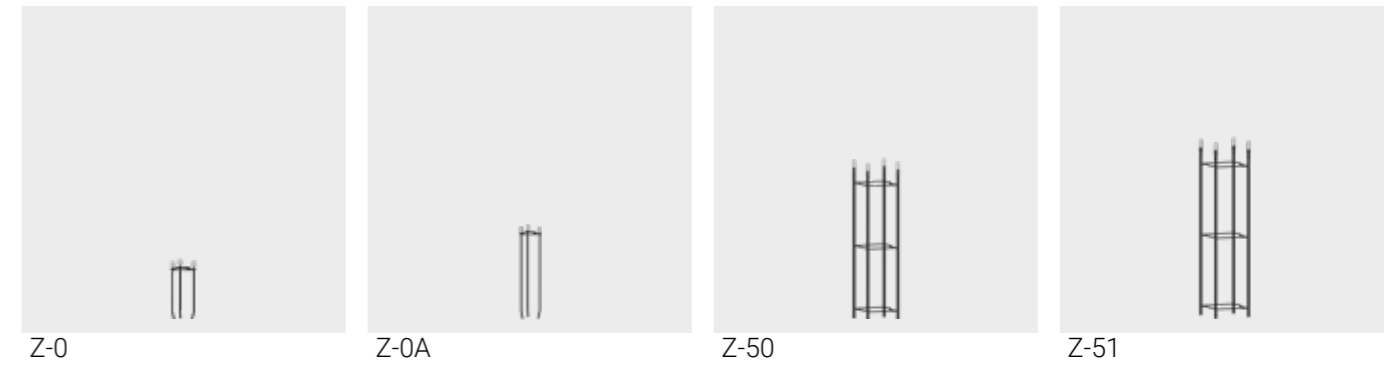
Additional elements:

- stainless steel washer, hot-dip galvanized nut, rubber cap – are sets of fasteners for SAL and MAL columns.

The manufacturer recommends the use of original concrete foundations and reinforcing baskets as well as original fasteners that guarantee the stability and safety of the entire structure.

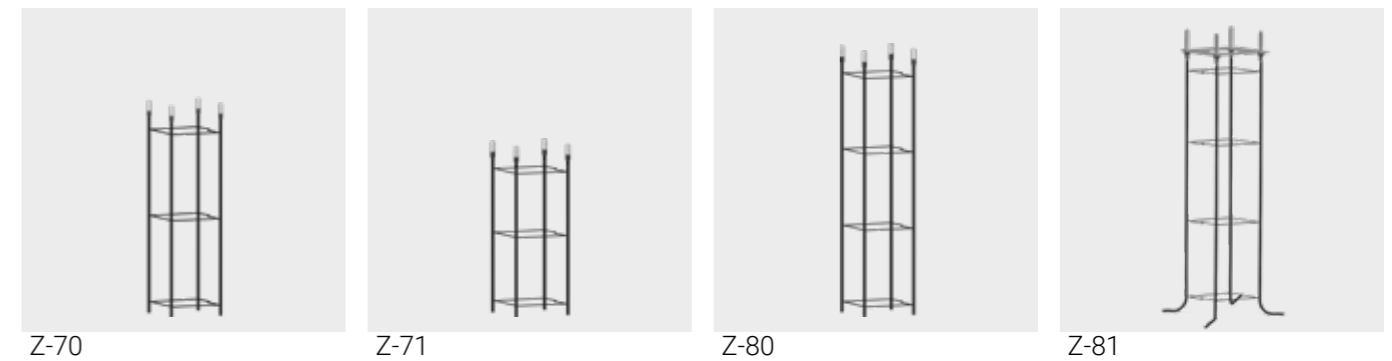
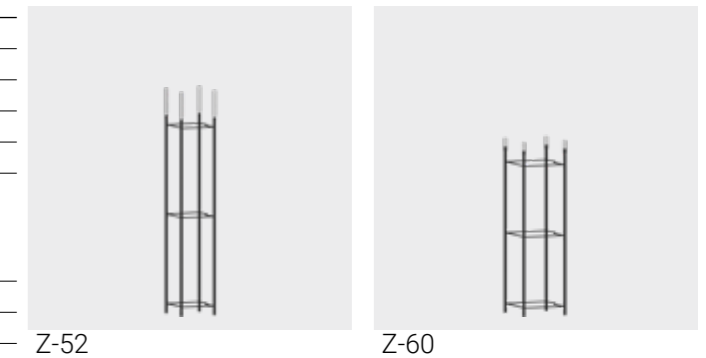


View detailed specifications and product codes



Reinforcement basket type	Z-0	Z-0A	Z-50	Z-51
Code	311200	311200A	311205	311251
Height H	270 mm	470 mm	870 mm	985 mm
Bolt spacing E	95,3 mm	95,3 mm	180 mm	200 mm
Weight ~	0,5 kg	0,7 kg	5,24 kg	5,54 kg
Fasteners	M8x20 A2 DIN 6921	M8x20 A2 DIN 6921	4006	4008
Purpose	KARIN 450-900 LED	KARIN 1200 LED	SAL ø114/B60, SAL ø120	SAL ø114/D60, SAL ø114/D75, SAL ø120E
Thread length C	-	-	24 mm	28 mm
Thread diameter F	-	-	14 mm	18 mm

Reinforcement basket type	Z-52	Z-60
Code	311252	311206
Height H	1250 mm	985 mm
Bolt spacing E	200 mm	250 mm
Weight ~	7,5 kg	5,7 kg
Fasteners	4008	4008
Purpose	SAL PROF DECOR LED for SAL PROF LED column assembly two sets of fasteners are needed	SAL ø146
Thread length C	110 mm	28 mm
Thread diameter F	18 mm	18 mm



Reinforcement basket type	Z-70	Z-71	Z-80	Z-81
Code	311207	311271	311208	311281
Height H	1190 mm	1000 mm	1500 mm	1600 mm
Bolt spacing E	300 mm	300 mm	300 mm	300 mm
Weight ~	9,2 kg	7,76 kg	11,42 kg	17,2 kg
Fasteners	4012	4012	4012	4012
Purpose	SAL ø176, SAL ø178K, SAL ø180M	SAL ø146H, SAL ø176, SAL ø178K, SAL ø180M	MAL ø225	SAL SYG 300-6,5
Thread length C	38 mm	38 mm	38 mm	150 mm
Thread diameter F	24 mm	24 mm	24 mm	24 mm



Connection boxes

Connection box is an integral part of almost any lighting construction. It is used to connect power cables and electrical protection of luminaires mounted on street and park columns. It is ideal to use in all columns where internal diameter is greater than 95 mm. The priority in the design of connection boxes is the safety of use, therefore they are made from high quality materials, excellent insulation properties and high mechanical strength.

- **Protection class:** IP54.
- **Insulation class:** II
- **Rated voltage:** 500 V.
- **Rated current:** 80 A.
- **Fuse:** D01/E14, 2-16 A, 400 V, AC
- **Casing dimensions:** TB-1, TB-2, NTB-1, NTB-2, NTB-3: 273 mm x 90 mm x 76 mm;
TB-11, TB-12: 273 mm x 90 mm x 64 mm;
NTB-11, NTB-12: 307 mm x 90 mm x 60 mm;
- **Material:**
 - ntegrated terminal strip – made of PTB material (butylene polyterephthalate) with high insulation parameters and high mechanical strength,
 - connection box cover and clamp/cable protection – made of transparent polycarbonate,
 - connection box base – polycarbonate, able opening/outlets are protected with gaskets,
- **Assembly:** installed on the aluminium rail on the back wall of the column using two M6 bolts,

Advantages:

- small dimensions,
- quick, easy mounting due to the construction,
- all connection boxes are for 2-3 cables,
- construction of terminal strip (open from the top) enables cable installation.

Specifications of NTB-11 / NTB-12 connection boxes



Longer box - more space for wires



Simplified installation of cables



Maximum crosssection of the input wire
5 x 35 mm²



Brass presses and steel screws



View detailed specifications and product codes

Connection box installed in aluminium column



NTB connection boxes

NTB-1, NTB-2, NTB-3 connection boxes:

- five-way connectors for power cables with cross-section: from 5 x 6 mm² to 5 x 16 mm² for Cu,
- up to 3 cables,
- possibility of moving the fuse sockets, splitting loads into individual phases.



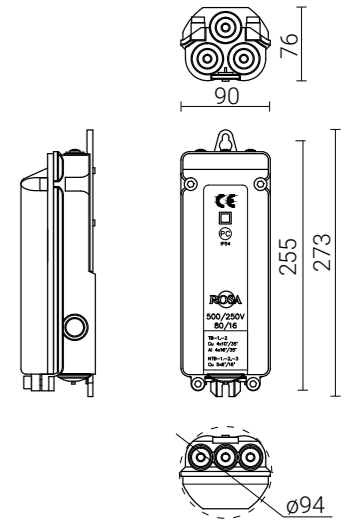
Symbol	NTB-1	NTB-2	NTB-3
Code	324110	324120	324130
Number of fuse-sockets [pcs]	One fuse-socket mounted on L1 phase, there is a the option of moving the fuse-socket on phase L2 or L3 by screwing-out two bolts	Two fuse-socket mounted on L1 and L2 phase, there is a the option of moving the fuse-socket into phase L3 by screwing-out two bolts	Three fuse-sockets on three phases L1, L2, L3
Net weight	0,71 kg	0,73 kg	0,76 kg

NTB-11, NTB-12 connection boxes:

- five-way connectors for power cables with cross-section: from 5 x 10 mm² to 5 x 25 mm² for Cu, from 5 x 16 mm² to 5 x 35 mm² for Al,
- up to 2 cables,
- simplified power cable installation, ensuring easier and more ergonomic use,
- possibility of moving the fuse sockets, splitting loads into individual phases.



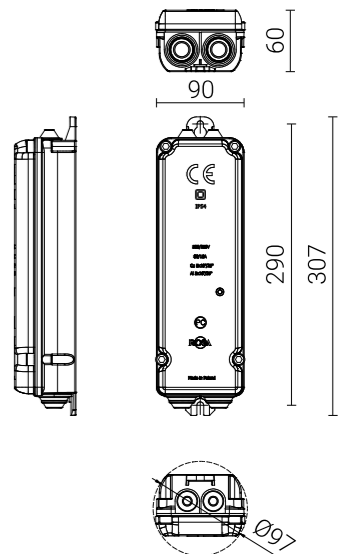
Symbol	NTB-11	NTB-12
Code	324111	324112
Number of fuse-sockets [pcs]	One fuse-socket mounted on L1 phase, there is a the option of moving the fuse-socket on phase L2 or L3 by screwing-out two bolts	Two fuse-socket mounted on L1 and L3 phase, there is a the option of moving the fuse-socket into phase L2 by screwing-out two bolts
Net weight	0,9 kg	0,9 kg



Fuses

Symbol	D01/E14 6A	D01/E14 10A
Code	322006	322010
Weight	0,01 kg	0,01 kg

Symbol	D01/E14 16A
Code	322016
Weight	0,01 kg



Fuses

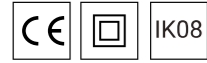
Symbol	D01/E14 6A	D01/E14 10A
Code	322006	322010
Weight	0,01 kg	0,01 kg

Symbol	D01/E14 16A
Code	322016
Weight	0,01 kg

TB connection boxes

TB-1, TB-2 connection boxes:

- four-way connectors for power cables with cross-section: from 4 x 10 mm² to 4 x 35 mm² for Cu from 4 x 16 mm² to 4 x 35 mm² for Al
- up to 3 cables,
- the option of moving the fuse-sockets, splitting loads into individual phases.



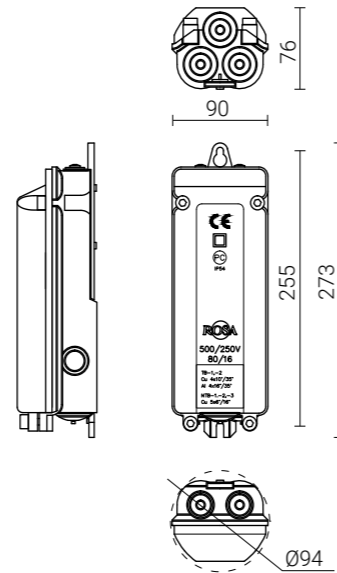
Symbol	TB-1	TB-2
Code	324010	324020
Number of fuse-sockets [pcs]	One fuse-socket mounted on L1 phase, there is a the option of moving the fuse-socket on phase L3 by screwing-out two bolts	Two fuse-sockets on two phases L1 and L3
Net weight	0,71 kg	0,74 kg

TB-11, TB-12 connection boxes:

- four-way connectors for power cables with cross-section: from 4 x 10 mm² to 4 x 35 mm² for Cu from 4 x 16 mm² to 4 x 35 mm² for Al
- up to 2 cables,
- simplified installation of cables ensures easier and more ergonomic operation,
- smaller size provides more opportunities of applications,
- the option of moving the fuse-sockets, splitting loads into individual phases.



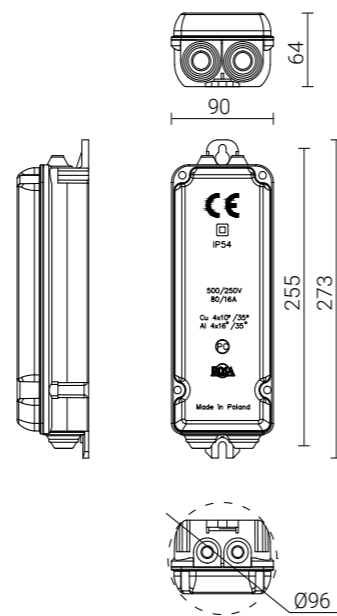
Symbol	TB-11	TB-12
Code	324011	324012
Number of fuse-sockets [pcs]	One fuse-socket mounted on L1 phase, there is a the option of moving the fuse-socket on phase L2 or L3 by screwing-out two bolts	Two fuse-socket mounted on two phases L1 and L2
Net weight	0,71 kg	0,74 kg



Fuses

Symbol	D01/E14 6A	D01/E14 10A
Code	322006	322010
Weight	0,01 kg	0,01 kg

Symbol	D01/E14 16A
Code	322016
Weight	0,01 kg



Fuses

Symbol	D01/E14 6A	D01/E14 10A
Code	322006	322010
Weight	0,01 kg	0,01 kg

Symbol	D01/E14 16A
Code	322016
Weight	0,01 kg

Decorative elements

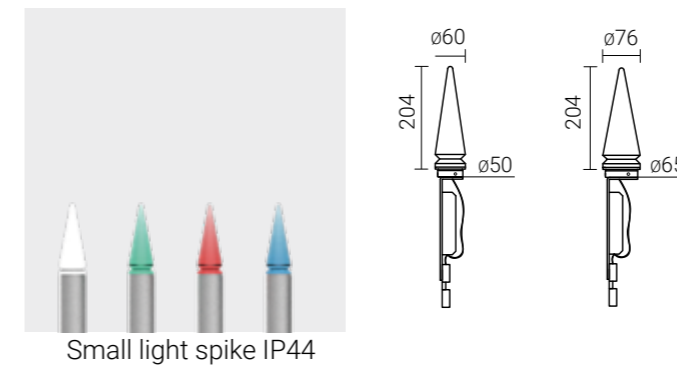
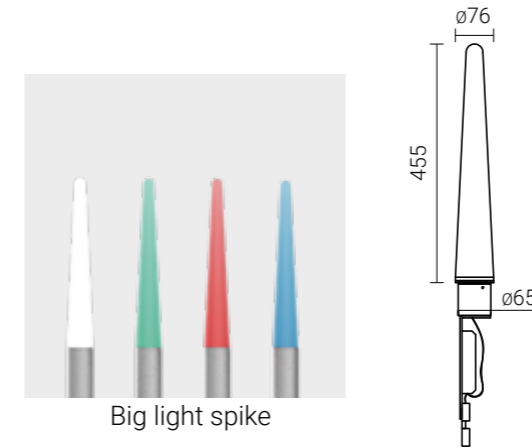
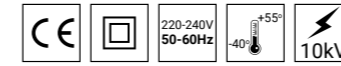
Protection class: IP 65 or IP 44 (after mounting on the column).

Material: PMMA (IP 44), HDPE (IP 65).

Colour: blue, green, red, white.

Application: aluminium columns with spigot endings ø60 mm and ø76 mm.

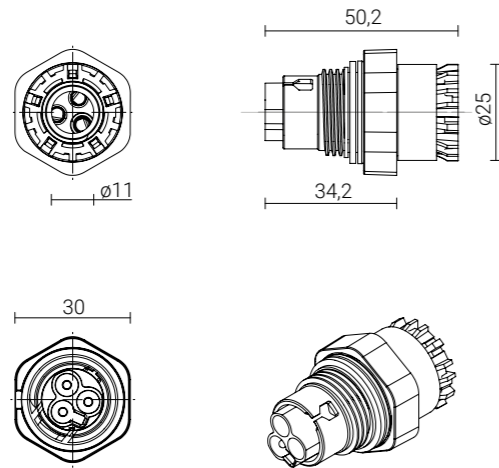
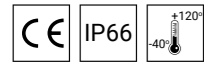
Installation: with 3 M5 screws, after preparing mounting holes in the column.



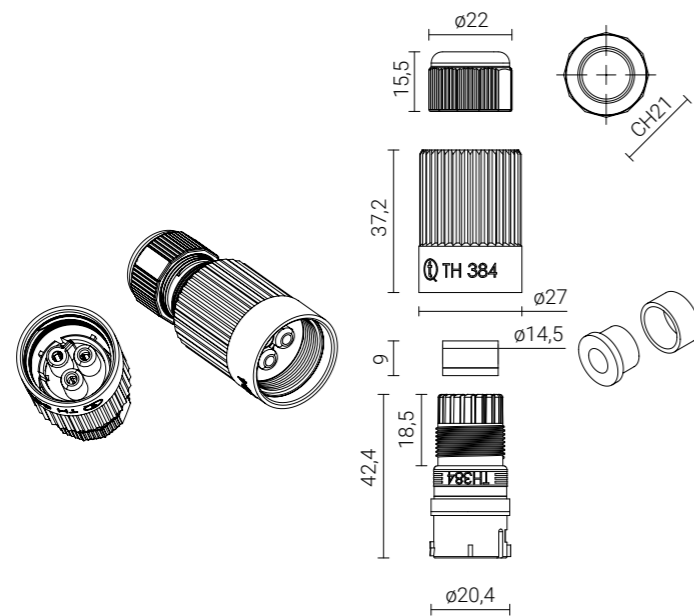
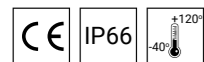
View detailed specifications and product codes

Symbol	Big light spike	Small light spike IP44	Small light spike IP 65
LED power	6 W	1 W	6 W
Luminaire power consumption	7 W	1,2 W	8,5 W
LED forward current	700 mA	350 mA	500 mA
Mounting diameter	76 mm	60 mm - 76 mm	76 mm
Colour		red, green, blue, white	
Net weight	2 kg	0,55 kg - 0,75 kg	0,6 kg

Mounting panel with plug, 3 pole connector



3-way connector socket

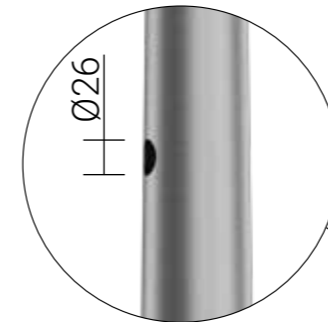


Symbol	Mounting panel with plug, 3 pole connector	3-way connector socket
Code	4090A	4090B
Rated current [A]	16	
Rated voltage [V]	400	
Number of channels	3	
External insulation [mm]	20	
Cable insulation [mm]	8	
Cable type	H05XXX/H07XXX	
Type of connection	Screw connection	
Cable cross-section [mm ²]	0,5 - 2,5	
Wire diameter [mm]	7-12	8,5 - 10,2
Colour of the casing	Black	
Colour of the plug / socket	Natural	

An example diagram of an aluminium column fitted with a connection box

The use of connection boxes allows additional equipment, to be installed on selected columns.

1. Marking the position on the column



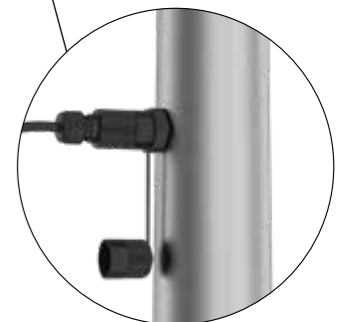
Preparing the mounting hole in the column

2. Installation in the column wall

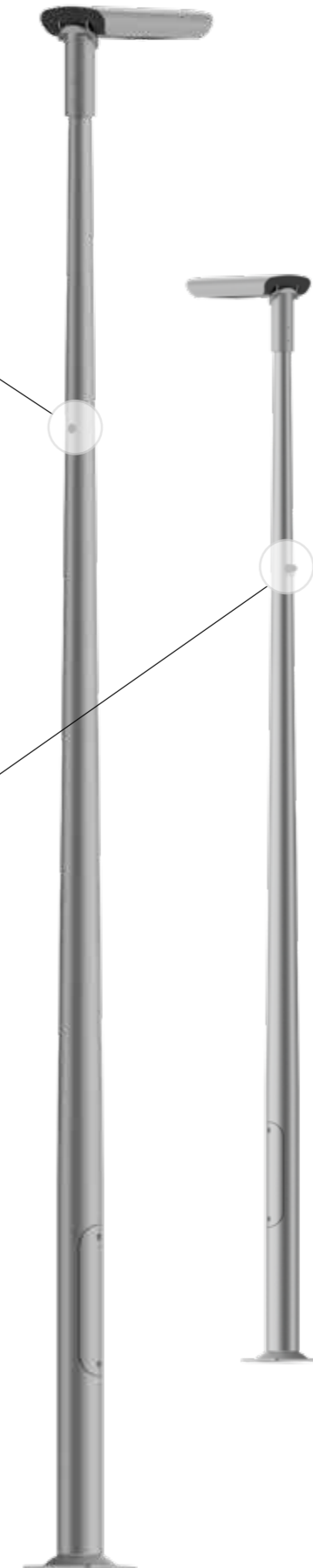


A mounting panel with a plug featuring an external cap is inserted into the hole (expansion-type mounting)

3. Connected via plug-in



Connect the external installation plug to the mounted panel

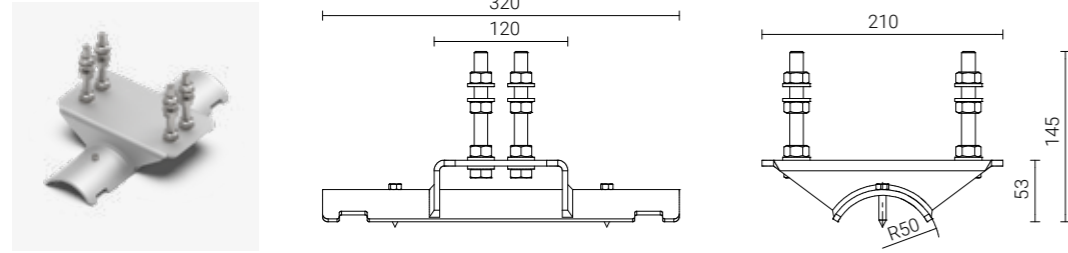


Console holder UK1 (fi90)

Installation: to the extension arm using 3/4" stainless steel bands with buckles (recommended grade: AISI 201).

Additional screws to prevent rotation are included with the holder.

Application: all types of traffic signal lights columns, mounting at the end of the arm.

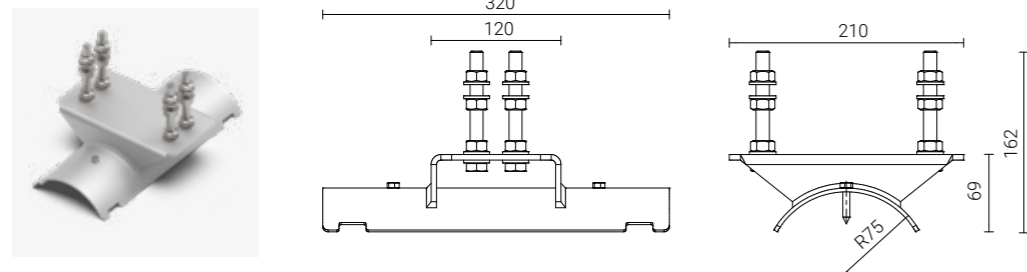


Console holder UK2 (fi130-155)

Installation: to the extension arm using 3/4" stainless steel bands with buckles (recommended grade: AISI 201).

Additional screws to prevent rotation are included with the holder.

Application: SAL SYG 260 and SAL SYG 65 signal columns at a distance of 3-5m from the end of the arm.

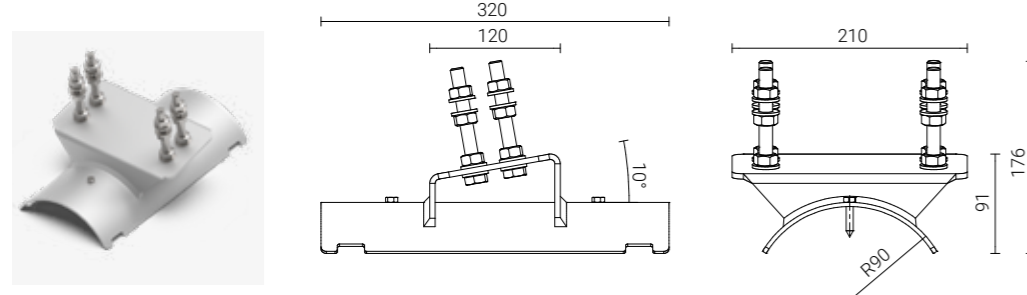


Console holder UK3 (fi155-190)

Installation: to the extension arm using 3/4" stainless steel bands with buckles (recommended grade: AISI 201).

Additional screws to prevent rotation are included with the holder.

Application: SAL SYG 300 signal columns at a distance of 3-5m from the end of the arm.



Symbol	Console holder UK1 (fi90)	Console holder UK2 (fi130-155)	Console holder UK3 (fi155-190)
Code	479010	479011	479012
Wall thickness [mm]	5 / 5	3,4 / 5	3,8 / 5
Approximate unit volume [m³]	0,004	0,005	0,006
Mounting diameter [mm]	ø90	ø130-155	ø155-190
Net weight [kg]	1,6	1,63	1,83
Fasteners	4 M12x100 screws, 16 M12 washers, 12 M12 nuts		
Anodising	10 colours		
Finish	grinded, anodised aluminium		
Material	anodised aluminium alloy		
Purpose	for mounting signal lantern consoles		

Console for mounting a 3 / 4-chamber signal traffic light

Anodising: 10 colours.

Installation: mounting on the extension arm using UK series console brackets (UK1 – 479010, UK2 – 479011, UK3 - 479012) and dedicated fasteners supplied with the brackets.

Application: all types of traffic signal lights columns.

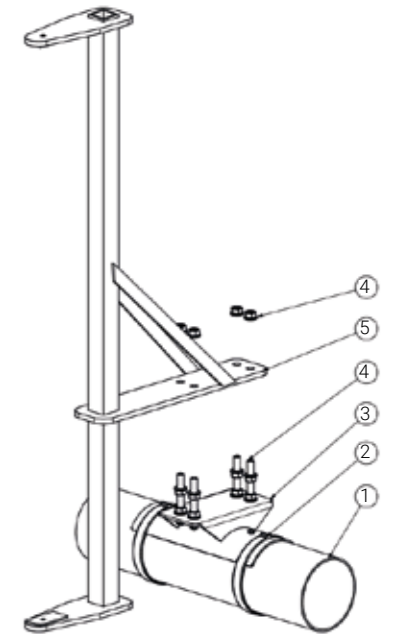
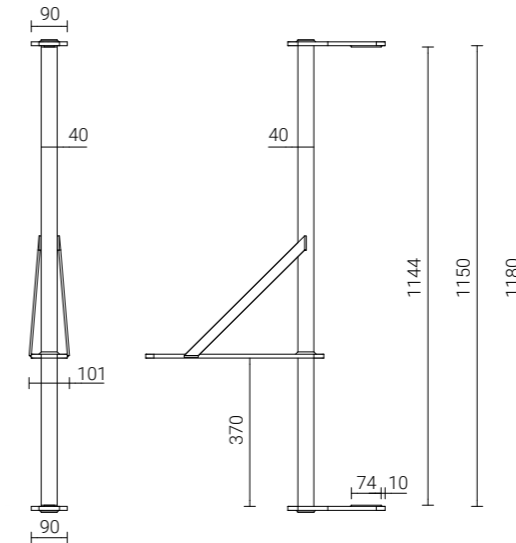
Finish: shot blasted anodised aluminium.

Material: anodised aluminium alloy.

Purpose: for mounting 3 / 4-chamber signal lantern consoles.



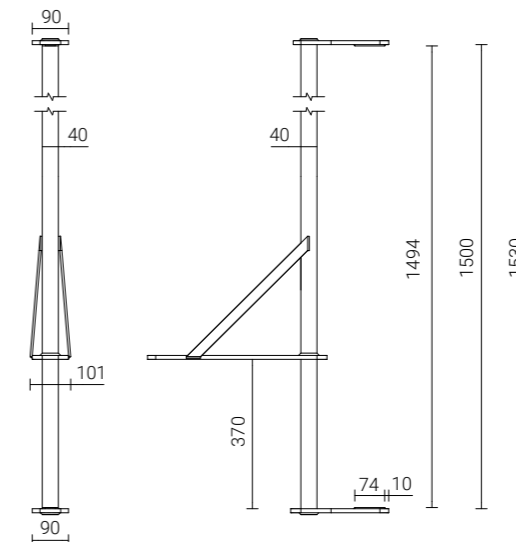
for 3-chamber



1. Arm
2. 3/4" stainless steel band
3. Console holder UK1, UK2, UK3
4. Set of fasteners for the console mount (included)
5. Console for mounting a 3 / 4-chamber signal traffic light



for 4-chamber



Symbol	Console for mounting a 3-chamber signal traffic light	Console for mounting a 4-chamber signal traffic light
Code	479001	479002
Approximate unit volume [m³]	0,071	0,09
Profile wall thickness [mm]	3	
Fasteners	Supplied with UK1, UK2 and UK3 holders	
Net weight [kg]	3,65	4,07



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