

MAKE A MOVE

Ensto's Energy Efficient Lighting Solutions

ENSTO





Make a move

CONTENTS

A surprising combination

You are about to discover something. That the idea behind Ensto's motion detector controlled lighting is based on a surprising combination of cost and energy efficiency. Now you can save on both.

But don't call motion detector controlled lighting revolutionary. Call it evolutionary. The result of years of dedicated development that we are offering you here and now.

Make a move.

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WE LIGHT UP YOUR BUILDINGS

But only when you need it

Installing Ensto's motion detector controlled lighting system in your building saves you electricity and money. Also, stepping into Ensto's light means no more fumbling in the dark for the light switch.



Light where you need it, when you need it

Ensto offers lighting solutions for all types of properties from apartment and office buildings to commercial and public buildings.

Our selection contains it all – from a single component to all-inclusive lighting systems. This is why Ensto is a leading supplier of motion detector controlled lighting for properties.

We provide energy-saving solutions for our customers. In real money this can mean considerable reductions in your electricity bill. In fact, the savings can add up to 60%. A hefty sum you can decide to save.

How do we do it?

Well, Ensto's motion detector controlled lighting benefits from two technologies:

Ensto PIR (passive infrared) reacts to body temperature in combination with movement. It provides light automatically when – and only when – someone needs it. An easy way to save energy.

Ensto Radar reacts to all types of movement – it is an alternative to PIR. The active Radar sensors are more sensitive to vertical movement.

What you can expect from us

Ensto's products have been developed to meet the lighting needs of all the spaces in and outside the property – staircases, corridors, laundry rooms, bathrooms, garages, and kitchens, for example.

We know that lighting systems are subject to heavy wear and tear. So we only use the highest quality raw materials in our products.

We guarantee quality by manufacturing our products ourselves, which also translates to quick delivery times. Developing and manufacturing the products ourselves has other, unbeatable advantages, too. We can focus on what our customers value the most – energy saving and reliable lighting solutions that are simple to install.

In addition, our customers get to experience Ensto's attention to quality as it translates to cost reductions. You see, our products have low maintenance costs.

Ensto's products in a nutshell:

- A complete range of motion detector controlled lighting solutions for indoor and outdoor use.
- Our own production to guarantee high quality and quick delivery.
- ISO and CE certification shows our commitment to quality and the environment.
- Designed to save the greatest amount of energy possible.
- Flexible systems that can be combined according to need.

HEADING TOWARDS GREENER TIMES

Are you heading the same way?

We Europeans have good reason to be proud. We go through great lengths to save energy and recycle.

But we can do better. Much better.



We at Ensto know that many European property owners can cut their energy consumption sizeably. One of the best ways is to update their indoor and outdoor lighting systems. We also happen to know that it isn't difficult or expensive. In fact, we have made it quite the opposite.

Every day more and more of us see the light when it comes to energy saving solutions. The time is right to switch over to Ensto's energy saving system. When a lighting system is planned carefully, the energy consumption of a building tends to drop dramatically. Which means that there are two clear winners. You and the environment.

Greener by degrees

Ensto has a broad range of products and lighting solutions. But the philosophy behind them is always the same. **Light where it's needed, when it's needed.**

Why should all the lights on every floor in a staircase be lit when someone moves around on the first floor? Why should the lights stay switched on for days in the basement just because someone forgot to switch them off?

Having luminaires that react to movement is much smarter. Then neither grandmother nor the rest of us have to look for the light switch. Which is convenient. And economical. Not to mention ecological. It is Ensto's contribution to a greener world.

Sure, much still remains to be done. But we are optimistic. If we work together, change – small as well as great – is possible.

Cut your electricity bill with Ensto

Luminaires that are never lit unnecessarily coupled with Ensto's electricity saving components equal massive savings in electricity for your building. It is possible to cut the electricity consumption for the building by as much as 60 %. A reduction that high really shows on your electricity bill. And this isn't just wishful thinking. It is perfectly achievable as Ensto's lighting experts are with you every step of the way during the entire process, from the planning stages up to final installation.

Beautiful light

Today a lot of research is carried out to study the effects of light on us humans. We know that there are great differences between the various types of light. Simply put, there is good light, as well as bad.

Ensto invests in creating light of the highest quality. We believe that all light should be comfortable to spend time in, regardless of the location – an office, a cellar, a bathroom. Which is why we are here to help you create the optimal lighting plan. And also why we are continuously developing our lighting systems.

On the upcoming pages you can find out more about the numerous solutions Ensto offers.

Afterwards, we are pretty sure you'll want to calculate how much you can save. You are welcome to use our calculator at:

www.ensto.com/pir/tool



Expect big savings

Use our easy Ensto PIR web tool to calculate how much you can save by updating your indoor and outdoor lighting with the Ensto PIR system. www.ensto.com/pir/tool.

It is also worthwhile to check out pages 20–27 for good examples how to save electricity and money with Ensto’s solutions.

There’s no need to bang your head against a wall

What did Englishman John Holmes invent in 1884?

Yup - the light switch. By clicking a switch anyone could light their lamps. And forget to switch the lights off, as well.

The world has changed in 125 years. So, a light switch is not always the best solution. You know, when the box you are carrying is heavy and you end up trying to switch on the light with your forehead. It’s much simpler if the lights turn on and off automatically.

And perhaps even more importantly, the world’s energy resources are becoming scarce. But unnecessary lighting still wastes enormous amounts of energy. Day after day, week after week.

Stop wasting your energy

With Ensto as your partner, you will get a smart lighting system that saves electricity and is appreciated by its users.

Greenlight

Ensto supports the European Commission’s GreenLight programme.

Private and public organisations participating in this voluntary programme are committed to reducing their lighting energy use and emissions.





MOTION DETECTOR CONTROLLED LIGHTING

A decision you won't regret

Installing Ensto's motion detector controlled lighting system in a building is a smart move. Thanks to our energy saving solutions, electricity consumption is reduced significantly. And life becomes more convenient for everyone who spends time in the property.

Lights come on only when needed

In Ensto's lighting systems illumination is adjusted according to hourly need, according to when someone needs light. Lamps aren't lit round the clock and an entire staircase is not lit when someone is moving around on the first floor.

Our system knows when illumination is needed. The smart sensors inside the luminaires respond to body temperature and movement, or to movement alone.

Ensto PIR reacts to movement and heat

Planning a lighting system is like building a puzzle. Once you figure out the big picture, the smaller details fall into place easily.

When it comes to Ensto lighting systems, the big question is to decide between the two technologies, PIR and Radar. Let us explain:

PIR stands for Passive Infrared, which means that sensors inside a luminaire react to movement, as well as the warmth generated by, for example, human bodies. If you open a door but do not step inside, the luminaire will not switch itself on. Only if you enter the sensor's detection area will

the light switch itself on.

With PIR it is possible to control several luminaires in a large space using one or several sensors. The ability to detect both movement and warmth makes PIR a convenient and ideal solution for many types of buildings and spaces.

Ensto Radar reacts to all movement

Radar is more sensitive to vertical movement and the sensor reacts to all kinds of movement. The light is switched on when the door opens - even before you step inside.

Ensto PIR and Radar technologies are compatible and sometimes combining the two technologies gives you the best of both worlds.

Light on your terms

PIR and Radar have two things in common: flexibility and energy efficiency.

You simply enter data on how soon you want the light to switch itself off after it is no longer needed. You can also choose the size of the detection area. Our system is made to adapt to your needs, and not the other way around.

A harmonious entity

At Ensto we're not just committed to creating energy saving technologies. We are equally passionate about the design of our luminaires and other components.

That is why all of Ensto's luminaires have an elegant timeless and discreet design. Because we believe that beautiful lighting deserves our attention.

So, regardless of the luminaires you choose, you can be sure that the overall effect will be harmonious.

ENSTO PIR

Reacts to warmth in combination with movement

Ensto's PIR technology is probably the best way to save energy in a building. You see, PIR sensors react to body temperature in combination with movement.

In practice, this means that you will have light where you need it, when you need it. Which is why Ensto's PIR-equipped luminaires have been extremely popular since 1994.

A PIR luminaire works just as well alone as it does in a group. So you can control lighting in large spaces, such as garages and corridors. As a result lights light up automatically in sections as you make your way forward.

PIR with adjustable standby light

In many buildings there are areas that should remain lit at all times. The solution is our PIR with adjustable standby light. It allows you to select the ideal amount of constant standby light for each space (5 or 20 % of maximum light level).

With the PIR with adjustable standby light you can also adjust the amount of light (80 or 100 % of maximum light level) when someone enters the sensor's detection area. In addition, it is possible to have the standby light switch itself off automatically one hour after the sensor last detected movement.

The ideal detection area

You are beginning to warm up to Ensto PIR, aren't you? Here are some examples of the most common types of buildings and spaces where PIR is used:

Staircases: Bright light on only the floor where someone is moving.

Halls, lavatories, laundry rooms, store rooms, basements, and attics: Zero risk of anyone forgetting to switch off the light behind them.

Hospitals, facilities for the elderly and disabled: Safety as nobody has to fumble in the dark for the light switch.

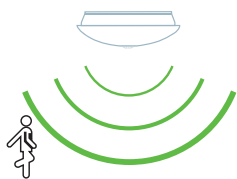
Corridors, dressing rooms and garages: With one or several PIR luminaires controlling so-called slave luminaires, the luminaires light up and switch off automatically according to movement.

Offices: PIR technology is ideal for office buildings, as they not only have staircases and garages but also common areas, such as toilets, corridors, and technical spaces. The traffic in these areas varies but with PIR you can be sure that lights are not on all day which gives lot of savings .

Facts About Ensto PIR

- Saves energy by up to 60 %.
- In new installations, no installation of cables required for the light switch.
- In renovation jobs, no new cables need to be installed.
- Convenient: Lights switch on automatically.
- Discreet: Sensors hidden inside the luminaires. The only visible part is the lens of the sensor.
- PIR sensors with on/off function can also be used outdoors.
- All PIR luminaires belong to a so called PIR family. PIR luminaires are called masters. The controlled luminaires are called slaves. You can find more information about the PIR families on page 27.
- PIR luminaires are easy to install on walls and ceilings.

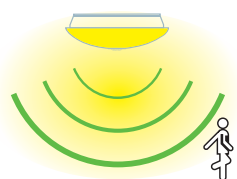
Standard PIR with on/off function



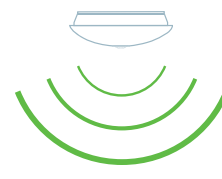
0 %
In standby mode, the luminaire is switched off.



100 %
When the sensor registers warmth in combination with movement, the lights will switch on, providing 100% light level

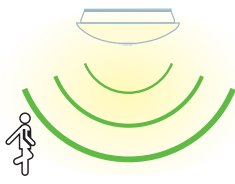


100 %
When the sensor has registered movement, the light remains switched on for the duration of a pre-determined delay period.

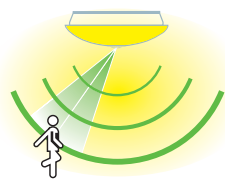


0 %
If the sensor does not register any movement during the delay period, the lights switch off automatically.

PIR with standby light



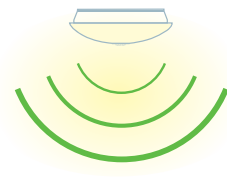
5 %
In standby mode, the light is constantly at 5% of maximum light level



100 %
When the sensor registers warm movement, the amount of light increases to 100%.

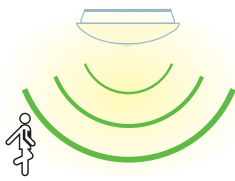


100 %
When the sensor has registered movement, the light remains switched on for the duration of a pre determined delay period.

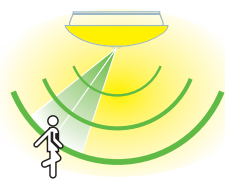


5 %
If the sensor does not register any movement during the delay period, the light level returns to the 5% standby lighting mode.

PIR with adjustable standby light



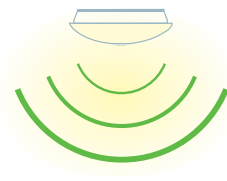
5 or 20 %
In standby mode the luminaire is continuously at 5% or 20 % of its maximum light level. The sensor constantly monitors movement.



80 or 100 %
When the sensor registers warm movement, the lights switches on to a light level of 80 or 100%.



80 or 100 %
Once the sensor has ceased to detect movement, the light remains on for a predetermined delay period (1 – 30 mins).



5 or 20 %
If the sensor does not register any movement during the delay period, the light level returns to the predetermined 5 or 20 % standby lighting mode. The standby light can also be set to switch off completely one hour after the last detected movement.

Technical Information on Standard PIR/PIR with standby light and PIR with adjustable standby light

Lights switch on automatically when warm movement is registered inside the detection area and switch off after a pre-determined time has passed with no further motion detected.

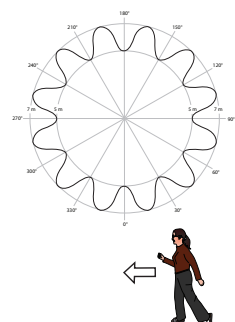
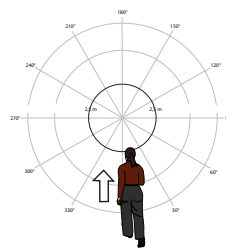
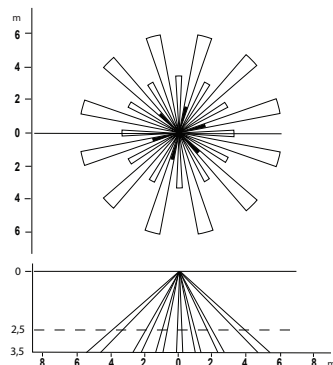
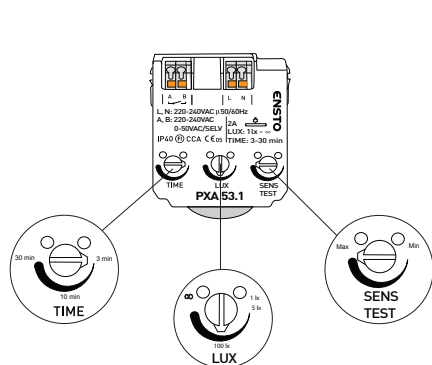
Standard PIR

- Detection area: 360° / 135°, diameter ca. 6 m
- Temperature range: PIR without standby lighting: -15... +25°C. PIR with standby lighting: +10...+25°C
- Adjustable illumination level: 1 lux – ∞
- Adjustable delay period 3-30 minutes
- External load: 460 VA. Max 4 masters together

PIR with adjustable standby light

- Detection area: 360° / 135°, diameter ca. 6-7 m
- Temperature range: +10°C... +25°C
- Adjustable standby light: ca. 5/20%
- Adjustable controlled light: ca. 80/100%
- Adjustable illumination level: 1 lux – ∞

- Adjustable delay period: 1-30 minutes. The standby light can be switched off completely one hour after the last detected movement to save more energy
- External load: 460 VA. Maximum number of 4 masters together



ENSTO RADAR

Reacts to motion

Ensto Radar is on constant alert. Radar is ideal for spaces where sensors can actively look for all kinds of movement.

Radar technology differs from PIR in that it reacts to every kind of movement – to doors opening, as well as to people moving around. Installing a luminaire with Radar sensor gives you a sensitive system that reacts fast to all kind of movement.

The sensor has a wide detection area and it senses and reacts to movement behind thinner walls and doors. This means that you get lighting that switches on quickly.

Ideal spaces

Ensto Radar offers you almost endless opportunities. Here are some examples of how our customers use Radar:

Staircases: A Radar sensor allows you to only light up the floor where you are.

Laundry rooms, store rooms, basements and attics: The lights are switched off automatically when there is no movement in the area.

Hospitals, facilities for the elderly and disabled: Safety as nobody has to fumble in the dark for the light switch.

Corridors, dressing rooms and garages: With one or several Radar luminaires controlling slave luminaires, the luminaires light up and switch off automatically according to registered movement.

Offices: Radar technology is ideal for office buildings, as they not only have staircases and garages but also common areas, such as toilets, corridors, and technical spaces. The traffic in these areas varies but with Radar technology you can be sure that lights are not on all day, which gives lot of savings.

Installation hints for Radar

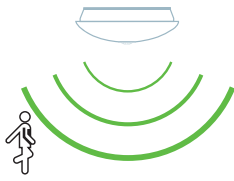
Since Radar sensors are sensitive to all kinds of movement, it is important to make sure that the sensors are not placed in locations where they can accidentally register movement behind thin walls or doors.

Facts about Ensto Radar

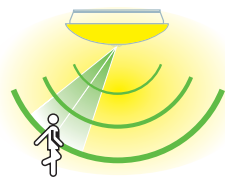
- Saves energy by up to 60 %.
- In new installation, no installation of cables required for the light switch, In renovations no new cables need to be installed.
- Safe and reliable: There's always light when someone is in the detected area.
- Convenient: Lights switch on automatically.
- Requires careful planning due to wide detection area and sensitive technology in order to minimize interference, i.e. lights getting switched on accidentally.
- All Radar luminaires belong to a so-called Radar family. The Radar luminaire is called a master. Controlled luminaires are called slaves. To learn more about the families, turn to page 26.
- Invisible sensor: The Radar sensor is hidden discreetly inside the luminaire, which diminishes the risk of vandalism.
- Radar luminaires are easy to install on the wall or ceiling.
- Available with or without standby light.
- For indoor installations only.



Radar with on/off function



0 %
In standby mode the luminaire is switched off. The sensor continuously monitors movement.



100 %
When the sensor registers movement, the lights are switched on providing 100% light level.

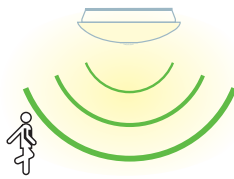


100 %
Once the sensor has ceased to detect movement, the lights remain on for a predetermined delay period (1 – 30 mins).

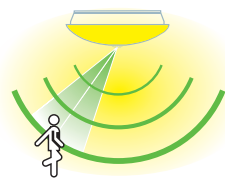


0 %
If the sensor does not register any movement during the delay period, the light is switched off automatically.

Radar with standby light



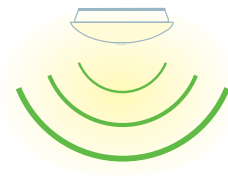
5 %
In standby mode the luminaire is constantly at 5% of its maximum light level. The sensor continuously monitors movement.



100 %
When the sensor registers movement, the lights switch on and light level becomes 100%.



100 %
Once the sensor has ceased to detect movement, the light remains on for a predetermined delay period (1 – 30 mins).



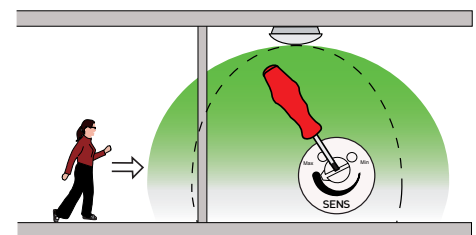
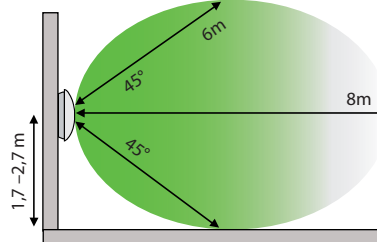
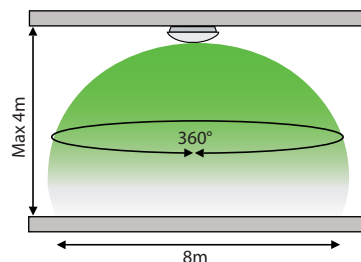
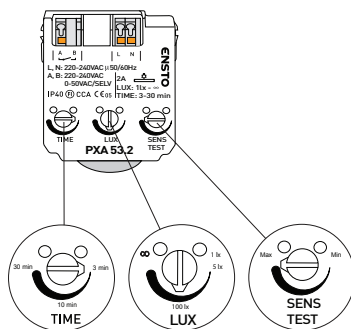
5 %
If the sensor does not register any movement during the delay period, the light level returns to the 5% standby lighting mode.

Technical information about the Radar sensor

The light is switched on automatically when any type of movement takes place within the detection area and is switched off after a selected delay period once no more movement is detected. Radar can react through glass and thin walls, for example. Radar is not recommended for outdoor use.

- Detection area, ceiling mounting: 360°/135° diameter ca. 8 m
- Detection area, wall mounting: 45° detecting ca. 6 m, 90° detecting ca. 10 m
- Temperature range/variation:
Radar without standby light: -15°...25°C.
Radar with standby light: +10°...25°C

- Adjustable illumination level: 1 lux – ∞
- Adjustable delay period: 1–30 minutes
- External load: 460 VA, Maximum number of 5 masters together. Minimum distance between Radar luminaires: 3.5 m.



RADAR BOX

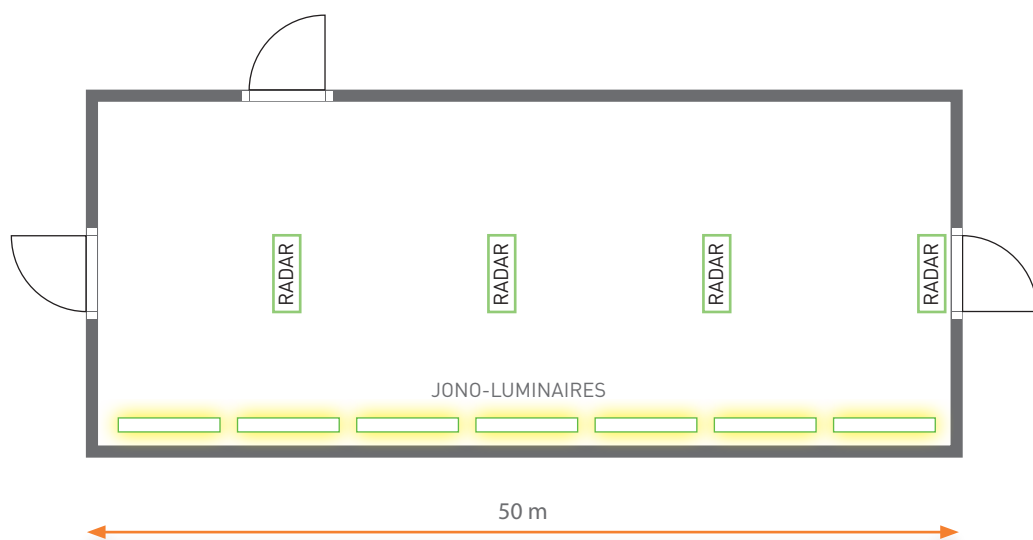
Controlling the lighting

The Radar Box controls the lighting – freely choose the location of the Radar Box.

Ensto's Radar Box is developed to control lighting in spaces where the luminaires location is freely chosen.

In addition, Radar Box is a great solution in renovations where no motion detector controlled luminaires are used and the location of present luminaires can not be changed.

The Radar Box's operation area depends on installation manners and shape of area as well as reflections from the construction of the specific area, for example metal doors. The detection area of the Radar is up to 8 metres.



Basement corridor

A correctly placed Radar Box allows you to control all the lights you need to in a corridor.



QUICK AND EASY INSTALLATION

With the option to change your mind later on

The lighting needs in a building can change over time.

A space that was good for PIR lighting in the beginning may later function better with Radar lighting, or vice versa. But relax - switching between PIR and Radar is easy.

As you can see by looking at the pictures on the next page, installing Ensto's luminaires couldn't be easier.

If your needs change at some point, swapping PIR sensors for Radar sensors, or the other way around, is possible with a majority of our motion controlled luminaires.

You can change just the sensors without having to replace the luminaire itself.

This is what we mean by flexible solutions.

Making the change is simple because:

- Ensto's PIR and Radar sensors are built into same casing.
- Both sensors are attached to the luminaire in the same way.
- The electric couplings and contacts are identical for both sensors.
- The controls for setting the parameters (delay time, detection area, standby light, etc.) are same for both sensors.
- PIR and Radar sensors are equipped with LED diodes to help you determine the installation settings.





Test mode: Turn the SENS potentiometer until the LED light starts to flash. This activates a 180-second test mode. During this test mode, the luminaire registers movement and switches the light on for a few seconds at a time. This allows you to determine the size of the detection area and select the optimal place for the luminaire.

LED lights make adjustment easier. LED lights, flashing in specific modes to make adjustment easier, have been integrated into the new PIR sensors. The LED lights are placed next to the sensor behind the plastic cover.



The center plate is fixed to the mounting place



The insert attaches easily to the center plate with a simple twist



The wires are connected to the spring terminals



Finally, the diffuser is attached. Done!

REFERENCE CASES AND APPLICATIONS

From theory to practice

STAIRCASES

Lighting the floor where you are

Staircases gobble up energy. There is no reason to light up the whole staircase when you take the elevator from the first to the third floor. You need light on just two floors, right?

Dark staircases

If the staircase has no windows that let in natural light, we recommend luminaires with standby light for improved comfort and safety.

Bright staircases

For staircases with windows, we suggest one of two options:

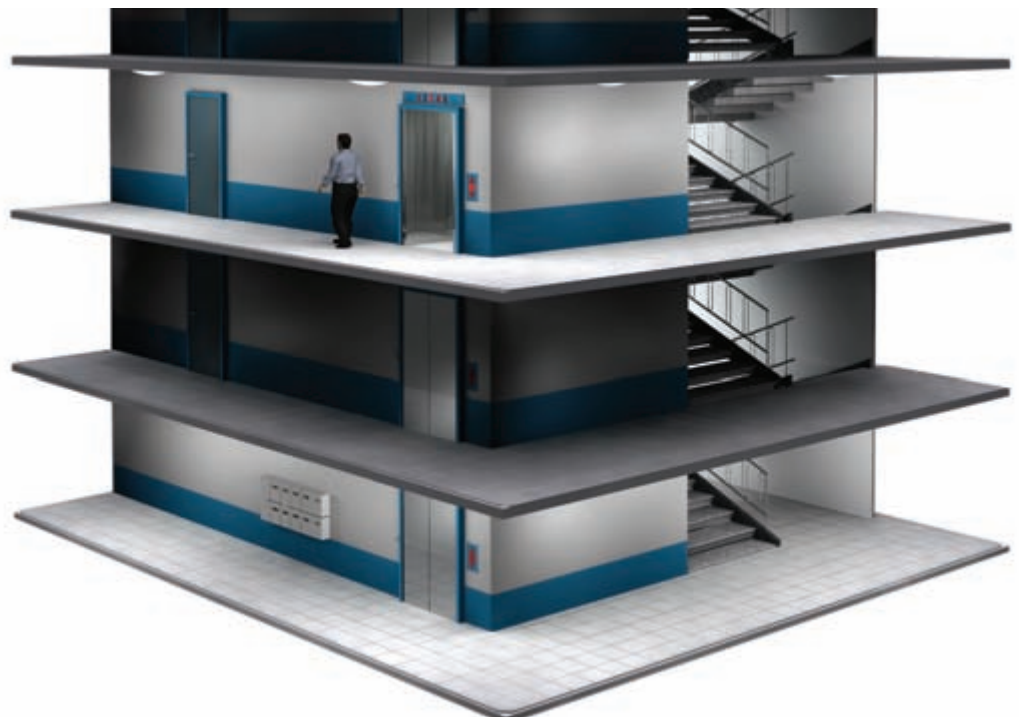
1. Use a luminaire with an on/off function in combination with an adjustable illumination level for switching on the lights. This way lighting accompanies movement from dusk to dawn.
2. Use a luminaire with an adjustable standby light function. This way the standby light remains on from dusk to dawn.

Installation hints for PIR

When PIR sensors are installed in a staircase, it is important to make sure that each sensor is placed optimally to sense movement in elevators, on the stairs, and at the doors. That way lighting elegantly accompanies everyone who moves around in the building.

Installation hints for Radar

Since Radar sensors are sensitive to all kinds of movement, it is important to make sure that the sensors are not placed in locations where they can accidentally register movement behind doors or inside elevators, for example.



Reference case 1

This building included six floors and three staircases, totally 66 apartments. The luminaires in the staircases were controlled by automatic staircase lighting and on two floors there was continuous light by fluorescent luminaires.

Before:

Existing lighting system:

Luminaire type Incandescent fixture 60 W, automatic staircase lighting , two continuously on 18 W fluorescent fixture/staircase

Quantity (pcs) 24

Power (W) 60

Quantity (pcs) 6

Power (W) 18

Energy consumption/week: (kWh): 13.4 kWh x 3

Annual cost (0.10€/kWh): 209.00 €

After:

New controlled system:

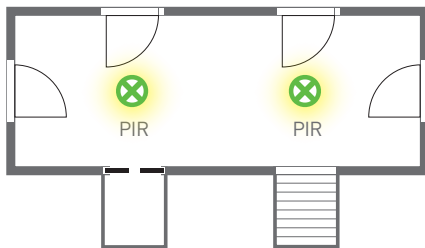
Luminaire type AVR400.2184E, Standard PIR luminaire

Quantity (pcs) 30

Power (W) 38

Energy consumption/week: (kWh): 3.3 kWh x3

Annual cost (0.10€/kWh): 51.50 €



Note that the PIR sensors were placed so that they react to movement from all the doorways and staircases.

Annual savings for the customer: Energy 75 % and 157.50 €

*Source "Liiketunnistimen vaikutus energiankulutukseen ", Tomi Vienonen Tampere University of Applied Sciences 2004.

Investment paid off: In less than 1 year.

CORRIDORS

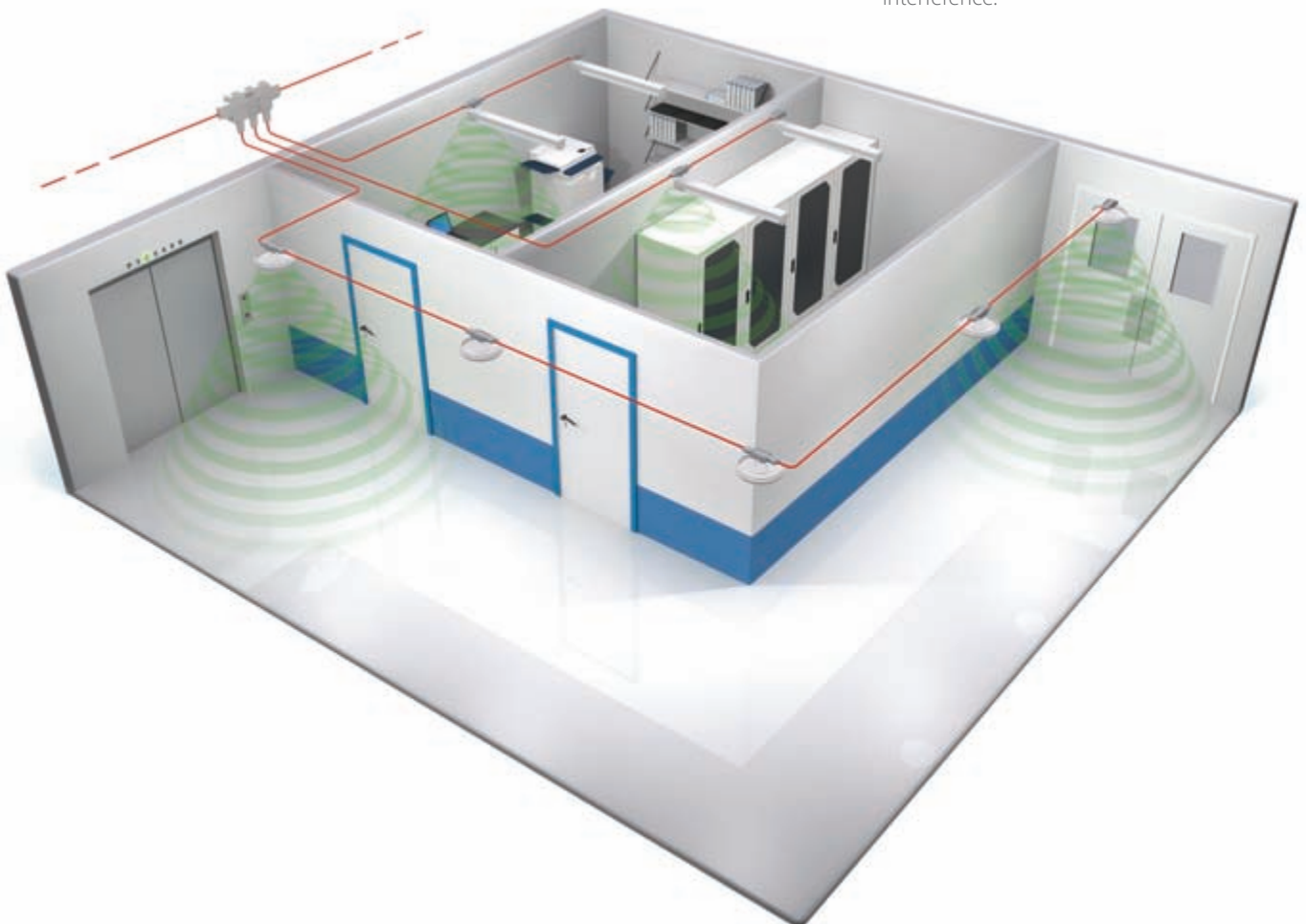
The Domino effect: lights turning on one after another

Controlled lighting is the smart choice for corridors, basements, attics and dressing rooms. It is also a good solution for sheltered homes where the standby light is always on in specific spaces and standard lights are switched on when movement is detected.

We recommend PIR or Radar luminaires with an on/off function for longer corridors and spaces of a similar nature. Alternately, it is possible to use the standby light function with slave luminaires in different spaces according to needs of controlled luminaires. This eliminates the need for anyone to fumble in the dark for the light switch.

We recommend using PIR luminaires in corridors, staircases as well as in dressing rooms.

Luminaires with Radar sensors are suitable for basement corridors and other areas of the building with thicker walls and, therefore, a lower risk for lights getting switched on accidentally as a result of interference.



Reference case 2

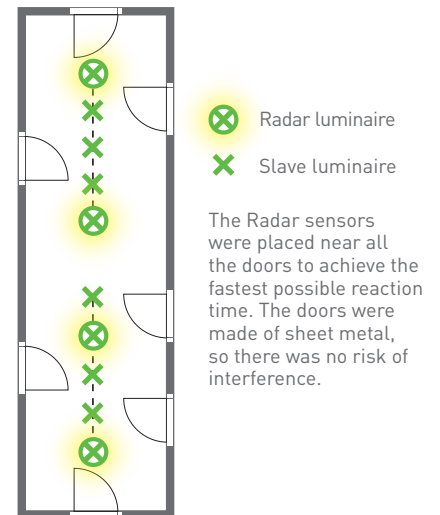
The property's basement corridor had time controlled lighting that was supplemented with manual light switches. The system was replaced with four of Ensto's Radar luminaires with on/off function, as well as eight slave luminaires.

Before:

Existing lighting system:	
Luminaire type	2x18 fluorescent fixture
Quantity (pcs)	12
Power (W)	36
Ballast (W)	5
Total power (W)	492
Illumination time/day (h)	12
Energy consumption/day (kWh): 5.90 kWh	
Annual cost (0.10 €/kWh): 215.50 €	

After

New controlled system:		
Luminaire type	AVR400.2189E Radar luminaire	AVR400.218E Slave luminaire
Quantity (pcs)	4	8
Power (W)	36	36
Ballast (W)	2	2
Total power (W)	152	304
Illumination time/day (h)	4	4
Energy consumption/week (kWh): 1.82 kWh		
Annual cost (0.10 €/kWh): 66.60 €		



Annual savings for the customer: Energy 69 % and 148.90 €

Investment calculation

Annual energy cost

Existing system:	215.50 €
Controlled lighting:	66.30 €

Quarterly energy cost

Existing system:	53.88 €
Controlled lighting:	16.58 €

Additional purchasing cost for

RADAR luminaires/item	60 €
luminaires	4

Total additional investment cost of RADAR luminaires 240 €



— Additional cost of RADAR luminaires

— Accumulated energy cost for controlled lighting per quarter

— Accumulated energy cost for existing system per quarter

— Energy savings

Investment paid off: Within 2 years.

GARAGES

Light as you drive

Garages can be tricky spaces to light efficiently. It makes no sense to light up the entire garage just because a single car enters it. And yet, a well illuminated garage makes you feel safer.

For warm and dark garages we recommend PIR and Radar luminaires with a standby light function. The illuminated spaces and location of master/slave luminaires should be defined according to use.

That way the garage lights up as you drive and move.

In addition, PIR luminaires with on/off function can be placed in parking spaces.

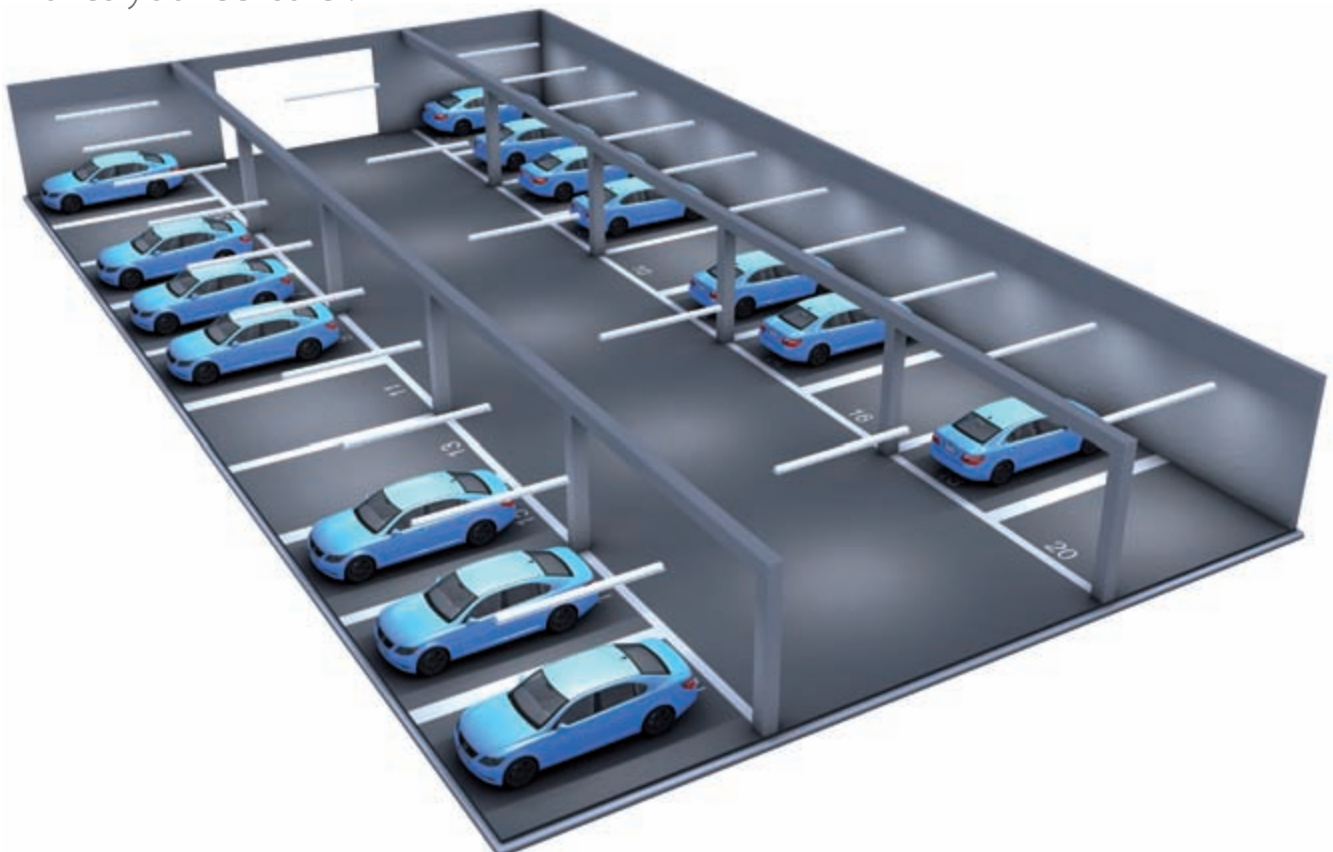
PIR luminaires can also be installed in cold garages. Just choose a PIR and Radar with an on/off function in combination with slave luminaires.

Standby light for added security

A simple way to increase your sense of security is to keep the garage illuminated at all times from dusk to dawn by using luminaires with standby lighting in the driveways.

You can also choose luminaires with Radar sensors for your garage.

Remember that Radar sensors respond by turning on lights as soon as they sense any kind of movement. Therefore, they are not recommended for outdoor use or for areas that are prone to vibrate.



Reference case 3

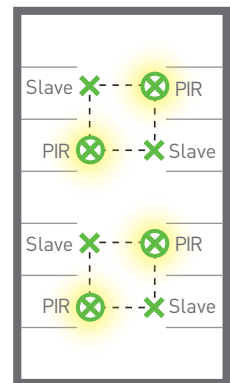
The existing time controlled lighting in the garage was replaced with a PIR controlled system with standby lighting. Despite the standby lighting being on round the clock in two of the luminaires, the amount of energy saved was significant.

Before:

Existing lighting system:	
Luminaire type	2 x 18 fluorescent fixture
Quantity (pcs)	8
Power (W)	36
Ballast (W)	13
Total power (W)	392
Illumination time/day (h)	16
Energy consumption/day (kWh): 6.27 kWh	
Annual cost (0.10 €/kWh): 228.90 €	

After:

Luminaires in new controlled system:	AVR66.0366D	AVR66.0366D with ca. 100% light level	AVR66.0366E with PIR on/off function	AVR66.036E slave luminaire
Quantity (pcs)	2	2	2	4
Power (W)	6	34	34	34
Ballast (W)	2	2	2	2
Total power (W)	16	72	72	144
Illumination time/day (h)	20	4	4	4
Energy consumption/week (kWh): 1.47 kWh				
Annual cost (0.10 €/kWh): 53.66 €				



Lighting in the garage was divided into two sections so that the lights were on where needed.

Annual savings for the customer: Energy 76.6 % and 175.24 €

Investment calculation

Annual energy cost

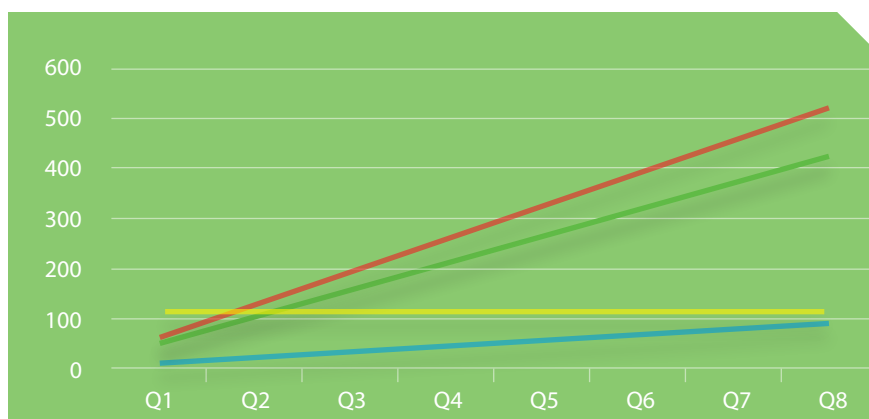
Existing system:	228.90 €
Controlled lighting:	53.66 €

Quarterly energy cost

Existing system:	57.50 €
Controlled lighting:	13.42 €

Additional purchasing cost for

RADAR luminaires/item	60 €
luminaires	2
Total additional investment cost of RADAR luminaires	120 €



- Additional cost of RADAR luminaires
- Accumulated energy cost for controlled lighting per quarter
- Accumulated energy cost for existing system per quarter
- Energy savings

Investment paid off: Within 6 months.

SECONDARY SPACES

Small rooms can waste lots of energy

How often are small rooms illuminated unnecessarily?
All too often!

For secondary rooms, such as bathrooms, supply closets, garbage rooms, areas for storing bikes and baby carriages, stock rooms, service rooms, and laundry rooms we recommend PIR or Radar luminaires with the on/off function. For larger spaces also slave luminaires might be needed.

PIR installation is ideal for all the above-mentioned spaces. Just remember to place

PIR luminaires so that sensors are able to scan the environment around all the doorways.

We recommend Radar luminaires for rooms with thicker walls, as that reduces the risk of interference. Place the Radar luminaires in such a way that they do not sense movement outside the windows and doors in the room.



Reference case 4

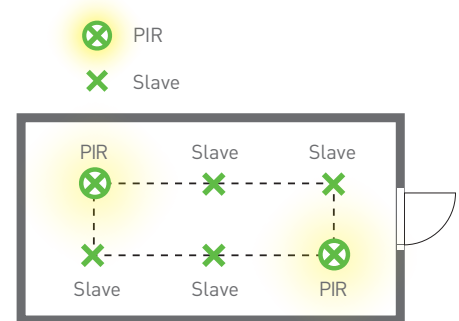
The time controlled lighting in the property's laundry room was replaced with a PIR controlled luminaire. In addition the solution resulting in over 80% savings, the new system paid itself off within a year's time.

Before:

Existing lighting system:	
Luminaire type	2x36 fluorescent fixture, time controlled
Quantity (pcs)	6
Power (W)	72
Ballast (W)	26
Total power (W)	588
Illumination time/day (h)	12
Energy consumption/day (kWh): 7.06 kWh	
Annual cost (0.10 €/kWh): 257.70 €	

After:

Luminaires in new controlled system:	Jono-luminaire AVR66.0584E, with PIR sensor	Jono-luminaire AVR66.058E slave luminaire
Quantity (pcs)	2	4
Power (W)	52	52
Ballast (W)	2	2
Total power (W)	108	216
Illumination time/day (h)	4	4
Energy consumption/week (kWh): 1.30 kWh		
Annual cost (0.10 €/kWh): 47.45 €		



Note that PIR sensor masters were placed in two corners in order to detect movement in every part of the room.

Annual savings for the customer: Energy 81.6 % and 210.25 €

Investment calculation

Annual energy cost

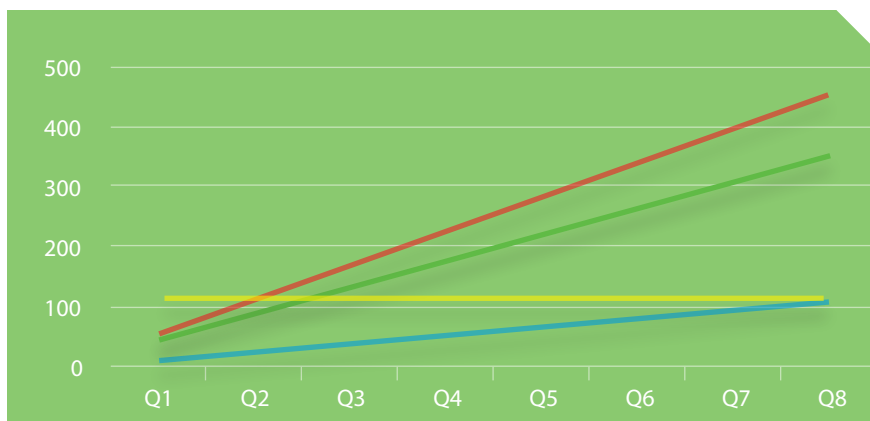
Existing system:	257.70 €
Controlled lighting:	47.45 €

Quarterly energy cost

Existing system:	64.40 €
Controlled lighting:	11.86 €

Additional purchasing cost for

RADAR luminaires/item	60 €
luminaires	2
Total additional investment cost of RADAR luminaires	120 €



- Additional cost of RADAR luminaires
- Accumulated energy cost for controlled lighting per quarter
- Accumulated energy cost for existing system per quarter
- Energy savings

Investment paid off: Within 1 year.

PIR AND RADAR FAMILIES

Harmony with uniformity

PIR and Radar families are harmonious and elegant – the family resemblance is clear in the uniform look of all the luminaires throughout the property.

With these families you can, quite simply, control all the lights in the entire building both individually and in groups, using the master and slave controls. Most of the families consist of:

- Luminaires with motion detectors (on/off function)
- Luminaires with a motion detector and standby light that provides low-level illumination when nobody is inside the detection area.
- Slave luminaires with or without standby light

PIR with adjustable standby light

PIR with adjustable standby light is an independent PIR luminaire which can be used to set an independent standby light level and maximum light level. Instead, in these PIR luminaires with PXA 53 sensors the light level can be set to minimum 5 or 20 % and maximum 80 or 100 %. Also, standby light can be turned off automatically in 1 hour, following the last detected movement within the detection area.

PIR 1–10V

PIR luminaires with adjustable standby light:

- AVR320.2135D
- AVR320.2185D
- AVR400.2185D
- AVR400.2265D

All luminaires including 1–10 V control gear can be used as slave fixtures.

PIR Families

AVR254 for 2x9W

- AVR254.094E - The luminaire switches on once it detects warm movement and the light level is lower than the LUX set value. The lights will switch off according to the TIME set value once the sensor ceases to detect movement.
- AVR254.09E – Standard/slave luminaire, can be controlled by -4E PIR luminaires

AVR320 for 2x13W

- AVR320.0134E - The luminaire switches on once it detects warm movement and the light level is lower than the LUX set value. The lights will switch off according to the TIME set value once the sensor ceases to detect movement.
- AVR320.2136D – The luminaire is permanently in standby mode (ca. 5 % of maximum light level) and when sensor detects warm movement the lights will switch on to the 100% light level. From the maximum light level the luminaire returns to standby mode according to the TIME set value.



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All-round luminaires

AVR254



IP543x2,5mm²

AVR254 luminaires are all-round luminaires for both wet and dry spaces, indoors and outdoors. These luminaires can be widely used in bathrooms, storage rooms, balconies and in entrance halls in private homes. Luminaire housing is made of light grey polycarbonate and the diffuser is opal acrylic. Together with the AVR320 and AVR400 the AVR254 luminaires build up a uniform luminaire family. AVR254 luminaires are also available in practical ready for installation Sixpacks, including also light sources, colour 830. AVR254 luminaires can be installed both surface and recessed mounted.

TYPE	CODE	DESCRIPTION
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AVR254 LUMINAIRES WITH MAGNETIC BALLAST

AVR254.09	64 186 77 601 590	2x9W TC/G23 230V 50Hz
AVR254.29	64 186 77 601 583	2x9W TC/G23 230V 50Hz
AVR254.29MP	64 186 77 601 699	6xAVR254 2x9W TC/G23 230V 50Hz

AVR254 LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR254.0/9E	64 186 77 615 986	1x9W TC-E/2G7 230/240V 0-50/60Hz
AVR254.09E	64 186 77 601 842	2x9W TC-E/2G7 230/240V 0-50/60Hz
AVR254.29E	64 186 77 601 873	2x9W TC-E/2G7 230/240V 0-50/60Hz

AVR254 PIR SENSOR LUMINAIRES WITH MAGNETIC BALLAST. NOTE! CLASS I LUMINAIRE

AVR254.094	64 186 77 601 910	2x9W TC/G23 230V 50Hz
AVR254.294	64 186 77 601 880	2x9W TC/G23 230V 50Hz

AVR254 PIR SENSOR LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR254.0/94E	64 186 77 615 979	1x9W TC-E/2G7 230/240V 50/60Hz
AVR254.094E	64 186 77 601 859	2x9W TC-E/2G7 230/240V 50/60Hz
AVR254.294E	64 186 77 601 897	2x9W TC-E/2G7 230/240V 50/60Hz

AVR254 RADAR SENSOR LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR254.299E	64 186 77 620 454	2x9W TC-E/2G7 230/240V 50/60Hz
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AVR254 POLYCARBONATE DECOR RINGS

AVL57	64 186 77 620 058	White
AVL57/AL	64 186 77 620 089	Aluminium

AVR254 DECOR RINGS POWDERCOATED ALUMINIUM

AVL40	64 186 77 601 613	White
AVL40.2	64 186 77 601 637	Antique silver
AVL40.3	64 186 77 601 644	Steel

AVR254 ANTI-GLARE RINGS GALVANIZED POWDERCOATED STEEL

AVL41	64 186 77 601 651	White
AVL41.2	64 186 77 601 675	Antique silver
AVL41.3	64 186 77 601 682	Steel

AVR254 SQUARE DECOR FRAME GALVANIZED POWDERCOATED STEEL

AVL43	64 186 77 619 946	White
AVL43.3	64 186 77 619 953	Steel

AVR254 SQUARE FRAME WITH VISORS GALVANIZED POWDERCOATED STEEL

AVL44	64 186 77 619 960	White
AVL44.3	64 186 77 619 977	Steel

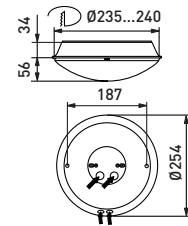
AVR254 POLYCARBONATE COVER RING

AVL42	64 186 77 615 559	White
AVL42/AL	64 186 77 620 225	Aluminium

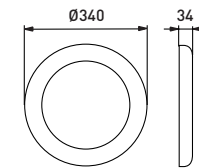
AVR254 SPARE PARTS AND ACCESSORIES

AVL39	64 186 77 616 198	AVR254 recessed mounting fastening
AVV254	64 186 77 611 872	Diffuser for AVR254 luminaires, opal acrylic
AVV254.1	64 186 77 611 889	Diffuser for AVR254-PIR luminaires, opal acrylic

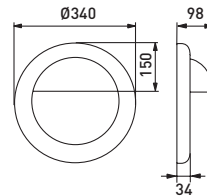
AVR254



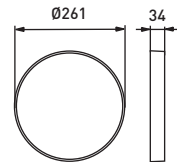
AVL40 ... AVL40.3



AVL41 ... AVL41.3



AVL42



AVR320 and AVC320



IP44

5x2,5mm²

AVR320 is an all-round luminaire with an innovative solutions for easy and fast installation. Luminaire housing is made of white polycarbonate and the diffuser is opal polycarbonate. For each light source type there is a separate whitepainted steel reflectorplate in order the to get the best lighttechnical performance for each solution. Together with the AVR254 and AVR400 the AVR320 build up a uniform luminaire family. AVR320 luminaires are suitable for both surface - and recessed mountings.

TYPE	CODE	DESCRIPTION
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AVR320 LUMINAIRE FOR E27 COMPACT FLUORESCENT LAMPS. AVR320.1 INCLUDE 15W/E27 COMPACT FLUORESCENT LAMP

AVR320	64 186 77 604 058	1x23W max / TC-DSE/E27 230V 50Hz, 3x2,5mm ²
AVR320.1	64 186 77 604 430	1x23W max / TC-DSE/E27 230V 50Hz, 3x2,5mm ²

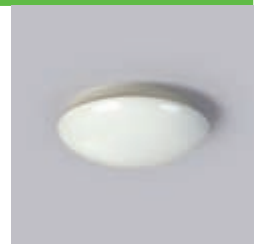
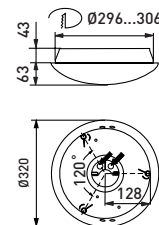
AVR320 LUMINAIRES WITH MAGNETIC BALLAST

AVR320.026	64 186 77 604 065	1x26W TC-D/G24d-3 230V 50Hz, 3x2,5mm ²
AVR320.126	64 186 77 604 447	1x26W TC-D/G24d-3 230V 50Hz, 3x2,5mm ²

AVR320 LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR320.026E	64 186 77 604 089	1x26W TC-DE/G24q-3 230/240V 0-50/60Hz
AVR320.126E	64 186 77 604 461	1x26W TC-DE/G24q-3 230/240V 0-50/60Hz
AVR320.028E	64 186 77 604 164	1x28W TC-DD/GR10q 230/240V 0-50/60Hz

AVR320



All-round luminaires

AVR320.128E	64 186 77 604 539	1x28W TC-DD/GR10q 230/240V 0-50/60Hz
AVR320.013E	64 186 77 619 519	2x13W TC-DE/G24q-1 230/240V 0-50/60Hz
AVR320.213E	64 186 77 619 298	2x13W TC-DE/G24q-1 230/240V 0-50/60Hz
AVR320.018E	64 186 77 604 096	2x18W TC-DE/G24q-2 230/240V 0-50/60Hz
AVR320.218E	64 186 77 604 478	2x18W TC-DE/G24q-2 230/240V 0-50/60Hz
AVR320.018/9E	64 186 77 614 989	18W TC-DE/G24q-2 + 9W TC-E/2G7
AVR320.218/9E	64 186 77 616 235	18W TC-DE/G24q-2 + 9W TC-E/2G7
AVR320.018/18E	64 186 77 604 614	18W+18W TC-DE/G24q-2 230/240V 0-50/60Hz
AVR320.218/18E	64 186 77 604 621	18+18W TC-DE/G24q-2 230/240V 0-50/60Hz
AVR320.022CE	64 186 77 604 171	1x22W T5C/2GX13 230/240V 0-50/60Hz

AVR320 EMERGENCY LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR320.218E/3SM	64 186 77 618 192	AVR320/3SM IP44 2xTC-DE 18W E PC O
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AVC320 LUMINAIRES WITH 3-POLE ENSTONET NAC31.W LOCATED ON THE SIDE OF THE LUMINAIRE HOUSING. NOTE! PROTECTION CLASS IP20

AVC320.126E	64 186 77 615 887	1x26W TC-DE/G24q-3 230/240V 0-50/60Hz
AVC320.218E	64 186 77 615 894	2x18W TC-DE/G24q-2 230/240V 0-50/60Hz

AVR320 WITH 1-10V CONTROLLED ELECTRONIC CONTROL GEAR

AVR320.213D	64 186 77 620 126	2x13W TC-DE/G24q-1 230/240V 0-50/60Hz
AVR320.018D	64 186 77 604 126	2x18W TC-DE/G24q-2 230/240V 0-50/60Hz
AVR320.218D	64 186 77 604 508	2x18W TC-DE/G24q-2 230-240V 0-50/60Hz

AVR320 WITH 1-10V DIMMABLE ELECTRONIC BALLAST AND A RELAY FOR CONTROLLING THE 5%/100% LIGHT LEVELS THROUGH A SEPARATE 230V POWER SUPPLY

AVR320.018DR	64 186 77 619 533	2x18W TC-DE/G24q-2 230V 50Hz
AVR320.218DR	64 186 77 616 006	2x18W TC-DE/G24q-2 230V 50Hz

AVR320 PIR SENSOR LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR320.0134E	64 186 77 619 526	2x13W TC-DE/G24q-1 230/240V 50/60Hz
AVR320.2134E	64 186 77 619 304	2x13W TC-DE/G24q-1 230/240V 50/60Hz
AVR320.018/94E	64 186 77 616 099	9W TC-E/2G7+18W TC-DE/G24q-2 230/240V 50/60Hz
AVR320.218/94E	64 186 77 616 242	9W TC-E/2G7+18W TC-DE/G24q-2 230/240V 50/60Hz
AVR320.0184E	64 186 77 604 102	2x18W TC-DE/G24q-2 230/240V 50/60Hz
AVR320.2184E	64 186 77 604 485	2x18W TC-DE/G24q-2 230/240V 50/60Hz
AVR320.0224CE	64 186 77 604 188	1x22W T5C/2GX13 230/240V 50/60Hz

AVR320 RADAR SENSOR LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR320.2139E	64 186 77 620 461	2x13W TC-DE/G24q-1 230/240V 50/60Hz
AVR320.2189E	64 186 77 620 478	2x18W TC-DE/G24q-2 230/240V 50/60Hz

AVC320 PIR SENSOR LUMINAIRE WITH ELECTRONIC CONTROL GEAR. EQUIPPED WITH 3-POLE ENSTONET NAC31.W LOCATED ON THE SIDE OF THE LUMINAIRE HOUSING. NOTE! PROTECTION CLASS IP20

AVC320.2184E	64 186 77 615 900	2x18W TC-DE/G24q-2 230/240V 50/60Hz
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AVR320 PIR WITH ELECTRONIC BALLAST AND A RELAY FOR CONTROLLING THE ON/OFF LIGHT LEVELS ALSO THROUGH A SEPARATE 230 V POWER SUPPLY

AVR320.0184ER	64 186 77 619 540	2x18W TC-DE/G24q-2 230V 50Hz
AVR320.2184ER	64 186 77 616 204	2x18W TC-DE/G24q-2 230V 50Hz

AVR320 PIR SENSOR LUMINAIRES WITH 1-10V DIMMABLE ELECTRONIC CONTROL GEAR. BASIC LIGHT LEVEL 5% AND PIR CONTROLLED LIGHT LEVEL 100%.

AVR320.2136D	64 186 77 620 119	2x13W TC-DE/G24q-1 230/240V 50/60Hz
AVR320.0186D	64 186 77 604 133	2x18W TC-DE/G24q-2 230/240V 50/60Hz
AVR320.2186D	64 186 77 604 515	2x18W TC-DE/G24q-2 230/240V 50/60Hz

AVR320 PIR SENSOR LUMINAIRES WITH 1-10V DIMMABLE ELECTRONIC CONTROL GEAR. BASIC LIGHT LEVEL 5% OR 20% AND PIR CONTROLLED LIGHT LEVEL 80% OR 100%.

AVR320.2135D	64 186 77 620 287	2x13W TC-DE/G24q-1 230/240V 50/60Hz
AVR320.2185D	64 186 77 620 270	2x18W TC-DE/G24q-2 230/240V 50/60Hz

AVR320 RADAR SENSOR LUMINAIRES WITH 1-10V DIMMABLE ELECTRONIC CONTROL GEAR. BASIC LIGHT LEVEL 5% AND RADAR CONTROLLED LIGHT LEVEL 100%

AVR320.2139D	64 186 77 620 485	2x13W TC-DE/G24q-1 230/240V 50/60Hz
AVR320.2189D	64 186 77 620 492	2x18W TC-DE/G24q-2 230/240V 50/60Hz

AVR320 POLYCARBONATE DECOR RINGS

AVL58	64 186 77 620 065	White
AVL58/AL	64 186 77 620 096	Aluminium

AVR320 DECOR RINGS POWDERCOATED ALUMINIUM

AVL45	64 186 77 604 195	White
AVL45.2	64 186 77 604 218	Antique silver
AVL45.3	64 186 77 604 225	Steel

AVR320 ANTI-GLARE RINGS GALVANIZED POWDERCOATED STEEL

AVL46	64 186 77 619 984	White
AVL46.2	64 186 77 619 991	Antique silver
AVL46.3	64 186 77 620 003	Steel

AVR320 SQUARE DECOR FRAME GALVANIZED POWDERCOATED STEEL

AVL47	64 186 77 620 010	White
AVL47.3	64 186 77 620 027	Steel

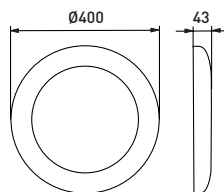
AVR320 SQUARE FRAME WITH VISORS GALVANIZED POWDERCOATED STEEL

AVL49	64 186 77 620 034	White
AVL49.3	64 186 77 620 041	Steel

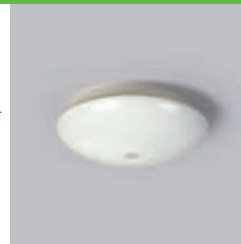
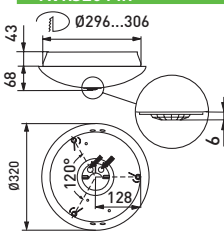
AVR320 ACCESSORIES AND SPARE PARTS

AVV320	64 186 77 611 896	Diffuser for AVR320 luminaires, opal polycarbonate
AVV320.1	64 186 77 611 902	Diffuser for AVR320-PIR luminaires, opal polycarbonate

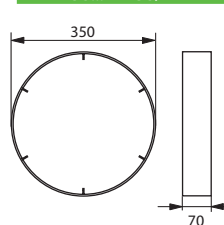
AVL45 ... AVL45.3



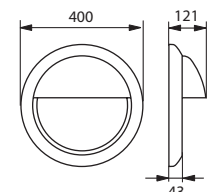
AVR320 PIR



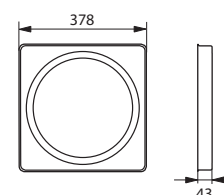
AVL58...AVL58/AL



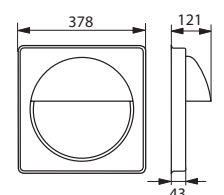
AVL46...AVL46.3



AVL47...AVL47.3



AVL49...AVL49.3



All-round luminaires

AVR400



IP44 5x2,5mm²

AVR400 luminaires are stylish and effective luminaires for entry halls, offices, hotel rooms and also for many uses in homes. Luminaires are suitable for both wet and dry spaces indoors and outdoors. Luminaire housing is made of white polycarbonate and diffuser of opal polycarbonate. With the polycarbonate and steel decor rings the outlook of the luminaire can easily be adjusted to various kind of interiors. AVR400 build up together with the AVR254 and AVR320 the Ensto three size selection with uniform outlook.

TYPE	CODE	DESCRIPTION
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AVR400 LUMINAIRE FOR E27

AVR400	64 100 41 175 218	1x100W A60/E27
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AVR400 LUMINAIRE WITH ELECTRONIC CONTROL GEAR

AVR400.018E	64 100 41 175 331	2x18W TC-L/2G11 230/240V 0-50/60Hz
AVR400.218E	64 100 41 175 225	2x18W TC-L/2G11 230/240V 0-50/60Hz
AVR400.018/9E	64 186 77 612 350	2x18W TC-L/2G11+2x9W TC-E/2G7 230-240V 0-50/60Hz
AVR400.418/9E	64 186 77 616 266	2x18W TC-L/2G11+2x9W TC-E/2G7 230-240V 0-50/60Hz
AVR400.018/18E	64 186 77 604 553	18W+18W TC-L/2G11 230/240V 0-50/60Hz
AVR400.218/18E	64 186 77 600 982	18W+18W TC-L/2G11 230/240V 0-50/60Hz
AVR400.0188E	64 186 77 604 546	2x18W TC-L/2G11 230/240V 0-50/60Hz+E14 max 10W
AVR400.2188E	64 186 77 601 835	2x18W TC-L/2G11 230/240V 0-50/60Hz+E14 max 10W
AVR400.0189E	64 381 00 601 171	1x18W TC-L/2G11 230/240V 0-50/60Hz
AVR400.026E	64 186 77 619 335	2x26W TC-DE/G24q-3 240V 0-50/60Hz
AVR400.226E	64 186 77 619 311	2x26W TC-DE/G24q-3 240V 0-50/60Hz
AVR400.038E	64 100 41 175 362	1x38W TC-DD/GR10q 230/240V 0-50/60Hz
AVR400.138E	64 100 41 175 249	1x38W TC-DD/GR10q 230/240V 0-50/60Hz
AVR400.055CE	64 100 41 175 270	1x55W T5C/2GX13 230/240V 0-50/60Hz

AVR400 EMERGENCY LUMINAIRE WITH MAGNETIC BALLAST AND ELECTRONIC STARTER

AVR400.128H/3M	64 186 77 618 178	AVR400/3M IP44 TC-DD 28W H PC O
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AVR400 EMERGENCY LUMINAIRE WITH ELECTRONIC CONTROL GEAR

AVR400.218E/35M	64 186 77 618 185	AVR400/35M IP44 2xTC-L 18W E PC O
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AVR400 WITH 1-10V CONTROLLED ELECTRONIC CONTROL GEAR

AVR400.018D	64 186 77 601 255	2x18W TC-L/2G11 230/240V 0-50/60Hz
AVR400.218D	64 186 77 616 228	2x18W TC-L/2G11 230/240V 0-50/60Hz
AVR400.226D	64 186 77 620 140	2x26W TC-DE/G24q-3 230/240V 0-50/60Hz

AVR400 WITH 1-10V DIMMABLE ELECTRONIC BALLAST AND A RELAY FOR CONTROLLING THE 5%/100% LIGHT LEVELS THROUGH A SEPARATE 230 V POWER SUPPLY

AVR400.018DR	64 186 77 619 465	2x18W TC-L/2G11 230V 50Hz
AVR400.218DR	64 186 77 616 013	2x18W TC-L/2G11 230V 50Hz

AVR400 PIR SENSOR LUMINAIRE WITH ELECTRONIC CONTROL GEAR

AVR400.1184E	64 186 77 616 136	1x18W TC-L/2G11 230/240V 50/60Hz
AVR400.0184E	64 100 41 175 478	2x18W TC-L/2G11 230/240V 50/60Hz
AVR400.2184E	64 100 41 175 423	2x18W TC-L/2G11 230/240V 50/60Hz
AVR400.218/94E	64 186 77 616 143	9W TC-E/2G7+18W TC-L/2G11 230/240V 50/60Hz
AVR400.018/184E	64 186 77 616 105	18W+18W TC-L/2G11 230/240V 50/60Hz
AVR400.0264E	64 186 77 619 342	2x26W TC-DE/G24q-3 230/240V 50/60Hz
AVR400.2264E	64 186 77 619 328	2x26W TC-DE/G24q-3 230/240V 50/60Hz
AVR400.018/94E	64 186 77 616 112	2x18W TC-L/2G11+2x9W TC-E/2G7 230/240V 50/60Hz
AVR400.418/94E	64 186 77 616 129	2x18W TC-L/2G11+2x9W TC-E/2G7 230/240V 50/60Hz
AVR400.0554CE	64 100 41 175 447	1x55W T5C/2GX13 230/240V 50/60Hz

AVR400 RADAR SENSOR LUMINAIRE WITH ELECTRONIC CONTROL GEAR

AVR400.2189E	64 186 77 620 508	2x18W TC-L/2G11 230/240V 50/60Hz
AVR400.2269E	64 186 77 620 515	2x26W TC-DE/G24q-3 230/240V 50/60Hz

AVR400 PIR WITH ELECTRONIC BALLAST AND A RELAY FOR CONTROLLING THE ON/OFF LIGHT LEVELS ALSO THROUGH A SEPARATE 230 V POWER SUPPLY

AVR400.0184ER	64 186 77 619 557	2x18W TC-L/2G11 230V 50Hz
AVR400.2184ER	64 186 77 616 211	2x18W TC-L/2G11 230V 50Hz

AVR400 PIR SENSOR LUMINAIRE WITH 1-10V DIMMABLE ELECTRONIC CONTROL GEAR. BASIC LIGHT LEVEL 5% AND PIR CONTROLLED LIGHT LEVEL 100%

AVR400.0186D	64 186 77 601 224	2x18W TC-L/2G11 230/240V 50/60Hz
AVR400.2186D	64 186 77 616 150	2x18W TC-L/2G11 230/240V 50/60Hz
AVR400.018/186D	64 186 77 604 409	18W+18W TC-L/2G11 230/240V 50/60Hz
AVR400.218/186D	64 186 77 616 259	18W+18W TC-L/2G11 230/240V 50/60Hz
AVR400.2266D	64 186 77 620 133	2x26W TC-DE/G24q-3 230/240V 50/60Hz

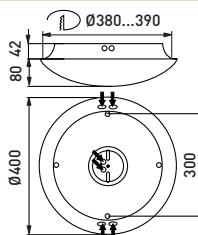
AVR400 PIR SENSOR LUMINAIRE WITH 1-10V DIMMABLE ELECTRONIC CONTROL GEAR. BASIC LIGHT LEVEL 5% OR 20% AND PIR CONTROLLED LIGHT LEVEL 80% OR 100%

AVR400.2185D	64 186 77 620 294	2x18W TC-L/2G11 230/240V 50/60Hz
AVR400.2265D	64 186 77 620 300	2x26W TC-DE/G24q-3 230/240V 50/60Hz

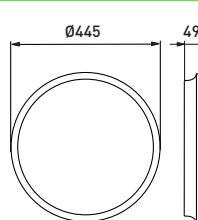
AVR400 RADAR SENSOR LUMINAIRE WITH 1-10V DIMMABLE ELECTRONIC CONTROL GEAR. BASIC LIGHT LEVEL 5% AND RADAR CONTROLLED LIGHT LEVEL 100%

AVR400.2189D	64 186 77 620 522	2x18W TC-L/2G11 230/240V 50/60Hz
AVR400.2269D	64 186 77 620 539	2x26W TC-DE/G24q-3 230/240V 50/60Hz

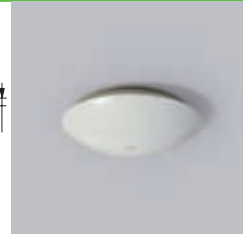
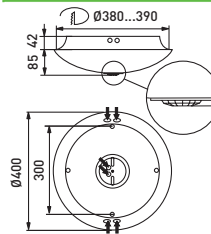
AVR400



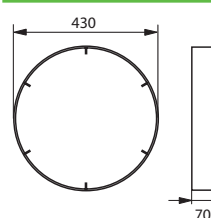
AVL52 ... AVL 54



AVR400 PIR



AVL 59...AVL59/AL



All-round luminaires

AVR400 POLYCARBONATE DECOR RINGS

AVL52	64 100 41 179 520	White
AVL52/AL	64 100 41 179 537	Aluminium
AVL53	64 186 77 600 364	Light coloured wood imitation
AVL53.1	64 186 77 600 371	Dark coloured wood imitation
AVL54	64 186 77 600 388	Steel

AVR400 POLYCARBONATE DECOR RINGS

AVL59	64 186 77 620 072	White
AVL59/AL	64 186 77 620 102	Aluminium

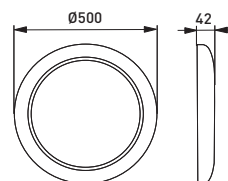
AVR400 DECOR RINGS POWDERCOATED ALUMINIUM

AVL50	64 186 77 604 256	White
AVL50.2	64 186 77 604 270	Antique silver
AVL50.3	64 186 77 604 287	Steel

AVR400 ACCESSORIES AND SPARE PARTS

AVV400	64 186 77 611 926	Diffuser for AVR400 luminaires
AVV400.1	64 186 77 611 933	Diffuser for AVR400 luminaires, opal polycarbonate

AVL50...AVL50.3



AVR1 IP44 3x2,5mm²

The AVR1 is an all-round luminaire made of impact resistant, non-corrosive, weather proof polycarbonate. It is suitable for both indoor and outdoor use. The various energy saving light sources and accessories enable many different installation solutions in both public and private buildings.

TYPE	CODE	DESCRIPTION
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AVR1 LUMINAIRES WITH MAGNETIC BALLAST

AVR1.09	64 100 41 172 583	2x9W TC/G23 230V 50Hz
AVR1.29	64 100 41 173 931	2x9W TC/G23 230V 50Hz
AVR1.011	64 100 41 172 644	1x11W TC/G23 230V 50Hz
AVR1.111	64 100 41 174 020	1x11W TC/G23 230V 50Hz
AVR1.016	64 186 77 600 166	1x16W TC-DD/GR10q 230V 50Hz
AVR1.116	64 100 41 174 051	1x16W TC-DD/GR10q 230V 50Hz
AVR1.018	64 100 41 172 705	1x18W TC-L/2G11 230V 50Hz
AVR1.118	64 100 41 174 082	1x18W TC-L/2G11 230V 50Hz
AVR1.028	64 100 41 172 767	1x28W TC-DD/GR10q 230V 50Hz
AVR1.128	64 100 41 174 112	1x28W TC-DD/GR10q 230V 50Hz

AVR1 LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR1.09E	64 186 77 604 362	2x9W TC-E/2G7 230/240V 0-50/60Hz
AVR1.29E	64 186 77 604 386	2x9W TC-E/2G7 230/240V 0-50/60Hz
AVR1.29/9E	64 186 77 604 294	9x9W TC-E/2G7 230/240V 0-50/60Hz
AVR1.018E	64 100 41 172 873	1x18W TC-L/2G11 230/240V 0-50/60Hz
AVR1.118E	64 100 41 174 099	1x18W TC-L/2G11 230/240V 0-50/60Hz

AVR1 PIR SENSOR LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR1.29/94E	64 186 77 616 082	9x9W TC-E/2G7 230/240V 50/60Hz
AVR1.094E	64 186 77 603 990	2x9W TC-E/2G7 230/240V 50/60Hz
AVR1.294E	64 186 77 604 300	2x9W TC-E/2G7 230/240V 50/60Hz

AVR1 RADAR SENSOR LUMINAIRES WITH ELECTRONIC CONTROL GEAR

AVR1.299E	64 186 77 620 546	2x9W TC-E/2G7 230/240V 50/60Hz
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AVR1 RADAR SENSOR LUMINAIRES WITH ELECTRONIC CONTROL GEAR. DIFFUSER LOCKED WITH SECURITY SCREW

AVR1.099E/S	64 186 77 620 553	2x9W TC-E/2G7 230/240V 50/60Hz
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AVR1 POLYCARBONATE RECESSING FRAMES

AVL21	64 100 41 173 696	White
AVL21/G	64 100 41 173 757	Brass

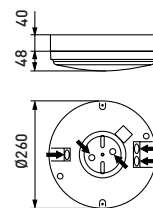
AVR1 POLYCARBONATE DECOR RINGS

AVL28	64 100 41 170 091	White
AVL28/AL	64 100 41 175 324	Aluminium
AVL28/A	64 100 41 170 152	Chrome
AVL28/G	64 100 41 170 121	Brass

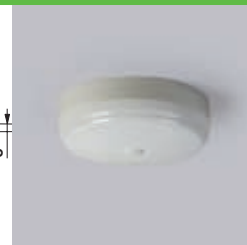
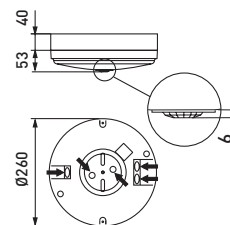
AVR1 ACCESSORIES AND SPARE PARTS

AVV1	64 186 77 611 711	Diffuser for AVR1 luminaires, opal polycarbonate
AVV1.1	64 186 77 611 728	Diffuser for AVR1 luminaires, opal polycarbonate, UV-stop
AVV1.2	64 186 77 611 735	Diffuser for AVR1-PIR luminaires, opal polycarbonate
AVV1.3	64 186 77 611 742	Diffuser for AVR1-PIR luminaires, opal polycarbonate, UV-stop
AVL130	64 186 77 617 652	Rapid starter AURA
AVL131	64 186 77 617 669	Starter for low ambient temperature

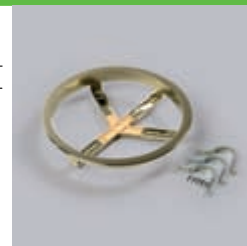
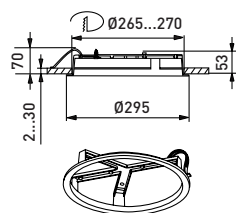
AVR1



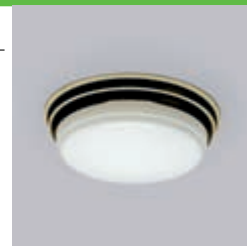
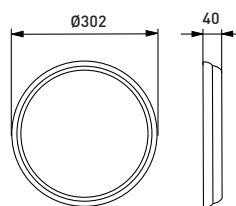
AVR1 PIR



AVL21



AVL28



All-round luminaires

AVR4 IP44 3x2,5mm²

This luminaire is suitable for both indoor and outdoor installation, also in wet areas such as bathrooms and swimming pool areas. Due to the impact resistant material it provides a good solution in areas such as staircases and other public locations. The AVR4 basic luminaire with its half-round diffuser enables also the use of energy saving compact fluorescent lamps as well as incandescent lamps, max. 75W. Also various models with compact fluorescent lamps are available. Alternative styles can be achieved by the use of recess frames and decor rings.

TYPE	CODE	DESCRIPTION
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AVR4 LUMINAIRE FOR E27

AVR4	64 100 41 170 008	1x75W A60/E27 230V
AVR4MP	64 186 77 601 705	6xAVR4 1x75W A60/E27

AVR4 LUMINAIRE WITH MAGNETIC BALLAST

AVR4.09	64 100 41 172 910	2x9W TC/G23 230V 50Hz
AVR4.29	64 100 41 174 235	2x9W TC/G23 230V 50Hz
AVR4.011	64 100 41 172 972	1x11W TC/G23 230V 50Hz
AVR4.111	64 100 41 174 143	1x11W TC/G23 230V 50Hz
AVR4.016	64 100 41 173 009	1x16W TC-DD/GR10q 230V 50Hz
AVR4.116	64 100 41 174 174	1x16W TC-DD/GR10q 230V 50Hz
AVR4.018	64 100 41 173 030	1x18W TC-L/2G11 230V 50Hz
AVR4.118	64 100 41 174 204	1x18W TC-L/2G11 230V 50Hz

AVR4 LUMINAIRE WITH ELECTRONIC CONTROL GEAR

AVR4.09E	64 186 77 604 027	2x9W TC-E/2G7 230/240V 0-50/60Hz
AVR4.29E	64 186 77 604 331	2x9W TC-E/2G7 230/240V 0-50/60Hz
AVR4.29/9E	64 186 77 604 324	9+9W TC-E/2G7 230/240V 0-50/60Hz
AVR4.018E	64 100 41 173 085	1x18W TC-L/2G11 230/240V 0-50/60Hz
AVR4.118E	64 100 41 174 259	1x18W TC-L/2G11 230/240V 0-50/60Hz

AVR4 RADAR SENSOR LUMINAIRE WITH ELECTRONIC CONTROL GEAR

AVR4.299E	64 186 77 620 560	2x9W TC-E/2G7 230/240V 0-50/60Hz
AVR4.29/99E	64 186 77 620 904	9W+9W TC-E/2G7 230/240V 0-50/60Hz

AVR4 POLYCARBONATE RECESSING FRAMES

AVL21	64 100 41 173 696	White
AVL21/G	64 100 41 173 757	Brass

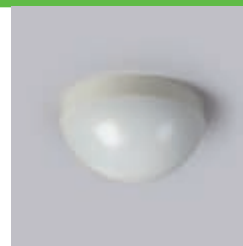
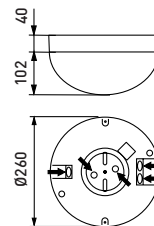
AVR4 POLYCARBONATE DECOR RINGS

AVL28	64 100 41 170 091	White
AVL28/AL	64 100 41 175 324	Aluminium
AVL28/A	64 100 41 170 152	Chrome
AVL28/G	64 100 41 170 121	Brass

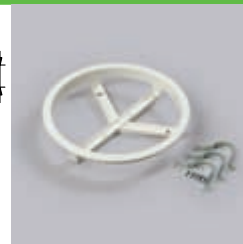
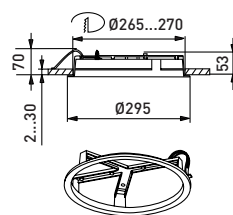
AVR4 ACCESSORIES AND SPARE PARTS

AVV4	64 186 77 611 919	Diffuser for AVR4 luminaires, opal polycarbonate
AVL130	64 186 77 617 652	Rapid starter AURA
AVL131	64 186 77 617 669	Starter for low ambient temperature

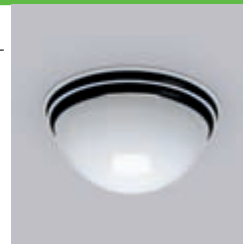
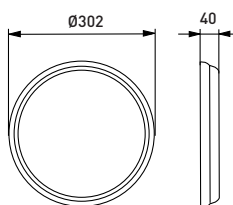
AVR4



AVL21



AVL28



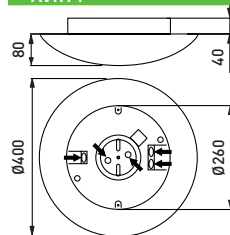
All-round luminaires

AVR14 IP44 3x2,5mm²

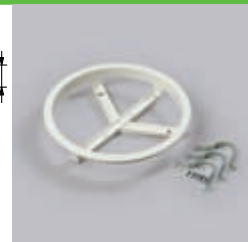
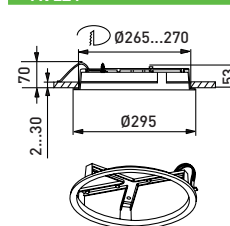
The AVR14 is a composed luminaire for public and residential locations such as corridors, halls, entrances, staircases, terraces and balconies. The luminaire is suitable for use in dry and wet conditions, both indoors and outdoors, and can be ceiling or wall mounted. The light distribution has also an indirect component which gives a smooth indirect light to the ceiling or wall surface. AVR14 is available with 75W incandescent lamp and also with various compact fluorescent lamps.

TYPE	CODE	DESCRIPTION
AVR14 LUMINAIRE FOR E27		
AVR14	64 100 41 170 480	1x75W A60/E27 230V
AVR14 LUMINAIRES WITH MAGNETIC BALLAST		
AVR14.09	64 100 41 170 497	2x9W TC/G23 230V 50Hz
AVR14.29	64 100 41 175 027	2x9W TC/G23 230V 50Hz
AVR14.016	64 100 41 171 838	1x16W TC-DD/GR10q 230V 50Hz
AVR14.116	64 100 41 175 164	1x16W TC-DD/GR10q 230V 50Hz
AVR14.018	64 100 41 171 869	1x18W TC-L/2G11 230V 50Hz
AVR14.118	64 100 41 175 188	1x18W TC-L/2G11 230V 50Hz
AVR14.028	64 100 41 171 890	1x28W TC-DD/GR10q 230V 50Hz
AVR14.128	64 100 41 175 287	1x28W TC-DD/GR10q 230V 50Hz
AVR14 LUMINAIRES WITH ELECTRONIC CONTROL GEAR		
AVR14.09E	64 186 77 604 041	2x9W TC-E/2G7 230/240V 0-50/60Hz
AVR14.29E	64 186 77 604 355	2x9W TC-E/2G7 230/240V 0-50/60Hz
AVR14.29/9E	64 186 77 604 348	9+9W TC-E/2G7 230/240V 0-50/60Hz
AVR14.018E	64 100 41 171 944	1x18W TC-L/2G11 230/240V 0-50/60Hz
AVR14.118E	64 100 41 176 185	1x18W TC-L/2G11 230/240V 0-50/60Hz
AVR14 RADAR SENSOR LUMINAIRES WITH ELECTRONIC CONTROL GEAR		
AVR14.299E	64 186 77 620 577	2x9W TC-E/2G7 230/240V 0-50/60Hz
AVR14 POLYCARBONATE RECESSING FRAMES		
AVL21	64 100 41 173 696	White
AVL21/G	64 100 41 173 757	Brass
AVR14 POLYCARBONATE DECOR RINGS		
AVL28	64 100 41 170 091	White
AVL28/A	64 100 41 170 152	Chrome
AVL28/AL	64 100 41 175 324	Aluminium
AVL28/G	64 100 41 170 121	Brass
AVR14 ACCESSORIES AND SPARE PARTS		
AVV14	64 186 77 611 780	Diffuser for AVR14 luminaires
AVL130	64 186 77 617 652	Rapid starter AURA
AVL131	64 186 77 617 669	Starter for low ambient temperature

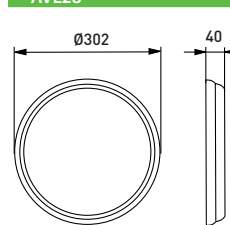
AVR14



AVL21



AVL28

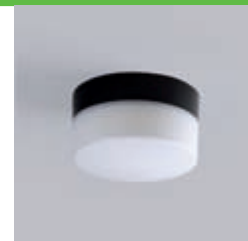
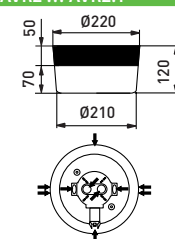


AVR2 and AVR2.1 IP44 3x2,5mm²

Impact all-round luminaire of polycarbonate for all kind of uses indoors and outdoors. Light source max 75W incandescent lamp.

TYPE	CODE	DESCRIPTION
AVR2	64 100 41 175 409	1x75W A60/E27 230V, black/opal
AVR2.1	64 186 77 601 484	1x75W A60/E27 230V, white/opal
AVR2/2.1 SPARE PARTS		
AVV2	64 186 77 611 834	Diffuser for AVR2/2.1 luminaires, opal polycarbonate

AVR2 ... AVR2.1

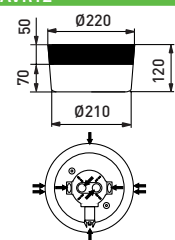


AVR12 IP44 3x2,5mm²

AVR12 is a timeless and hard-wearing luminaire made of impact resistant polycarbonate with prismatic clear diffuser and white base. It suits both dry and wet locations, indoors as well as outdoors. This luminaire is used in basements, attics etc. Light source max 75W incandescent lamp.

TYPE	CODE	DESCRIPTION
AVR12	64 100 41 170 510	1x75W A60/E27 230V, white/clear
AVR12 SPARE PARTS		
AVV12	64 186 77 611 773	Diffuser for AVR12 luminaires, clear polycarbonate

AVR12



All-round luminaires

AVR16 IP44 5x2,5mm²

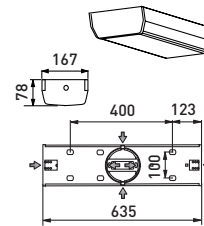
Luminaire with opal splash-proof diffuser. This luminaire is ideal for environments where impact resistance and corrosion resistance is an important consideration. Housing and diffuser made of polycarbonate.

TYPE	CODE	DESCRIPTION
AVR16.0	64 100 41 172 286	2x18W T8/G13 230V 50Hz

AVR16 SPARE PARTS

AVV16	64 186 77 615 542	Diffuser for AVR16.0 luminaire, opal polycarbonate
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AVR16.0

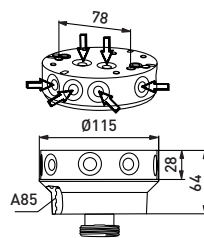


AVR6 IP44

Luminaire se basent avec des boites de raccordement pour l'humidité et des conditions sèches. Peut être utilisé avec tous les diffuseurs avec l'attache standard A85. Approprié pour Max 60W lampes incandescentes.

TYPE	CODE	DESCRIPTION
AVR6	64 100 41 170 398	1x60W A60/E27 230V
AVR6MP	64 186 77 615 528	6pcs AVR6 1x60W A60/E27
AVRN6	64 186 77 603 549	1x60W A60/E27 230V

AVR6



AVR20.1 IP44

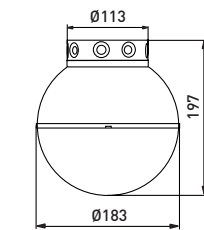
Globe luminaire with junction box for surface mounting. The junction box has ten fixed membranes around the sides and two on the bottom. Light source 60W incandescent lamp.

TYPE	CODE	DESCRIPTION
AVR20.1	64 100 41 170 428	1x60W A60/E27 230V
AVR20.11	64 186 77 619 373	1x60W A60/E27 230V
AVRN20.1	64 186 77 603 532	1x60W A60/E27 230V

AVR20/20.1 SPARE PARTS

AVV20	64 186 77 611 841	Diffuser for AVR20/20.1 luminaires, opal polycarbonate
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AVR20.1



AVK38 IP20

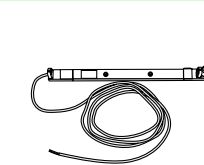
Small luminaire housing without control gear for T8 (Ø 26mm) fluorescent lamps for different kind of furniture manufacturers. Housing is white painted aluminium 32x15 mm and end caps of white polycarbonate. Luminaires include cord and switch. Delivered only on full pallets of 100 pcs on pallet. Luminaires are not individually packed.

TYPE	CODE	DESCRIPTION
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INCLUDING SWITCH AND 5M WHITE CABLE 3X0,75MM²

AVK38.15	64 186 77 602 351	JONOLUX 1x15W T8/G13, 3x0,75mm ² /5m, 488mm
AVK38.18	64 186 77 602 368	JONOLUX 1x18W T8/G13, 3x0,75mm ² /5m, 640mm
AVK38.30	64 186 77 602 399	JONOLUX 1x30W T8/G13, 3x0,75mm ² /5m, 945mm
AVK38.36	64 186 77 602 412	JONOLUX 1x36W T8/G13, 3x0,75mm ² /5m, 1250mm
AVK38.58	64 186 77 602 436	JONOLUX 1x58W T8/G13, 3x0,75mm ² /5m, 1550mm

AVK38



Workpoint luminaires

AVR17.1100 IP44 4x2,5mm²

Small workpoint luminaires of polycarbonate for 11W compact fluorescent lamp. The luminaires can be adapted to allow both right and left handed use by turning the covers of the socket outlets.

TYPE	CODE	DESCRIPTION
AVR17.0100	64 100 41 172 262	1x11W TC/G23 230V 50Hz, 290mm
AVR17.1100	64 100 41 172 828	1x11W TC/G23 230V 50Hz, 290mm

EQUIPPED WITH SWITCH

AVR17.0110	64 100 41 172 279	1x11W TC/G23 230V 50Hz, 298mm
AVR17.1110	64 100 41 172 859	1x11W TC/G23 230V 50Hz, 298mm

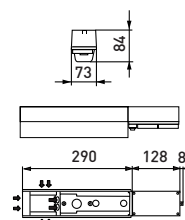
EQUIPPED WITH SWITCH AND SOCKET OUTLETS. NOTE! CLASS I LUMINAIRE

AVR17.0120	64 100 41 172 293	1x11W TC/G23 230V 50Hz, 426mm
AVR17.1120	64 100 41 172 880	1x11W TC/G23 230V 50Hz, 426mm

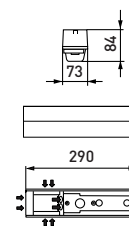
AVR17.1100/-10/-20 SPARE PARTS

AVV17.100	64 186 77 611 827	Diffuser for AVR17/11W luminaires, opal polycarbonate
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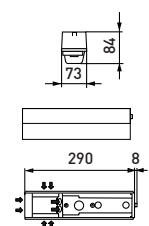
AVR17.1120



AVR17.1100



AVR17.1110



AVR17 IP44 4x2,5mm²

This luminaire series is suitable for kitchens, bathrooms and other spaces where the installation area is narrow. The luminaires can be adapted to allow both right and left handed use by turning the covers of the socket outlets.

TYPE	CODE	DESCRIPTION
AVR17.0	64 100 41 172 194	1x18W T8/G13 230V 50Hz, 635mm

EQUIPPED WITH SWITCH

AVR17.10	64 100 41 172 224	1x18W T8/G13 230V 50Hz, 643mm
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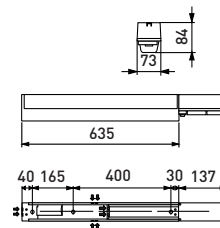
EQUIPPED WITH SWITCH AND SOCKET OUTLETS

AVR17.20	64 100 41 172 255	1x18W T8/G13 230V 50Hz, 772mm
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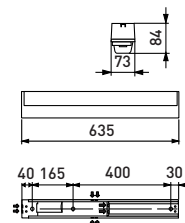
AVR17 SPARE PARTS

AVV17.0	64 186 77 611 810	Diffuser for AVR17/18W luminaires, opal polycarbonate
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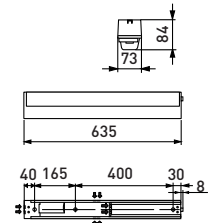
AVR17.20



AVR17.0



AVR17.10



AVR22 IP21 5x2,5mm²

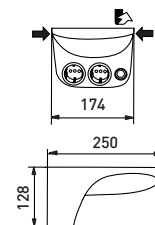
This small luminaire has high quality opaque frame, acrylic diffuser and metal wall fitting. Thanks to its curved design the acrylic diffuser disperses the light evenly over the working place. Two forward pointing socket outlets and switch are easy to use.

TYPE	CODE	DESCRIPTION
AVR22.09	64 186 77 601 477	2x9W TC/G23 230V 50Hz
AVR22.29	64 186 77 601 101	2x9W TC/G23 230V 50Hz

AVR22 SPARE PARTS

AVV22	64 186 77 611 865	Diffuser for AVR22 luminaires, opal acryl
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AVR22



Sauna luminaires

AVH11 sauna luminaire 2x1,5mm²



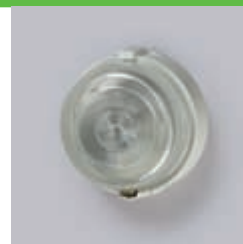
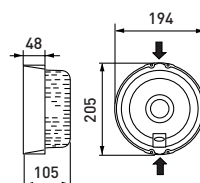




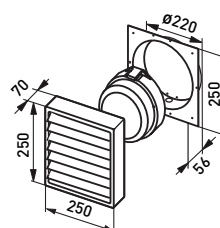

These luminaires are designed especially for saunas, but can also be used in locations where a durable basic luminaire is required. There are models for both surface and flush mountings. The base of the luminaire is of heat resistant polyester and the diffuser of glass. Luminaires are only for wall installation, minimum distance in saunas is 100 mm from the ceiling. For incandescent lamp 40/60W/E27. (Note the local installations instructions for sauna installations). Models with pine grill also available : AVH11.1 for recessed mounting and AVH11.2 for surface mounting.

TYPE	CODE	DESCRIPTION
SAUNA LUMINAIRE		
AVH11	64 100 41 171 388	1x60W A60/E27 IP44, ta125 °C
SAUNA LUMINAIRE WITH PINE GRILL FOR RECESSED WALL MOUNTING		
AVH11.1	64 100 41 171 418	1x60W A60/E27 IP44, ta25 °C
SAUNA LUMINAIRE WITH PINE GRILL FOR WALL MOUNTING		
AVH11.2	64 100 41 171 449	1x40/60W A60/E27 IP44, ta125 °C
AVH11 ACCESSORIES AND SPARE PARTS		
AUE2	64 100 41 171 531	Recessing box for AVH11 luminaire
AK8	64 100 41 171 500	Pine grill for recessed mounted AVH11
AK9	64 100 41 171 470	Pine grill for surface mounted AVH11
AVW11	64 186 77 611 759	Glass diffuser for AVH11

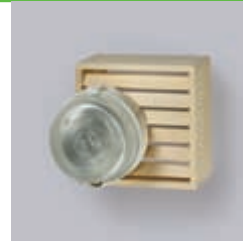
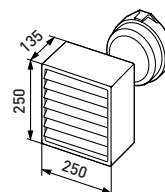
AVH11



AVH11.1



AVH11.2



AVH15 sauna luminaire 2x1,5mm²



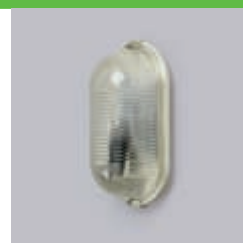
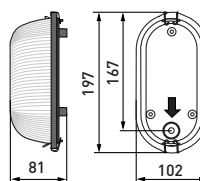




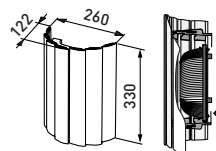

These luminaires are designed especially for saunas, but can also be used in locations where a durable basic luminaire is required. There are models for both surface and corner mountings. The base of the luminaire is of heat resistant technical plastic and the diffuser of glass. Luminaires are only for wall installation, minimum distance in saunas is 100 mm from the ceiling. For incandescent lamp 40/60W/E14. (Note the local installations instructions for sauna installations). Models with pine grill also available : AVH15.1 for wall mounting and AVH15.2 for corner mounting.

TYPE	CODE	DESCRIPTION
SAUNA LUMINAIRE		
AVH15	64 186 77 601 125	1x40/60W C35/E14 IP44, ta 125 °C
SAUNA LUMINAIRE WITH PINE GRILL FOR WALL MOUNTING		
AVH15.1	64 186 77 601 132	1x40/60W C35/E14 IP44, ta125 °C
SAUNA LUMINAIRE WITH ASPEN GRILL FOR WALL MOUNTING		
AVH15.10	64 186 77 620 911	1x40/60W C35/E14 IP44, ta125 °C
SAUNA LUMINAIRE WITH PINE GRILL FOR CORNER MOUNTING		
AVH15.2	64 186 77 601 149	1x40/60W C35/E14 IP44, ta125 °C
SAUNA LUMINAIRE WITH ASPEN GRILL FOR CORNER MOUNTING		
AVH15.20	64 186 77 620 928	1x40/60W C35/E14 IP44, ta125 °C
AVH15 ACCESSORIES AND SPARE PARTS		
AVL6	64 186 77 601 156	Pine grill for AVH15 luminaire, wall mounting
AVL6.1	64 186 77 619 472	Aspen grill for AVH15 luminaire, wall mounting
AVL7	64 186 77 601 163	Pine grill for AVH15, corner mounting
AVL7.1	64 186 77 619 489	Aspen grill for AVH15, corner mounting
AVW15	64 186 77 611 797	Glass diffuser for AVH15

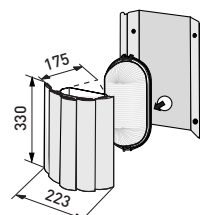
AVH15



AVH15.1



AVH15.2



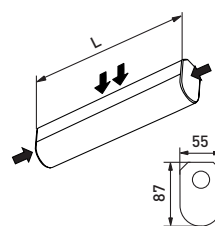
Jono luminaires

Basic Jono IP44 5x2,5mm²

Jono luminaires for TC11W and T8 (26mm) fluorescent lamps both for indoor and outdoor use. Luminaires can be used as a single unit or built into an integrated system. The base is of non-corrosive white painted (RAL9010)aluminium. Diffuser is opal polycarbonate.

TYPE	CODE	DESCRIPTION
JONO TC 11W AND T8 (Ø 26MM)		
AVR66.011	64 100 42 170 601	1x11W TC/G23 230V 50Hz, 335mm
AVR66.111	64 100 42 176 023	1x11W TC/G23 230V 50Hz, 335mm
AVR66.015	64 100 42 170 632	1x15W T8/G13 230V 50Hz, 479mm
AVR66.018	64 100 42 170 663	1x18W T8/G13 230V 50Hz, 631mm
AVR66.030	64 100 42 170 694	1x30W T8/G13 230V 50Hz, 936mm
AVR66.036	64 100 42 170 724	1x36W T8/G13 230V 50Hz, 1241mm
AVR66.058	64 100 42 170 755	1x58W T8/G13 230V 50Hz, 1541mm
JONO T8 (Ø 26MM) ELECTRONIC CONTROL GEAR		
AVR66.015E	64 186 77 614 507	1x15W T8/G13 220/240V 0-50/60Hz, 479 mm
AVR66.018E	64 100 42 170 991	1x18W T8/G13 220/240V 0-50/60Hz, 631mm
AVR66.030E	64 186 77 601 033	1x30W T8/G13 220/240V 0-50/60Hz, 936mm
AVR66.036E	64 100 42 171 028	1x36W T8/G13 220/240V 0-50/60Hz, 1241 mm
AVR66.058E	64 100 42 171 059	1x58W T8/G13 220/240V 0-50/60Hz, 1541 mm
JONO T8 (Ø 26MM) WITH 1-10V CONTROLLED ELECTRONIC CONTROL GEAR		
AVR66.018D	64 186 77 601 378	1x18W T8/G13 220/240V 0-50/60Hz, 631mm
AVR66.036D	64 100 42 171 202	1x36W T8/G13 220/240V 0-50/60Hz, 1241 mm
AVR66.058D	64 100 42 171 233	1x58W T8/G13 220/240V 0-50/60Hz, 1541 mm
JONO T8 (Ø 26MM) EMERGENCY LUMINAIRES WITH ELECTRONIC CONTROL GEAR		
AVR66.036E/3M	64 186 77 618 123	AVR66/3M IP44 1xT8 36W E PC O, 1541 mm
AVR66.058E/3M	64 186 77 618 130	AVR66/3M IP44 1xT8 58W E PC O, 1841 mm

BASIC JONO

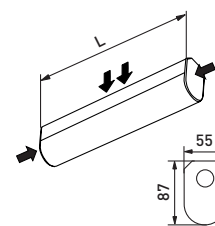


T5-Jono IP44 5x2,5mm²

Jono luminaires for T5(16mm) fluorescent lamps both for indoor and outdoor use. Luminaires can be used as a single unit or built into an integrated system. The base is of non-corrosive white painted (RAL9010)aluminium. Diffuser is opal polycarbonate.

TYPE	CODE	DESCRIPTION
JONO T5 (Ø 16MM) ELECTRONIC CONTROL GEAR		
AVR66.014E	64 186 77 600 050	1x14W T5/G5 220/240V 0-50/60Hz, 600mm
AVR66.021E	64 186 77 600 067	1x21W T5/G5 220/240V 0-50/60Hz, 900mm
AVR66.028E	64 186 77 600 074	1x28W T5/G5 220/240V 0-50/60Hz, 1200mm
AVR66.035E	64 186 77 600 081	1x35W T5/G5 220/240V 0-50/60Hz, 1500mm
JONO T5 (Ø 16MM) EMERGENCY LUMINAIRES WITH ELECTRONIC CONTROL GEAR		
AVR66.021E/3M	64 186 77 618 147	AVR66/3M IP44 1xT5 21W E PC O, 1200 mm
AVR66.028E/3M	64 186 77 618 154	AVR66/3M IP44 1xT5 28W E PC O, 1500 mm
AVR66.035E/3M	64 186 77 618 161	AVR66/3M IP44 1xT5 35W E PC O, 1800 mm
JONO T5 (Ø 16MM) FOR HIGH OUTPUT LIGHT SOURCE WITH ELECTRONIC CONTROL GEAR		
AVR66.024E	64 186 77 601 552	1x24W T5/G5 220/240V 0-50/60Hz, 600mm
AVR66.039E	64 186 77 601 569	1x39W T5/G5 220/240V 0-50/60Hz, 900mm
AVR66.049E	64 186 77 601 736	1x49W T5/G5 220/240V 0-50/60Hz, 1500mm
AVR66.054E	64 186 77 601 576	1x54W T5/G5 220/240V 0-50/60Hz, 1200mm
JONO T5 (Ø 16MM) WITH 1-10V CONTROLLED ELECTRONIC CONTROL GEAR		
AVR66.014D	64 186 77 617 614	1x14W T5/G5 220/240V 0-50/60Hz, 600mm
AVR66.021D	64 186 77 617 621	1x21W T5/G5 220/240V 0-50/60Hz, 900mm
AVR66.028D	64 186 77 617 638	1x28W T5/G5 220/240V 0-50/60Hz, 1200mm
AVR66.035D	64 186 77 617 645	1x35W T5/G5 220/240V 0-50/60Hz, 1500mm
JONO T5 (Ø 16MM) DSI/DALI CONTROLLED ELECTRONIC CONTROL GEAR		
AVR66.014DB	64 186 77 615 405	1x14W T5/G5 220/240V 0-50/60Hz, 600mm
AVR66.021DB	64 186 77 615 412	1x21W T5/G5 220/240V 0-50/60Hz, 900mm
AVR66.028DB	64 186 77 615 221	1x28W T5/G5 220/240V 0-50/60Hz, 1200mm
AVR66.035DB	64 186 77 615 481	1x35W T5/G5 220/240V 0-50/60Hz, 1500mm

T5 JONO



Jono luminaires

Fast Jono with EnstoNet






 IP20

Jono luminaires with EnstoNet connectors. Luminaires are supplied with a pair of fixings clips for easy and fast installation without opening the luminaire. Luminaires are delivered with light sources colour 830. All the luminaires are for 1-phase supply.

TYPE	CODE	DESCRIPTION
FAST JONO FOR 1-PHASE POWER SUPPLY INCLUDING STANDARD T5 (COLOUR 830) LIGHT SOURCE, EQUIPPED WITH 3-POLE ENSTONET NAC31.W AND NAC32.W		
AVC66.114E	64 186 77 615 740	1x14W T5/G5 220/240V 0-50/60Hz, 680mm
AVC66.121E	64 186 77 615 771	1x21W T5/G5 220/240V 0-50/60Hz, 980mm
AVC66.128E	64 186 77 615 818	1x28W T5/G5 220/240V 0-50/60Hz, 1280mm
AVC66.135E	64 186 77 615 849	1x35W T5/G5 220/240V 0-50/60Hz, 1580mm
FAST JONO FOR 1-PHASE POWER SUPPLY INCLUDING HIGH OUTPUT T5 (COLOUR 830) LIGHT SOURCE, EQUIPPED WITH 3-POLE ENSTONET NAC31.W AND NAC32.W		
AVC66.124E	64 186 77 615 788	1x24W T5/G5 220/240V 0-50/60Hz, 680mm
AVC66.139E	64 186 77 615 856	1x39W T5/G5 220/240V 0-50/60Hz, 980mm
AVC66.154E	64 186 77 615 870	1x54W T5/G5 220/240V 0-50/60Hz, 1280mm
AVC66.149E	64 186 77 615 863	1x49W T5/G5 220/240V 0-50/60Hz, 1580mm
FAST JONO WITH 1-10V CONTROLLED ELECTRONIC CONTROL GEAR FOR 1-PHASE POWER SUPPLY INCLUDING STANDARD T5 (COLOUR 830) LIGHT SOURCE. EQUIPPED WITH 5-POLE ENSTONET NCC51.G AND NCC52.G		
AVC66.114D	64 186 77 615 733	1x14W T5/G5 220/240V 0-50/60Hz, 680mm
AVC66.121D	64 186 77 615 757	1x21W T5/G5 220/240V 0-50/60Hz, 980mm
AVC66.128D	64 186 77 615 795	1x28W T5/G5 220/240V 0-50/60Hz, 1280mm
AVC66.135D	64 186 77 615 825	1x35W T5/G5 220/240V 0-50/60Hz, 1580mm
FAST JONO WITH DALI/DSI CONTROLLED ELECTRONIC CONTROL GEAR FOR 1-PHASE POWER SUPPLY INCLUDING STANDARD T5 (COLOUR 830) LIGHT SOURCE. EQUIPPED WITH 5-POLE ENSTONET NCC51.G AND NCC52.G		
AVC66.114DB	64 186 77 615 726	1x14W T5/G5 220/240V 0-50/60Hz, 680mm
AVC66.121DB	64 186 77 615 764	1x21W T5/G5 220/240V 0-50/60Hz, 980mm
AVC66.128DB	64 186 77 615 801	1x28W T5/G5 220/240V 0-50/60Hz, 1280mm
AVC66.135DB	64 186 77 615 832	1x35W T5/G5 220/240V 0-50/60Hz, 1580mm

Jono PIR



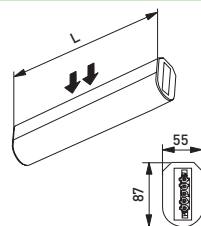



 IP44 5x2,5mm²

Jono PIR-luminaires build a flexible and energy saving system in bathrooms, toilets, garages etc. Luminaire housing is made of whitepainted (RAL9010), extruded aluminium and the diffuser is impact resistant polycarbonate. Stylish design and good lighttechnical result makes Jono-PIR an excellent luminaire for the most demanding solutions.

TYPE	CODE	DESCRIPTION
JONO PIR SENSOR LUMINAIRES TC 11W AND T8 (Ø 26MM) WITH ELECTRONIC STARTER		
AVR66.0114H	64 100 42 172 858	1x11W TC-E/2G7 230V 50Hz, 425mm
AVR66.1114H	64 100 42 172 032	1x11W TC-E/2G7 230V 50Hz, 425mm
AVR66.0154H	64 100 42 172 889	1x15W T8/G13 230V 50Hz, 536mm
AVR66.0184H	64 100 42 172 919	1x18W T8/G13 230V 50Hz, 688mm
AVR66.0364H	64 100 42 172 971	1x36W T8/G13 230V 50Hz, 1298mm
AVR66.0584H	64 100 42 173 008	1x58W T8/G13 230V 50Hz, 1598mm
JONO PIR SENSOR LUMINAIRE T8 (Ø 26MM) WITH ELECTRONIC CONTROL GEAR		
AVR66.0184E	64 186 77 616 303	1x18W T8/G13 220/240V 0-50/60Hz, 688mm
AVR66.0364E	64 186 77 616 310	1x36W T8/G13 220/240V 0-50/60Hz, 1298mm
AVR66.0584E	64 186 77 616 327	1x58W T8/G13 220/240V 0-50/60Hz, 1598mm
JONO PIR SENSOR LUMINAIRE TC 11W AND T8 (Ø 26MM) WITH SOCKET OUTLET AND ELECTRONIC STARTER		
AVR66.1114HP	64 100 42 176 146	1x11W TC-E/2G7 230V 50Hz, 500mm
AVR66.0154HP	64 100 42 173 060	1x15W T8/G13 230V 50Hz, 613mm
AVR66.0184HP	64 100 42 173 091	1x18W T8/G13 230V 50Hz, 764mm
JONO PIR SENSOR LUMINAIRE WITH 1-10V DIMMABLE ELECTRONIC CONTROL GEAR. BASIC LIGHT LEVEL 5% AND PIR CONTROLLED LIGHT LEVEL 100%		
AVR66.0186D	64 186 77 601 194	1x18W T8/G13 220/240V 0-50/60Hz, 688mm
AVR66.0366D	64 186 77 601 200	1x36W T8/G13 220/240V 0-50/60Hz, 1298mm
AVR66.0586D	64 186 77 601 217	1x58W T8/G13 220/240V 0-50/60Hz, 1598mm
AVR66.0216D	64 186 77 620 935	1x21W T5/G5 220/240V 0-50/60Hz, 957mm
AVR66.0286D	64 186 77 620 942	1x28W T5/G5 220/240V 0-50/60Hz, 1257mm
AVR66.0356D	64 186 77 620 959	1x35W T5/G5 220/240V 0-50/60Hz, 1557mm
JONO PIR SENSOR LUMINAIRE T5 (Ø 16MM) WITH ELECTRONIC CONTROL GEAR		
AVR66.0144E	64 186 77 616 167	1x14W T5/G5 220/240V 0-50/60Hz, 657mm
AVR66.0214E	64 186 77 616 181	1x21W T5/G5 220/240V 0-50/60Hz, 957mm
AVR66.0284E	64 186 77 600 913	1x28W T5/G5 220/240V 0-50/60Hz, 1257mm
AVR66.0354E	64 186 77 600 920	1x35W T5/G5 220/240V 0-50/60Hz, 1557mm
JONO PIR SENSOR LUMINAIRE T5 (Ø 16MM) WITH SOCKET OUTLET AND ELECTRONIC CONTROL GEAR		
AVR66.0144EP	64 186 77 616 174	1x14W T5/G5 220/240V 0-50/60Hz, 734mm

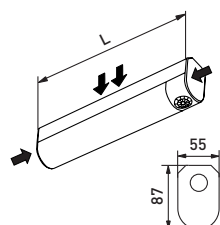
FAST JONO



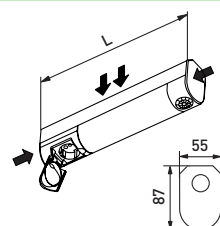
CONNECTORS



JONO PIR



JONO PIR WITH SOCKET OUTLET



Jono luminaires

Jono with switch











Jono luminaires with an integrated push-button switch. The symmetrical design of the luminaire makes it easy to do both right- and left-handed installations only by turning the luminaire.

TYPE	CODE	DESCRIPTION
JONO TC 11W AND T8 (Ø 26MM) WITH SWITCH		
AVR66.0111	64 100 42 171 264	1x11W TC/G23 230V 50Hz, 379mm
AVR66.1111	64 100 42 176 047	1x11W TC/G23 230V 50Hz, 379mm
AVR66.0151	64 100 42 171 295	1x15W T8/G13 230V 50Hz, 523mm
AVR66.0181	64 100 42 171 325	1x18W T8/G13 230V 50Hz, 675mm
AVR66.0301	64 100 42 171 356	1x30W T8/G13 230V 50Hz, 980mm
AVR66.0361	64 100 42 171 387	1x36W T8/G13 230V 50Hz, 1285mm
AVR66.0581	64 100 42 171 417	1x58W T8/G13 230V 50Hz, 1585mm
JONO T5 (Ø 16MM) AND T8 (Ø 26MM) WITH SWITCH AND ELECTRONIC CONTROL GEAR		
AVR66.0141E	64 186 77 615 214	1x14W T5/G5 220/240V 0-50/60Hz, 644mm
AVR66.0281E	64 381 00 600 846	1x28W T5/G5 220/240V 0-50/60Hz, 1244mm
AVR66.0181E	64 186 77 602 849	1x18W T8/G13 220/240V 0-50/60Hz, 675mm
AVR66.0361E	64 186 77 602 894	1x36W T8/G13 220/240V 0-50/60Hz, 1285mm
AVR66.0581E	64 186 77 610 325	1x58W T8/G13 220/240V 0-50/60Hz, 1585mm

Jono with socket outlet

5x2,5mm²





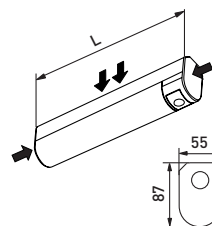




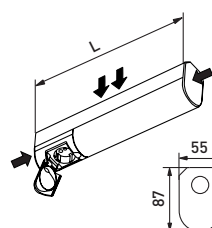

Jono luminaires with a integrated socket outlet. The symmetrical design of the luminaire makes it easy to do both right- and left-handed installations only by turning the luminaire.

TYPE	CODE	DESCRIPTION
JONO TC 11W AND T8 (Ø 26MM) SOCKET OUTLET		
AVR66.011P	64 100 42 171 622	1x11W TC/G23 230V 50Hz, 412mm
AVR66.111P	64 100 42 172 025	1x11W TC/G23 230V 50Hz, 412mm
AVR66.015P	64 100 42 171 653	1x15W T8/G13 230V 50Hz, 556mm
AVR66.018P	64 100 42 171 684	1x18W T8/G13 230V 50Hz, 708mm
AVR66.030P	64 100 42 171 714	1x30W T8/G13 230V 50Hz, 1013mm
AVR66.036P	64 100 42 171 745	1x36W T8/G13 230V 50Hz, 1318mm
AVR66.058P	64 100 42 171 776	1x58W T8/G13 230V 50Hz, 1618mm
JONO T8 (Ø 26MM) WITH DANISH SOCKET OUTLET		
AVR66.015P/DK	64 186 77 600 326	1x15W T8/G13 230V 50Hz, 556mm
AVR66.018P/DK	64 186 77 600 319	1x18W T8/G13 230V 50Hz, 708mm
AVR66.018EP/DK	64 186 77 602 870	1x18W T8/G13 220/240V 0-50/60Hz, 708mm
JONO T5 (Ø 16MM) WITH FRENCH SOCKET OUTLET		
AVR66.014EP/F	64 186 77 620 232	1x14W T5/G5 220/240V 0-50/60Hz, 677mm
JONO T5 (Ø 16MM) AND T8 (Ø 26MM) WITH SOCKET OUTLET AND ELECTRONIC CONTROL GEAR		
AVR66.014EP	64 186 77 600 937	1x14W T5/G5 220/240V 0-50/60Hz, 677mm
AVR66.028EP	64 186 77 600 951	1x28W T5/G5 220/240V 0-50/60Hz, 1277mm
AVR66.018EP	64 186 77 601 354	1x18W T8/G13 220/240V 0-50/60Hz, 708mm
AVR66.036PE	64 186 77 602 924	1x36W T8/G13 220/240V 0-50/60Hz, 1318mm
AVR66.058PE	64 186 77 610 387	1x58W T8/G13 220/240V 0-50/60Hz, 1618mm
SEPARATE RECIDUAL CURRENT CIRCUIT BREAKER (RCCB) BOX FOR JONO LUMINAIRES		
AVL5	64 186 77 611 544	Encased RCCB 230V 10A/30mA
JONO TC 11W AND T8 (Ø 26MM) WITH SOCKET OUTLET AND RECIDUAL CURRENT CIRCUIT BREAKER (RCCB)		
AVR66.011WP	64 100 42 171 981	1x11W TC/G23 230V 50Hz, 495mm
AVR66.111WP	64 100 42 176 085	1x11W TC/G23 230V 50Hz, 495mm
AVR66.015WP	64 100 42 172 018	1x15W T8/G13 230V 50Hz, 646mm
AVR66.018WP	64 100 42 172 049	1x18W T8/G13 230V 50Hz, 798mm
AVR66.030WP	64 100 42 172 070	1x30W T8/G13 230V 50Hz, 1103mm
AVR66.036WP	64 100 42 172 100	1x36W T8/G13 230V 50Hz, 1408mm
AVR66.058WP	64 100 42 172 131	1x58W T8/G13 230V 50Hz, 1708mm

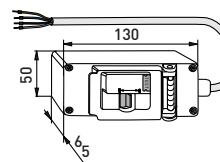
JONO WITH SWITCH



JONO WITH SOCKET OUTLET



AVL5



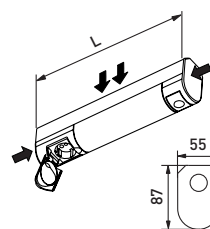
Jono luminaires

Jono with socket outlet and switch IP44 5x2,5mm²

Jono luminaires with an integrated socket outlet and switch for both dry and wet conditions. The symmetrical design of the luminaire makes it easy to do both right- and left-handed installations only by turning the luminaire.

TYPE	CODE	DESCRIPTION
JONO TC 11W AND T8 (Ø 26MM) WITH SWITCH AND SOCKET OUTLET		
AVR66.0111P	64 186 77 601 088	1x11W TC/G23 230V 50Hz, 456mm
AVR66.1111P	64 100 42 172 223	1x11W TC/G23 230V 50Hz, 456mm
AVR66.0151P	64 100 42 172 254	1x15W T8/G13 230V 50Hz, 599mm
AVR66.0181P	64 100 42 172 285	1x18W T8/G13 230V 50Hz, 751mm
AVR66.0301P	64 100 42 172 315	1x30W T8/G13 230V 50Hz, 1056mm
AVR66.0361P	64 100 42 172 346	1x36W T8/G13 230V 50Hz, 1361mm
AVR66.0581P	64 100 42 172 377	1x58W T8/G13 230V 50Hz, 1661mm
JONO WITH SWITCH AND FRENCH SOCKET OUTLET		
AVR66.0111P/F	64 186 77 600 302	1x11W TC/G23 230V 50Hz, 456mm
AVR66.0141EP/F	64 186 77 620 249	1x14W T5/G5 220/240V 0-50/60Hz, 721mm
AVR66.0181P/F	64 186 77 600 296	1x18W T8/G13 230V 50Hz, 751mm
JONO T5 (Ø 16MM) AND T8 (Ø 26MM) WITH SWITCH, SOCKET OUTLET AND ELECTRONIC CONTROL GEAR		
AVR66.0141EP	64 186 77 600 944	1x14W T5/G5 220/240V 0-50/60Hz, 721mm
AVR66.0281EP	64 186 77 600 968	1x28W T5/G5 220/240V 0-50/60Hz, 1321mm
AVR66.0181EP	64 186 77 602 856	1x18W T8/G13 220/240V 0-50/60Hz, 751mm
AVR66.0361PE	64 186 77 602 917	1x36W T8/G13 220/240V 0-50/60Hz, 1361mm

JONO SOCKET OUTLET AND SWITCH

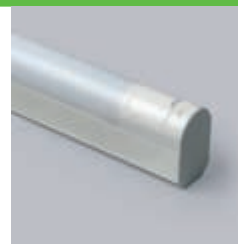
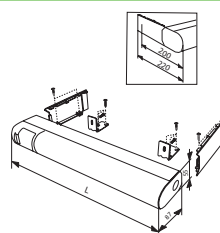


Jono module IP44 5x2,5mm²

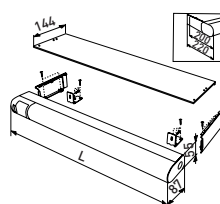
Jono luminaires with the module measurements are suitable luminaire solutions for many kind of furniture installations both in kitchens and in bathrooms.

TYPE	CODE	DESCRIPTION
JONO T8 (Ø 26MM) IN MODULE LENGTH WITH SOCKET OUTLET		
AVR66.0600P	64 100 41 171 920	1x15W T8/G13 230V 50Hz, 600mm
AVR66.0800P	64 100 41 171 951	1x18W T8/G13 230V 50Hz, 800mm
AVR66.0900P	64 100 41 171 982	1x18W T8/G13 230V 50Hz, 900mm
AVR66.01200P	64 100 41 172 019	1x30W T8/G13 230V 50Hz, 1200mm
JONO T8 (Ø 26 MM) IN MODULE LENGTH WITH SOCKET OUTLET, ELECTRONIC STARTER AND LIGHT SOURCE (COLOUR 830)		
AVR66.1600HP	64 186 77 603 020	1x15W T8/G13 230V 50Hz, 600mm
AVR66.1800HP	64 186 77 603 075	1x18W T8/G13 230V 50Hz, 800mm
AVR66.1900HP	64 186 77 603 112	1x18W T8/G13 230V 50Hz, 900mm
AVR66.11200HP	64 186 77 602 955	1x30W T8/G13 230V 50Hz, 1200mm
JONO T8 (Ø 26 MM) MODULE LENGTH WITH SOCKET OUTLET AND RECIDUAL CURRENT CIRCUIT BREAKER (RCCB)		
AVR66.0800WP	64 100 41 172 071	1x18W T8/G13 230V 50Hz, 800mm
AVR66.0900WP	64 100 41 172 101	1x18W T8/G13 230V 50Hz, 900mm
AVR66.01200WP	64 100 41 172 132	1x30W T8/G13 230V 50Hz, 1200mm
JONO TC 2X9W AND T8 (Ø 26 MM) WITH SOCKET OUTLET, RECIDUAL CURRENT CIRCUIT BREAKER (RCCB) AND LIGHT SOURCE (COLOUR 830)		
AVR66.2600WP	64 100 41 172 040	2x9W TC/G23 230V 50Hz, 600mm
AVR66.1900WP	64 186 77 603 136	1x18W T8/G13 230V 50Hz, 900mm
JONO T5 (Ø 16MM) AND T8 (Ø 26MM) MODULE LENGTH WITH SOCKET OUTLET, DUSTCOVERPLATE AND LIGHT SOURCE (COLOUR 830)		
AVR66.1600HPZ	64 186 77 611 643	1x15W T8/G13 230V 50Hz, 600mm
AVR66.1800HPZ	64 186 77 611 650	1x18W T8/G13 230V 50Hz, 800mm
AVR66.1900HPZ	64 186 77 611 667	1x18W T8/G13 230V 50Hz, 900mm
AVR66.11200HPZ	64 186 77 611 674	1x30W T8/G13 230V 50Hz, 1200mm
AVR66.11200EPZ	64 186 77 612 015	1x21W T5/G5 220/240V 0-50/60Hz, 1200mm
DUSTCOVERPLATES FOR MODULE VERSIONS		
AVL619.600	64 186 77 619 380	Dustcoverplate L=594
AVL619.800	64 186 77 619 397	Dustcoverplate L=794
AVL619.900	64 186 77 619 403	Dustcoverplate L=894
AVL619.1200	64 186 77 619 410	Dustcoverplate L=1194

JONO MODULE



JONO MODULE WITH DUSTCOVERPLATE



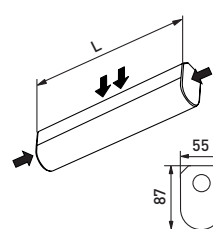
Jono luminaires

Jono, steel IP44 5x2,5mm²

Jono luminaires painted in light steel colour. This colour suits excellently with today's interiors and also with the stainless steel and aluminium coloured household appliances used in kitchens and bathrooms.

TYPE	CODE	DESCRIPTION
JONO T8 (Ø 26MM)		
AVR66.018T	64 186 77 600 425	1x18W T8/G13 230V 50Hz, 631mm
AVR66.030T	64 186 77 619 267	1x30W T8/G13 230V 50Hz, 936mm
AVR66.036T	64 186 77 618 055	1x36W T8/G13 230V 50Hz, 1241mm
AVR66.058T	64 186 77 619 281	1x58W T8/G13 230V 50Hz, 1541mm
JONO T5 (Ø 16MM) AND T8 (Ø 26MM) WITH ELECTRONIC CONTROL GEAR		
AVR66.018ET	64 186 77 614 491	1x18W T8/G13 220/240V 0-50/60Hz, 631mm
AVR66.014ET	64 186 77 618 079	1x14W T5/G5 220/240V 0-50/60Hz, 600mm
AVR66.021ET	64 186 77 619 250	1x21W T5/G5 220/240V 0-50/60Hz, 900mm
AVR66.028ET	64 186 77 618 062	1x28W T5/G5 220/240V 0-50/60Hz, 1200mm
AVR66.035ET	64 186 77 619 274	1x35W T5/G5 220/240V 0-50/60Hz, 1500mm
JONO T8 (Ø 26MM) WITH SWITCH		
AVR66.0181T	64 186 77 600 395	1x18W T8/G13 230V 50Hz, 675mm
JONO T8 (Ø 26MM) WITH SOCKET OUTLET		
AVR66.018PT	64 186 77 600 401	1x18W T8/G13 230V 50Hz, 708mm
JONO T5 (Ø 16MM) AND T8 (Ø 26MM) WITH SWITCH AND SOCKET OUTLET		
AVR66.0141EPT	64 186 77 610 165	1x14W T5/G5 220/240V 0-50/60Hz, 721mm
AVR66.0181PT	64 186 77 600 418	1x18W T8/G13 230V 50Hz, 751mm

JONO, STEEL



Basic Jono with square diffuser IP44 5x2,5mm²

Basic Jono-luminaire with energy efficient HF-gear and stylish square diffuser. Light source T8 or T5 fluorescent lamp (lamp not included). For indoor and outdoor use, degree of protection IP44. Body extruded aluminium, diffuser clear prismatic polycarbonate with uniform and wide light distribution. T5 basic types also with opal diffuser. As a spare part clear and opal diffuser. Body white RAL9010 or aluminium RAL9006.

TYPE	CODE	DESCRIPTION
JONO T8 (Ø 26MM) ELECTRONIC CONTROL GEAR		
AVR67.018E	64 186 77 619 595	1x18W T8/G13 220/240V 0-50/60Hz, 631mm
AVR67.036E	64 186 77 619 601	1x36W T8/G13 220/240V 0-50/60Hz, 1241mm
AVR67.058E	64 186 77 619 618	1x58W T8/G13 220/240V 0-50/60Hz, 1541mm
JONO T5 (Ø 16MM) ELECTRONIC CONTROL GEAR		
AVR67.014E	64 186 77 619 625	1x14W T5/G5 220/240V 0-50/60Hz, 600mm
AVR67.021E	64 186 77 619 632	1x21W T5/G5 220/240V 0-50/60Hz, 900mm
AVR67.024E	64 186 77 619 663	1x24W T5/G5 220/240V 0-50/60Hz, 600mm
AVR67.028E	64 186 77 619 649	1x28W T5/G5 220/240V 0-50/60Hz, 1200mm
AVR67.035E	64 186 77 619 656	1x35W T5/G5 220/240V 0-50/60Hz, 1500mm
AVR67.039E	64 186 77 619 670	1x39W T5/G5 220/240V 0-50/60Hz, 900mm
AVR67.049E	64 186 77 619 687	1x49W T5/G5 220/240V 0-50/60Hz, 1500mm
AVR67.054E	64 186 77 619 694	1x54W T5/G5 220/240V 0-50/60Hz, 1200mm
JONO T5 (Ø 16 MM) ELECTRONIC CONTROL GEAR WITH OPAL DIFFUSER		
AVR67.014EO	64 186 77 620 331	1x14W T5/G5 220/240V 0-50/60Hz, 600mm
AVR67.021EO	64 186 77 620 348	1x21W T5/G5 220/240V 0-50/60Hz, 900mm
AVR67.028EO	64 186 77 620 355	1x28W T5/G5 220/240V 0-50/60Hz, 1200mm
AVR67.035EO	64 186 77 620 362	1x35W T5/G5 220/240V 0-50/60Hz, 1500mm
JONO T5 (Ø 16MM) WITH 1-10V CONTROLLED ELECTRONIC CONTROL GEAR		
AVR67.014D	64 186 77 619 700	1x14W T5/G5 220/240V 0-50/60Hz, 600mm
AVR67.021D	64 186 77 619 717	1x21W T5/G5 220/240V 0-50/60Hz, 900mm
AVR67.028D	64 186 77 619 724	1x28W T5/G5 220/240V 0-50/60Hz, 1200mm
AVR67.035D	64 186 77 619 731	1x35W T5/G5 220/240V 0-50/60Hz, 1500mm
JONO T5 (Ø 16MM) DSI/DALI CONTROLLED ELECTRONIC CONTROL GEAR		
AVR67.014DB	64 186 77 619 748	1x14W T5/G5 220/240V 0-50/60Hz, 600mm
AVR67.021DB	64 186 77 619 755	1x21W T5/G5 220/240V 0-50/60Hz, 900mm
AVR67.028DB	64 186 77 619 762	1x28W T5/G5 220/240V 0-50/60Hz, 1200mm
AVR67.035DB	64 186 77 619 779	1x35W T5/G5 220/240V 0-50/60Hz, 1500mm
JONO ALUMINIUM T5 (Ø 16MM) AND T8 (Ø 26MM) WITH ELECTRONIC CONTROL GEAR		
AVR67.014EAL	64 186 77 619 816	1x14W T5/G5 220/240V 0-50/60Hz, 600mm
AVR67.021EAL	64 186 77 619 823	1x21W T5/G5 220/240V 0-50/60Hz, 900mm
AVR67.028EAL	64 186 77 619 830	1x28W T5/G5 220/240V 0-50/60Hz, 1200mm
AVR67.035EAL	64 186 77 619 847	1x35W T5/G5 220/240V 0-50/60Hz, 1500mm
AVR67.018EAL	64 186 77 619 786	1x18W T8/G13 220/240V 0-50/60Hz, 631mm
AVR67.036EAL	64 186 77 619 793	1x36W T8/G13 220/240V 0-50/60Hz, 1241mm
AVR67.058EAL	64 186 77 619 809	1x58W T8/G13 220/240V 0-50/60Hz, 1541mm

BASIC JONO WITH SQUARE DIFFUSER



Jono luminaires

Jono Radar with square diffuser IP44 5x2,5mm²

Jono radar luminaires is a new alternative to build up energy efficient, movement detector controlled lighting. Clear rectangular diffuser with longitudinal prism and with bigger LOR, spread out light in large area, and movement detector based on radar technique switch on the light when and where you need it. Body white, RAL 9010, or aluminium, RAL9006, painted aluminium profile. Diffuser clear polycarbonate, end caps also PC, painted to same colour as body. Radar motion detector covered by diffuser. HF-control gear for T5 lamps.

TYPE	CODE	DESCRIPTION
RADAR-JONO T8 (Ø 26MM) WITH ELECTRONIC CONTROL GEAR		
AVR67.0189E	64 186 77 620 874	1x14W T5/G5 220/240V 0-50/60Hz, 688mm
AVR67.0369E	64 186 77 620 881	1x35W T5/G5 220/240V 0-50/60Hz, 1298mm
AVR67.0589E	64 186 77 620 898	1x58W T8/G13 220/240V 0-50/60Hz, 1598mm
RADAR-JONO T5 (Ø 16MM) WITH ELECTRONIC CONTROL GEAR		
AVR67.0149E	64 186 77 620 584	1x14W T5/G5 220/240V 0-50/60Hz, 657mm
AVR67.0219E	64 186 77 620 591	1x21W T5/G5 220/240V 0-50/60Hz, 957mm
AVR67.0289E	64 186 77 620 607	1x28W T5/G5 220/240V 0-50/60Hz, 1257mm
AVR67.0359E	64 186 77 620 614	1x35W T5/G5 220/240V 0-50/60Hz, 1557mm
RADAR-JONO ALUMINIUM T5 (Ø 16MM) WITH ELECTRONIC CONTROL GEAR		
AVR67.0149EAL	64 186 77 620 621	1x14W T5/G5 220/240V 0-50/60Hz, 657mm
AVR67.0219EAL	64 186 77 620 638	1x21W T5/G5 220/240V 0-50/60Hz, 957mm
AVR67.0289EAL	64 186 77 620 645	1x28W T5/G5 220/240V 0-50/60Hz, 1257mm
AVR67.0359EAL	64 186 77 620 652	1x35W T5/G5 220/240V 0-50/60Hz, 1557mm

JONO RADAR WITH SQUARE DIFFUSER



Jono luminaires

Jono accessories and spare parts

TYPE	CODE	DESCRIPTION
PERFORATED, WHITE SHIELD. CAN BE USED ONLY WITH BASIC JONO'S		
AVL660	64 100 42 175 378	Adjustable white perforated shield for AVR 66.011
AVL661	64 100 42 175 408	Adjustable white perforated shield for AVR66.015
AVL662	64 100 42 175 439	Adjustable white perforated shield for AVR66.018
AVL663	64 100 42 175 460	Adjustable white perforated shield for AVR66.030
AVL664	64 100 42 175 491	Adjustable white perforated shield for AVR66.036
AVL665	64 100 42 175 521	Adjustable white perforated shield for AVR66.058
AVL666	64 186 77 601 385	Adjustable white perforated shield for AVR66.014E / 024E
AVL667	64 186 77 601 392	Adjustable white perforated shield for AVR66.021E / 039E
AVL668	64 186 77 601 408	Adjustable white perforated shield for AVR66.028E / 054E
AVL669	64 186 77 601 415	Adjustable white perforated shield for AVR66.035E / 049E

JONO ACCESSORIES

AVL130	64 186 77 617 652	Rapid starter AURA
AVL131	64 186 77 617 669	Starter for low ambient temperature
AVL601	64 100 42 175 569	Wire suspension set for JONO AVR66
AVL605	64 100 42 175 590	In-line connector set for JONO AVR66
AVL607	64 100 42 175 767	45° angle connectorpair for JONO AVR66
AVL608	64 100 42 174 531	90° angle connectorpair for JONO AVR66
AVL609	64 186 77 616 020	Fixing kit for AVR66 Jono luminaire
AVL616	64 186 77 618 352	Pair of end pieces for shield AVR66
AVL617	64 186 77 601 095	Pair of additional Jono end pieces
AVL618	64 186 77 616 037	Strain relief for AVR66 Jono luminaire

JONO SPARE DIFFUSER, OPAL POLYCARBONATE

AVL640	64 186 77 601 767	TC 11W
AVL641	64 186 77 600 524	T8 15W
AVL642	64 186 77 600 531	T8 18W
AVL643	64 186 77 600 548	T8 30W
AVL644	64 186 77 600 555	T8 36W
AVL645	64 186 77 600 562	T8 58W
AVL646.518	64 186 77 615 504	Opal diffuser for Module lenght 600mm
AVL650	64 186 77 615 641	T5 14/24W
AVL651	64 186 77 615 665	T5 21/39W
AVL652	64 186 77 615 689	T5 28/54W
AVL653	64 186 77 615 702	T5 35/49W

JONO SPARE DIFFUSER, CLEAR POLYCARBONATE

AVL640.1	64 186 77 601 774	TC 11W
AVL641.1	64 186 77 601 781	T8 15W
AVL642.1	64 186 77 601 798	T8 18W
AVL643.1	64 186 77 601 804	T8 30W
AVL644.1	64 186 77 601 811	T8 36W
AVL645.1	64 186 77 601 828	T8 58W
AVL650.1	64 186 77 615 658	T5 14/24W
AVL651.1	64 186 77 615 672	T5 21/39W
AVL652.1	64 186 77 615 696	T5 28/54W
AVL653.1	64 186 77 615 719	T5 35/49W

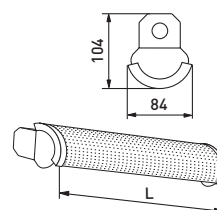
SQUARE JONO SPARE DIFFUSER, CLEAR POLYCARBONATE

AVL680	64 186 77 619 878	T8 18W
AVL681	64 186 77 619 885	T8 36W
AVL682	64 186 77 619 892	T8 58W
AVL683	64 186 77 619 908	T5 14/24W
AVL684	64 186 77 619 915	T5 21/39W
AVL685	64 186 77 619 922	T5 28/54W
AVL686	64 186 77 619 939	T5 35/49W

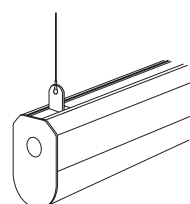
SQUARE JONO SPARE DIFFUSER, OPAL POLYCARBONATE

AVL680.1	64 186 77 620 157	T8 18W
AVL681.1	64 186 77 620 164	T8 36W
AVL682.1	64 186 77 620 171	T8 58W
AVL683.1	64 186 77 620 188	T5 14/24W
AVL684.1	64 186 77 620 195	T5 21/39W
AVL685.1	64 186 77 620 201	T5 28/54W
AVL686.1	64 186 77 620 218	T5 35/49W

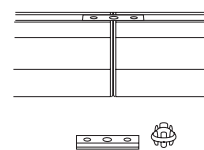
AVL660 ... AVL669



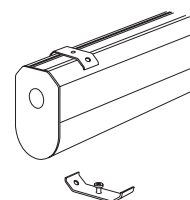
AVL601



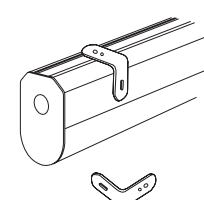
AVL605



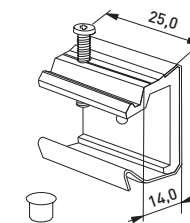
AVL607



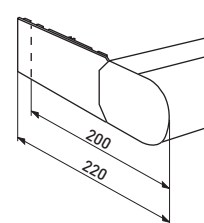
AVL608



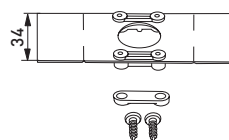
AVL609



AVL617



AVL618



Outdoor luminaires

AVR51 and AVR52



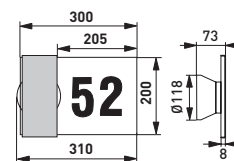
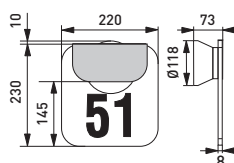
 IP65 3x2,5mm²

Energy efficient LED-signal luminaires are compact and durable and suitable for versatile use, including both indoor and outdoor applications. Long lasting 1,2W power led is excellent light source to light up the blade where the information can be made with stickers or engrave direct to the blade. Because of the die cast aluminium body and fast construction LED-luminaire can be recommend to use for house number lighting, room number lighting in hotels and signal lights in shopping centres and public buildings.

TYPE	CODE	DESCRIPTION
AVR51.11L	64 186 77 617 928	LED luminaire 1W square black
AVR51.11LV	64 186 77 617 935	LED luminaire 1W square white
AVR52.11L	64 186 77 617 942	LED luminaire 1W rectangular black
AVR52.11LV	64 186 77 617 959	LED luminaire 1W rectangular white

LED

AVR51 - 52



AVR70



 IP44 4x2,5mm²

Basic all-round luminaire with square polycarbonate housing. Diffuser made of opal polycarbonate. Light source 75W incandescent lamp. Can be used both in ceiling and wall installations. Easy installation with the help of transparent, turnable installation base. Snowshield available for wall installations.

TYPE	CODE	DESCRIPTION
AVR70	64 100 41 170 695	1x75W A60/E27 230V

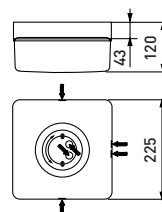
AVR70 PIR SENSOR LUMINAIRE

AVR70.4	64 186 77 601 262	1x75W A60/E27 230V 50Hz
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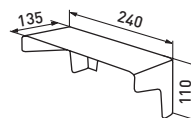
AVR70 ACCESSORIES AND SPARE PARTS

AVL30	64 100 41 171 050	Snow shield for AVR70 luminaires, white steel
AVV70	64 186 77 611 964	Diffuser for AVR70 luminaires, opal polycarbonate

AVR70



AVL30



AVR71



 IP44 4x2,5mm²

A luminaire designed for displaying house numbers or information in commercial locations such as public buildings, shops, hotels, airports, bus stations etc. Due to the triangular design the symbols are visible from all directions. For 75W incandescent lamp or compact fluorescent lamp 18W. Snowshield available for wall installations.

TYPE	CODE	DESCRIPTION
AVR71 LUMINAIRE FOR E27		
AVR71	64 100 41 170 725	1x75W A60/E27 230V

AVR71 LUMINAIRES WITH MAGNETIC BALLAST

AVR71.018	64 100 41 170 732	1x18W TC-L/2G11 230V 50Hz
AVR71.118	64 100 41 173 818	1x18W TC-L/2G11 230V 50Hz

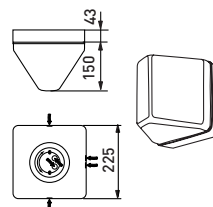
AVR71 PIR SENSOR LUMINAIRE

AVR71.4	64 186 77 601 279	1x60W A60/E27 230V 50Hz
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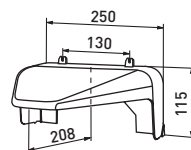
AVR71 ACCESSORIES AND SPARE PARTS

AVL68	64 100 41 171 111	Snow shield for AVR71 luminaires, white
AVL68.1	64 100 41 171 142	Snow shield for AVR71 luminaires, black
AVV71	64 186 77 611 995	Diffuser for AVR71 luminaires, opal polycarbonate
AVL130	64 186 77 617 652	Rapid starter AURA
AVL131	64 186 77 617 669	Starter for low ambient temperature

AVR71



AVL68 ... AVL68.1



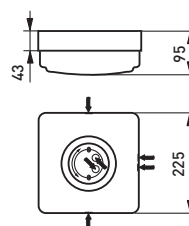
Outdoor luminaires

AVR72 IP44 4x2,5mm²

Slimline luminaire for compact fluorescent lamps. Suitable both for indoor and outdoor installations on ceilings or walls. Housing and diffuser made of impact resistant polycarbonate.

TYPE	CODE	DESCRIPTION
AVR72 LUMINAIRES WITH MAGNETIC BALLAST		
AVR72.011	64 186 77 600 142	1x11W TC/G23 230V 50Hz
AVR72.111	64 100 41 174 297	1x11W TC/G23 230V 50Hz
AVR72.016	64 100 41 173 306	1x16W TC-DD/GR10q 230V 50Hz
AVR72.116	64 100 41 174 327	1x16W TC-DD/GR10q 230V 50Hz
AVR72.018	64 100 41 173 337	1x18W TC-L/2G11 230V 50Hz
AVR72.118	64 100 41 174 358	1x18W TC-L/2G11 230V 50Hz
AVR72.028	64 186 77 600 159	1x28W TC-DD/GR10q 230V 50Hz
AVR72.128	64 100 41 174 389	1x28W TC-DD/GR10q 230V 50Hz
AVR72 LUMINAIRES WITH ELECTRONIC CONTROL GEAR		
AVR72.018E	64 100 41 173 443	1x18W TC-L/2G11 230/240V 0-50/60Hz
AVR72.118E	64 186 77 616 297	1x18W TC-L/2G11 230/240V 0-50/60Hz
AVR72 PIR SENSOR LUMINAIRE		
AVR72.0184E	64 186 77 601 538	1x18W TC-L/2G11 230/240V 50/60Hz
AVR72.1184E	64 186 77 601 521	1x18W TC-L/2G11 230/240V 50/60Hz
AVR72 ACCESSORIES AND SPARE PARTS		
AVV72	64 186 77 612 008	Diffuser for AVR72 luminaires, opal polycarbonate
AVL130	64 186 77 617 652	Rapid starter AURA
AVL131	64 186 77 617 669	Starter for low ambient temperature

AVR72



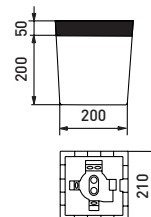
AVR7/AVRK7 IP23 3x2,5mm²

A traditional house number luminaire made of polycarbonate. Light source either 75W incandescent lamp, 50W high pressure mercury lamp or 35W metal halide lamp. For outdoor wall installations a snowshield is also available.

TYPE	CODE	DESCRIPTION
AVR7.1	64 186 77 601 491	1x75W A60/E27 230V
AVR7.2	64 186 77 620 812	1x35W MT/G12 230V 50Hz
AVRK7.2	64 100 41 170 367	1x50W HME/E27 230V 50Hz
AVR7/AVRK7 ACCESSORIES AND SPARE PARTS		
AVL31	64 100 41 171 081	Snow shield for AVR7/AVRK7 luminaires, black
AVV7	64 186 77 611 957	Diffuser for AVR7.1/AVRK7.2 luminaires, opal polycarbonate

N.B. Metal halide version (AVR7.2)

AVR7.1...AVRK7.2

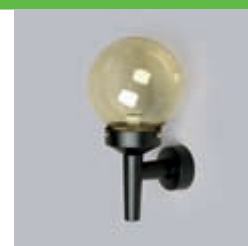
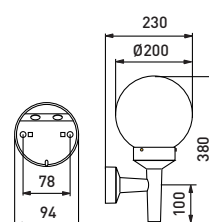


AVR5.3/5.4 IP44 3x2,5mm²

Classical glass globe luminaires are a familiar, safe choice for home outdoor lighting. High quality polycarbonate luminaire housing is combined with a traditional glass-globe in lantern type luminaire. Luminaire housing and globes must be ordered separately.

TYPE	CODE	DESCRIPTION
AVR5.3	64 100 41 170 787	1x100W A60/E27 230V luminaire housing, black
AVR5.4	64 100 41 170 817	1x100W A60/E27 230V luminaire housing, white
GLASS GLOBES		
AVL37	64 100 41 176 062	Amber glass globe for AVR5.3/5.4 luminaires
AVL48	64 100 41 176 086	Opal glass globe for AVR5.3/5.4 luminaires

AVR5

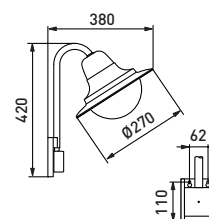


AVS21 IP23 3x2,5mm²

The AVS21 luminaire can be wall mounted or fixed to a wooden pole. Stem is made of steel, shade of aluminium and diffuser of opal polycarbonate. Light source max. 100W incandescent light or compact fluorescent light (E27) at max. length 157 mm. PIR luminaire for incandescent lamps give the possibilities to make master-slave installation with the similar kind of luminaires.

TYPE	CODE	DESCRIPTION
AVS21	64 100 41 174 532	1x100W A60/E27 230V, black
AVS21/V	64 100 41 174 501	1x100W A60/E27 230V, white
AVS21 PIR SENSOR LUMINAIRES		
AVS21.4	64 186 77 601 309	1x100W A60/E27 230V 50Hz, black
AVS21.4/V	64 186 77 601 316	1x100W A60/E27 230V 50Hz, white
AVS21 SPARE PARTS		
AVV21	64 186 77 611 858	Diffuser for AVS21 luminaires, opal polycarbonate

AVS21



Outdoor luminaires

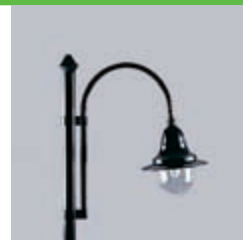
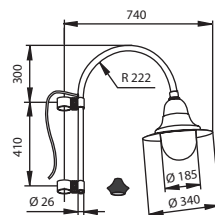
AVS70-74 IP23 3x2,5mm²

Classical and timeless desing both for old new and old architecture. Luminaires are suitable for parks, yards, small streets and squares. The colour of the luminaire is black, inside reflector part white and diffuser of clear polycarbonate. Opal diffuser available as spare part. Stem and shade made of aluminium. Several alternative light sources helps to find always the right sollution. Installation on pole \varnothing 60 mm (innerdiam. 53-55mm). Recommended max pole hights for single lamp versions 4m and for twin lamp versions 5m.

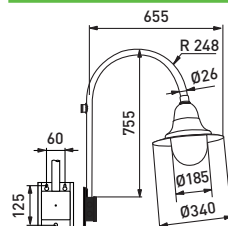
TYPE	CODE	DESCRIPTION
AVS70 POLE LUMINAIRE		
AVS70.35/MH	64 186 77 620 379	1x35W MT/G12 230V 50Hz
AVS70.70/MH	64 186 77 620 775	1x70W MT/G12 230V 50Hz
AVS70.70/S	64 100 45 170 127	1x70W HSE-I/E27 230V 50Hz
AVS71 WALL LUMINAIRE		
AVS71.35/MH	64 186 77 620 256	1x35W MT/G12 230V 50Hz
AVS71.70/MH	64 186 77 620 782	1x70W MT/G12 230V 50Hz
AVS71.70/S	64 100 45 170 271	1x70W HSE-I/E27 230V 50Hz
AVS73 POLE LUMINAIRE		
AVS73.35/MH	64 186 77 620 386	1x35W MT/G12 230V 50Hz
AVS73.70/MH	64 186 77 620 799	1x70W MT/G12 230V 50Hz
AVS73.70/S	64 100 45 170 424	1x70W HSE-I/E27 230V 50Hz
AVS74 POLE LUMINAIRE		
AVS74.35/MH	64 186 77 620 393	2x35W MT/G12 230V 50Hz
AVS74.70/MH	64 186 77 620 805	2x70W MT/G12 230V 50Hz
AVS74.70/S	64 100 45 170 608	2x70W HSE-I/E27 230V 50Hz
AVS70-74 ACCESSORIES AND SPARE PARTS		
AVL69	64 100 46 172 694	Pole 3m, \varnothing 60mm, black
AVV70/74	64 186 77 611 971	Diffuser for AVS70-74 luminaires, clear polycarbonate
AVV70.1/74.1	64 186 77 611 988	Diffuser for AVS70-74 luminaires, opal polycarbonate

N.B. Metal halide versions (MH)

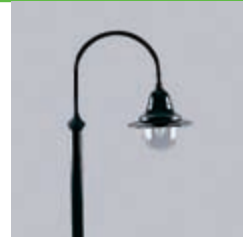
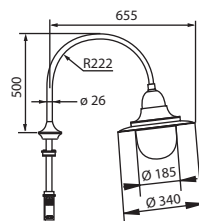
AVS70



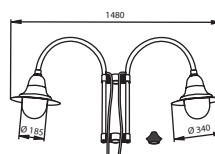
AVS71



AVS73



AVS74



AVL66

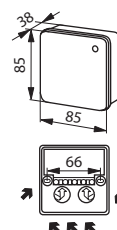


Lighting Control units

Separate movement detector unit AVL66, based on radar technology, is a good solution to control existing or new lighting application by movement. Corridors in basement or staircases are typical places to use AVL66. Detector is designed to indoor use, detection area up to 10 m. Twilight switch KKL51 control outdoor lighting according to daylight so you don't spend energy during daytime.

TYPE	CODE	DESCRIPTION
AVL66	64 186 77 620 669	Radar control unit, 275mm
KKL51	64 100 35 141 199	Twilight switch 1150W 230V 5-20 lx

KKL51



ROV Chain lighting

Chain lighting in packages of 100 m or 500 m cable reels 2x1,5mm² IP54

ROV light chains with B22d (max 75W) lampholders fastened to 2x1,5mm² black rubber cable. Packages and reels without plug and end piece. With the several accessories it is possible to make always the most suitable lighting solution. ROV packages and reels are sold only in full lengths.

TYPE	CODE	DESCRIPTION
LAMP HOLDER DISTANCE 0,33M		
ROV0,33-100	64 186 77 610 905	100 m, lampholderdistance 0,33 m
ROV0,33-300	64 186 77 603 761	300 m, lampholderdistance 0,33 m
LAMP HOLDER DISTANCE 0,50M		
ROV0,50-100	64 186 77 614 637	100 m, lampholderdistance 0,50 m
ROV0,50-500	64 186 77 603 785	500 m, lampholderdistance 0,50 m
LAMP HOLDER DISTANCE 0,60M		
ROV0,60-100	64 186 77 614 699	100 m, lampholderdistance 0,60 m
ROV0,60-500	64 186 77 603 792	500 m, lampholderdistance 0,60 m
LAMP HOLDER DISTANCE 0,75M		
ROV0,75-100	64 186 77 614 651	100 m, lampholderdistance 0,75 m
ROV0,75-500	64 186 77 614 668	500 m, lampholderdistance 0,75 m
LAMP HOLDER DISTANCE 1M		
ROV1,0-100	64 186 77 603 822	100m, lampholderdistance 1 m
ROV1,0-500	64 186 77 603 839	500 m, lampholderdistance 1 m
LAMP HOLDER DISTANCE 2M		
ROV2,0-100	64 186 77 614 675	100 m, lampholderdistance 2 m
ROV2,0-500	64 186 77 603 853	500 m, lampholderdistance 2 m
LAMP HOLDER DISTANCE 3M		
ROV3,0-100	64 186 77 603 877	100 m, lampholderdistance 3 m
ROV3,0-500	64 186 77 603 884	500 m, lampholderdistance 3 m
LAMP HOLDER DISTANCE 5M		
ROV5,0-100	64 186 77 603 914	100 m, lampholderdistance 5 m
ROV5,0-500	64 186 77 603 921	500 m, lampholderdistance 5 m

ROV CHAIN



Ready to use light chain packages 2x1,5mm² IP54

Ready to use ROV light chains including light chain with plug and end piece, white reflectors ROV-LSN and 60W/B22d incandescent lamps.

TYPE	CODE	DESCRIPTION
LIGHT CHAIN LENGHT 30M, LAMP HOLDER DISTANCE 3M		
ROV30/3,0	64 186 77 603 891	30 m, lampholderdistance 3 m
LIGHT CHAIN LENGHT 30M, LAMP HOLDER DISTANCE 5M		
ROV30/5,0	64 186 77 603 907	30 m, lampholderdistance 5 m
LIGHT CHAIN LENGHT 60M, LAMP HOLDER DISTANCE 3M		
ROV60/3,0	64 186 77 603 938	60 m, lampholderdistance 3 m
LIGHT CHAIN LENGHT 60M, LAMP HOLDER DISTANCE 5M		
ROV60/5,0	64 186 77 603 945	60 m, lampholderdistance 5 m

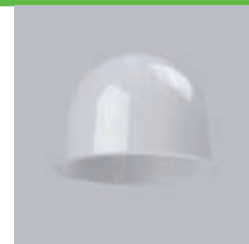
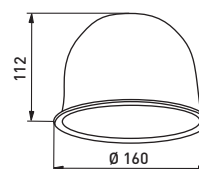
ROV LIGHT CHAIN PACKAGE



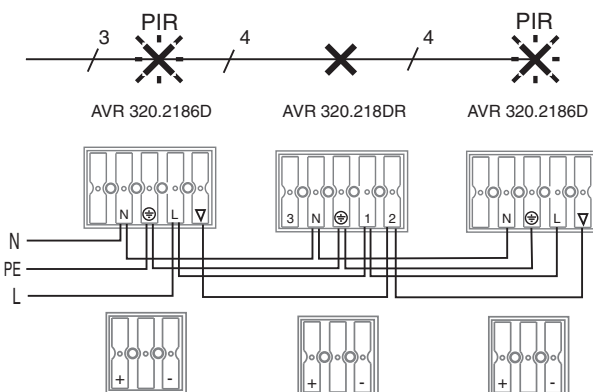
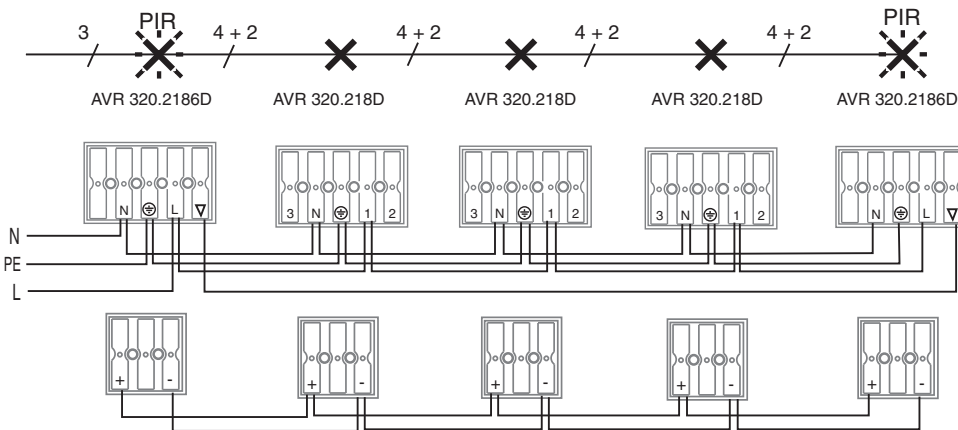
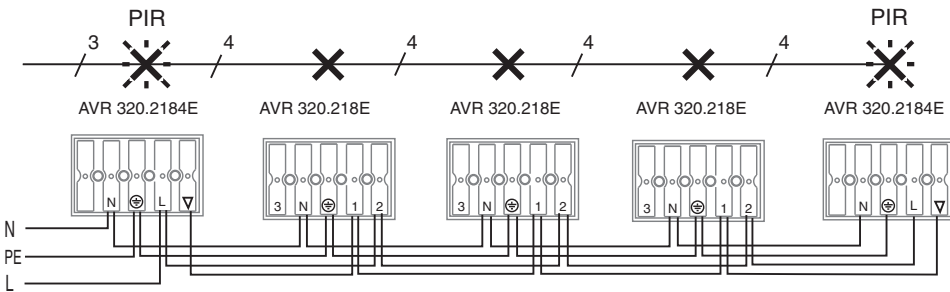
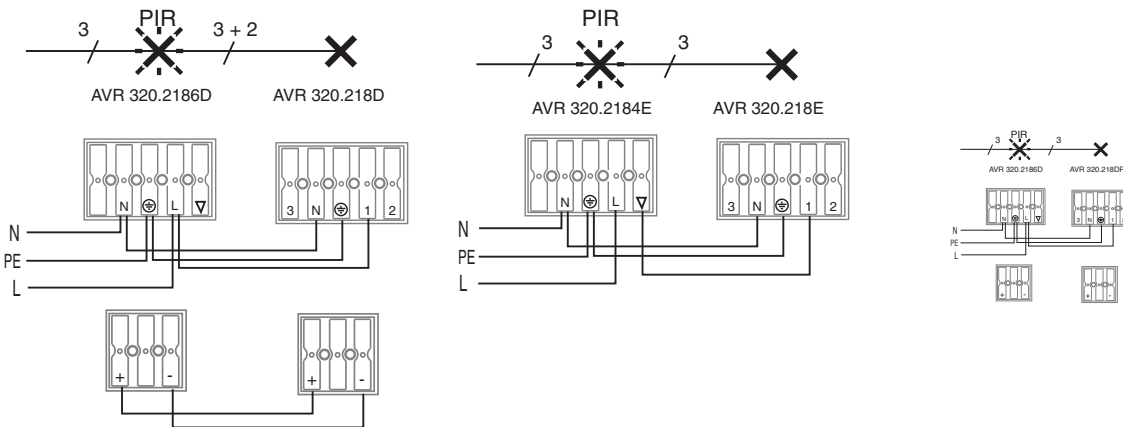
Accessories and spare parts

TYPE	CODE	DESCRIPTION
ROV-SP	64 186 77 603 730	Rubber plug without earthing
ROV-AH	64 186 77 603 662	End piece, black
ROV-SET	64 186 77 615 917	Rubber plug without earthing + end piece, black
ROV-DBI	64 186 77 603 679	Protection cap, red
ROV-P	64 186 77 603 709	Joint kit without lampholder, black
ROV-RS	64 186 77 603 716	Joint kit with lampholder, black
ROV-LON	64 186 77 603 693	Suspension hook for lampholder
ROV-S	64 186 77 603 723	Suspension hook for wire Ø 5mm (10-13 mm), black
ROV-85	64 186 77 603 655	Steel protection grill, white
ROV-LSN	64 186 77 603 686	White plastic reflector

ROV-LSN

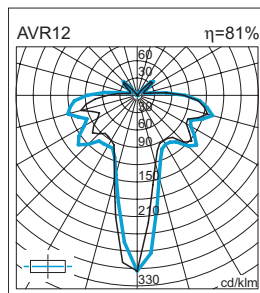
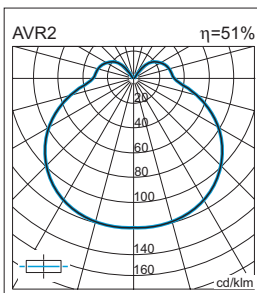
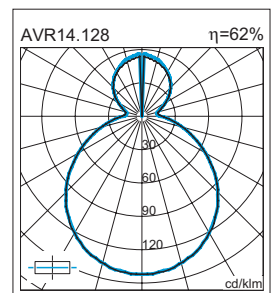
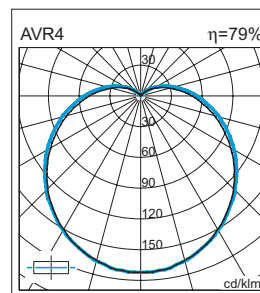
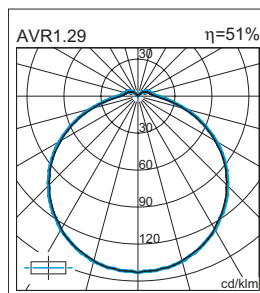
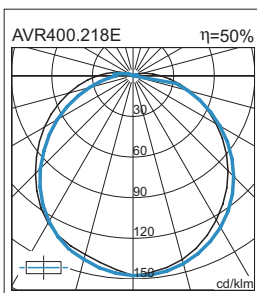
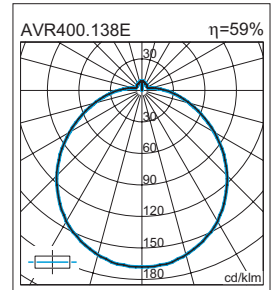
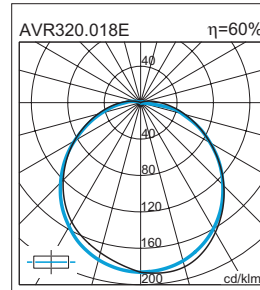
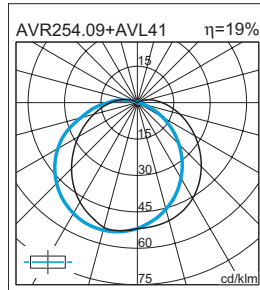
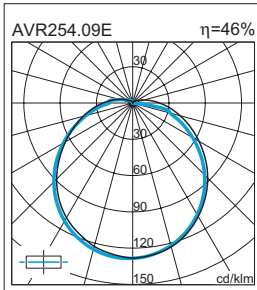


Wiring instructions

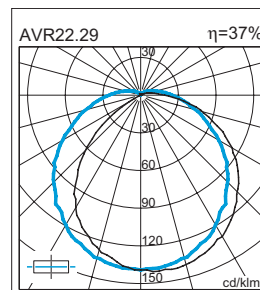
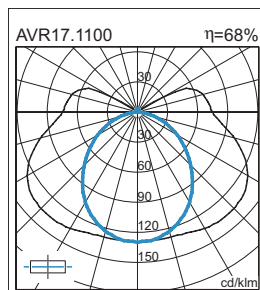
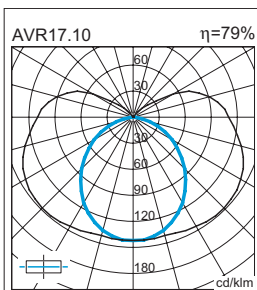


DISTRIBUTION OF LUMINOUS INTENSITY DATA

General-purpose luminaires

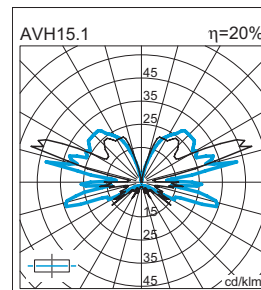
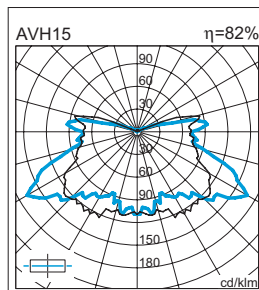
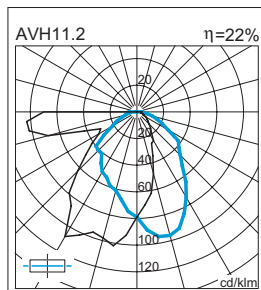
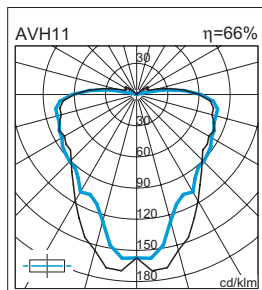


Work station luminaires

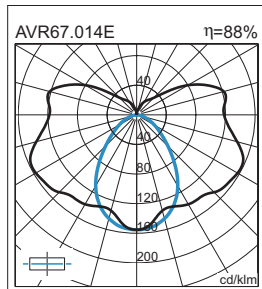
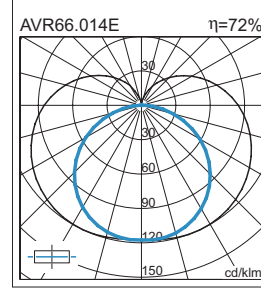
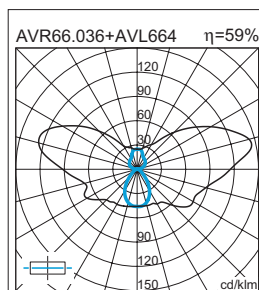
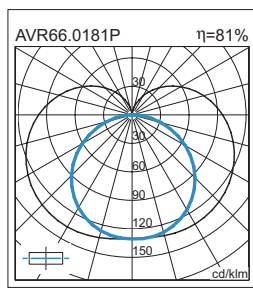
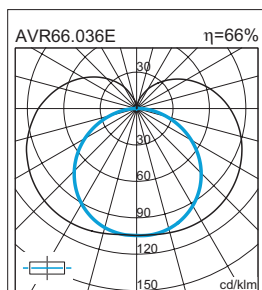


DISTRIBUTION OF LUMINOUS INTENSITY DATA

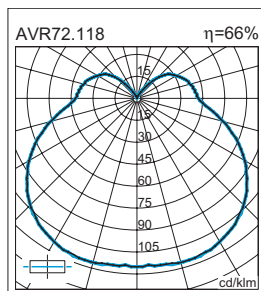
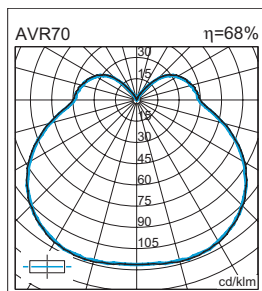
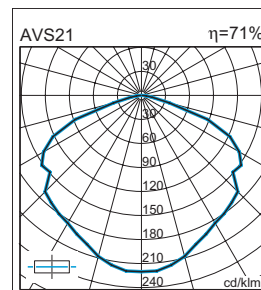
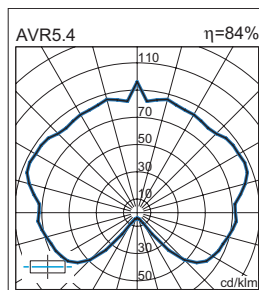
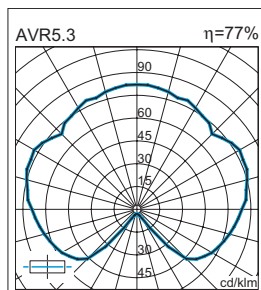
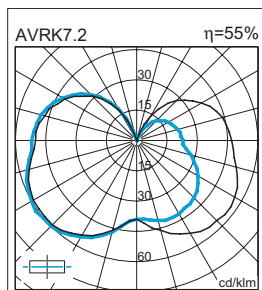
Sauna luminaires



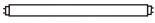
Jono luminaires

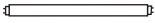



Outdoor luminaires





Light sources

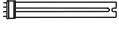
Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
Fluorescent lamp 	T8	15	G13	950	15 000
		18	G 13	1 350	15 000
		30	G 13	2 350	15 000
		36	G 13	3 350	15 000
		58	G 13	5 200	15 000


Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
Fluorescent lamp 	T5	14	G 5	1 200	20 000
		21	G 5	1 900	20 000
		28	G 5	2 600	20 000
		35	G 5	3 300	20 000
		24	G 5	1 750	20 000
		39	G 5	3 100	20 000
		54	G 5	4 450	20 000
		49	G 5	4 300	20 000


Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
Compact fluorescent lamp Four finger 	TC-DSE	7/9	E 27	400	8 000
		11	E 27	600	8 000
		15	E 27	900	8 000
		20	E 27	1 200	8 000


Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
Compact fluorescent lamp Six finger 	TC-TSE	15	E 27	900	10 000
		20	E 27	1 200	10 000
		23	E 27	1 500	10 000

Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
Compact fluorescent lamp 	TC	9	G 23	600	10 000
		11	G 23	900	10 000


Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
Compact fluorescent lamp 	TC-E	9	2 G 7	600	10 000
		11	2 G 7	900	10 000

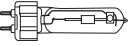
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Compact fluorescent lamp 	TC-L	18	2 G 11	1 200	10 000

Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h	
Compact fluorescent lamp Four finger 	TC-D	26	G 24 d-3	1 800	10 000	
		TC-DE	18	G 24 q-2	1 200	10 000
		26	G 24 q-3	1 800	10 000	

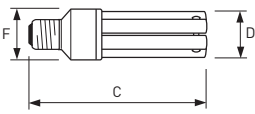
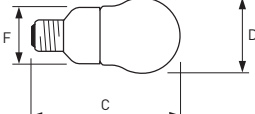
Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
Compact fluorescent lamp 	TC-DD	16	GR 10 q	1 050	8 000
		28	GR 10 q	2 250	10 000
		38	GR 10 q	3 000	10 000

Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
Circular fluorescent lamp 	T5C	22	2 GX 13	1 800	12 000
		55	2 GX 13	4 000	12 000

Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
High pressure sodium lamp Ellipsoid 	HSE-I	50	E 27	3 500	8 000
		70	E 27	5 600	8 000






Product	Code	Wattage W	Lamp holder	Luminous flux lm	Average lifetime h
Metal halide lamp 	MT	35	G12	3 300	12 000
		70	G12	6 600	12 000

Interchangeable energy saving lamps

						
	Max. measure lightsource			Max. measure lightsource		
	C	D	F	C	D	F
AVR320	152	40	48			
AVR400	154		50	140	65	54
AVR4	130	40	48	133	65	48
AVR14	154		50	140	65	54
AVR70	145	40	50			
AVR71	157	50	54	133	65	48
AVR2.1 / 12	97	55		97	55	
AVR7.1	137			135		
AVR20	97	55		97	55	
AVS21	155			155		




Symbols





-  Safety earthed, class I
-  Safety insulated, class II
-  Fixture can be chaired
-  End fixture
-  The branching circuit may be tapped

3 x 2,5mm² The size of the mains connector

850°C Glow-wire test according to standard IEC 695-2-1°C

-  Luminaires for direct mounting on normally flammable surfaces

-  Recessed luminaires suitable for covering in the ceiling void with insulating material

-  Ceiling mounting
-  Ceiling mounting on flush-box
-  Ceiling or wall-mounting
-  Ceiling or wall-mounting on flush-box

-  Wall-mounting
-  Wall-mounting on flush-box
-  Recessed mounting
-  European norms Electrical Certification
-  Approval registered in Finland

Degree of protection	DIN
	40050 IEC

Screen protected	IP 20
Drip-proof	IP 21
Rain-proof	IP 23
Splash-proof	IP 44 / IP 54



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