

MADE IN GERMANY



Light perfected.



NORKA


LED PRODUCT RANGE 2024/2025


FOREWORD


DEAR READER,

What would you like to get from your lighting? Good visibility, high efficiency and a long service life? In technical installations and production environments, these requirements are not always easy to meet. High temperatures, extreme humidity and moisture or harmful gases attack polymers and electronics. This leads to lower luminous flux, shorter service life or luminaire failures. NORKA is an expert when it comes to these tricky environmental conditions. For over 75 years, we have been developing and producing luminaires in Germany that withstand dust, moisture, extreme temperatures and other harmful influences over the long term.

We rely on high-quality materials and ultra-efficient LEDs requiring low maintenance. We are constantly expanding our range: for example, we are now offering parameterisation via an NFC interface for an initial selection of luminaires. We have also expanded our  easy eXchange range, making it easy to replace LEDs and drivers for other products. Due to their excellent durability, NORKA luminaire housings often outlive the life cycles of the built-in electronic components. This is why NORKA luminaires are designed to allow for component replacement. In fact, you will be able to obtain a wide variety of spare parts from NORKA long-term. Luminaires featuring our  easy eXchange design enable components to be changed really quickly and easily – making new purchases unnecessary, while saving installation time and resources.

Retrofitting existing installations with perfectly fitting LEDs and using a lighting control system also saves energy and is often eligible for subsidies. Just by changing products one to one allows  FOCUSSED LIGHTING from NORKA to achieve energy savings of up to 50% and more. In many areas, the additional automatic control of lighting makes sense: corridors in warehouses are deserted, but lit. There is adequate daylight in the production hall, but the lighting system is on at 100%.

Simple solutions for this type of requirements can be found in the field of control. This is another area where NORKA can support you. We offer state-of-the-art lighting control: from consulting, hardware and software to commissioning and training, our  XARA® lighting control system includes everything from a single source.

Difficult ambient conditions are no problem for  XARA® any more than for NORKA luminaires themselves. This is yet another way to save considerable amounts of energy and money. Depending on the project, consumption savings of up to 80% are possible compared to a conventional system.

We are also happy to help you with financing and funding. Please feel free to ask us about the various options available!

Light perfected. Made in Germany.

Our development department, test laboratory and production facilities have always been located in Germany. As our customer, you have a clear advantage: we know our luminaires inside and out. This enables us to offer you support as a solutions provider even for those more challenging cases. NORKA will find the optimum solution for you!

Discover our product diversity on the following pages and at norka.com. With our VERNO products, we also offer solutions for street and tunnel lighting. We look forward to exciting projects with you and discussing and developing suitable solutions for your project.

Best regards,



Nicole Sass









Florian Schönfeld





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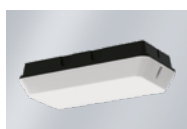
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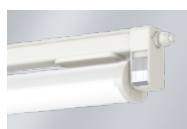
LUMINAIRES FOR RECESSED MOUNTING AND INSTALLATION



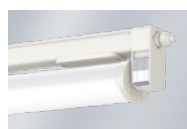
BEBRA LED 60



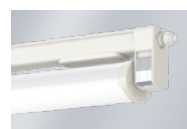
BERLIN LED 64



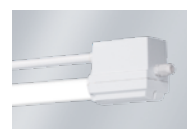
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BITBURG LED EXTREME 76



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BREMERHAVEN LED 80



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DUBLIN LED 94



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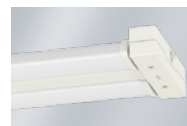
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ERFURT LED INDUSTRY 106



FULDA LED 108



GENF 110



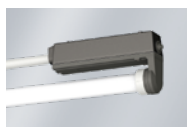
GERA LED 112



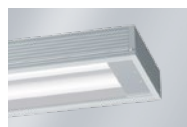
HAMBURG LED 116



JENA LED 118



KIEL LED 122



LONDON LED 124



MÜNCHEN LED 136



NIGHTLINE 140



TALON 168



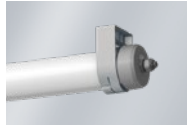
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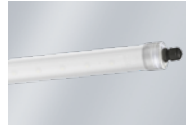
BERN LED **66**



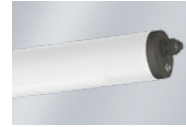
BERN LED EX **70**



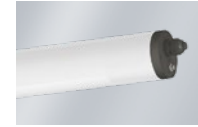
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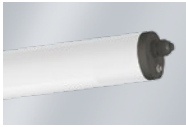
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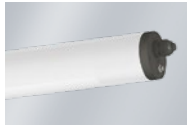
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FLOODLIGHTS



ANTARES LED **56**



CENTAURUS **86**



MERKUR LED **134**



POLARIS **158**



SPICA LED **164**



URANUS **174**



URANUS PF **176**



VANDALISM-PROOF LUMINAIRES



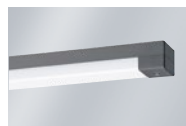
BELFAST **62**



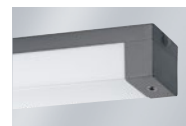
PHALANX 430 **146**



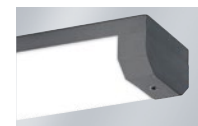
PHALANX 620 **148**



PHALANX LINEAR 75 **150**



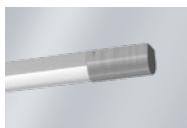
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ZUG LED AL **184**

INDEX BY CONSTRUCTION TYPE



LUMINAIRES FOR EXPLOSION-PROOF AREAS



BASEL LED 58



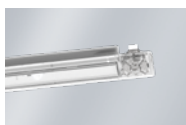
BERN LED EX 70



EMERGENCY AND SAFETY LUMINAIRES + EMERGENCY LIGHTING SUPPLY UNIT



COBURG LED 88



MEPPEN 132



PASSAU LED 144



SCHÖNE-FELD 162



STEGLITZ 166



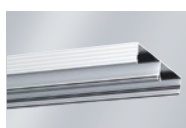
TEGEL 172



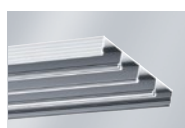
TRUNKING SYSTEM AND MOUNTING RAILS



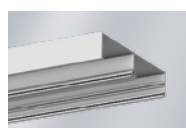
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NORKA is your specialist when it comes to lighting for extreme ambient conditions such as water and moisture, dust, high temperatures or chemical load.

LIGHT SOLUTIONS FOR EVERY AREA

Our themed ranges will guide you along the way

High temperatures, extreme humidity, moisture or harmful gases – these are just some of the physical challenges that luminaires are exposed to in tough environments. This may result in lower luminous flux, shorter service life or luminaire failures. NORKA is an expert when it comes to these tricky environmental conditions. For over 75 years, we have been developing and producing luminaires in Germany that withstand dust, moisture, extreme temperatures and other harmful influences over the long term.



Rail and local public transport 10



Industry 12

REQUIREMENTS AND TECHNICAL INFORMATION

40

Sustainable light

Our luminaire housings are designed to ensure a long service life. That's why you can usually replace the inner workings of NORKA luminaires – in fact, **eXchange** makes this job really simple.



Public buildings 16

36

XARA® lighting control system

To meet all requirements, a well-designed lighting control system is the ideal solution. For example, different light scenes can be controlled from one control panel.



Food production 18

20

IFS and HACCP

Hygiene and safety play a major role, especially in the food sector. Manufacturer's declarations provide guidance on the suitability of the respective products.



Emergency lighting 30

48

Additional information on emergency lighting

Emergency lighting can be provided in different designs. Environments with extreme temperatures in particular require suitable designs and solutions.



Tunnel and traffic 28

52

Protection against environmental factors

Extreme environments require special precautions and protection ratings and classes, such as labelling for impermeability or impact resistance, not to mention knowledge of the chemical resistance of the materials.



Sports and events venues 24

26

Chlorine and more

Sports facilities, especially indoor swimming pools, place special demands on lighting technology. Resistance to chlorine is essential in this case. In sports facilities in general, flicker-free lighting and ball impact resistance are required.



Agriculture and animal husbandry 22

45

Temperature and service life

Temperature plays a special role in LED illumination and its service life. The service life specifications provide precise information about the durability of the LED.

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Technical data and options

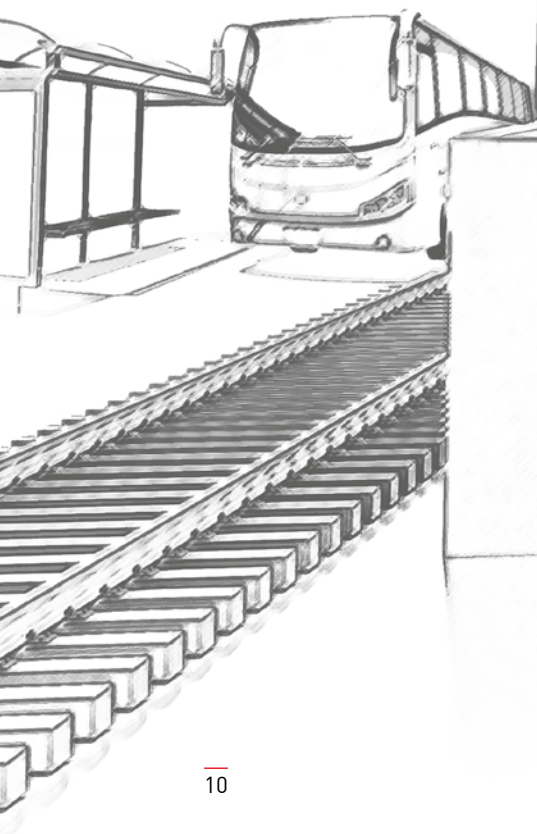
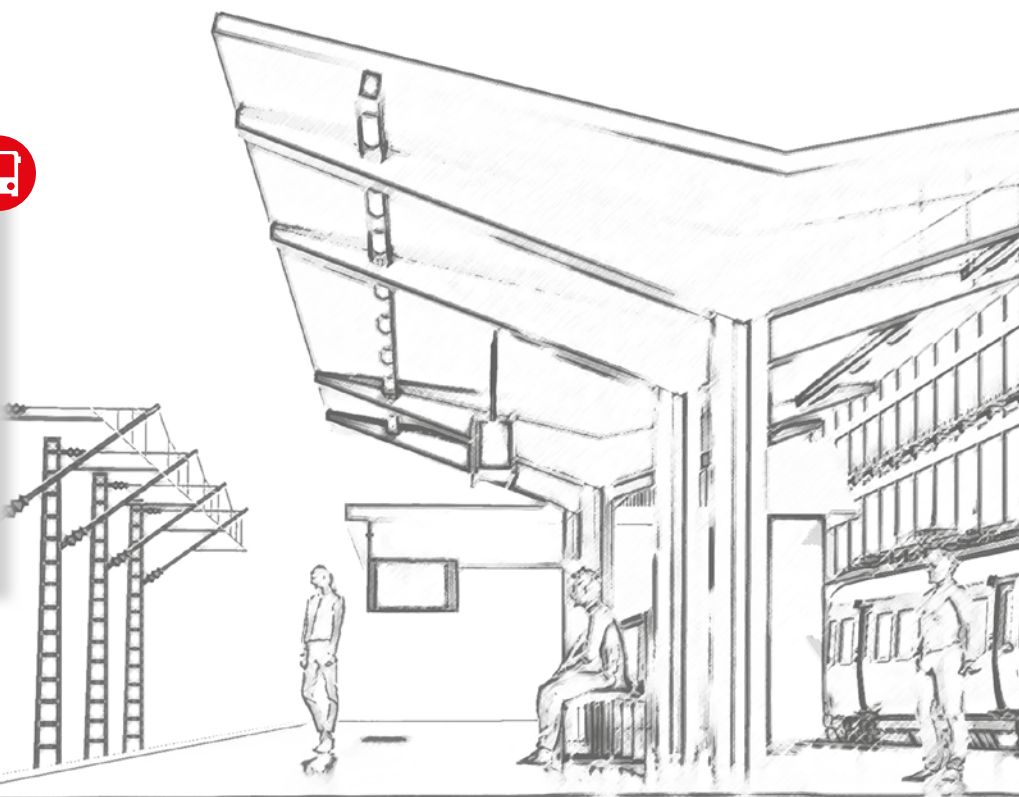
To provide a more in-depth picture, we explain technical features and options such as temperature specifications or transient filters in more detail here.

LIGHT SOLUTIONS FOR BUS AND TRAIN OPERATIONS



Stop / station public transport

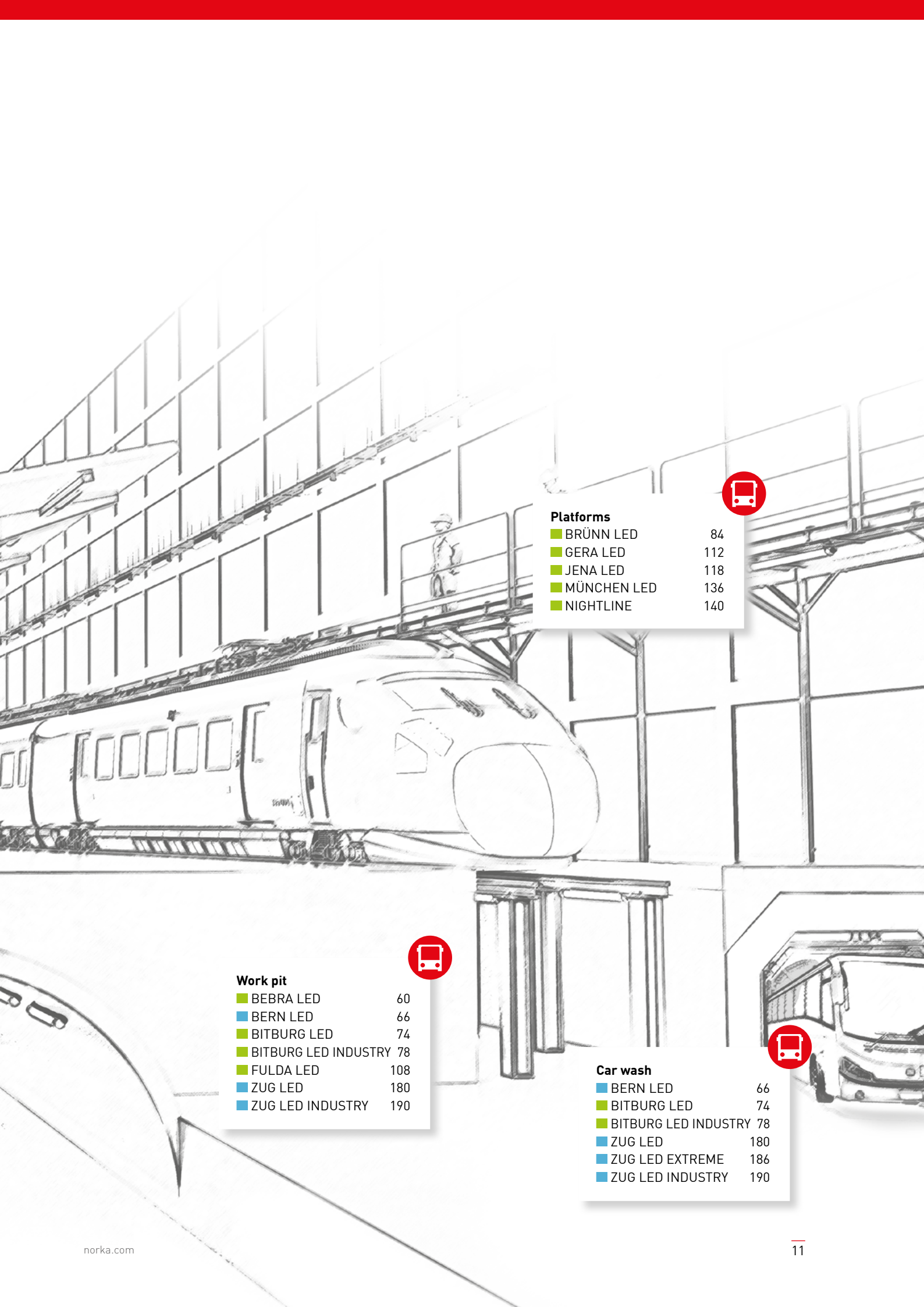
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Pedestrian tunnel

■ BELFAST	62
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Platforms

■ BRÜNN LED	84
■ GERA LED	112
■ JENA LED	118
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■ NIGHTLINE	140



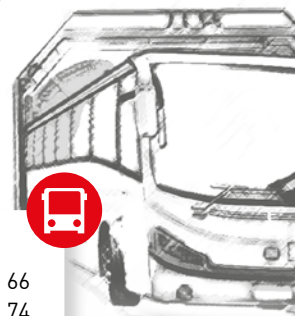
Work pit

■ BEBRA LED	60
■ BERN LED	66
■ BITBURG LED	74
■ BITBURG LED INDUSTRY	78
■ FULDA LED	108
■ ZUG LED	180
■ ZUG LED INDUSTRY	190



Car wash

■ BERN LED	66
■ BITBURG LED	74
■ BITBURG LED INDUSTRY	78
■ ZUG LED	180
■ ZUG LED EXTREME	186
■ ZUG LED INDUSTRY	190

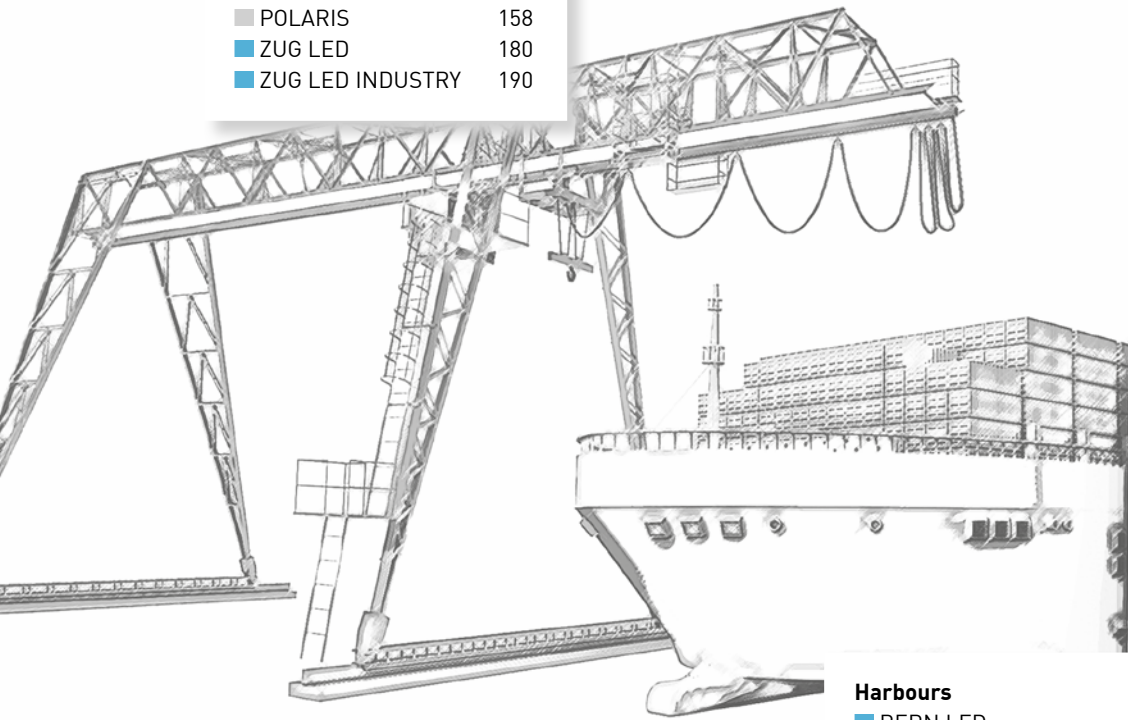


LIGHT SOLUTIONS FOR INDUSTRIAL APPLICATIONS



Cranes

■ BERN LED	66
■ CENTAURUS	86
■ POLARIS	158
■ ZUG LED	180
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Harbours

■ BERN LED	66
■ CENTAURUS	86
■ LUGANO	128
■ POLARIS	158
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■ ZUG LED INDUSTRY	190



Salt storage

■ LUGANO	128
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High temperature $\geq 60\text{ }^{\circ}\text{C}$

■ BITBURG LED EXTREME	76
■ BREMERHAVEN LED	80
■ CENTAURUS	86
■ ERFURT LED EXTREME	100
■ ZUG LED EXTREME	186

General hall lighting

■ BERN LED	66
■ CENTAURUS	86
■ ERFURT LED	98
■ ERFURT LED EXTREME	100
■ ERFURT LED INDUSTRY	106
■ GENF	110
■ MÜNCHEN LED	136
■ NIGHTLINE	140
■ POLARIS	158
■ ZUG LED	180
■ ZUG LED EXTREME	186
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Factory / Maintenance area

■ BERN LED	66
■ CENTAURUS	86
■ ERFURT LED	98
■ ERFURT LED EXTREME	100
■ ERFURT LED INDUSTRY	106
■ NIGHTLINE	140
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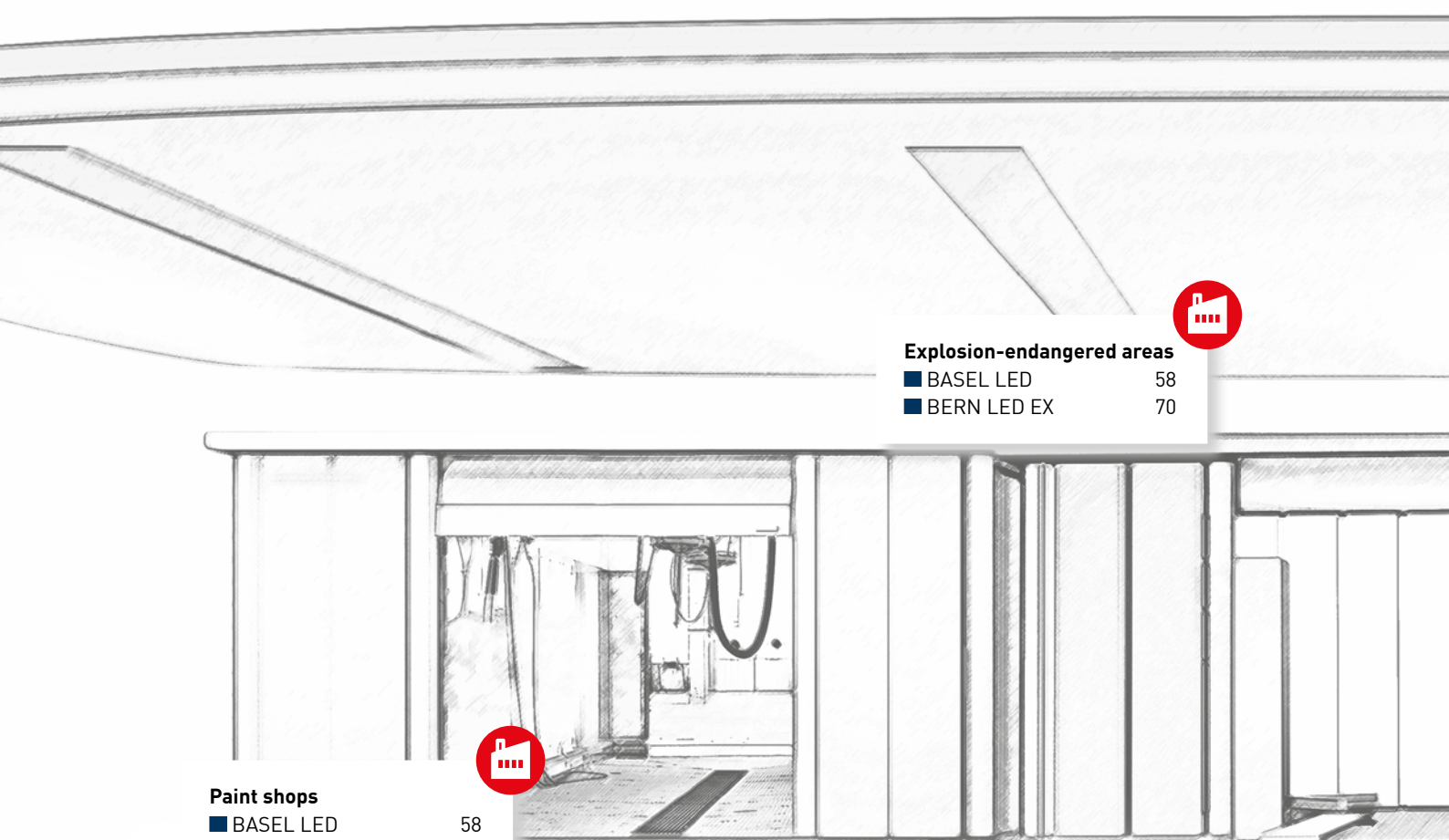
Waste disposal / Recycling

■ CENTAURUS	86
■ COESFELD	90
■ COESFELD PLUS	92
■ LUGANO	128
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■ ERFURT LED	98
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LIGHT SOLUTIONS FOR INDUSTRIAL APPLICATIONS



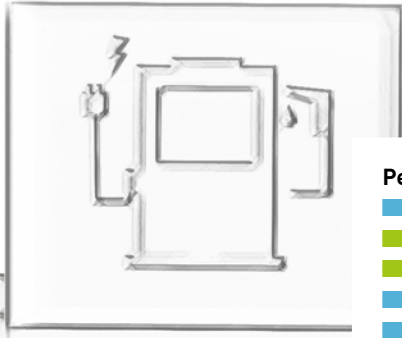
Explosion-endangered areas

■ BASEL LED	58
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Paint shops

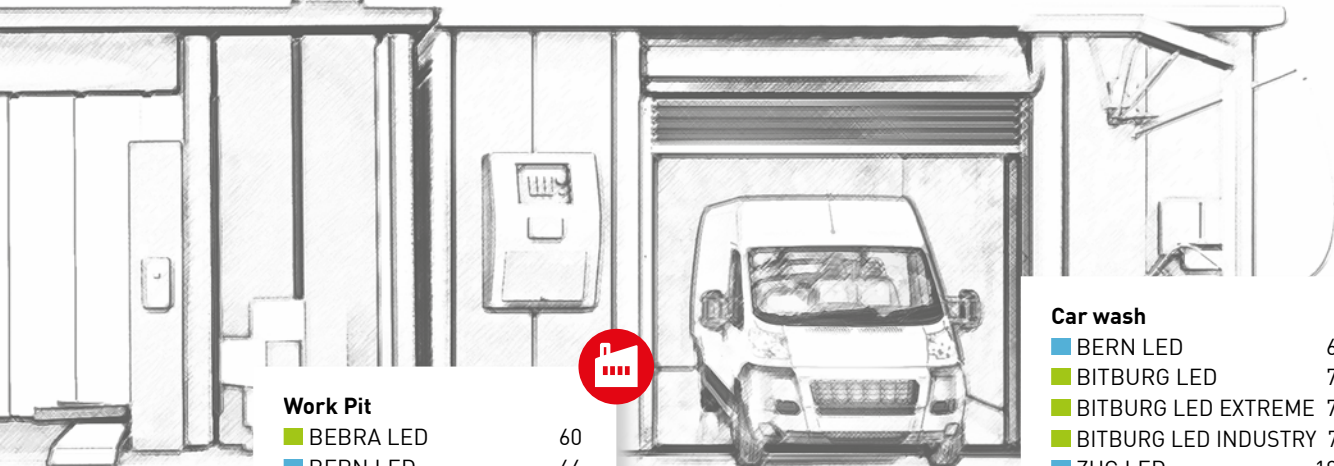
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Work Pit

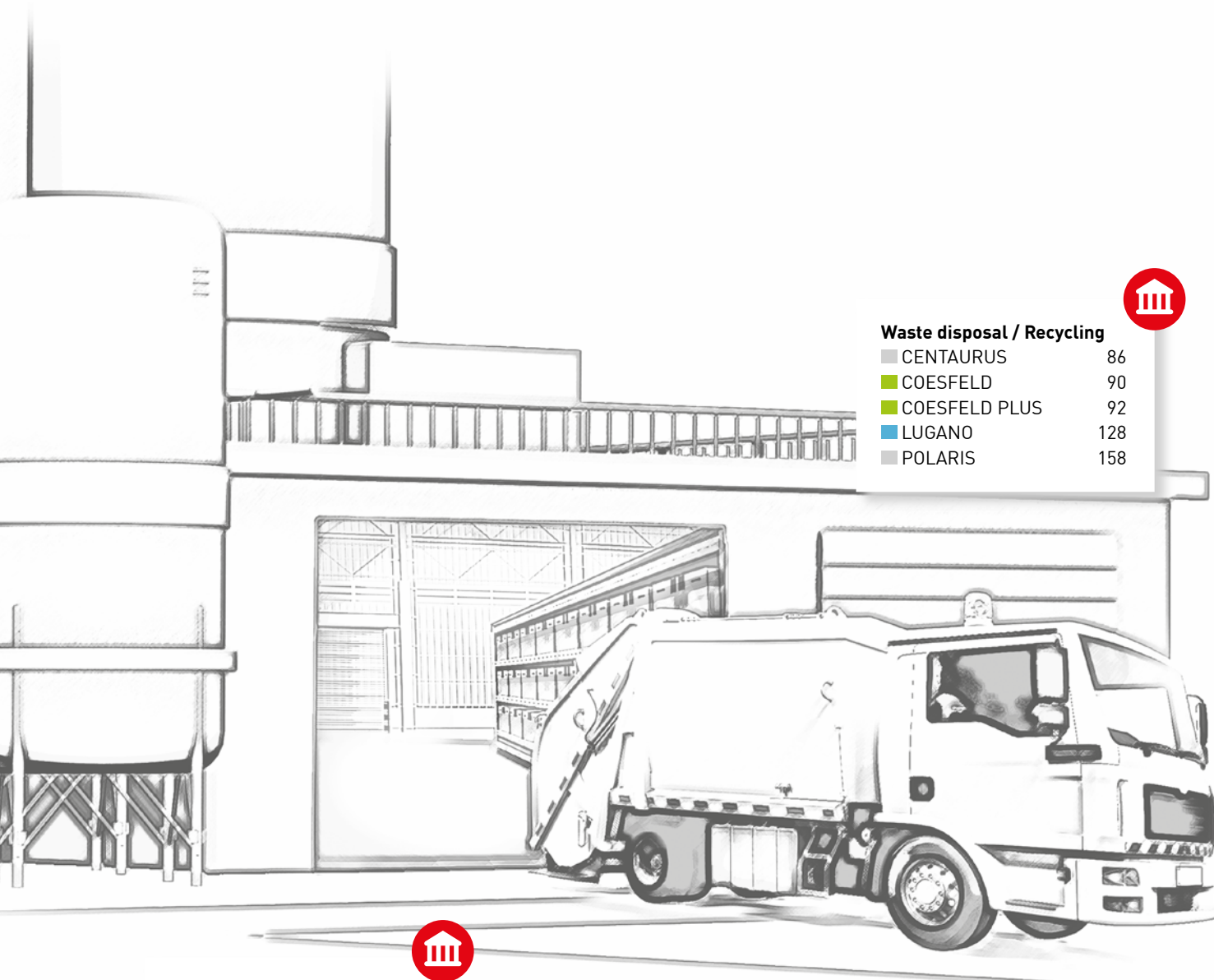
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■ BERN LED	66
■ BITBURG LED	74
■ BITBURG LED INDUSTRY	78
■ FULDA LED	108
■ ZUG LED	180
■ ZUG LED INDUSTRY	190



Car wash

■ BERN LED	66
■ BITBURG LED	74
■ BITBURG LED EXTREME	76
■ BITBURG LED INDUSTRY	78
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LIGHT SOLUTIONS FOR STATE AND MUNICIPALE FACILITIES



Waste disposal / Recycling

■ CENTAURUS	86
■ COESFELD	90
■ COESFELD PLUS	92
■ LUGANO	128
■ POLARIS	158



Sewage works

■ COESFELD	90
■ COESFELD PLUS	92
■ LUGANO	128



Pedestrian tunnel

■ BELFAST	62
■ BERN LED	66
■ PHALANX 430	146
■ PHALANX 620	148
■ PHALANX LINEAR 75	150
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■ PHALANX LINEAR 240	156
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■ PHALANX 620	148
■ PHALANX LINEAR 115	152
■ PHALANX LINEAR 200	154
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■ BELFAST	62
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■ BITBURG LED	74
■ BITBURG LED INDUSTRY	78
■ ERFURT LED	98
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■ MÜNCHEN LED	136
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High temperature $\geq 60\text{ }^{\circ}\text{C}$

■ BITBURG LED EXTREME	76
■ BREMERHAVEN LED	80
■ CENTAURUS	86
■ ERFURT LED EXTREME	100
■ ZUG LED EXTREME	186



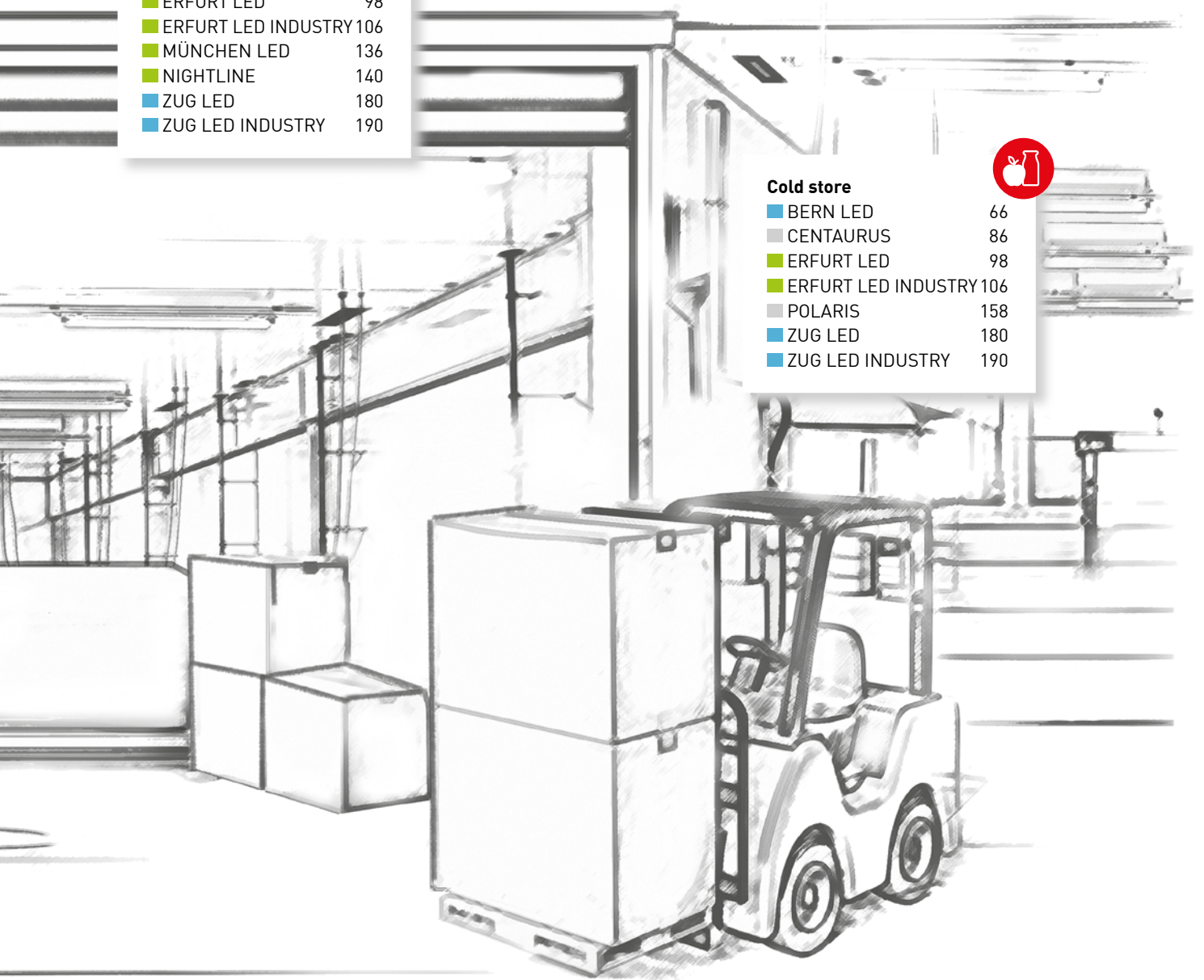
Fresh foods storage

■ BERN LED	66
■ ERFURT LED	98
■ ERFURT LED INDUSTRY	106
■ MÜNCHEN LED	136
■ NIGHTLINE	140
■ ZUG LED	180
■ ZUG LED INDUSTRY	190



Cold store

■ BERN LED	66
■ CENTAURUS	86
■ ERFURT LED	98
■ ERFURT LED INDUSTRY	106
■ POLARIS	158
■ ZUG LED	180
■ ZUG LED INDUSTRY	190





IFS AND HACCP

Requirements in food production

HACCP AS A PART OF IFS

IFS, a conglomerate of commercial and industrial companies, sets international standards for production and services in various industries: from food production and logistics to the manufacturing of packaging materials or personal care products. These standards are developed and recognised by trade and industry to ensure maximum product safety. To meet the IFS Food standard, for example, the HACCP concept must be applied.

CONFORMITY FROM START TO FINISH

IFS Food certification is often demanded as a requirement for food suppliers. HACCP and IFS requirements not only apply to the IFS-certified company itself, but also to suppliers of equipment, machines or packaging materials.

UNPACKAGED FOOD

Unpackaged food poses a particular challenge: injuries caused by contaminants in food can have serious consequences. Great care must therefore be taken when handling unpackaged goods, including lighting.

> Risk of breakage minimised

To prevent contamination, luminaires must be secured with splinter protection. Alternatively, the risk of breakage can be minimised by the mounting. The use of fracture proof materials lends itself particularly well here. Our profiles made of fibreglass-reinforced polymer and polycarbonate minimise the risk of contamination.

> Captive components

Luminaire components should not be able to contaminate the goods. Norka designs use captive screws or arrester threads to provide extra safety during mounting and maintenance.

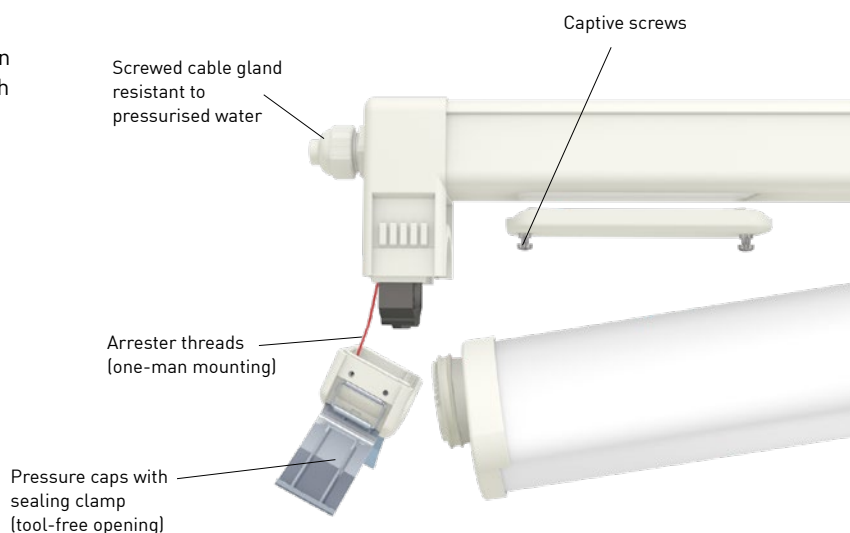
> Hygiene and cleaning

The installed luminaires must be able to withstand aggressive cleaning agents and high-pressure cleaning. The design should simplify cleaning. NORKA offers luminaires with high protection ratings and special coatings.

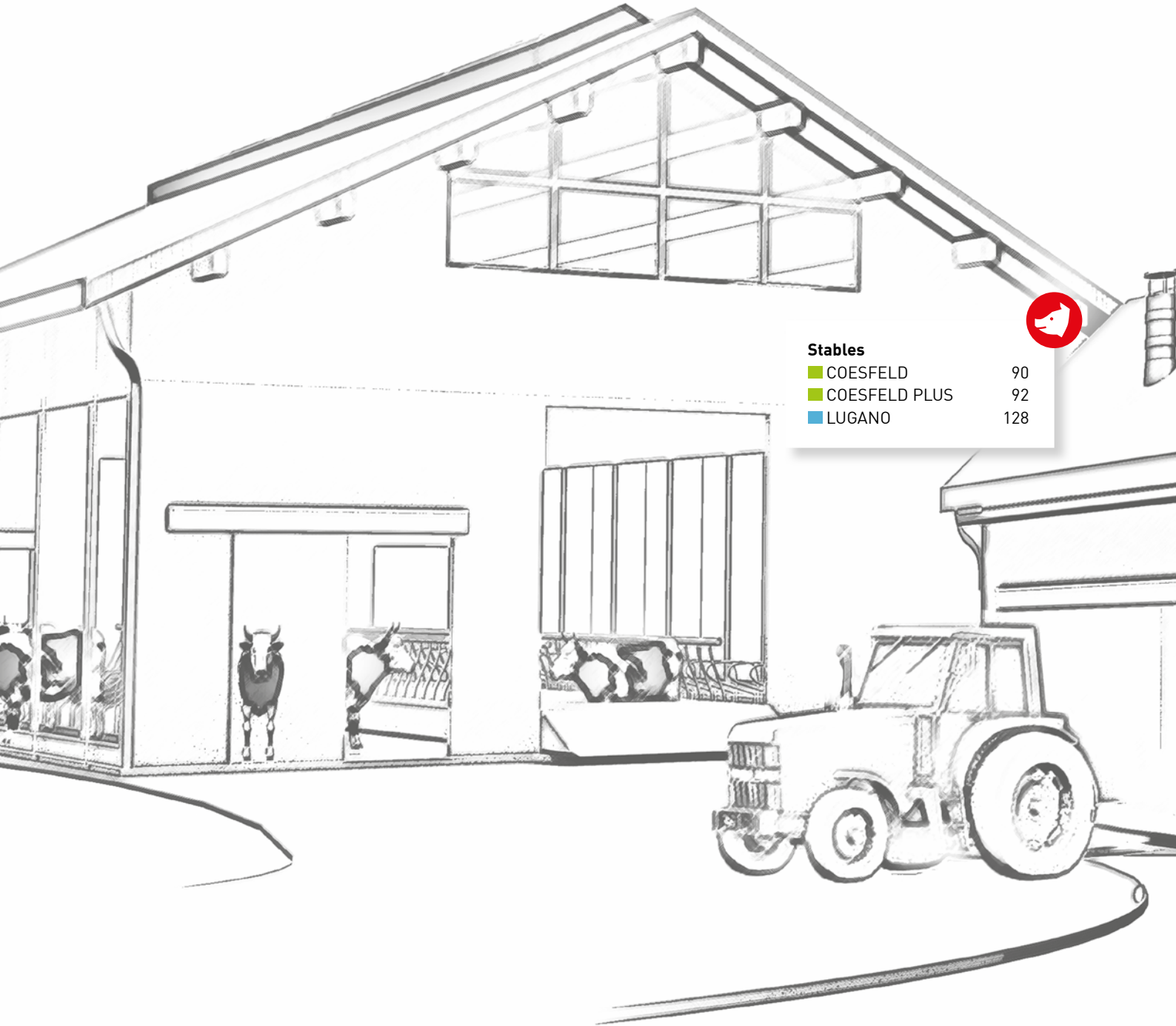
OVERVIEW: LUMINAIRES FOR USE IN IFS-CERTIFIED COMPANIES*

Production area	Luminaire family
1 A Handling of raw goods or unpackaged products, additional intensive cleaning processes using high-pressure cleaners (cold/warm) with cleaning agents	BERN LED, BITBURG LED, BITBURG LED EXTREME, BITBURG LED INDUSTRY, ZUG LED, ZUG LED EXTREME, ZUG LED HIGH OUTPUT, ZUG LED INDUSTRY, with coating providing increased resistance to acids, bases and cleaning agents.
1 B Handling of raw goods or unpackaged products, additional intensive cleaning processes using high-pressure cleaners (cold/warm)	BERN LED, BITBURG LED, BITBURG LED EXTREME, BITBURG LED INDUSTRY, ZUG LED, ZUG LED EXTREME, ZUG LED HIGH OUTPUT, ZUG LED INDUSTRY
2 Handling of raw goods or unpackaged products	BERN LED, BREMERHAVEN LED, BITBURG LED, BITBURG LED EXTREME, BITBURG LED INDUSTRY, ERFURT LED, ERFURT LED EXTREME, ERFURT LED HIGH OUTPUT, ERFURT LED INDUSTRY, MÜNCHEN LED, ZUG LED, ZUG LED EXTREME, ZUG LED HIGH OUTPUT, ZUG LED INDUSTRY
3 Packaging and storage of raw goods	BERN LED, BREMERHAVEN LED, BITBURG LED, BITBURG LED EXTREME, BITBURG LED INDUSTRY, ERFURT LED, ERFURT LED EXTREME, ERFURT LED HIGH OUTPUT, ERFURT LED INDUSTRY, MÜNCHEN LED, ZUG LED, ZUG LED EXTREME, ZUG LED HIGH OUTPUT, ZUG LED INDUSTRY
4 Storage of packaged finished products	BERN LED, BITBURG LED, BITBURG LED EXTREME, BITBURG LED INDUSTRY, CENTAURUS, ERFURT LED, ERFURT LED EXTREME, ERFURT LED HIGH OUTPUT, ERFURT LED INDUSTRY, MÜNCHEN LED, ZUG LED, ZUG LED EXTREME, ZUG LED HIGH OUTPUT, ZUG LED INDUSTRY

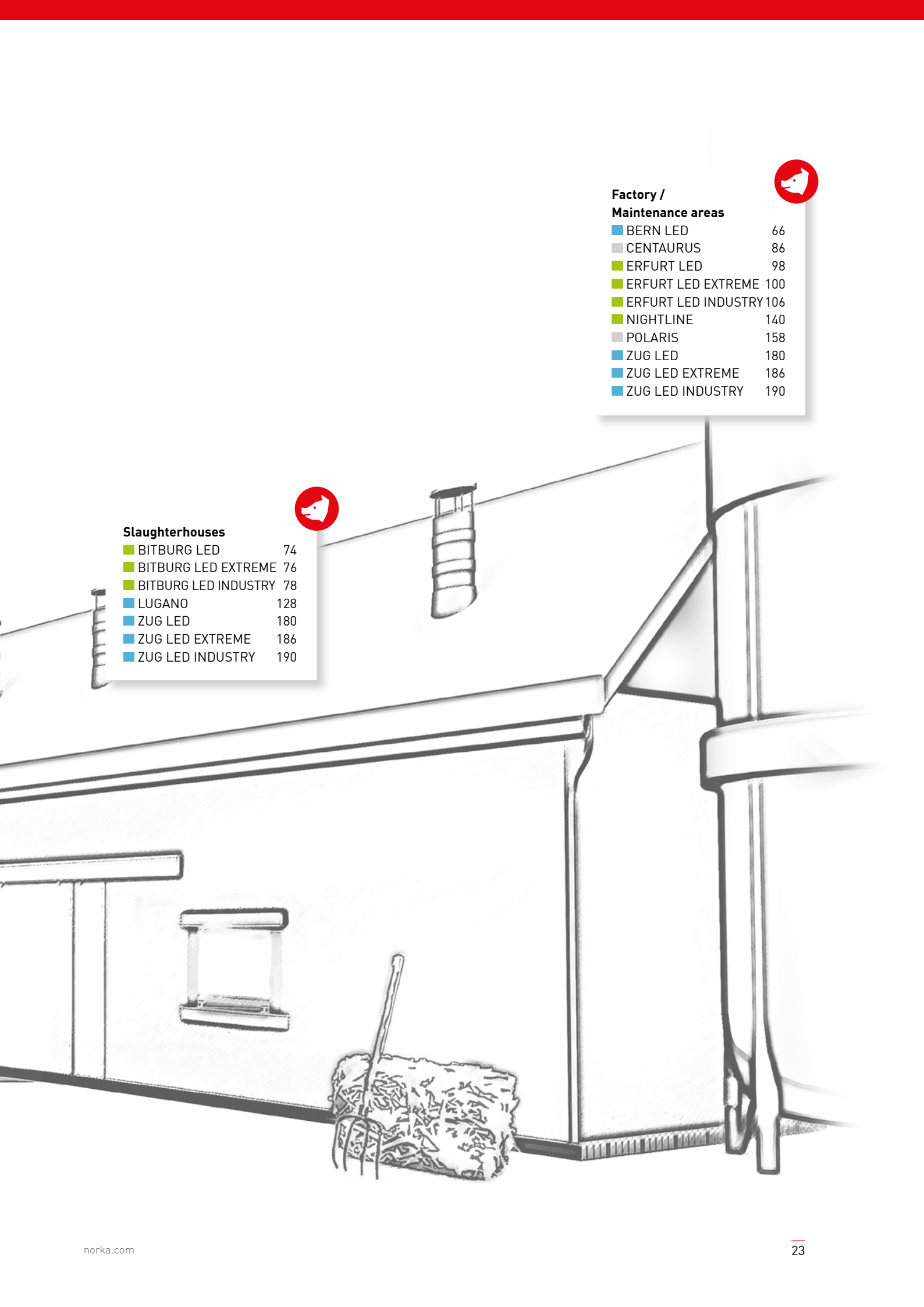
*The corresponding manufacturer's declarations can be found on our website in the information on the respective products.



LIGHT SOLUTIONS FOR POULTRY, PIGS AND CO.



Stables	
■ COESFELD	90
■ COESFELD PLUS	92
■ LUGANO	128



**Factory /
Maintenance areas**

■ BERN LED	66
■ CENTAURUS	86
■ ERFURT LED	98
■ ERFURT LED EXTREME	100
■ ERFURT LED INDUSTRY	106
■ NIGHTLINE	140
■ POLARIS	158
■ ZUG LED	180
■ ZUG LED EXTREME	186
■ ZUG LED INDUSTRY	190



Slaughterhouses

■ BITBURG LED	74
■ BITBURG LED EXTREME	76
■ BITBURG LED INDUSTRY	78
■ LUGANO	128
■ ZUG LED	180
■ ZUG LED EXTREME	186
■ ZUG LED INDUSTRY	190

LIGHT SOLUTIONS FOR SPORTS HALLS, SWIMMING POOLS AND OTHER FACILITIES



Multi purpose halls

■ CENTAURUS	86
■ DUBLIN LED	94
■ LONDON LED	124
■ MÜNCHEN LED	136
■ NIGHTLINE	140
■ POLARIS	158



Shower rooms

■ BERN LED	66
■ BITBURG LED	74
■ BITBURG LED INDUSTRY	78
■ GENF	110
■ LUGANO	128
■ MÜNCHEN LED	136
■ ZUG LED	180
■ ZUG LED EXTREME	186
■ ZUG LED INDUSTRY	190



Sports halls

■ CENTAURUS	86
■ DUBLIN LED	94
■ LONDON LED	124
■ MERKUR LED	134
■ POLARIS	158



Facade lighting

■ BERN LED	66
■ BRIG	82
■ LUZERN 38 LED	130
■ URANUS	174
■ URANUS PF	176



Swimming halls

■ BERN LED	66
■ CENTAURUS	86
■ DUBLIN LED	94
■ GERA LED	112
■ JENA LED	118
■ LONDON LED	124
■ MÜNCHEN LED	136
■ POLARIS	158
■ ZUG LED	180
■ ZUG LED EXTREME	186
■ ZUG LED INDUSTRY	190



CHLORINE AND MORE

Special challenges in swimming pools and sports halls

BALL IMPACT RESISTANCE

Whether volleyball, football or handball – balls do not always end up in the goal, but can stray onto the walls or ceiling. Even luminaires can be hit an odd ball in the process. Depending on the skill of the player, high speeds may be reached – up to 140 km/h for professional handball players, for example. As a result, paying attention to the ball impact resistance of luminaires is vital in order to minimise the risk of injury in the event of a stray ball.

The test for ball impact resistance is defined by DIN EN 12193. The stand-

ard-compliant test requires that the luminaire withstands 36 shots at an impact speed of 60 km/h from a handball from three directions without significant damage or loosening of parts. This applies not only to the luminaires themselves, but also to accessories and assembly parts, such as mounting rails or trunking systems.

FLICKER-FREE FOR FAST BALLS AND HD TRANSMISSION

In high-speed sports, such as ice hockey or table tennis, flicker-free lighting plays a crucial role in ensuring good visibility. The fast movements of a puck or ball can appear erratic or choppy in the “wrong” light. In this case, light quality in the form of zero flicker can decide victory or defeat. In television broadcasts, it is also important to ensure that the illumination is suitable for HD transmissions and that flickering does not impair the image. In addition, clearly defined minimum illumination levels and uniformities are usually required.



Choose the swimming pool version option!

ENSURING NOTHING RUSTS – CHLORINE ON THE SCREEN

The use of chlorine to disinfect water in indoor swimming pools is intended to protect the health of the users. Chlorine is also released into the atmosphere in the process. As a strong oxidant, chlorine leads to corrosion on metallic surfaces, also affecting aluminium and stainless steel. Over time, rust eats through the materials and corrodes them. Mounting screws or clamps may literally disappear into thin air without being noticed.

For this reason, it is essential to pay attention to the chlorine resistance of products in swimming pools. NORKA offers the “swimming pool version” option for all suitable products. In this case, the luminaire is modified during production so that all components are suitable for use in chlorinated environments. Accessories such as mounting clamps or mounting rails must also be selected according to the application environment.



Sports at professional level and TV broadcasts require high-quality light with uniform illumination, low glare and no flickering.

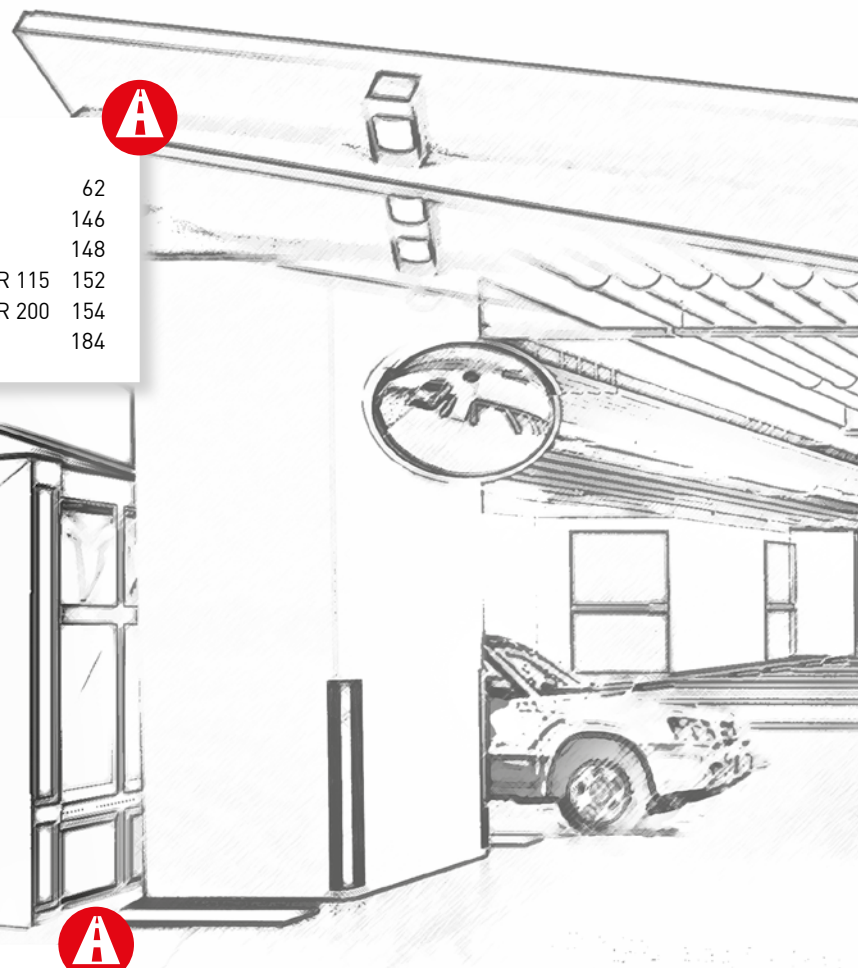
LIGHT SOLUTIONS FOR TRAFFIC-RELATED AREAS

Service area

■ BELFAST	62
■ PHALANX 430	146
■ PHALANX 620	148
■ PHALANX LINEAR 115	152
■ PHALANX LINEAR 200	154
■ ZUG LED AL	184

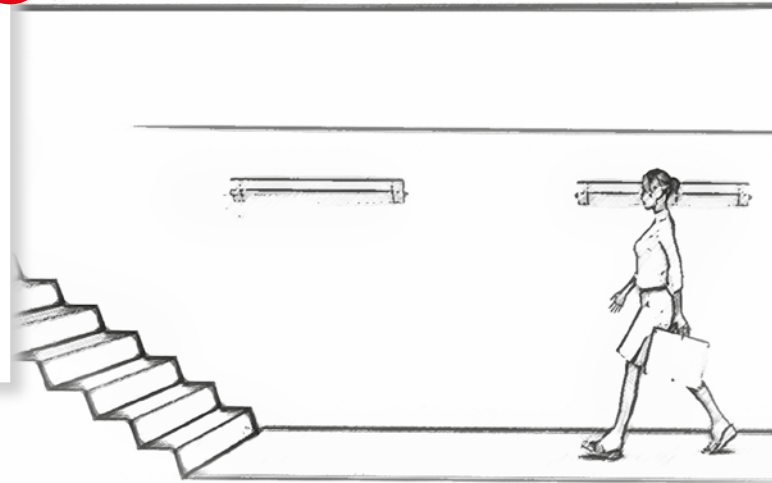


WC



Pedestrian tunnel

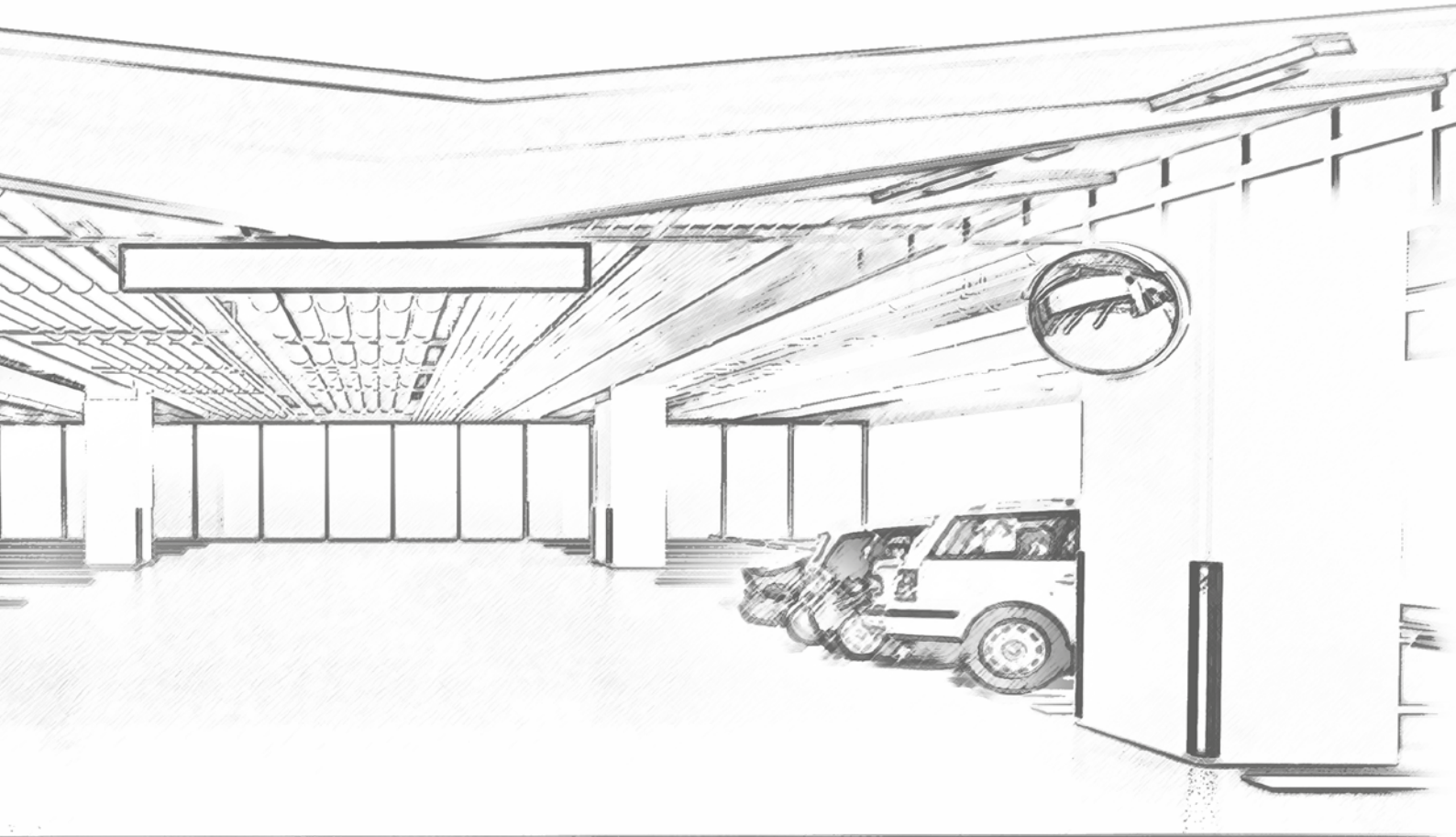
■ BELFAST	62
■ BERN LED	66
■ PHALANX 430	146
■ PHALANX 620	148
■ PHALANX LINEAR 75	150
■ PHALANX LINEAR 115	152
■ PHALANX LINEAR 200	154
■ PHALANX LINEAR 240	156
■ ZUG LED	180
■ ZUG LED AL	184
■ ZUG LED INDUSTRY	190





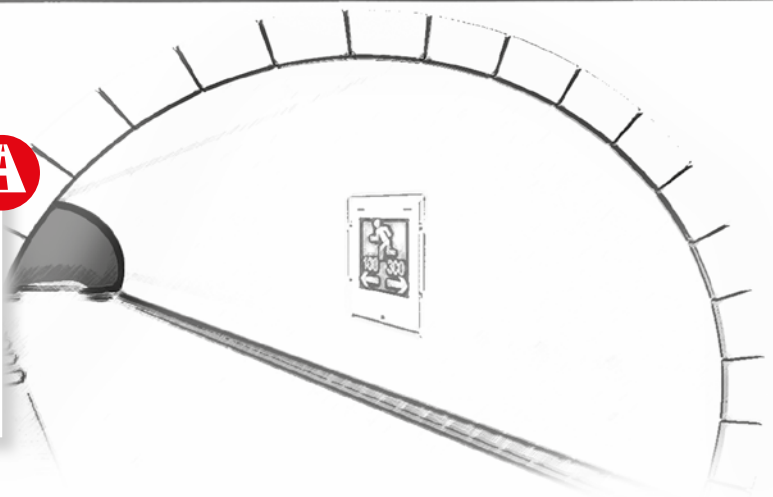
Multi-storey car park

■ BERN LED	66
■ ERFURT LED	98
■ ERFURT LED INDUSTRY 106	
■ GENF	110
■ LUZERN 38 LED	130
■ ZUG LED	180
■ ZUG LED INDUSTRY	190

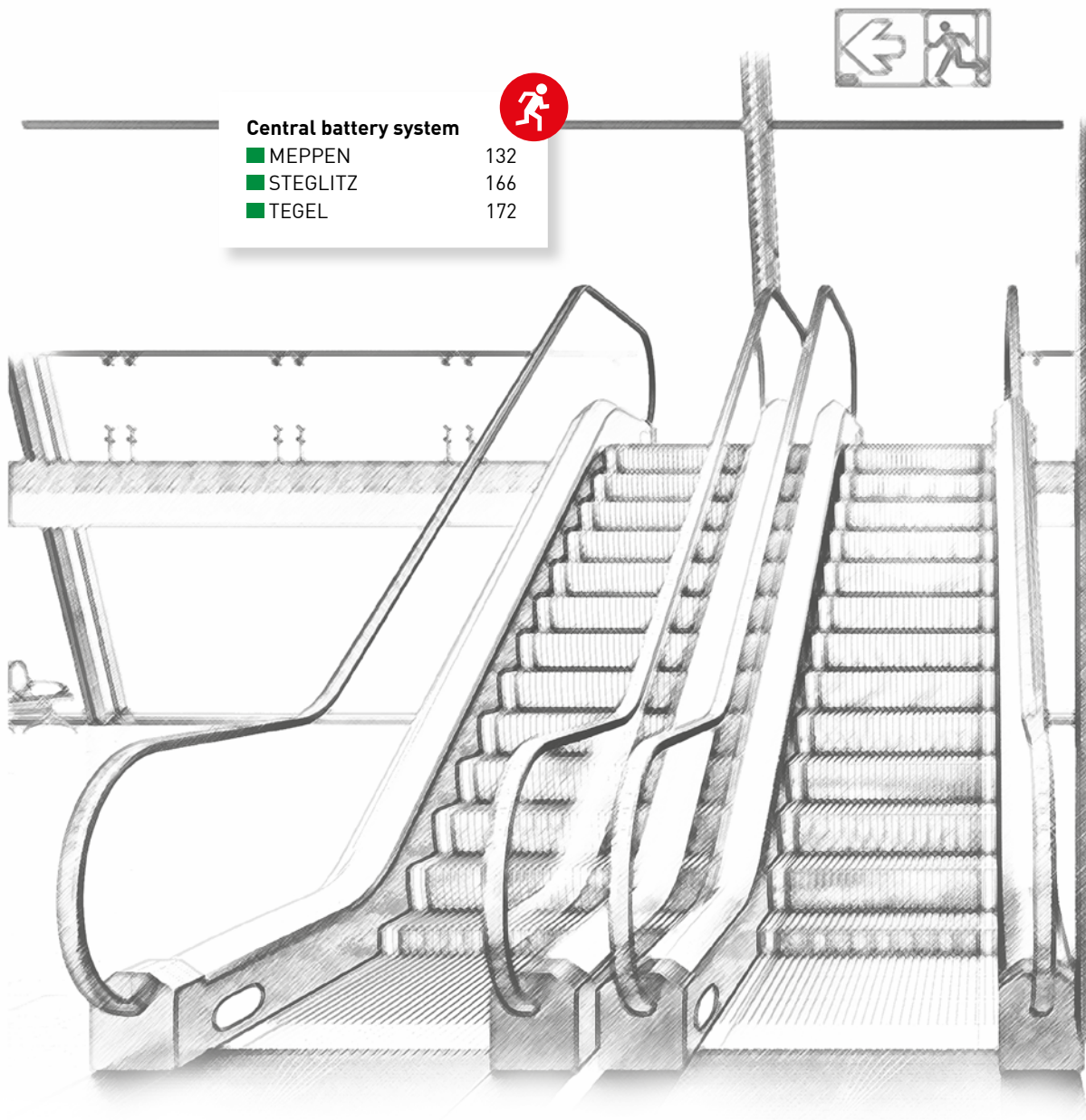


Tunnels / Traffic control systems

With our VERN0 product segment, we offer lighting for tunnels and active traffic guidance systems. More information at norka.com.



LIGHT SOLUTIONS FOR STANDBY AND SAFETY LIGHTING



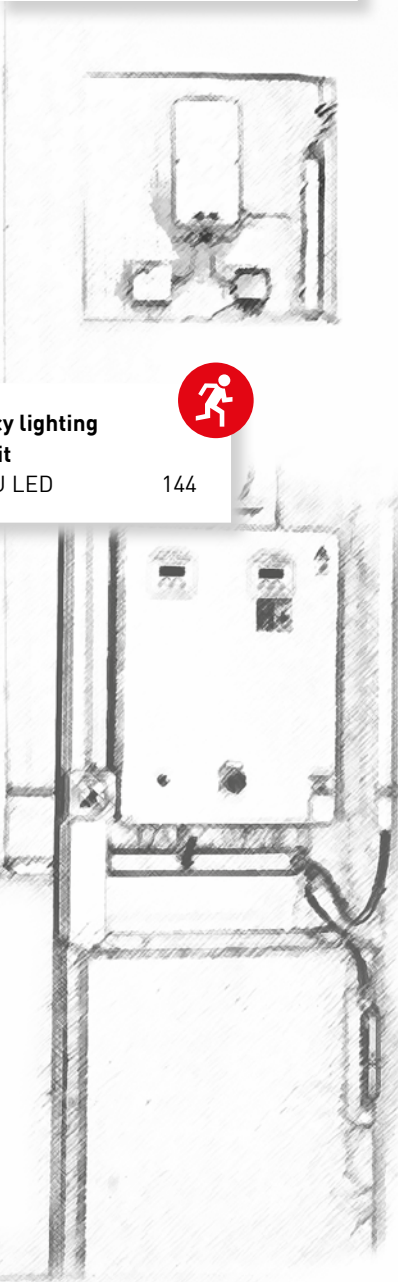
Central battery system

■ MEPPEN	132
■ STEGLITZ	166
■ TEGEL	172



Individual battery system

- COBURG LED 88
- SCHÖNEFELD 162
- TEGEL 172



Emergency lighting supply unit

- PASSAU LED 144



IF YOU'RE LOOKING FOR THAT SOMETHING

Production of special luminaires

Customised lighting solutions for demanding environments are our speciality: harsh conditions, extreme environmental factors and high quality standards are what we are all about.

Our own laboratory and production facilities in Germany enable us to produce customised products for specific projects. These range from products in special colours and special lengths to the development of crossbars or other fastenings. Specific technical features can also be developed to meet

requirements. As a company specialising in lighting technology, we have our own VDE-compliant test laboratory and our own design and development department. Furthermore, NORKA is notable for its high level of vertical integration: we manufacture in Germany which gives us maximum control over processing.

Please contact our sales team if you require a customised product for your project!



**NORKA FINDS
SOLUTIONS:
WITH DEVOTION,
PRECISION AND
EXPERTISE.**







NORKA tests its materials for resistance to various chemical substances in order to supply reliable and durable products for demanding environments such as sewage treatment plants.

LIGHT WITH FORETHOUGHT AND COMFORT

Taking a look at the field of sports as an example for intelligent lighting: swimming pools, sports halls and multifunctional halls often require a high degree of flexibility when it comes to lighting. Various requirements have to be addressed in these areas. For regular operation, a daylight-linked lighting control system for maximum energy saving is a good choice.

For sports competitions, uniform, high-quality illumination is needed

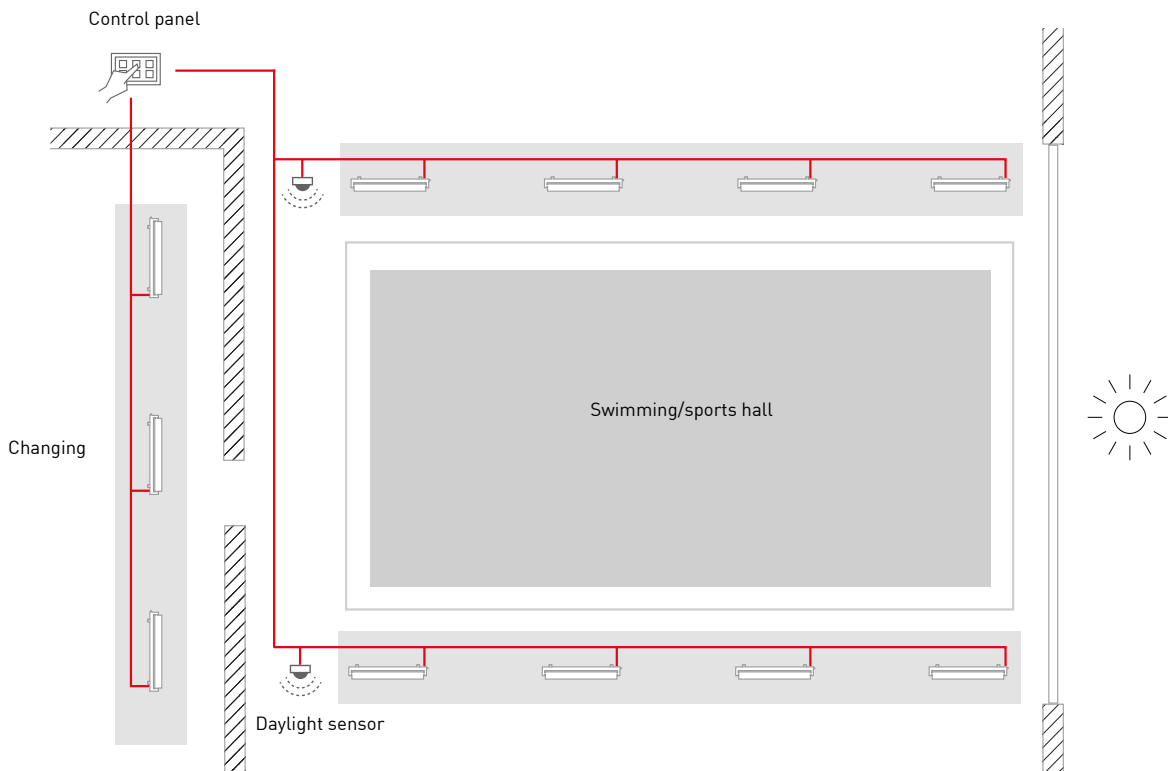
whereas mood lighting is more appropriate for special events. All these requirements can be fulfilled with a sophisticated lighting control system.

Various lighting scenes can be centrally operated from a control panel, for example. Additionally, other elements of the building control system, such as the sunshade, can be integrated to achieve optimal interaction of lighting and daylight, in turn maximising energy savings.

In areas such as changing rooms or showers, daylight-linked control and motion detection also help to save energy.

In industrial environments such simple principles also offer opportunities for energy savings.

- Example diagram: daylight-linked control and predefined lighting scenes for various applications ensure maximum convenience and potential savings. Staff can call up the required lighting scenes from a centrally placed control panel.



Our XARA[®] lighting control system

OVERVIEW OF THE BASIC FUNCTIONS

→ Corridor function

The detection of movement causes the illumination level to dim up from a defined basic level. After a defined follow-up time, the lighting is lowered to the basic level again. The principle can be combined with other control options such as time schedules or daylight-controlled system.

→ Lighting scenes

Different lighting scenes can be called up from a control panel. Lighting scenes include stored settings – for example, defined illumination levels for different luminaire groups – depending on the required application.

→ Motion-controlled control system

Movement can be detected by PIR or radar sensors. A detected movement triggers a predefined control sequence.

→ Daylight-linked control system

Through the detection of the natural ambient light, the power is needed to meet the required illumination level is determined. The luminaire power is then automatically adjusted.

In addition, numerous other options such as luminaire and energy monitoring or automated function tests are available.

XARA[®] sensor technology can be structurally incorporated into selected products. Due to the recessed mounting, the sensor technology is discreetly incorporated and protected from extreme ambient conditions.



A control panel allows different lighting scenes to be easily called up as needed.

ABOUT OUR LUMINAIRES


Technical data and symbols explained

NORKA has been developing and producing luminaires for decades, navigating between high demands on lighting technology and extreme ambient conditions. The development of our luminaires is based on focused long-term testing of lighting systems in industrial production areas. Findings about the effect of dirt and loads on the luminaires are taken into account when developing and producing new NORKA luminaires. Environmental influences and specific component properties are also considered.

The complexity of technical lighting that this entails is sometimes not obvious at first glance. More in-depth information on the technical features of NORKA luminaires will therefore be provided in the following.



FOCUSSED LIGHTING

A great deal of energy can be saved – in terms of the required illumination level – by providing spot lighting. Accordingly, NORKA has a range of luminaires offering a wide spectrum of luminous fluxes that enable the most suitable and energy-saving lighting design possible. NORKA refers to this characteristic as **“focussed lighting”** . The best way to determine the luminous flux that is right for your project is to use the **luminous flux table** in the appendix.



Focussed lighting enables spot-on lighting design.

LIGHT CHARACTERISTIC ICONS

For initial guidance on light distribution, **stylised icons** can be found on the product line pages of the luminaires. For the most part, these icons represent a highly simplified version of the respective light distribution curve.

The specific light distribution curve for each individual product can be called up on **norka.com** and is shown on the respective product data sheet.



NARROW BEAM

- > Luminaire with half-peak angle between 11° and 20°
- > Accentuated illumination of the surface in use



CONCENTRATED BEAM

- > Luminaire with half-peak angle between 21° and 40°
- > Narrow focus, uniform illumination of the surface in use



CONCENTRATED WIDE BEAM

- > Luminaire with half-peak angle between 21° and 40°
- > Wide, uniform illumination of the surface in use



ASYMMETRIC BEAM

- > Asymmetric beam luminaire
- > With half-peak angle between 21° and 40°



MEDIUM BEAM

- > Medium beam luminaire with half-peak angle between 21° and 40°
- > Uniform illumination of the room



WIDE BEAM

- > Wide beam luminaire with half-peak angle between 41° and 80°
- > Wide, uniform illumination of the surface in use



EXTREME WIDE BEAM

- > Extreme wide beam luminaire with half-peak angle $>80^\circ$
- > Extremely wide, uniform illumination of the surface in use



BARE LAMP

- > Bare or diffuse luminaire



WITH INDIRECT UPLIGHTING

- > Indicated light distribution also has an indirect uplighting component

easy eXchange – FOR SUSTAINABLE LIGHT

easy eXchange

LED MODULES AND DRIVER COMPLETELY REPLACED

Luminaires featuring easy eXchange can simply be completely replaced. The electronic components (LED modules and driver) are really easy to replace with new ones once they have come to the end of their service lives. The housing and reflector tube can still be used.

easy eXchange LED

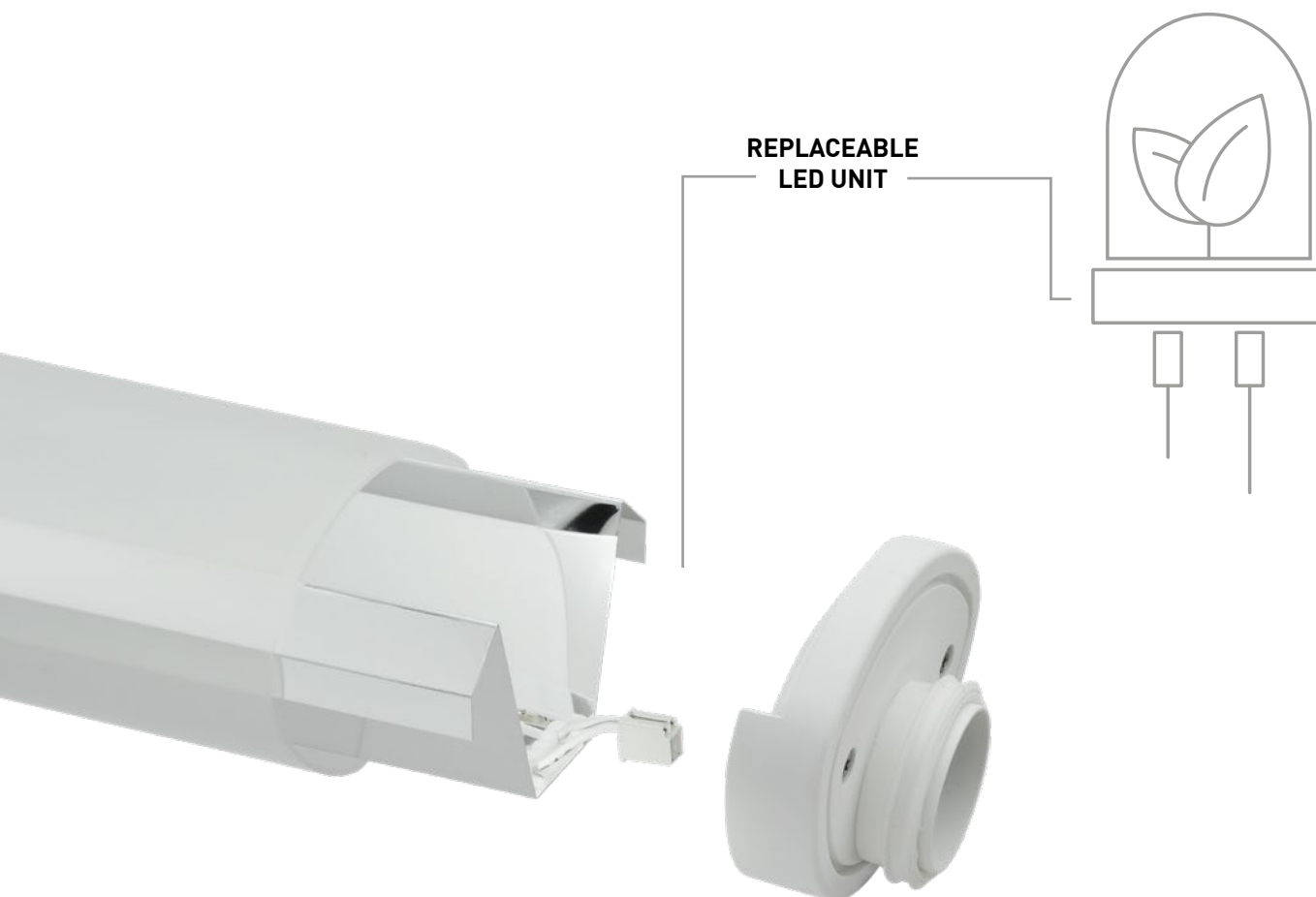
EASY TO CHANGE LEDS

The LED modules in the reflector tube are easy to change by means of a plug connection. The protective tube can still be used.


easy eXchange DRIVER

EASY TO CHANGE DRIVER


Easy eXchange DRIVER (RAPDEX) enables the easy and quick exchange of drivers, while the luminaire can remain in its installation position.

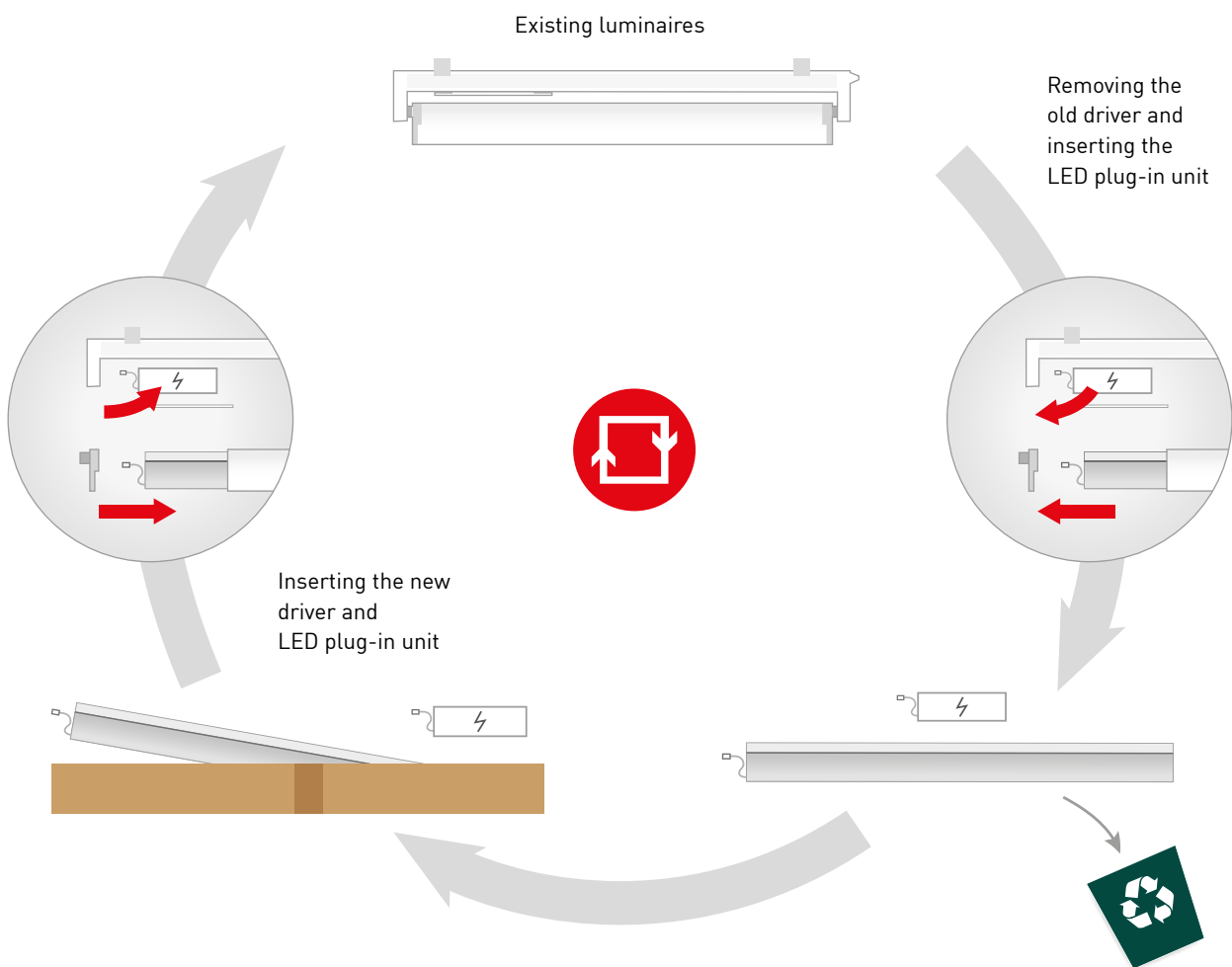


NORKA luminaires are designed for use in the most demanding environmental conditions. Above all, they stand out for their long service life and high resistance to a wide range of chemicals and other environmental influences. They are luminaires built to last.

Due to their excellent durability, NORKA luminaire housings often outlive the life cycles of the built-in electronic components. It therefore makes sense to think about the future as well: by choosing the right  easy eXchange product, the driver and LEDs can be replaced quickly and easily at the end

of the product's service life. The installed luminaires can be made "fit for purpose" again, thus avoiding unnecessary new purchases, saving installation time and conserving resources.

The design of NORKA luminaires generally allows components to be exchanged. Replacement is really convenient, however, with luminaires fitted with our  easy eXchange components.



LUMINOUS FLUX AS REQUIRED

Luminaire parametrisation using NFC



The “variably adjustable luminous flux via NFC programming” option allows the lamp luminous flux to be set or changed using a parametrisation device. For example, this means that luminaires in stock can be used to respond spontaneously to operational requirements and luminaires can be stocked for different locations. If necessary, these can be parametrised for their intended use using NFC. This eliminates the need to specifically procure the luminaires required for the respective area.

QR codes can be used to re-parametrise the operating current of the driver without having to dismantle or open the luminaire. The luminaire adopts the newly set parameters after a restart.



> The required parametrisation device is available separately as an accessory.

OPTIONAL ELECTRONIC COMPONENTS FOR LED LUMINAIRES

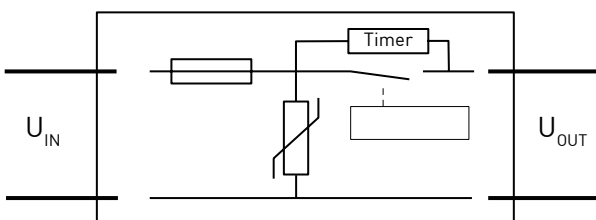
INRUSH CURRENT LIMITER

Optionally, an inrush current limiter can be integrated into many NORKA luminaires. The inrush current of the LED driver amounts to a multiple of the current taken up in running operation, the so-called nominal current (I_{NOM}). If the sum of the inrush currents exceed the tripping characteristic curve, the circuit breaker trips.

Especially when converting existing installations with conventional technology to LED technology, this often leads to an overload of the circuit breakers at the moment of switch-on, although the new system has a lower power and thus lower rated current consumption than before.

This problem can be prevented with an inrush current limiter. For the moment of switch-on, this inrush current limiter switches a series resistor upstream of the luminaire for a few milliseconds, thereby limiting the current consumption. For planning, a table is available with the permissible number of NORKA luminaires with and without an inrush current limiter per circuit breaker.

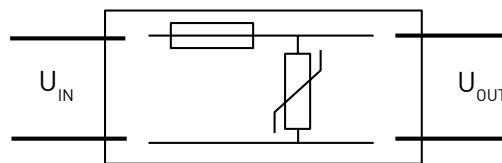
A 4 kV transient filter is integrated into the ENEC-certified inrush current limiter.



TRANSIENT FILTER

Voltage peaks (transients) can be modulated to the 230 V mains voltage through external and electrical influences. These voltage peaks can be high-energy or high-frequency, depending on their origin; high-energy interference is called a **surge** and high-frequency interference is called a **burst**.

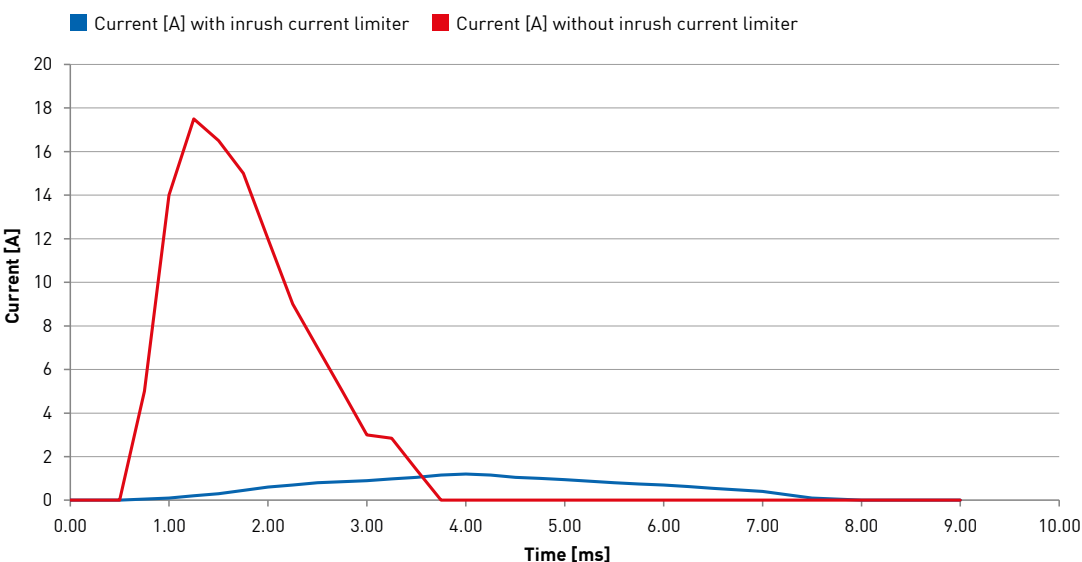
Most NORKA luminaires are fused for voltage peaks up to 2 kV by default; for higher voltage peaks, NORKA offers an optional transient filter up to 4 kV for many luminaires.



A transient filter or inrush current limiter must be exchanged after the following faults:

- > Overvoltage >300 V
- > Short circuit at output
- > Surge >4 kV
- > Burst >4 kV

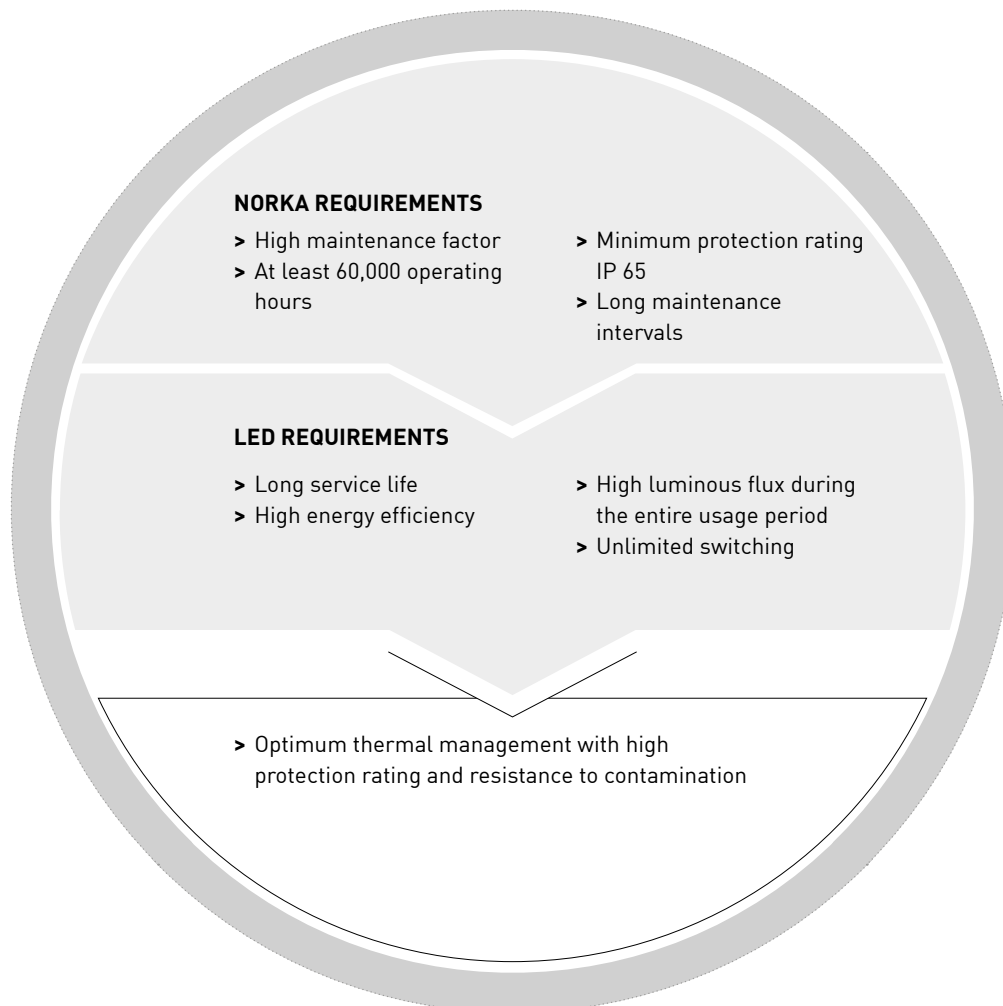
INRUSH CURRENT OF A SAMPLE LUMINAIRE (LED) WITH AND WITHOUT THE INRUSH CURRENT LIMITER





In many industrial areas, such as pickling plants, special luminaires for high temperatures are indispensable.

THERMAL MANAGEMENT



NORKA DEVELOPS LUMINAIRES FOR USE IN HARSH CONDITIONS

NORKA lighting technology is protected by an enclosed system. Individual housing parts are enclosed in order to reach the necessary protection rating and prevent dirt from penetrating the luminaire. In addition, the entire housing design is optimised for the temperature characteristics of the LEDs.

HIGH-PERFORMANCE LEDs REQUIRE SPECIALLY TAILORED THERMAL MANAGEMENT

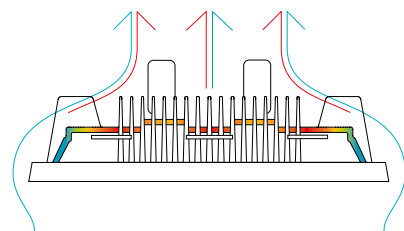
NORKA relies on passive cooling elements. These are robust and – unlike active systems – do not consume any additional energy. Apart from the actual cooling effects of these elements, their susceptibility to contamination also has to be taken

into account. A dirty surface or dusty housing recesses prevent the generated heat from being dissipated by the housing. This could then cause a build-up of heat and increased temperatures inside the luminaire.

In order to achieve a long service life with a high luminous flux, LEDs require a specially developed thermal management.

In a virtual testing room, NORKA simulates the typical heat conduction and convection properties of the luminaires. Realistic parameters normally seen in a typical application are used in the simulation. Critical design aspects for thermal management can already be analysed and optimised here on the 3D model. A prototype is then built according to the simulation. All lighting properties are checked in depth

once again on the actual product in the testing laboratory and the luminaire is subjected to additional endurance tests.



> Heat transport on the CENTAURUS luminaire

TEMPERATURE AND SERVICE LIFE

SERVICE LIFE SPECIFICATION

NORKA LED products largely have a service life of L80 B10 > 60,000 hours. Divergent service lives must be specified separately.

The L value describes what percentage of the initial luminous flux is still guaranteed at the end of the LED service life. L80 means that 80% of the initial luminous flux is still achieved at the end of the service life. In other words: L80 describes a maximum 20% decrease in luminous flux from the initial value of the LED module.

The B value describes the static number of LEDs or modules affected by the luminous flux decrease at the end of the LED service life in percent. B10 means that 10% of the modules can lie below the defined L80 value at the end of the specified service life.

TEMPERATURE AND SERVICE LIFE

LEDs work better in cold environments – they emit more light in cold conditions and their service life increases. However, this does not mean that LED luminaires may not be used in warm environments or that they sustain damage immediately in such cases. The service life specified for all electronic components is always linked to an ideal ambient temperature – in other words, the service life is based on the theoretical possibility that the component is permanently exposed to this temperature. This equally applies to drivers.

The temperatures specified for NORKA LED products are primarily based on a minimum service life of 60,000 hours. This means that a service life of at least 60,000 hours is achieved if the luminaire is constantly operated at the specified minimum or maximum ambient temperature (“service life temperature”).

TEMPERATURE-RELATED SERVICE LIFE

A good approximation for a temperature-related service life can be achieved using the Arrhenius equation. The following applies as a rule of thumb: a 10°C increase in temperature results in the service life being halved. Conversely, a reduction in temperature has a positive effect on the service life. The underlying TM21 method for specifying the service life allows a maximum specification of the service life of 6 times the measuring time span and only within the measured limit temperatures.

This can be exemplified using the POLARIS 248 floodlight with a specified ambient temperature of -35°C to +55°C.

If the luminaire is constantly operated at +55°C, it will achieve a minimum service life of 60,000 hours; the same applies to operation at -35°C.

TEMPERATURE AND LUMINOUS FLUX

The ambient and operating temperature of the LEDs not only influence their service life, but also the available luminous flux. Higher temperatures mean lower light efficiency. To be able to provide the most accurate information possible about luminous flux during the actual operation of the luminaire, NORKA measures the luminous fluxes after a stable operating state is reached during constant, non-pulsed operation of the LEDs.

The luminous flux specifications of NORKA LED products refer to the lamp luminous flux (gross luminous flux). They refer to a temperature of +55°C at the T_c point of the LEDs.

“SAFE OPERATION”

Aside from service life and the corresponding ambient temperature, the manufacturer also provides further information on the operating parameters of the components – minimum and maximum operating parameters are specified, which must not be exceeded or fallen below. These may relate to temperature range, voltage range or

maximum current. These specifications form the boundaries for “safe operation”. Safe operation means that the component works safely and without any problems when these limits are adhered to. Despite this, constant operation close to these limits results in a significantly lower service life.

If this statement is applied to luminaires, a safe operating range can be specified for the entire luminaire. In order to do this, the most important components have to be identified and assessed.

SERVICE LIFE AND SAFE OPERATION

As with the specification of the service life, the sole focus on safe operation is a simplified view and does not reflect the actual conditions in which the luminaire is operated.

If the temperature inside an industrial workshop with no air conditioning or heating is considered over an entire year, it becomes clear that the period when the service life temperature is exceeded is much shorter than the period when the temperature is within the temperature range. This means that the luminaire is primarily operated at temperatures below the “service life temperature”. In turn, this then indicates that the service life is not reduced – even when the service life temperature is briefly exceeded while remaining under the permissible maximum temperature for safe operation.



USE IN MOISTURE AND DUST

IP protection ratings

The IP (ingress protection) rating provides information about the degree to which a luminaire is protected against dust and water.

The first digit stands for the protection of the luminaire against contact and foreign bodies, such as brake dust, whilst the second digit designates the extent of protection against water. NORKA luminaires generally offer protection against the penetration of water jets (IP65) at least;

luminaires with protection rating IP69K are suitable for cleaning with high-pressure or steam jets. Important to know: protection rating IP69K does not automatically include lower protection ratings such as IP68; these protection ratings are specified separately.

EXAMPLE OF IP69K REQUIREMENT – ACCORDING TO DIN EN 60529

Ingress protection for protection against accidental contact and foreign bodies

1st index	Protection type Designation	Explanation
6	Dust-proof	Total protection against contact with live or internal, moving parts. Protection against dust ingress.

Ingress protection for water protection

2nd index	Protection type Designation	Explanation
9K	Protection against water ingress during high-pressure/steam jet cleaning	Hot water (80 °C) impacting from any direction under high pressure (80–100 bar) on the luminaire must not enter.

Description of all protection ratings p. 208

AT A GLANCE: IK CLASSES

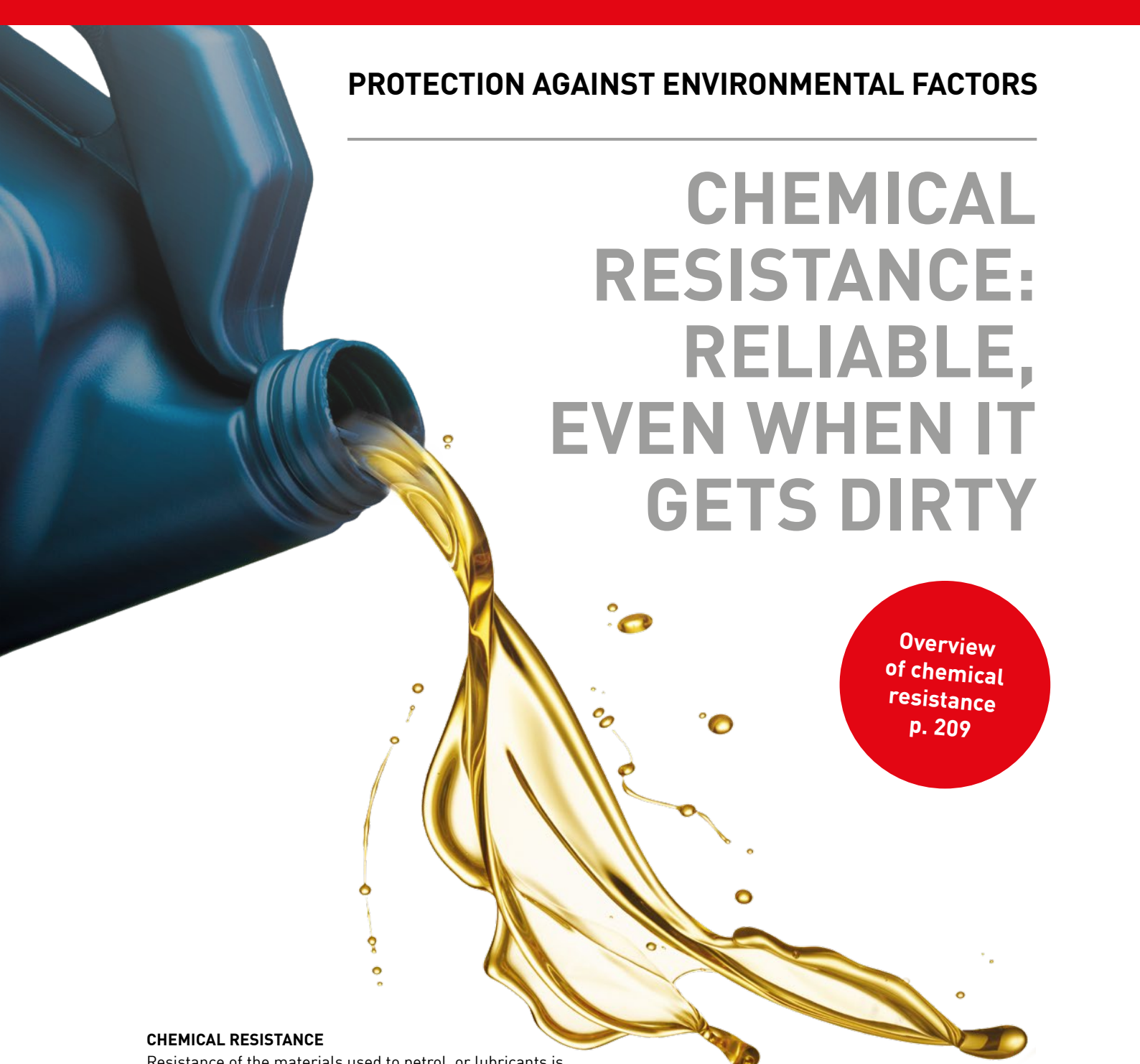
Areas such as access routes, underpasses, intermediate levels and stairwells are used by a large number of people every day. However, these areas are exposed to vandalism, especially at night.

But it's not only deliberate destruction that can cause luminaires to fail – heavy or large components are sometimes handled in workshops or work pits. This is where the lighting can be unintentionally damaged and lose its function.

The specified IK class provides information about the impact resistance of luminaires. A high IK class such as IK 10 and higher protects the inner workings of the luminaires from damage. The impact resistance test is carried out on the basis of DIN EN 62262. Various test weights are used to test the resistance of the lights and determine the IK class. These range from class IK 01 with an impact energy of 0.14 joules to class IK 11+ for a test with up to 150 joules.



For watertightness in accordance with DIN EN 60529, our luminaires are tested with a water pressure of 100 bar and a water temperature of 80 °C.



CHEMICAL RESISTANCE: RELIABLE, EVEN WHEN IT GETS DIRTY

Overview
of chemical
resistance
p. 209

CHEMICAL RESISTANCE

Resistance of the materials used to petrol, or lubricants is indispensable, especially in workshop areas. Only in this way can resistance to ageing be guaranteed and the safe functioning of the luminaires over a long period of time safeguarded.

CONSIDERATION OF CLEANING AGENTS

In areas where cleaning agents are used, a lot of thought should go into choosing the appropriate material. Cleaning agents chemically attack the housing materials of the luminaires, among other things. Over time, the stability of the housing therefore deteriorates, the polymers wear out faster and age resistance is reduced.

Depending on which chemical substances are used in the area of application, attention must be paid to the luminaire material. Thanks to our know-how about difficult environmental conditions and our decades-long experience in luminaire construction, we are familiar with the resistance of our materials to various chemicals and cleaning agents and are therefore able to give you the best advice.

WELL PROTECTED AGAINST VANDALISM

As there will never be 100% protection against vandalism even if elaborate preventative measures are taken, the use of technology that stands up to violent impacts is recommended.

HIGH IK PROTECTION CLASSES ENSURE SAFETY

In environments where possible violence to the lighting is to be expected, it's worth taking a look at the IK class. This provides information about the impact resistance of a luminaire.

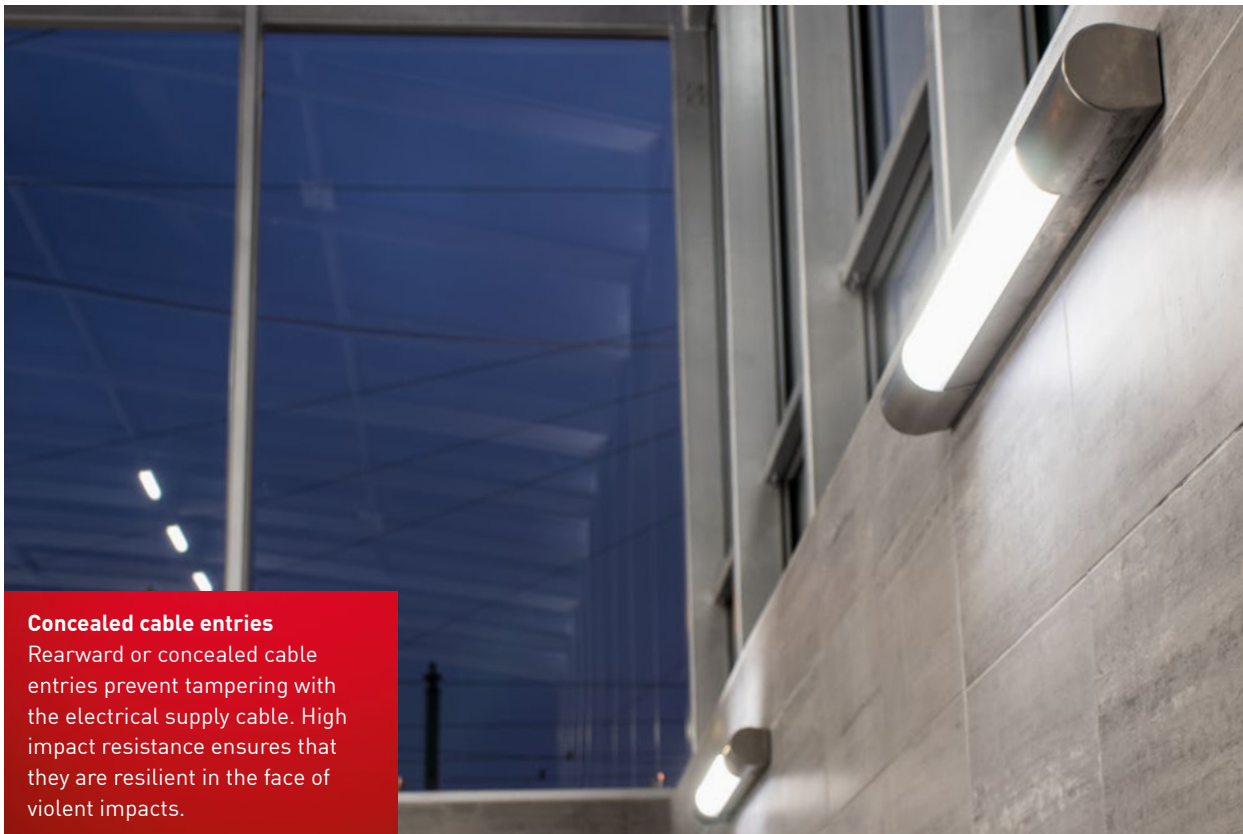
EASIER GRAFFITI REMOVAL

What is art for one person is sometimes just a nuisance for another. Due to the safety-relevant importance of lighting, the removal of tags and graffiti on luminaires is absolutely necessary. An additional coating makes it easier to remove soiling.

PREVENTING TAMPERING ATTEMPTS

In addition to brute force, luminaires in freely accessible spaces can also be subject to attempts at tampering. The use of special screws such as crescent, three-hole or ellipse screws ensures that housings cannot be opened with standard tools. Concealed or rearward cable entries hide supply lines. Manipulating lighting is thus made considerably more difficult.

The use of special screws ensures that housings cannot be opened with standard tools.



Concealed cable entries

Rearward or concealed cable entries prevent tampering with the electrical supply cable. High impact resistance ensures that they are resilient in the face of violent impacts.

EMERGENCY LIGHTING INFORMATION AND OPTIONS

Depending on use, NORKA offers emergency and safety luminaires as well as the option to configure luminaires from its standard portfolio as single-battery or central-battery safety luminaires. Please include the "emergency luminaire version" option and the exact specification with your enquiry to ensure that you receive a standard-compliant emergency luminaire.

SINGLE-BATTERY EMERGENCY LUMINAIRE

Single-battery safety luminaires incorporate everything necessary for emergency operation as a self-sufficient version: the battery, mains monitoring, battery charging device and as standard with NORKA, the fully automatic self-test with status LED.

In mains operation, these luminaires can also be switched on and off with the room lighting, together providing the required lighting level. With regard to emergency lighting duration, a choice can be made between one and three hours.

REGULAR INSPECTION

Emergency lighting systems need to be regularly tested and maintained to ensure that they are always ready for use. After all, the mere failure of an emergency luminaire, e.g. in a stairwell without daylight, can pose a considerable risk of accident in the event of a power failure.

These tests are specified in VDE 0108 or DIN EN 50172 and must be documented in an inspection log book.



> The luminaire indicates its status by means of an integrated two-colour LED indicator (red/green).

Standard: automatic self-test

NORKA single-battery emergency luminaires and emergency lighting supply units feature the automatic self-test according to DIN EN 62034 integrated as standard. The luminaire indicates its status by means of a two-colour LED indicator built into the housing.

Optional: inspection via DALI

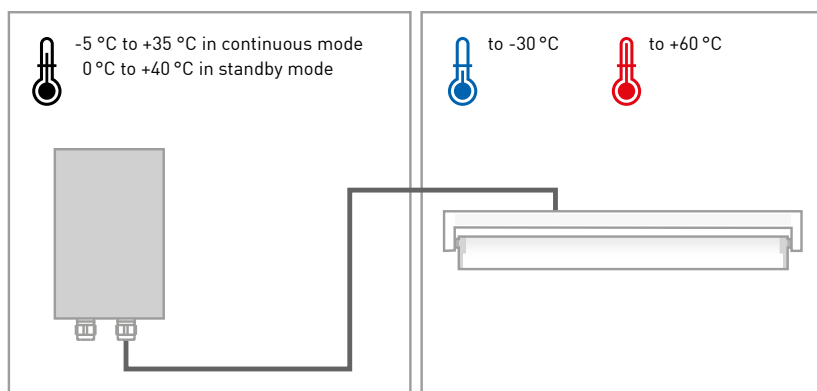
In addition to the self-test offered as standard, an optional check and inspection log book in accordance with DIN EN 50172 is available via a DALI-interface.

**EXTREME TEMPERATURES,
DIFFICULT TO ACCESS**

NORKA single-battery emergency lighting supply units such as the PASSAU LED allow what is not otherwise possible with a standard single-battery emergency luminaire: use in extreme thermal conditions or in difficult-to-access installation locations. By separating the LEDs from the

battery supply, the emergency lighting supply unit can be placed up to 50 m away from the room to be illuminated. In this way, the safety or escape route luminaire can be installed in a cold store at -30 °C, for example, with the emergency lighting supply unit mounted in an area with moderate temperatures. It is also possible to use this type of emergency luminaire at

temperatures above 50 °C without any loss of battery service life. In addition, the unit can also be mounted at an easily accessible height. This not only greatly alleviates maintenance work but also the need to change batteries.



> The external use of a single-battery power supply unit enables an extended useful temperature range.

**CENTRAL-BATTERY EMERGENCY
LUMINAIRE**

Many NORKA luminaires can also be optionally ordered as central-battery safety luminaires. These are designed accordingly for operation on central-battery emergency lighting systems and operated via this system.

To enable the necessary inspection and monitoring, various monitoring modules can be installed in the luminaire during production. It is imperative to check the compatibility of the module and the driver according to the manufacturer's requirements sheet, ideally during or before planning the system. This has already been implemented with various monitoring modules. As these modules are usually equipped with an addressing switch, NORKA places the modules under a housing cover, if possible, so that the switch can be reached for setting purposes during commissioning.





U2

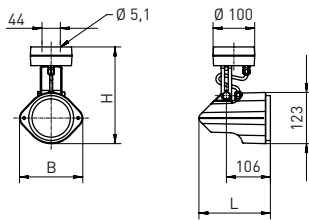
-4



Chemical resistance, high IK classes and IP protection ratings are required in this underground maintenance workshop. Coloured ZUG LEDs are used to indicate whether the traction current is switched on or not.

ANTARES LED

LED



K Further colour temperatures (optional)



narrow beam



concentrated wide beam
CDP prism screen

Lamp	Version	L	B	H	a	Max. weight
LED	Floodlight	172 mm	152 mm	232 mm	-	0.9 kg

AREAS OF APPLICATION

Polymer floodlight for ceiling and wall-surface mounting with LED. Useable in industrial facilities, under canopies and for facade illumination.

HOUSING

Luminaire housing made from weather-proof thermoplastic PPO, similar to RAL 9005. Aluminium swivel bracket, coated. Useable for indoor and outdoor areas according to protection rating IP54. Additional cover frame and cover screen for preventing water accumulation during uplighting optionally available (see accessories). Short sealing system comprised of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Cover screen made from single-pane safety glass with internal aluminium reflector.

ELECTRICAL CONSTRUCTION

Luminaire ready for installation and connection via connection box with protection rating IP54 and plug-in terminal. Built-in driver, supply voltage 220-240 V AC/DC. 2 kV transient filter. One cable entry M16.

MOUNTING

Ceiling or wall fixation via two sealed drill holes on the bottom of the connection box.

ANTARES LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
Floodlight □ 840/4000 K	1800	12	-25 °C to +40 °C	972 100 A4 61

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

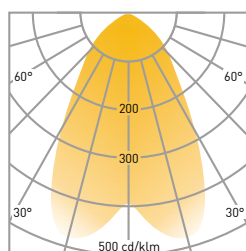
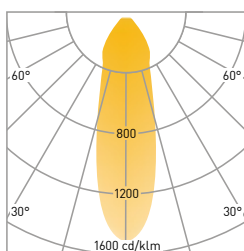
- 2 = narrow beam
- 9 = concentrated wide beam
- CDP prism screen

ANTARES LED OPTIONS

Version	Article no.
DALI	100 502
Further colour temperatures 3000 K or 5000 K	Available on request
RAL finish	972 960
Swimming pool version	972 970

ANTARES LED ACCESSORIES

Version	Article no.
Cover frame for ceiling illumination	970 929



> Illustration of LIDC characteristic
 left: narrow beam
 right: concentrated wide beam

BASEL LED

LED

IP 65

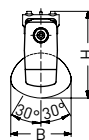
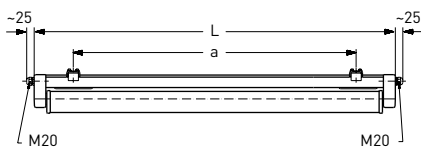
IP 67

CE

ZONE 2

ZONE 22

IK 09
PC



narrow beam



medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m600	685 mm	107 mm	153 mm	465 ± 30 mm	1.7 kg
LED	m1200	1251 mm	107 mm	153 mm	980 ± 80 mm	2.0 kg
LED	m1500	1551 mm	107 mm	153 mm	1280 ± 80 mm	3.6 kg

AREAS OF APPLICATION

Explosion-proof surface mounted ceiling luminaire made of polymer with LED lamps. Useable in industrial applications with explosive atmospheres according to zone 2, 22. Designed according to the applicable European Directives.

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibreglass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65 and IP 67. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube that can be swivelled, made of PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in steps of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC. Two access covers, two cable glands on face side M20 and 5 x 1.5 mm² through wiring.

MOUNTING

Single or row mounting. Ceiling installation using two special polymer mounting clamps, variable mounting distance.

BASEL LED

⊕ II 3G Ex nR IIC T4 Gc, ⊕ II 3D Ex tc IIIC T120°C Dc

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600	1710	11	-20 °C to +40 °C	525 280 AB 84 - E
m1200	3420	20	-20 °C to +40 °C	525 480 AB 84 - E
m1500	5280	30	-20 °C to +40 °C	525 680 AB 84 - E

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

- 2 = narrow beam
- 3 = medium beam

Colour temperature / B

- 3 = 830/3000 K
- 4 = 840/4000 K
- 5 = 850/5000 K

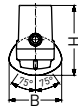
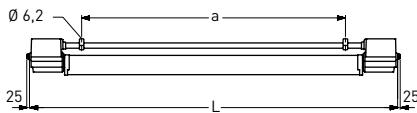
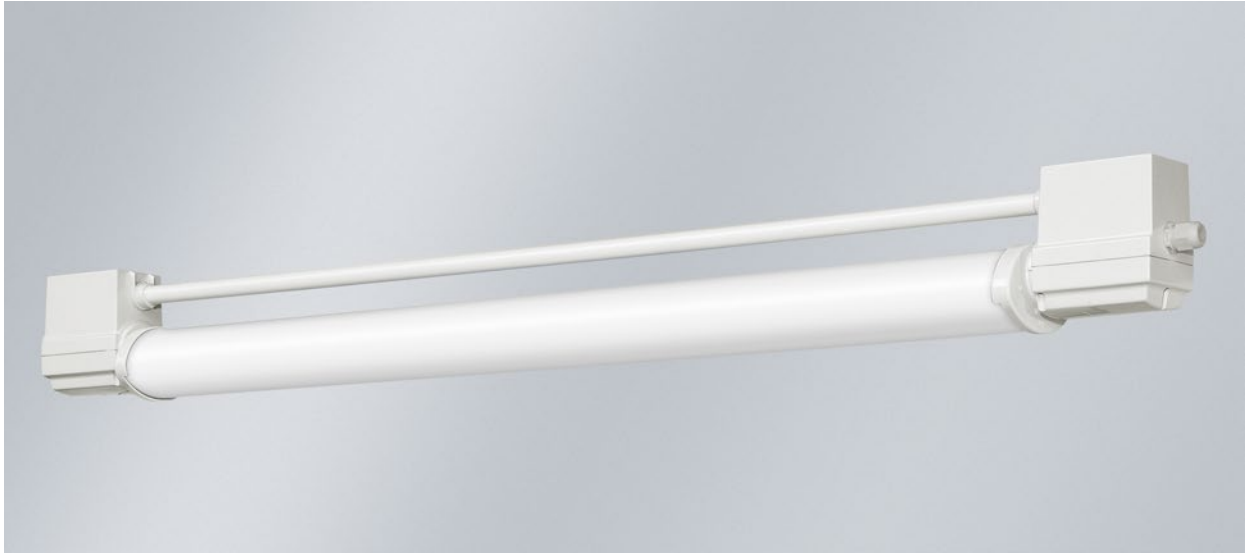


> Mounting clamps, included in scope of delivery



BEBRA LED

LED



K Further colour temperatures (optional)



medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1432 mm	107 mm	142 mm	1005 ± 50 mm	3.4 kg
LED	m1500	1732 mm	107 mm	142 mm	1305 ± 50 mm	3.8 kg

AREAS OF APPLICATION

Work pit luminaires with LED. Useable in work pits used for maintenance and repair work.

HOUSING

Acid, alkaline and fuel-resistant luminaire housing made of thermosetting polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Resistant to pressurised water to 1 m due to protection rating IP 68, 1 m. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube that can be swivelled, made of PC Tropol® (fracture proof) or PMMA Transopal® (impact strengthened) with internal aluminium reflector (MIRO-SILVER®). Pivoting and lockable reflector tube.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC. Two M20 cable glands on face side and 4 x 1.5 mm² through wiring. L80 B10 > 50,000 h at +45 °C.

MOUNTING

Single or row mounting. Ceiling installation using reinforced polymer stirrup clamps, adjustable mounting distance.

BEBRA LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	3540	21	-25 °C to +45 °C	535 480 34 A1 -Z1
m1500 <input type="checkbox"/> 840/4000 K	5490	33	-25 °C to +45 °C	535 680 34 A1 -Z1

When ordering, please replace the highlighted letters with the corresponding numbers.

Reflector tube / A
 2 = PMMA Transopal® (impact strengthened)
 8 = PC Tropol® (fracture proof)



> Polymer stirrup clamps, included in scope of delivery

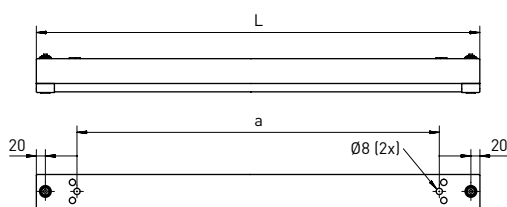
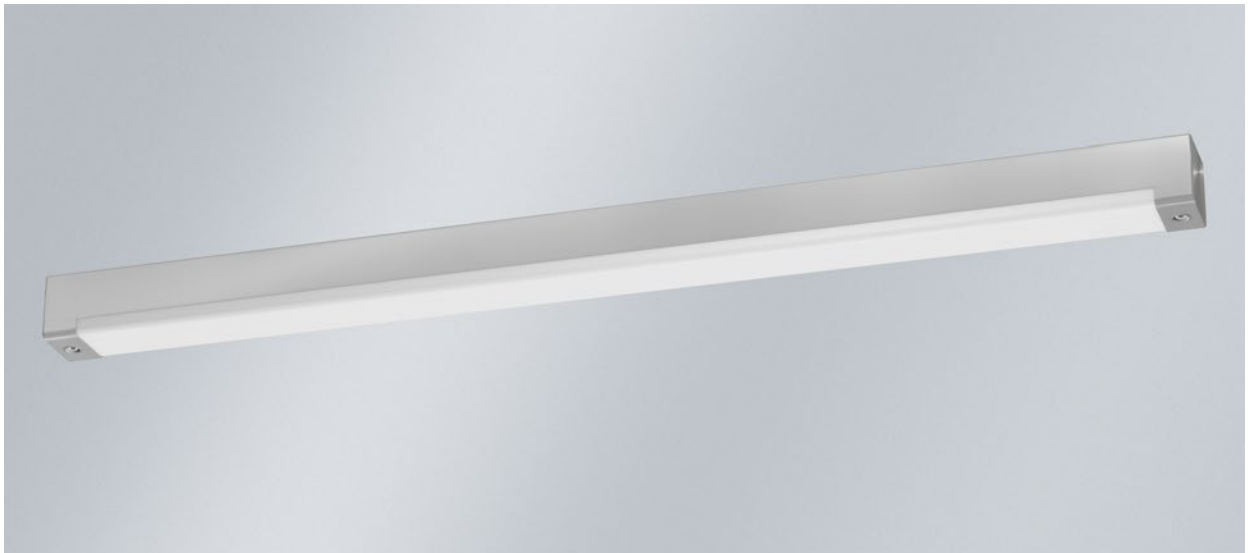
BEBRA LED OPTIONS

Version	Article no.
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	535 010
Further colour temperatures	Available on request





BELFAST

LED



K Further colour temperatures (optional)

 medium beam

 medium beam with indirect component

Lamp	Version	L	B	H	a	Max. weight
LED	m600	700 mm	75 mm	75 mm	520 mm	3.4 kg
LED	m1200	1260 mm	75 mm	75 mm	1080 mm	5.8 kg
LED	m1500	1540 mm	75 mm	75 mm	1360 mm	7.6 kg

AREAS OF APPLICATION

Extremely impact-resistant surface mounted ceiling luminaire with LED lamps. Vandalism-proof up to 150 joules. Useable in prisons, detention cells and all areas at risk of deliberate or negligent vandalism, as well as pedestrian underpasses and tunnels.

HOUSING

Luminaire housing made of stainless steel, polished (protection rating IP 44) with integrated polymer luminaire. Useable for indoor and outdoor areas according to protection rating IP 65. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K. Anti-graffiti coating for lamp diffuser protects against dirt and paint residue, optionally available (see options).

LIGHTING TECHNOLOGY

Rectangular, 4 mm thick lamp diffuser made of PC (fracture proof), opal white or PC (fracture proof), clear structured.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two rearward, concealed cable entries M20 and 4 x 1.5 mm² through wiring (only m1200 and m1500). 4 kV transient filter. **L80 B10 > 100,000 h at +35 °C.**

Retains operation in case of vandalism. 8 years warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing with two concealed rear mounting apertures. Luminaire cover fixing with two stainless steel sealing screws with hexagon sockets. Special screws optionally available (see options).

BELFAST

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	2660	21	-25 °C to +35 °C	656 280 A4 B1
m1200 <input type="checkbox"/> 840/4000 K	5330	38	-25 °C to +35 °C	656 480 A4 B1
m1500 <input type="checkbox"/> 840/4000 K	6660	47	-25 °C to +35 °C	656 680 A4 B1

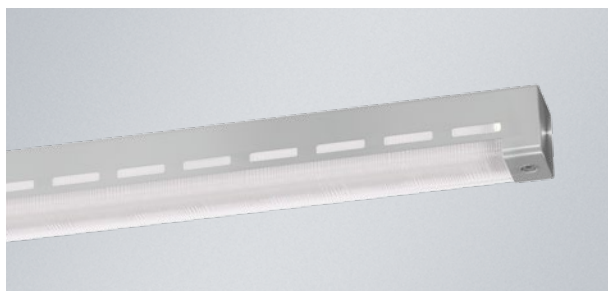
When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

0 = medium beam with indirect component
3 = medium beam

Luminaire cover / B

0 = PC (fracture proof) opal white
9 = PC (fracture proof) clear structured



> BELFAST medium beam with indirect component, PC (fracture proof) clear structured

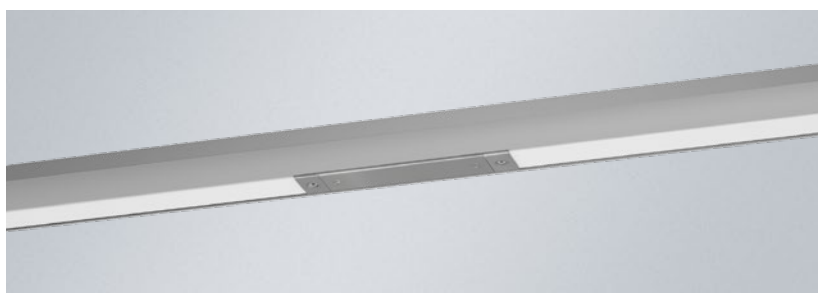
BELFAST OPTIONS

Version	Article no.
Coating to RAL	Available on request
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	656 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Halogen-free version	656 007
Special screw, oval (requires special tool)	700 003
Special screw, semi-circle (requires special tool)	700 001
Special screw, three hole (requires special tool)	700 002
Through wiring 4 × 2.5 mm ² (only m1200/m1500)	656 822
Through wiring 5 × 1.5 mm ² (only m1200/m1500)	656 832
Through wiring 5 × 2.5 mm ² (only m1200/m1500)	656 392
Version for NORKA trunking system BELFAST with two cable entries on the face side (continuous row version)	656 103
Version for operating with PASSAU LED	Available on request

BELFAST ACCESSORIES

Version	Article no.
Key for semi-circle screw	734 007
Key for oval screw	717 008
Key for three hole screw/nut	734 008

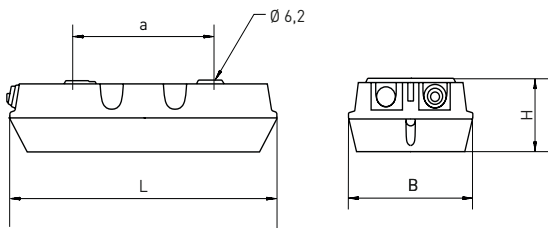
SUITABLE SUPPLEMENT



TRUNKING SYSTEM BELFAST

BERLIN LED

LED



easy eXchange
(see appendix B)



medium beam

K Further colour temperatures (optional)

Lamp	Version	L	B	H	a	Max. weight
LED	50, 100, 150	340 mm	155 mm	85 mm	180 mm	1.5 kg

AREAS OF APPLICATION

Polymer luminaire for recessed and surface ceiling mounting with LED lamps. Useable in e.g. railway loop lines, section doors, storage rooms, cellars and technical side rooms.

Suitable for cold areas down to -25 °C.

HOUSING

Weather-proof and UV-resistant luminaire housing made of polymer, anthracite. Useable for indoor and outdoor areas according to protection rating IP 65. Sealing system made of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Detachable lamp diffuser made of PC Tropat® (fracture proof) with easy eXchange for LED and driver replacement.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. One cable membrane M20. 2 kV transient filter.

MOUNTING

Single mounting. Ceiling or wall fixing with two concealed rear mounting apertures. Easy mounting due to modular construction.

INFORMATION

- > BERLIN LED 50 replaces 11 W C-SEL
- > BERLIN LED 100 replaces 18 W TC-L / TC-D

BERLIN LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
50 <input type="checkbox"/> 840/4000 K	550	6	-25 °C to +30 °C	421 050 34 03-E
100 <input type="checkbox"/> 840/4000 K	1100	9	-25 °C to +30 °C	421 100 34 03-E
150 <input type="checkbox"/> 840/4000 K	1500	11	-25 °C to +30 °C	421 150 34 03-E

BERLIN LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	421 010
Emergency lighting version EL (according to 60598-2-22)	Available on request
Further colour temperatures	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Version for operating with PASSAU LED	Available on request

BERLIN LED ACCESSORIES

Version	Article no.
easy eXchange replacement kit	See appendix B
Wall fixing, stainless steel	200 207
Anti-vibration damper, standard for special application areas	421 005

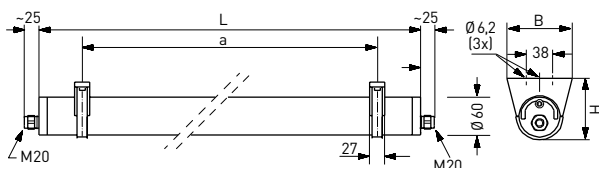


- > BERLIN LED wall fixing, stainless steel, article no. 200 207



BERN LED

LED



- **FOCUSSED LIGHTING**
(see appendix D)
 - **easy eXchange**
(see appendix B)
 - **K** Further colour temperatures (optional)
- medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m600	750 mm	95 mm	89.5 mm	650 ± 50 mm	2.5 kg
LED	m1200	1310 mm	95 mm	89.5 mm	1210 ± 50 mm	3.6 kg
LED	m1500	1590 mm	95 mm	89.5 mm	1490 ± 50 mm	4.7 kg

AREAS OF APPLICATION

Tubular luminaire with LED lamps. Useable in industrial applications, in work pits used for maintenance and repair work and for decorative indoor and outdoor lighting. Version with high protection rating IP 69K suitable for production facilities and suppliers in the food and beverage industry.

HOUSING

Polymer luminaire tube (Ø 60 mm) with two quick-mounting pressure caps and protection against unauthorised opening. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Resistant to pressurised water to 20 m due to protection rating IP 68, 20 m. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K.

LIGHTING TECHNOLOGY

Luminaire tube made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with easy eXchange for LED and driver replacement.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. One cable gland M20 per face side. 4 x 1.5 mm² through wiring. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. 2 kV transient filter.

MOUNTING

Individual or row mounting. Ceiling or wall fixing using two mounting clamps made of stainless steel/black/transparent polymer, including protection against unauthorised opening. Suspension system possible (see options).

BERN LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 □ 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C to +40 °C	536 280 34 A4 - E -
m1200 □ 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	536 480 34 A4 - E -
m1500 □ 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	536 680 34 A4 - E -

■ Standard luminous flux T8, for other lumen packages, see appendix D

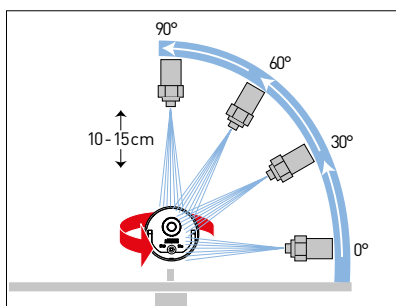
When ordering, please replace the highlighted letters with the corresponding numbers.

Luminaire tube / A

- 2 = PMMA Transopal® (impact strengthened)
- 8 = PC Tropol® (fracture proof)

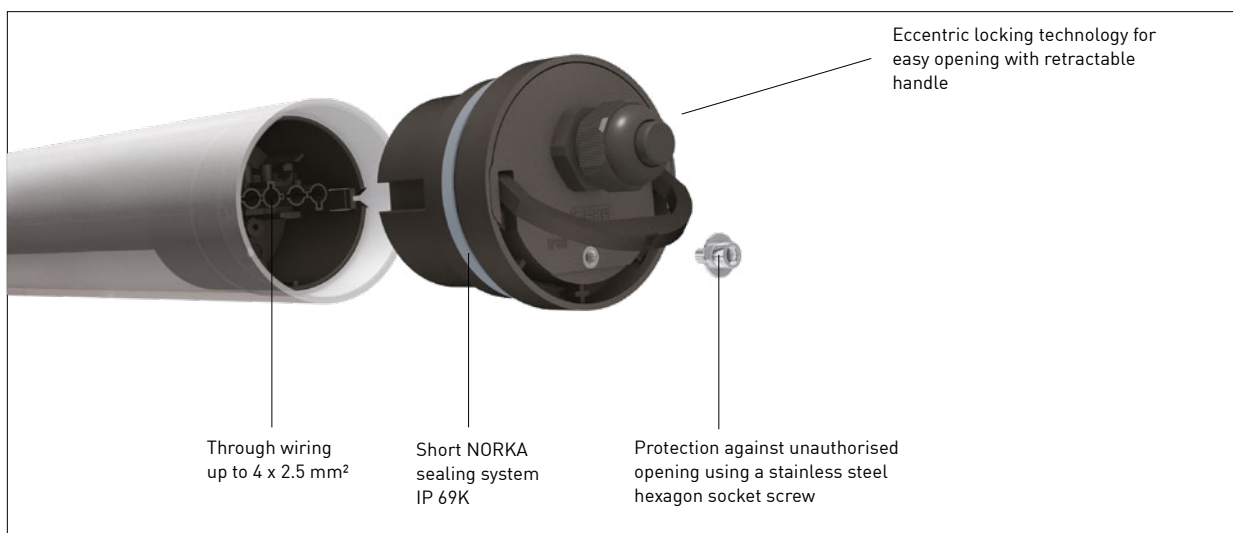
BERN LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
DALI (through wiring includes 2 x 1.5 mm ² control line)	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Halogen-free version	536 032
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Luminaire tube coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	536 010
Swimming pool version without polymer mounting clamps	536 036
Through wiring 4 x 2.5 mm ²	536 945
Transparent pressure cap with M20 cable gland	534 001
Version for operating with PASSAU LED	See PASSAU LED



> Test IP 69K:

The IP 69K test verifies the protection against hot water during high-pressure or steam-jet cleaning according to EN 60529. The test conditions require a pressure of 100 bar at a temperature of 80 °C.



> BERN LED quick-mounting pressure cap

BERN LED ACCESSORIES

Version	Article no.
easy eXchange replacement kit	See appendix B
Mounting clamps, stainless steel V4A, angled (pair), (not suitable for chlorine atmosphere)	534 118
Mounting clamps, stainless steel/black polymer (pair), (not suitable for chlorine atmosphere)	534 218
Mounting clamps, stainless steel/transparent polymer (pair), (not suitable for chlorine atmosphere)	534 208
Mounting clamps, stainless steel/transparent polymer, for suspension system (pair), (not suitable for chlorine atmosphere)	534 319
Polymer mounting clamps, chlorine resistant, white, Ø 60 mm, for ceiling mounting (pair)	534 209
Suspension system for 1 m suspension with stainless steel brackets (pair), (not suitable for chlorine atmosphere)	534 166



> Mounting clamps for BERN LED
Stainless steel / black/transparent polymer (pair), (not suitable for chlorine atmosphere), included in scope of delivery



> Polymer mounting clamps for BERN LED, chlorine resistant, white, Ø 60 mm, for ceiling mounting (pair), Article no. 534 209



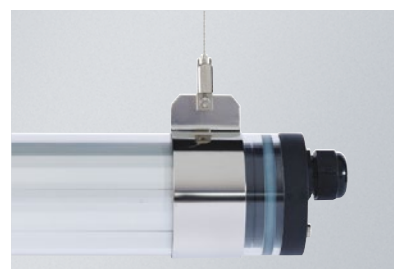
> Mounting clamps for BERN LED, stainless steel/black polymer (pair), (not suitable for chlorine atmosphere), Article no. 534 118



> Mounting clamps for BERN LED, stainless steel/black polymer (pair), (not suitable for chlorine atmosphere), Article no. 534 218



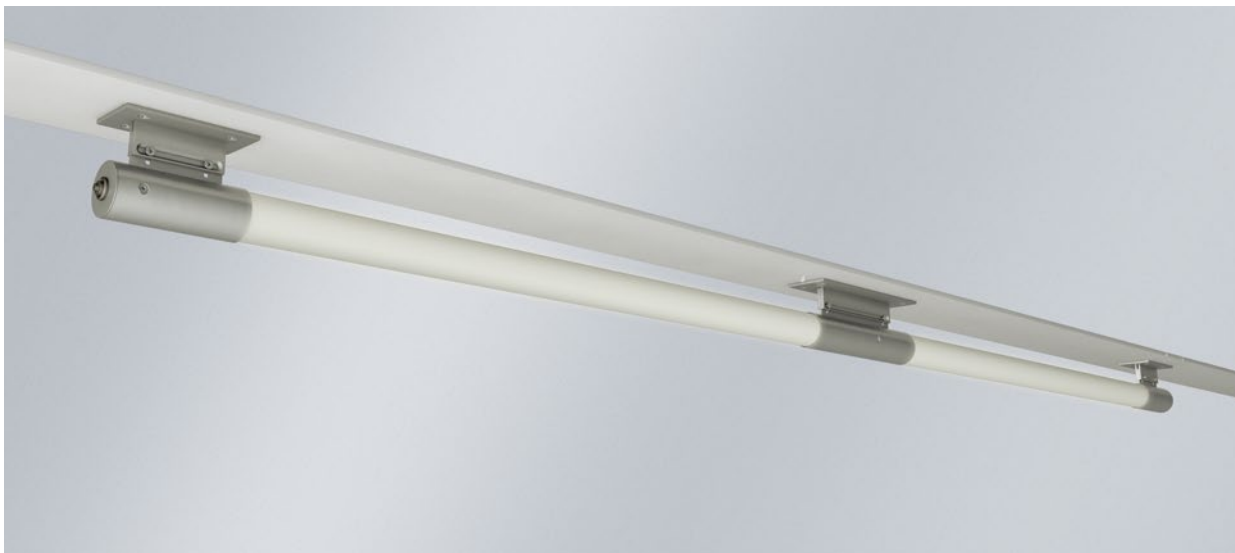
> Mounting clamps for BERN LED, stainless steel/transparent polymer (pair), (not suitable for chlorine atmosphere), Article no. 534 208



> Mounting clamps for BERN LED, stainless steel/transparent polymer, for suspension system (pair), (not suitable for chlorine atmosphere), Article no. 534 166

BERN LED ACCESSORIES

Version	Article no.
Centre piece, stainless steel, (not suitable for chlorine atmosphere)	536 002
End cap, stainless steel, with internal luminaire fastening clamp (Fixes the luminaire in 5 x 45° steps for a uniform appearance in the continuous row system), (not suitable for chlorine atmosphere)	536 001
End cap, stainless steel, without luminaire fastening clamp (not suitable for chlorine atmosphere)	536 003



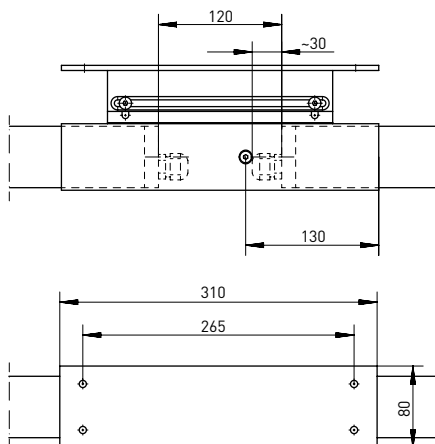
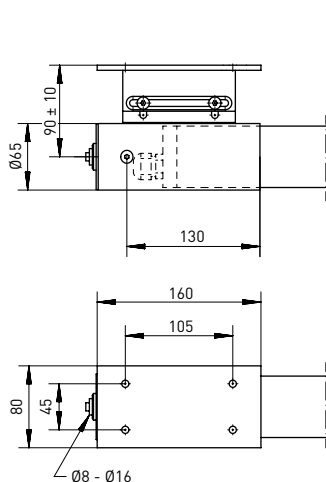
> Stainless steel suspension system for BERN LED with end cap and centre piece (not suitable for chlorine atmosphere)



> End cap (not suitable for chlorine atmosphere)
Article no. 536 001 with internal luminaire fastening clamp
Article no. 536 003 without luminaire fastening clamp



> Centre piece (not suitable for chlorine atmosphere)
Article no. 536 002



BERN LED EX

LED

IP 65

IP 66

IP 67

IP 68 20m

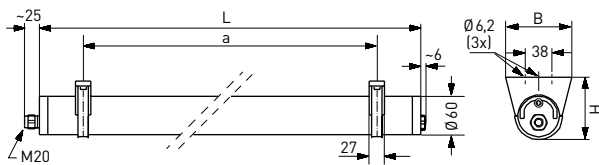
IP 69K



ZONE 2

ZONE 22

IK 10 PC



medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m600	750 mm	95 mm	89.5 mm	650 ± 50 mm	2.5 kg
LED	m1200	1310 mm	95 mm	89.5 mm	1210 ± 50 mm	3.6 kg
LED	m1500	1590 mm	95 mm	89.5 mm	1490 ± 50 mm	4.7 kg

AREAS OF APPLICATION

Explosion-proof tubular luminaire with LED, resistant to pressurised water. Useable in explosive atmospheres in zone 2, 22. Designed according to the applicable European standards and directives. Suitable for temperatures of -25 °C up to +40 °C.

HOUSING

Luminaire tube (Ø 60 mm) made of polymer with two quick-release fasteners and protection against unauthorised opening. End caps black. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Resistant to pressurised water according to protection rating IP 68, 20 m. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K.

LIGHTING TECHNOLOGY

Luminaire tube made of PC Tropol® (fracture proof), medium beam.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in DALI driver 230 V AC/DC. Two cable glands M20 and 4 x 1.5 mm² through wiring.

MOUNTING

Single mounting. Ceiling or wall fixing with two polymer mounting clamps.

BERN LED EX

Ⓔ II 3G Ex nR IIC T6 Gc, Ⓔ II 3D Ex tc IIIC T80°C Dc

Version		Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600	<input type="checkbox"/> 840/4000 K	1300	9	-25 °C to +40 °C	531 280 34 84 -E
m1200	<input type="checkbox"/> 840/4000 K	2600	16	-25 °C to +40 °C	531 480 34 84 -E
m1500	<input type="checkbox"/> 840/4000 K	4270	25	-25 °C to +40 °C	531 680 34 84 -E



- > Mounting clamps stainless steel / black / transparent polymer (pair), (not suitable for chlorine atmosphere), included in scope of delivery

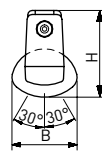
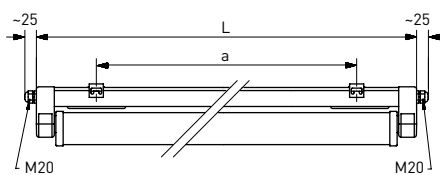




Luminaires for food production such as the BITBURG LED must comply with the International Food Standard (IFS) in order to be used in the meat processing industry, for example.

BITBURG LED

LED



FOCUSSED LIGHTING
[see appendix D]

K Further colour temperatures
(optional)



Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1251 mm	107 mm	140 mm	980 ± 80 mm	3.3 kg
LED	m1500	1551 mm	107 mm	140 mm	1280 ± 80 mm	4.2 kg

AREAS OF APPLICATION

Polymer luminaire for surface ceiling and wall surface-mounting for HACCP/IFS applications with LED lamps. Useable in production facilities and suppliers in the food and beverage industry.

HOUSING

Acid, alkaline and fuel-resistant luminaire housing made of fibreglass reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube that can be swivelled made of PMMA Transopal® (impact strengthened) or PC Tropolal® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in increments of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two access covers, two cable glands on face side M20 and 4 x 1.5 mm² through wiring. 2 kV transient filter. Adjustable luminous flux via NFC programming (optionally available).

MOUNTING

Single or row mounting. Ceiling installation using two stainless steel mounting clamps, variable mounting distance. Captive end caps.

BITBURG LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	645 480 A4 B4 - E - ...
m1500 <input type="checkbox"/> 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	645 680 A4 B4 - E - ...

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

2 = narrow beam
3 = medium beam
4 = wide beam

Reflector tube / B

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

BITBURG LED OPTIONS

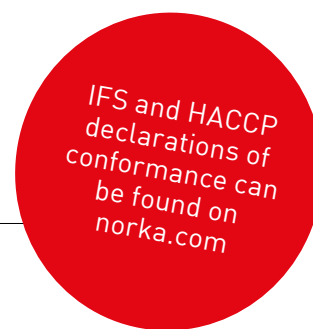
Version	Article no.
Adjustable luminous flux via NFC programming (barcode and RFID detection device required)	100 037
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	645 010
DALI	100 502
Further colour temperatures	See appendix C
Halogen-free version	645 032
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
RAL finish	645 960
Through wiring 4 × 2.5 mm ²	645 824
Through wiring 5 × 1.5 mm ²	645 834
Through wiring 5 × 2.5 mm ²	645 394
Version for operating with PASSAU LED	See PASSAU LED

BITBURG LED ACCESSORIES

Version	Article no.
Mobile barcode and RFID detection device for NFC programming	106 598
Mounting clamp polymer white for chlorine atmosphere, acid resistant (pair)	200 226
Safety clip/theft protection (only in connection with standard mounting)	200 224



> Stainless steel mounting clamps, included in scope of delivery



The requirements in terms of technology and equipment in production facilities for the food processing and beverage industry and their suppliers are particularly high and are increasing constantly. Measures to avert risks to health complying with the principles of the **HACCP** concept (Hazard Analysis Critical Control Point) for production hygiene, cleaning and disinfection are prerequisites. HACCP is a key criterion of the **IFS** (International Food Standard) in terms of quality system requirements.

NORKA has catered for the requirements of the food processing and beverage industry and work pit sectors for many years, offering a variety of luminaires for that use case.

REQUIREMENTS:

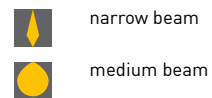
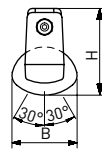
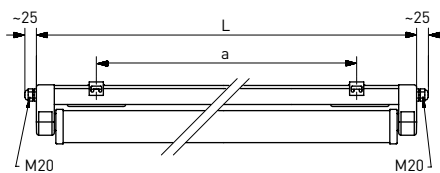
- > Protection against glass fragments
- > Protection against falling metal pieces
- > Chemical resistance
- > Mechanical resistance
- > Protection rating up to IP 69K
- > Temperature resistance (heat/cold)
- > Easy maintenance and cleaning

APPLICATIONS:

- > Production facilities and suppliers in the food and beverage industry
- > Production facilities with raised ambient temperatures
- > Cold stores
- > Work pits and maintenance areas

BITBURG LED EXTREME

LED



Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1251 mm	107 mm	140 mm	980 ± 80 mm	3.3 kg
LED	m1500	1551 mm	107 mm	140 mm	1280 ± 80 mm	4.2 kg

AREAS OF APPLICATION

Polymer luminaire for surface ceiling and wall-surface mounting for HACCP/IFS applications with LED lamps. Useable in production facilities and suppliers in the food and beverage industry with a long service life at up to +65 °C.

HOUSING

Acid, alkaline and fuel-resistant luminaire housing made of fibre-glass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube that can be swivelled made of PMMA Transopal® (impact strengthened) or PC Tropolal® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in increments of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two access covers, two cable glands on face side M20 and 4 x 1.5 mm² through wiring.

L80 B10 >100,000 h at +65 °C.
4 kV transient filter. 8 years warranty.

MOUNTING

Single or row mounting. Ceiling installation using two stainless steel mounting clamps, variable mounting distance. Captive end caps.

BITBURG LED EXTREME

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	4030	28	-40 °C to +65 °C	647 480 A4 B1
m1500 <input type="checkbox"/> 840/4000 K	5050	35	-40 °C to +65 °C	647 680 A4 B1

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / **A**

2 = narrow beam
3 = medium beam

Reflector tube / **B**

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropolal® (fracture proof)

BITBURG LED EXTREME OPTIONS

Version	Article no.
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	645 010
DALI	100 502
Halogen-free version	645 032
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
RAL finish	645 960
Through wiring 4 × 2.5 mm ²	645 824
Through wiring 5 × 1.5 mm ²	645 834
Through wiring 5 × 2.5 mm ²	645 394
Version for operating with PASSAU LED	Available on request

BITBURG LED EXTREME ACCESSORIES

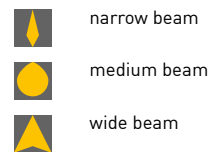
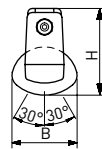
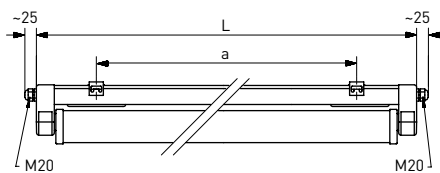
Version	Article no.
Mounting clamp polymer white for chlorine atmosphere, acid resistant (pair)	200 226
Safety clip/theft protection (only in connection with standard mounting)	200 224



- > Stainless steel mounting clamps, included in scope of delivery



- > Polymer mounting clamps, for chlorine / acidic atmospheres (pair), Article no. 200 226



Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1251 mm	107 mm	140 mm	980 mm	3.3 kg
LED	m1500	1551 mm	107 mm	140 mm	1280 mm	4.2 kg

AREAS OF APPLICATION

Polymer luminaire for surface ceiling and wall-surface mounting for HACCP/IFS applications with LED lamps. Useable in production facilities and suppliers in the food and beverage industry with a long service life at up to +65 °C.

HOUSING

Acid, alkaline and fuel-resistant luminaire housing made of fibre-glass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube that can be swivelled made of PMMA Transopal® (impact strengthened) or PC Tropolal® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in increments of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two access covers, two cable glands on face side M20 and 4 x 1.5 mm² through wiring.

L80 B10 >75,000 h at +55 °C.
4 kV transient filter. 8 years warranty.

MOUNTING

Single or row mounting. Ceiling installation using two stainless steel mounting clamps, variable mounting distance. Captive end caps.

BITBURG LED INDUSTRY

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 □ 840/4000 K	4640	27	-40 °C to +55 °C	646 480 A4 B4 - E - 4640lm
m1200 □ 840/4000 K	8300	48	-40 °C to +55 °C	646 480 A4 B4 - E - 8300lm
m1500 □ 840/4000 K	6300	36	-40 °C to +55 °C	646 680 A4 B4 - E - 6300lm
m1500 □ 840/4000 K	10380	60	-40 °C to +55 °C	646 680 A4 B4 - E - 10380lm

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / **A**

2 = narrow beam
3 = medium beam
4 = wide beam

Reflector tube / **B**

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropolal® (fracture proof)

BITBURG LED INDUSTRY OPTIONS

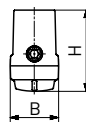
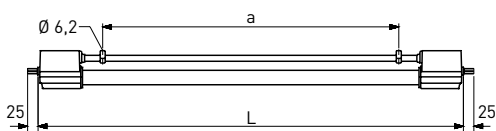
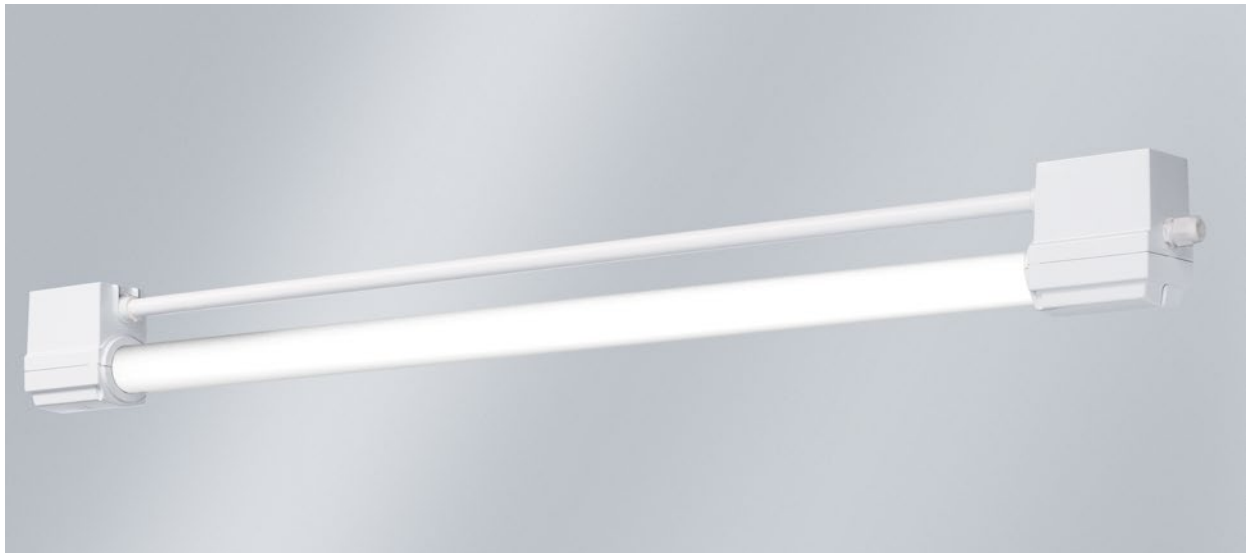
Version	Article no.
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	645 010
DALI	100 502
Halogen-free version	645 032
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
RAL finish	645 960
Through wiring 4 × 2.5 mm ²	645 824
Through wiring 5 × 1.5 mm ²	645 834
Through wiring 5 × 2.5 mm ²	645 394
Version for operating with PASSAU LED	Available on request

BITBURG LED INDUSTRY ACCESSORIES

Version	Article no.
Mounting clamp polymer white for chlorine atmosphere, acid resistant (pair)	200 226
Safety clip/theft protection (only in connection with standard mounting)	200 224

BREMERHAVEN LED

LED



K Further colour temperatures (optional)



wide beam

Lamp	Version	L	B	H	a	Max. weight
LED	HT, m600	822 mm	77 mm	129 mm	395 ± 80 mm	2.4 kg
LED	HT, m1200	1432 mm	77 mm	129 mm	1005 ± 80 mm	2.9 kg
LED	HT, m1500	1732 mm	77 mm	129 mm	1305 ± 80 mm	3.4 kg
LED	VHT, m600	822 mm	77 mm	129 mm	395 ± 80 mm	2.4 kg
LED	VHT, m1200	1432 mm	77 mm	129 mm	1005 ± 80 mm	2.7 kg
LED	VHT, m1500	1732 mm	77 mm	129 mm	1305 ± 80 mm	3.2 kg

AREAS OF APPLICATION

Polymer luminaire with LED lamps. Useable in industrial applications with demanding ambient conditions. Suitable for production facilities and suppliers in the food and beverages industry. **Heat-resistant (high temperature (HT)) version suitable for temperatures up to +60 °C, highly heat-resistant (very high-temperature (VHT)) version suitable for temperatures up to +90 °C.**

HOUSING

Weatherproof luminaire housing made of thermosetting polymer. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66, IP 67 and IP 68, 1 m. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Protection tube 38 mm made of PC Tropol® (fracture proof).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Two M20 cable glands on face side. Two types are available.

Version HT

With built-in driver 230 V AC/DC and 4 x 1.5 mm² through wiring. L80 B50 >100,000 h bei +60 °C.

Version VHT

With 230 V AC/DC driver in separate polymer housing (driver to be ordered separately). Connecting cable 2 x 1.5 mm² on site, maximum length 100 m. L80 B50 >50,000 h bei +90 °C.

MOUNTING

Single or row mounting (HT version only). Ceiling installation using two polymer stirrup clamps, variable mounting distance.

BREMERHAVEN LED – VERSION HT

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	1900	16	-25 °C to +60 °C	596 280 44 84
m1200 <input type="checkbox"/> 840/4000 K	3800	30	-25 °C to +60 °C	596 480 44 84
m1500 <input type="checkbox"/> 840/4000 K	4750	37	-25 °C to +60 °C	596 680 44 84

BREMERHAVEN LED – VERSION VHT

Driver has to be ordered separately (see accessories).

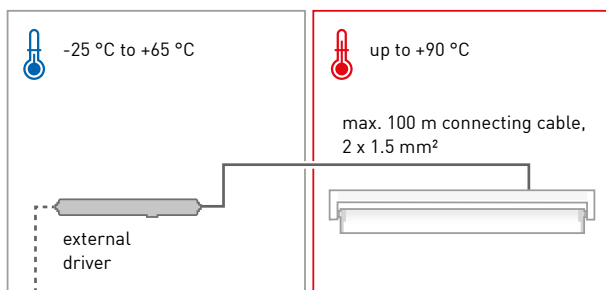
Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	1820	15	-25 °C to +90 °C	597 280 44 84
m1200 <input type="checkbox"/> 840/4000 K	3640	26	-25 °C to +90 °C	597 480 44 84
m1500 <input type="checkbox"/> 840/4000 K	4550	31	-25 °C to +90 °C	597 680 44 84

BREMERHAVEN LED OPTIONS

Version	Article no.
Further colour temperatures	Available on request

BREMERHAVEN LED ACCESSORIES

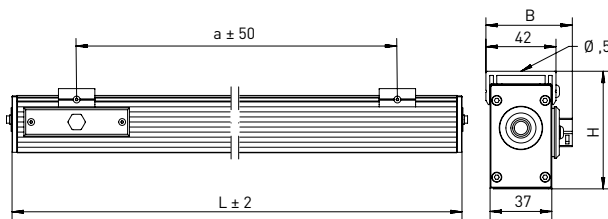
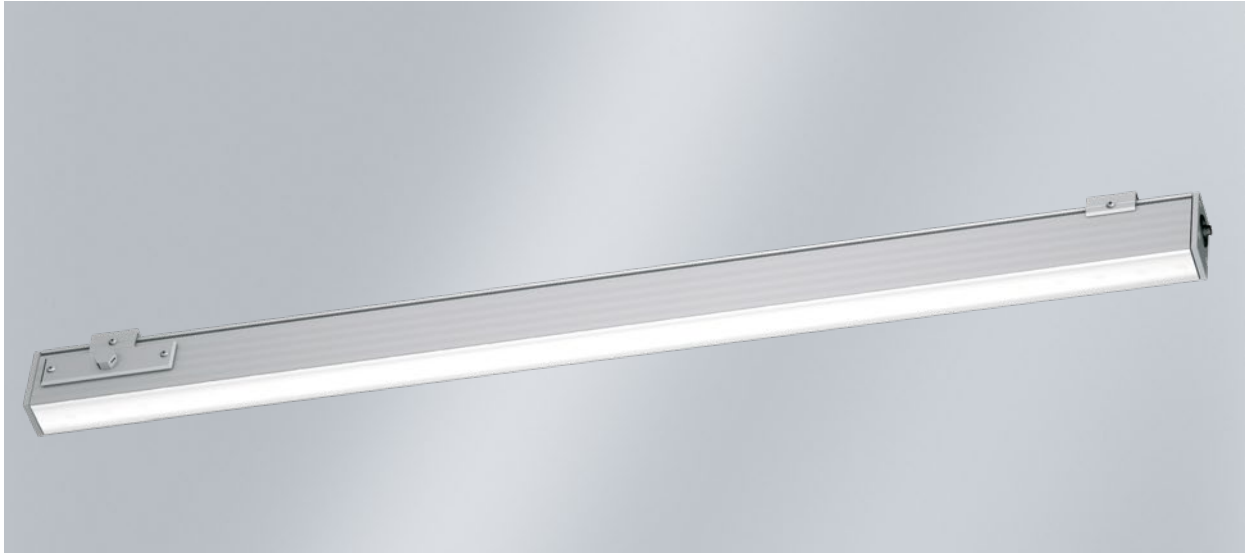
Version	Article no.
Electronic driver in polymer housing for BREMERHAVEN LED VHT, IP 65, protection class II	597 186



> Through the use of an external driver, version VHT can be used in areas up to +90 °C.






> External driver for BREMERHAVEN VHT, Article no. 597 186



FOCUSSED LIGHTING
[see appendix D]

K Further colour temperatures (optional)

-  medium beam
-  asymmetric beam
-  concentrated beam

Lamp	Version	L	B	H	a	Max. weight
LED	m600	600 mm	52 mm	70.5 mm	458 ± 50 mm	1.2 kg
LED	m1200	1160 mm	52 mm	70.5 mm	1018 ± 50 mm	2.2 kg
LED	m1500	1440 mm	52 mm	70.5 mm	1298 ± 50 mm	2.7 kg

AREAS OF APPLICATION

Aluminium luminaire for ceiling and surface wall mounting with LED stripes. Useable in subways, pedestrian tunnels, passages, multi-storey car parks, transport areas and under canopies.

HOUSING

Silver anodised aluminium profile housing. Useable for indoor areas and covered outdoor areas according to protection rating IP 65.

LIGHTING TECHNOLOGY

Cover screen made of PMMA Transopal® (impact strengthened).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. One cable entry M20 per face side. Built-in driver 230 V AC/DC. 2 kV transient filter with 3 x 1.5 mm² through wiring. Protection class I.

MOUNTING

Single or row mounting. Ceiling mounting with aluminium clamps.

BRIG – MEDIUM BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 <input type="checkbox"/> 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C to +40 °C	539 280 34 24 - E -
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	539 480 34 24 - E -
m1500 <input type="checkbox"/> 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	539 680 34 24 - E -

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

BRIG – CONCENTRATED BEAM, 12° FRESNEL LENS

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 <input type="checkbox"/> 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C to +40 °C	539 280 84 24 - E -
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	539 480 84 24 - E -
m1500 <input type="checkbox"/> 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	539 680 84 24 - E -

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

BRIG – ASYMMETRIC BEAM, PMMA CLEAR, 6° FRESNEL LENS

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 <input type="checkbox"/> 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C to +40 °C	539 280 64 14 - E -
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	539 480 64 14 - E -
m1500 <input type="checkbox"/> 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	539 680 64 14 - E -

Standard luminous flux T8, for other lumen packages, see appendix D

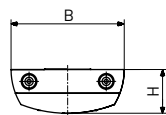
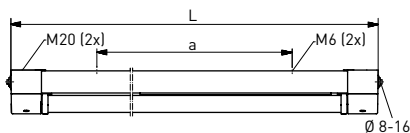
When ordering, please replace the highlighted letters with the corresponding numbers.

BRIG OPTIONS

Version	Article no.
DALI	100 502
Further colour temperatures	See appendix C
Rearward cable entry, M16, sides closed (pair)	539 438
Version for operating with PASSAU LED	Available on request

BRIG ACCESSORIES

Version	Article no.
Continuous row mounting clamp (1 piece)	539 010



- FOCUSSED LIGHTING**
[see appendix D]
- XARA® lighting control**
(optional)
- K** Further colour temperatures
(optional)

- medium beam
- asymmetric beam

Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1285 mm	220 mm	85 mm	951 ± 5 mm	4.6 kg
LED	m1500	1585 mm	220 mm	85 mm	1251 ± 5 mm	5.0 kg

AREAS OF APPLICATION

Polymer luminaire for surface ceiling mounting with LED lamps. Useable in underground stations, pedestrian underpasses and tunnels, multi-storey car parks or swimming pools (see options).

HOUSING

Flat, weather-proof and UV-resistant luminaire housing made of fibre-glass-reinforced polymer, similar to RAL 9010, with low installed height. Useable for indoor and outdoor areas according to protection rating IP 65. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Lamp diffuser made of PMMA Transopal® (impact strengthened) or PC Tropal® (fracture proof) with internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two access covers, four cable entries M20 and 4 x 1.5 mm² through wiring. 2 kV transient filter.

MOUNTING

Single or row mounting. Ceiling installation using split washers for easy mounting. Captive end caps.

BRÜNN LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	485 480 A4 B4 - E - ...
m1500 <input type="checkbox"/> 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	485 680 A4 B4 - E - ...

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

3 = medium beam
6 = asymmetric beam

Lamp diffuser / B

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

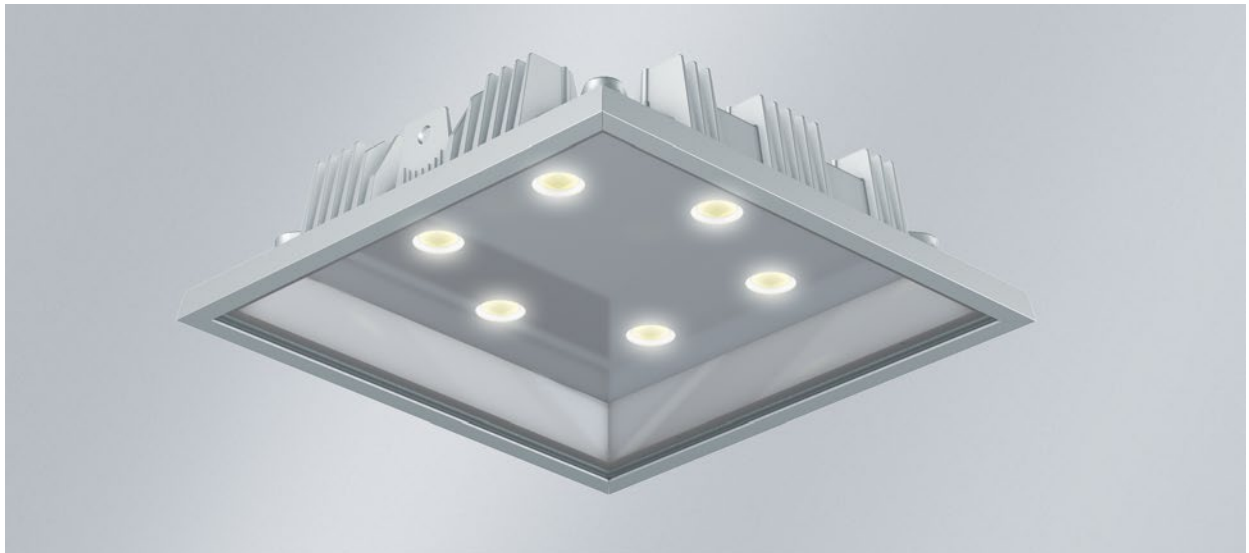
BRÜNN LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	485 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Halogen-free version	480 003
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Polymer cable gland with strain relief, M20 (both sides)	201 427
Polymer cable gland with strain relief, M20 (single sided)	200 427
RAL finish	485 960
Rear-mounted cable entry M20 (4 pieces), sides closed	201 310
Swimming pool version	480 036
Through wiring 4 × 2.5 mm ²	485 821
Through wiring 5 × 1.5 mm ²	485 831
Through wiring 5 × 2.5 mm ²	485 391
Version for operating with PASSAU LED	See PASSAU LED

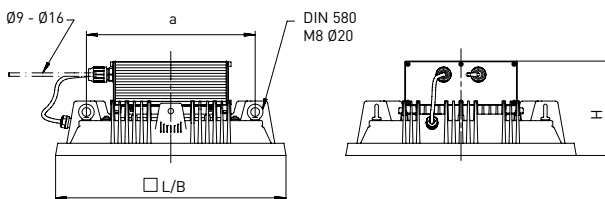






CENTAURUS

LED



CENTAURUS with eyebolt screws



-  narrow beam
individual reflectors
-  medium beam
-  wide beam
DDP prism screen
-  concentrated beam
DDP prism screen +
individual reflectors

Further dimensioned drawings available on our website

Lamp	Version	L	B	H	a	Max. weight
LED Array	with eyebolt screws	530 mm	530 mm	217 mm	388 mm	18.1 kg
LED Array	with swivel bracket	530 mm	530 mm	290 mm	300 ± 1 mm	20.1 kg
LED Array	VHT with eyebolt screws	530 mm	530 mm	125 mm	388 mm	18.1 kg
LED Array	VHT with swivel bracket	530 mm	530 mm	292 mm	300 ± 1 mm	20.1 kg

AREAS OF APPLICATION

Floodlight with LED array. Useable in spacious or extremely high industrial halls, manufacturing areas with a requirement for high illumination levels or best colour rendering and sports halls, as well as mounting on industrial cranes or large pieces of equipment and environments containing chlorine, such as swimming pools. Useable in production facilities and suppliers in the food and beverage industry. Optional outdoor version. **Version CENTAURUS VHT up to +85 °C.**

HOUSING

Robust luminaire housing made of corrosion-resistant, colour finish similar to RAL 9006. Useable according to protection rating IP 65. With age-resistant, form-retaining gasket made of silicone/synthetic rubber. Pressure balancing system with climate membrane against the formation of condensate in the housing.

LIGHTING TECHNOLOGY

Cover screen made of PC clear (fracture proof), clear or safety glass cover screen. Internal aluminium reflector with adapter for a prism screen for circular deglare (DDP). Narrow beam version with specially adapted individual reflectors (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. LED-driver, thermally separated. Supply voltage 230-240 V AC/DC.

There are two types of luminaire:

Standard version

Ready for connection via LUCON® luminaire connection system.

Version VHT

Luminaire for maximum ambient temperatures +60 °C to +85 °C. Driver in separate housing IP 65, for the maximum ambient temperature see table. Luminaire and external

driver connectable over max. 50 m with heat-resistant 3 x 1.5 mm² connecting cable. The connecting cable must be provided on site.

MOUNTING

Single mounting. Ceiling installation using swivel bracket (for ball impact resistant version see options) or preparation for suspension system including four eyebolts. Cord and ceiling installation are to be provided on site. Optional anti-vibration damper (not chlorine-resistant, only suspended installation) for cranes.

CENTAURUS

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
270	27020	159	-35 °C to +50 °C	915 270 AB CD - H1
400	39900	235	-35 °C to +40 °C	915 400 AB CD - H1
520	52250	305	-35 °C to +40 °C	915 520 AB CD - H1
650	65360	385	-35 °C to +35 °C	915 650 AB CD - H1

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

2 = narrow beam (individual reflectors)
 3 = medium beam
 4 = wide beam (DDP prism screen)
 8 = concentrated beam (DDP prism screen + individual reflectors)

Colour temperature / B

3 = 830/3000 K
 4 = 840/4000 K
 5 = 850/5000 K

Cover screen / C

4 = PC (fracture proof) clear
 6 = single pane safety glass, clear

Installation type / D

2 = swivel bracket
 6 = prepared for suspension system

CENTAURUS – VERSION VHT

Version	Luminous flux/lm	System power/W	Ambient temperature luminaire	Ambient temperature driver	Article no.
270 VHT	25130	159	-35 °C to +85 °C	-35 °C to +55 °C	915 271 AB 6D - H1
400 VHT	37110	235	-35 °C to +80 °C	-35 °C to +45 °C	915 401 AB CD - H1
520 VHT	48590	305	-35 °C to +70 °C	-35 °C to +40 °C	915 521 AB CD - H1
650 VHT	60780	385	-35 °C to +60 °C	-35 °C to +35 °C	915 651 AB CD - H1

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

2 = narrow beam (individual reflectors)
 3 = medium beam

Colour temperature / B

3 = 830/3000 K
 4 = 840/4000 K
 5 = 850/5000 K

Cover screen / C

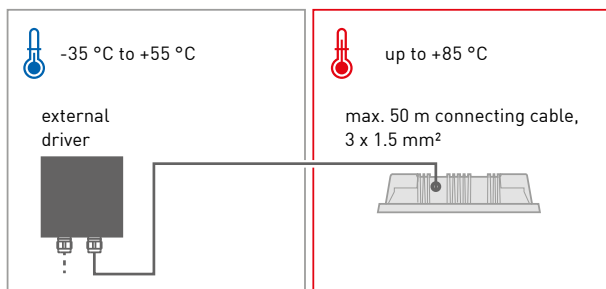
4 = PC (fracture proof) clear
 Not for versions 270 VHT
 6 = single pane safety glass, clear

Installation type / D

2 = swivel bracket
 6 = prepared for suspension system

CENTAURUS OPTIONS

Version	Article no.
Ball impact resistant version for installation type with lockable fastening bracket (ceiling mounting)	915 007
Ball impact resistant version for suspension system (ceiling mounting)	915 222
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	915 010
DALI	100 502
Outdoor version	915 016
Swimming pool version for suspension system	915 036
Swimming pool version with swivel bracket	915 191
Version for harsh operating conditions (only in combination with vibration-proof version with anti-vibration damper)	915 962
Version for operating with PASSAU LED	Available on request
Vibration-proof version with anti-vibration damper for swivel bracket version (for crane fixing)	915 190



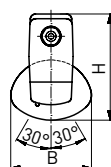
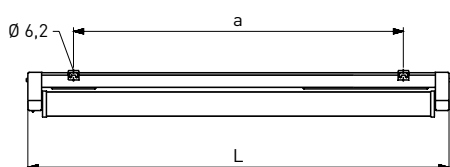
> Through the use of an external driver, version VHT can be used in areas up to +85 °C. Precise ambient temperatures can be found in the item table.



> CENTAURUS with DDP prism screen

COBURG LED

LED



FOCUSSED LIGHTING
(see appendix D)

easy eXchange LED
(see appendix B)

K Further colour temperatures
(optional)



narrow beam



medium beam

Lamp	Version	Emergency lighting duration	L	B	H	a	Max. weight
LED	m1200	1 h	1251 mm	107 mm	140 mm	980 ± 80 mm	3.0 kg
LED	m1200	3 h	1251 mm	107 mm	140 mm	980 ± 80 mm	3.1 kg
LED	m1500	1 h	1551 mm	107 mm	140 mm	1280 ± 80 mm	3.6 kg
LED	m1500	3 h	1551 mm	107 mm	140 mm	1280 ± 80 mm	3.7 kg

AREAS OF APPLICATION

Single-battery safety luminaire with LED lamps. Useable in industrial applications. Permissible ambient temperature in continuous mode -5 °C to +30 °C; in standby mode 0 °C to +35 °C.

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibre-glass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube with sealing system for easy LED replacement (easy eXchange LED). With reflector tube that can be swivelled made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in increments of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Mains operation using LED driver 230 V AC. One access cover, two M20 cable entries on face side. Emergency operation through fully electronic integrated emergency lighting unit, including automatic selftest, charging, check display, mains monitoring and protection against total discharge. Emergency lighting duration 1 h or 3 h. 2 kV transient filter.

MOUNTING

Single mounting. Ceiling installation using two stainless steel mounting clamps, variable mounting distance.

COBURG LED

Version	Emergency lighting duration/h	Luminous flux/lm Mains operation	Luminous flux/% Emergency mode	System power/W	Article no.+ MC
m1200 □ 840/4000 K	1	2600 - 3420 - 6270	40 - 30 - 15	18 - 22 - 38	835 491 A4 B4 - E - ...
m1200 □ 840/4000 K	3	2600 - 3420 - 6270	40 - 30 - 15	18 - 22 - 38	835 493 A4 B4 - E - ...
m1500 □ 840/4000 K	1	4270 - 5280 - 7830	25 - 20 - 10	27 - 32 - 46	835 691 A4 B4 - E - ...
m1500 □ 840/4000 K	3	4270 - 5280 - 7830	25 - 20 - 10	27 - 32 - 46	835 693 A4 B4 - E - ...

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

2 = narrow beam
3 = medium beam

Reflector tube / B

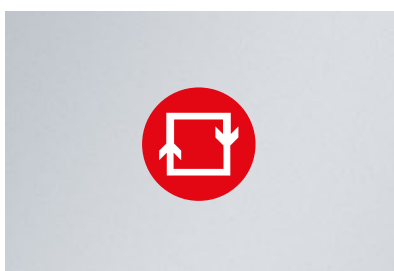
2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

COBURG LED OPTIONS

Version	Article no.
DALI central monitoring	Available on request
DALI	100 502
Further colour temperatures	See appendix C
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Lateral cable entries M20 (pair) on level with the access cover	201 438



> Stainless steel mounting clamps, included in scope of delivery



> With easy eXchange LED, for more information see introduction pages and appendix B

COBURG LED ACCESSORIES

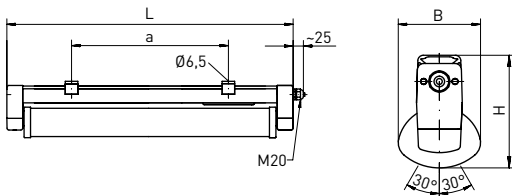
Version	Article no.
easy eXchange LED replacement kit	see appendix B

ACCORDING TO



- > EN 50 172 (VDE 0108)
- > EN 1838
- > EN 60598-2-22



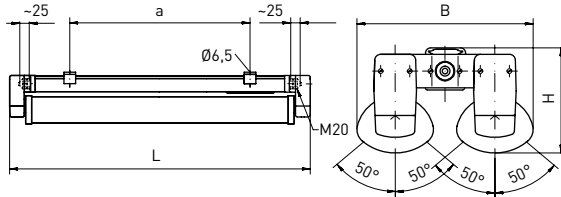
single lamp



K Further colour temperatures (optional)

-  medium beam
-  wide beam

twin lamp



Further dimensioned drawings available on our website

Lamp	Version	L	B	H	a	Max. weight
LED	single lamp, m1500	1551 mm	107 mm	144 mm	1280 ± 40 mm	3.4 kg
LED	twin lamp, m1500	1551 mm	242 mm	144 mm	1220 ± 80 mm	4.6 kg

AREAS OF APPLICATION

Ammonia resistant polymer luminaire with LED lamp, single or twin lamp. Useable in stables or aviaries with high ammonia levels and special safety requirements.

HOUSING

Weather-proof luminaire housing made of fibreglass reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65 (single or twin lamp) resp. IP 67 (single lamp). Thermally separated lamp chamber and driver chamber. **Fume-proof**, short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

With reflector tubes that can be swivelled independently, made of PMMA Transopal® [impact strengthened] with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in steps of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in, ammonia resistant driver 230 V AC/DC, optionally suitable for emergency lighting. One access cover, one M20 cable gland on face side. Ready for connection via ammonia resistant connecting cable (2 m). Optional through wiring. 2 kV transient filter.

MOUNTING

Single mounting. Ceiling or wall fixing using two polymer mounting clamps with variable mounting distance.

COESFELD – SINGLE LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1500 <input type="checkbox"/> 840/4000 K	5280	30	-25 °C to +40 °C	445 680 A4 25-E
m1500 <input checked="" type="checkbox"/> 850/5000 K	5280	30	-25 °C to +40 °C	445 680 A5 25-E

COESFELD – TWIN LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1500 <input type="checkbox"/> 840/4000 K	10560	60	-25 °C to +40 °C	446 680 A4 25-E
m1500 <input checked="" type="checkbox"/> 850/5000 K	10560	60	-25 °C to +40 °C	446 680 A5 25-E

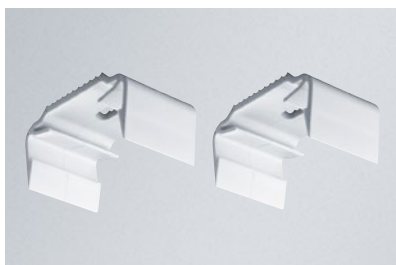
When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

3 = medium beam
4 = wide beam

COESFELD OPTIONS

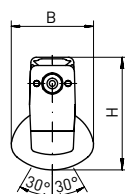
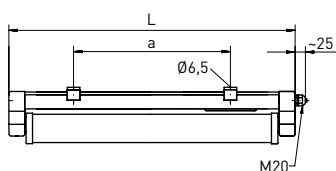
Version	Article no.
4 kV transient filter	100 530
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	445 010
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
RAL finish	445 960
Through wiring 2 x 2.5 mm ² with second connecting cable	445 933
Version for operating with PASSAU LED	Available on request



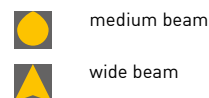
- > Polymer mounting clamps, included in scope of delivery

COESFELD PLUS

LED



K Further colour temperatures (optional)



Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1251 mm	107 mm	144 mm	980 ± 80 mm	2.0 kg
LED	m1500	1551 mm	107 mm	144 mm	1280 ± 80 mm	3.6 kg

AREAS OF APPLICATION

Ammonia resistant polymer luminaire with LED lamps, single lamp. Useable in stables, aviaries or milking stations with particularly high requirements for colour rendering as well as for high ammonia exposure and intensive cleaning processes.

HOUSING

Weather-proof luminaire housing made of fibreglass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65 and IP 67. Suitable for intensive cleaning processes using pressure washers due to **high protection rating IP 69K**. Thermally separated lamp chamber and driver chamber. Profile including coating for increased resistance against acids and cleaning agents. **Fume-proof**, short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube that can be swivelled, made of PMMA Transopal® (impact strengthened) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in steps of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in, ammonia-resistant DALI driver 230 V AC/DC, optionally suitable for emergency lighting. One access cover, one M20 cable gland on face side. Ready for connection via 2 m ammonia resistant connecting cable 4 x 2.5 mm² (mains 2 x 2.5 mm², DALI 2 x 2.5 mm²). Optional through wiring. 2 kV transient filter.

MOUNTING

Single mounting. Ceiling or wall fixing using two polymer mounting clamps with variable mounting distance. Suspension system possible (see accessories).

COESFELD PLUS

Version		Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200	<input type="checkbox"/> 840/4000 K	3420	20	-25 °C to +40 °C	445 480 A4 26-E
m1500	<input type="checkbox"/> 840/4000 K	5280	30	-25 °C to +40 °C	445 680 A4 26-E
m1200	<input checked="" type="checkbox"/> 850/5000 K	3420	20	-25 °C to +40 °C	445 480 A5 26-E
m1500	<input checked="" type="checkbox"/> 850/5000 K	5280	30	-25 °C to +40 °C	445 680 A5 26-E

When ordering, please replace the highlighted letters with the corresponding numbers.

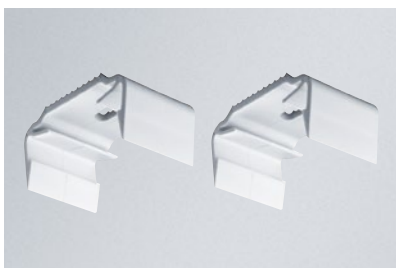
LIDC characteristic / A

3 = medium beam

4 = wide beam

COESFELD PLUS OPTIONS

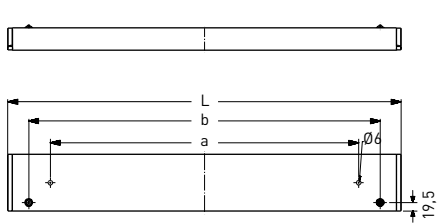
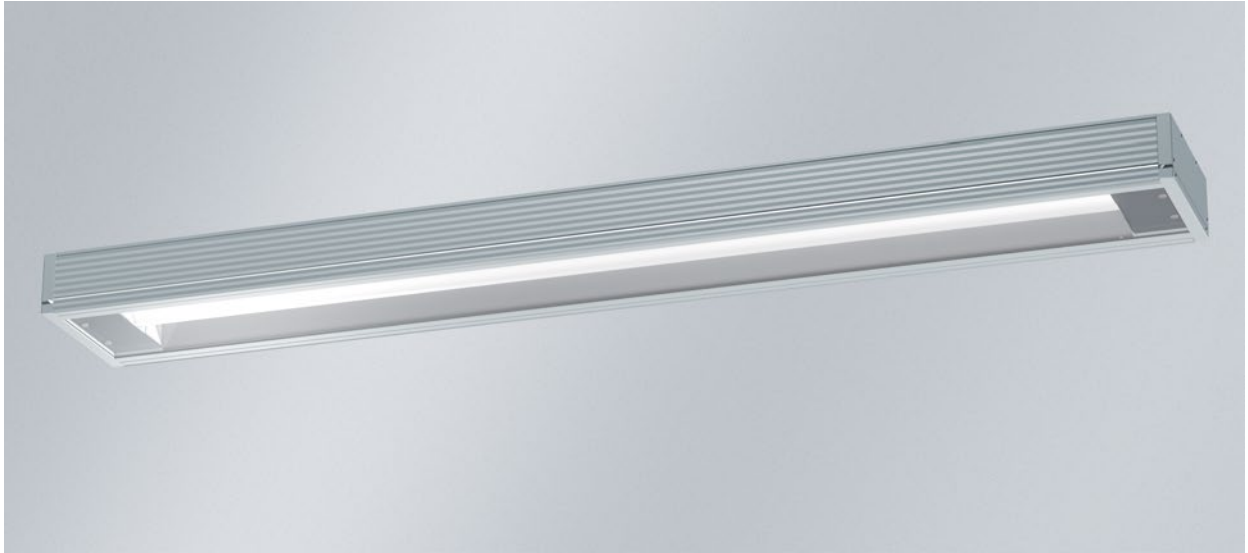
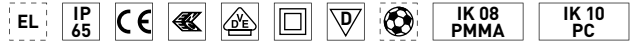
Version	Article no.
4 kV transient filter	100 530
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
RAL finish	445 960
Through wiring 4 × 2.5 mm ² with second connecting cable	445 822
Version for operating with PASSAU LED	Available on request



- > Polymer mounting clamps, included in scope of delivery

DUBLIN LED

LED



easy eXchange LED
(see appendix B)

medium beam

K Further colour temperatures (optional)

Lamp	Version	L	B	H	a	b	Max. weight
LED	m600	666 mm	185 mm	73 mm	390 mm	530 mm	4.4 kg
LED	m1200	1276 mm	185 mm	73 mm	1000 mm	1140 mm	8.9 kg
LED	m1500	1576 mm	185 mm	73 mm	1300 mm	1440 mm	10.8 kg

AREAS OF APPLICATION

Aluminium luminaire for recessed and surface ceiling mounting with LED. Useable in underground stations, pedestrian underpasses and tunnels, passages, multi-storey car parks, swimming pools (see options), sports halls, transport areas and under canopies.

HOUSING

Silver anodised aluminium profile housing. Hinged, clear cover screen. Useable for indoor and outdoor areas according to protection rating IP 65. Protection class II.

LIGHTING TECHNOLOGY

LED unit for easy LED replacement (easy eXchange LED), made of PMMA Transopal® (impact strengthened) that can be swivelled in 10° steps, with reverse polarity protection. Cover screen made of PMMA (impact strengthened) or PC (fracture proof) clear with decorative screen print pattern. Internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Through wiring 4 x 1.5 mm². Ready for connection via two rear-mounted cable entries. 2 kV transient filter.

MOUNTING

Single mounting. Optional continuous row version or on NORKA trunking system 185 (the luminaire must be ordered in this specification). Mounting on two concealed mounting apertures at the rear. Ceiling mounting frame optionally available (see accessories).

DUBLIN LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	1710	11	-25 °C to +40 °C	585 280 34 A4 -E
m1200 <input type="checkbox"/> 840/4000 K	3420	20	-25 °C to +40 °C	585 480 34 A4 -E
m1500 <input type="checkbox"/> 840/4000 K	4780	29	-25 °C to +40 °C	585 680 34 A4 -E

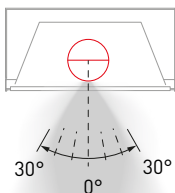
When ordering, please replace the highlighted letters with the corresponding numbers.

Cover screen / A

3 = PMMA (impact strengthened) clear with decorative screen print pattern
5 = PC (fracture proof) clear with decorative screen print pattern

DUBLIN LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
Ball impact resistant version	100 901
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	580 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Protection against unauthorised opening	610 003
Swimming pool version	580 824
Through wiring 4 x 2.5 mm ²	585 822
Through wiring 5 x 1.5 mm ²	580 382
Through wiring 5 x 2.5 mm ²	580 392
Version for NORKA trunking system 185	100 904
Version for operating with PASSAU LED	Available on request
Version with two pairs of cable entries on the face side (continuous row version)	201 442



> LED unit can be swivelled in 10° steps.

For additional articles, please turn the page! ►

NOTE

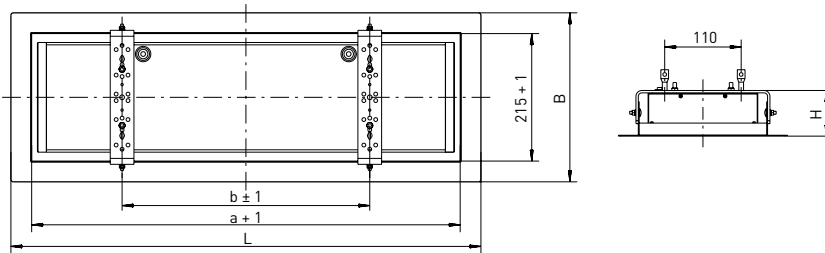
LIDC data for various turning positions of the LED unit is available on request. The luminaire is delivered with the LED units in the 0° position.

IMPORTANT

The distance of the mounting apertures has been modified for the version on the trunking system. The standard version for ceiling installation cannot be installed on the trunking system.

DUBLIN LED ACCESSORIES

Version	Article no.
Ceiling installation frame m600, powder coated RAL 9010, for continuous row mounting intermediate	203 206
Ceiling installation frame m600, powder coated RAL 9010, for continuous row mounting initial/end	203 203
Ceiling installation frame m600, powder coated RAL 9010, for single mounting	203 200
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting intermediate	203 207
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting initial/end	203 204
Ceiling installation frame m1200, powder coated RAL 9010, for single mounting	203 201
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting intermediate	203 208
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting initial/end	203 205
Ceiling installation frame m1500, powder coated RAL 9010, for single mounting	203 202
easy eXchange LED replacement kit	See appendix B



Version	Required ceiling cut-out	L	B	H	a	b	Max. weight
m600	700 x 256 mm	754 mm	285 mm	77 mm	684 mm	390 mm	2.5 kg
m1200	1310 x 256 mm	1364 mm	285 mm	77 mm	1294 mm	1000 mm	3.6 kg
m1500	1610 x 256 mm	1664 mm	285 mm	77 mm	1594 mm	1300 mm	4.2 kg

SUITABLE SUPPLEMENT



TRUNKING SYSTEM 185

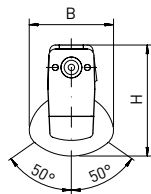
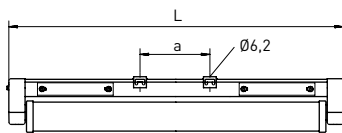


ERFURT LED

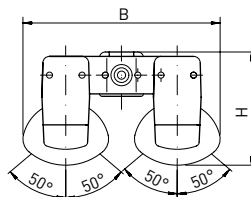
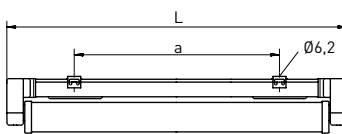
LED



single lamp m1200/1500



twin lamp m600/1200/1500



- FOCUSSED LIGHTING**
(see appendix D)
- easy eXchange LED**
(see appendix B)
- easy eXchange DRIVER**
(optional, see appendix B)
- XARA® lighting control**
(optional)
- Further colour temperatures**
(optional)



Further dimensioned drawings available on our website

Lamp	Version	L	B	H	a	Max. weight
LED	single lamp, m600	685 mm	107 mm	140 mm	465 ± 30 mm	1.6 kg
LED	single lamp, m1200	1251 mm	107 mm	140 mm	590 ± 40 mm	2.6 kg
LED	single lamp, m1500	1551 mm	107 mm	140 mm	890 ± 40 mm	3.1 kg
LED	twin lamp, m600	685 mm	242 mm	140 mm	420 ± 30 mm	2.7 kg
LED	twin lamp, m1200	1251 mm	242 mm	140 mm	920 ± 80 mm	4.7 kg
LED	twin lamp, m1500	1551 mm	242 mm	140 mm	1220 ± 80 mm	5.3 kg

AREAS OF APPLICATION

Polymer luminaire for ceiling and wall mounting with LED lamps, single or twin lamps. Useable in industrial and public applications, such as swimming pools (see options), and areas with special safety requirements. Useable in production facilities and suppliers in the food and beverage industry.

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibre-glass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65 (single or twin lamp) resp. optional IP 67 (single lamp). Thermally separated lamp chamber and driver

chamber. Short sealing system consisting of age-resistant, form-retaining silicone/ synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube with sealing system for easy LED replacement (easy eXchange LED). With reflector tubes that can be swivelled independently made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in increments of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency

lighting. Two access covers, two cable entries M20 on the face side and 4 x 1.5 mm² through wiring. 2 kV transient filter. Adjustable luminous flux via NFC programming (optionally available).

MOUNTING

Single or row mounting. Ceiling or wall fixing using two stainless steel mounting clamps with variable mounting distance. Quick-mounting pressure cap with LUCON® luminaire connection system optionally available (see options). Suspension system possible (see accessories).

Subject to technical changes. Please refer to our homepage for current data. Product illustrations similar, project illustrations may contain special equipment.

ERFURT LED – SINGLE LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 □ 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C to +40 °C	445 280 A4 B4 -E-
m1200 □ 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	445 480 A4 B4 -E-
m1500 □ 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	445 680 A4 B4 -E-

ERFURT LED – TWIN LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 □ 840/4000 K	2600 - 3420 - 5860	14 - 18 - 32	-25 °C to +40 °C	446 280 A4 B4 -E-
m1200 □ 840/4000 K	5200 - 6840 - 12540	32 - 40 - 72	-25 °C to +40 °C	446 480 A4 B4 -E-
m1500 □ 840/4000 K	8540 - 10560 - 15660	50 - 60 - 88	-25 °C to +40 °C	446 680 A4 B4 -E-

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

2 = narrow beam
3 = medium beam
4 = wide beam

Reflector tube / B

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

ERFURT LED OPTIONS

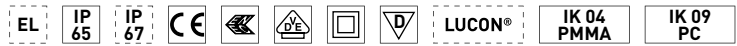
Version	Article no.
4 kV transient filter	100 530
Adjustable luminous flux via NFC programming (barcode and RFID detection device required)	100 037
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	445 010
DALI	100 502
easy eXchange DRIVER m1200 access cover version (only IP 65, single lamp), for easy exchange of driver	200 950
easy eXchange DRIVER m1500 access cover version (only IP 65, single lamp), for easy exchange of driver	200 951
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Halogen-free version	445 032
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
IP 67 version only m1200/m1500 single lamp with access cover 130 mm	445 400
LUCON® - luminaire connection system (1 unit)	100 111
Polymer cable gland with strain relief, M20 (both sides)	201 427
Polymer cable gland with strain relief, M20 (single sided)	200 427
RAL finish	445 960
Swimming pool version	445 036
Through wiring 4 × 2.5 mm ²	445 821
Through wiring 5 × 1.5 mm ²	445 831
Through wiring 5 × 2.5 mm ²	445 383
Version for operating with PASSAU LED	See PASSAU LED

ERFURT LED ACCESSORIES

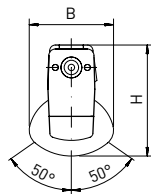
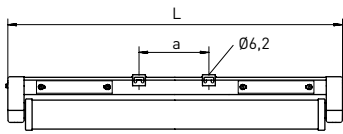
Version	Article no.
easy eXchange DRIVER replacement kit	Available on request
easy eXchange LED replacement kit	See appendix B
Mobile barcode and RFID detection device for NFC programming	106 598
Mounting clamp polymer white for chlorine atmosphere, acid resistant (pair)	200 226
Safety clip/theft protection (only in connection with standard mounting)	200 224
Two mounting clamps for cable suspension, (not suitable for chlorine atmosphere)	200 277

ERFURT LED EXTREME

LED



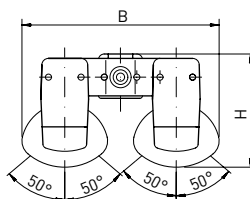
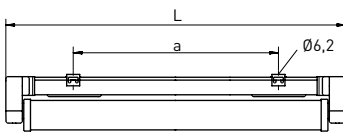
single lamp m1200/1500



 **easy eXchange LED**
[see appendix B]



twin lamp m1200/1500



Further dimensioned drawings available on our website

Lamp	Version	L	B	H	a	Max. weight
LED	single lamp, m1200	1251 mm	107 mm	140 mm	590 ± 40 mm	2.8 kg
LED	single lamp, m1500	1551 mm	107 mm	140 mm	890 ± 40 mm	3.4 kg
LED	twin lamp, m1200	1251 mm	242 mm	140 mm	920 ± 80 mm	5.2 kg
LED	twin lamp, m1500	1551 mm	242 mm	140 mm	1220 ± 80 mm	5.8 kg

AREAS OF APPLICATION

Polymer luminaire for surface ceiling mounting with LED lamps, single or twin lamps. Useable in industrial applications and areas with special safety requirements. **Long expected service life, useable up to +65 °C.**

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibreglass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65 (single or twin lamp) resp. optionally IP 67 (single lamp). Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube with sealing system for easy LED replacement (easy eXchange LED). With reflector tubes that can be swivelled independently made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in increments of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two cable entries M20 on face side and 4 x 1.5 mm² through wiring. Two access covers.

L80 B10 > 100,000 h at +65 °C.
4 kV transient filter. 8 years manufacturer warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing using two stainless steel mounting clamps with variable mounting distance. Quick-mounting pressure cap with LUCON® luminaire connection system optionally available (see options). Suspension system possible (see accessories).

ERFURT LED EXTREME – SINGLE LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	4030	28	-40 °C to +65 °C	433 480 A4 B1
m1500 <input type="checkbox"/> 840/4000 K	5050	35	-40 °C to +65 °C	433 680 A4 B1

ERFURT LED EXTREME – TWIN LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	8060	56	-40 °C to +65 °C	434 480 A4 B1
m1500 <input type="checkbox"/> 840/4000 K	10100	70	-40 °C to +65 °C	434 680 A4 B1

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / **A**

2 = narrow beam
3 = medium beam
4 = wide beam

Reflector tube / **B**

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropolal® (fracture proof)

ERFURT LED EXTREME OPTIONS

Version	Article no.
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	445 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Halogen-free version	445 032
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
IP 67 version only m1200/m1500 single lamp with access cover 130 mm	445 400
LUCON® - luminaire connection system (1 unit)	100 111
Polymer cable gland with strain relief, M20 (both sides)	201 427
Polymer cable gland with strain relief, M20 (single sided)	200 427
RAL finish	445 960
Swimming pool version	445 036
Through wiring 4 × 2.5 mm ²	445 821
Through wiring 5 × 1.5 mm ²	445 831
Through wiring 5 × 2.5 mm ²	445 383
Version for operating with PASSAU LED	Available on request

ERFURT LED EXTREME ACCESSORIES

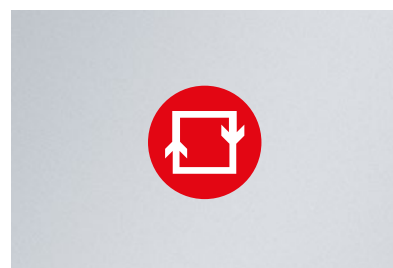
Version	Article no.
easy eXchange LED replacement kit	See appendix B
Mounting clamp polymer white for chlorine atmosphere, acid resistant (pair)	200 226
Safety clip/theft protection (only in connection with standard mounting)	200 224



> Stainless steel mounting clamps, included in scope of delivery



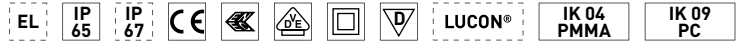
> Polymer mounting clamps, white (pair), Article no.200 226



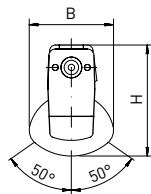
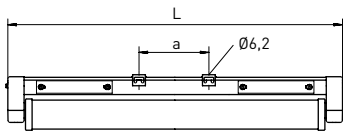
> With easy eXchange LED, for more information see introduction pages and appendix B

ERFURT LED HIGH OUTPUT

LED



single lamp m1200/1500

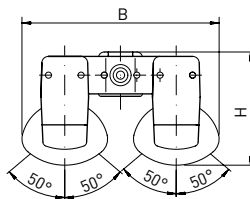


easy eXchange LED
(see appendix B)

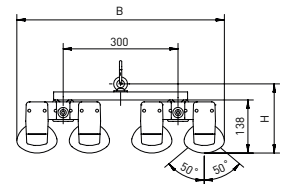
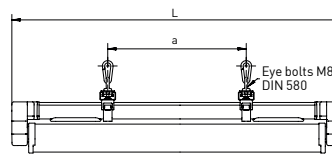
XARA® lighting control
(optional)



twin lamp m1200/1500



four lamp m1200/1500



Further dimensioned drawings available on our website

Lamp	Version	L	B	H	a	Max. weight
LED	single lamp, m1200	1251 mm	107 mm	140 mm	590 ± 40 mm	2.8 kg
LED	single lamp, m1500	1551 mm	107 mm	140 mm	890 ± 40 mm	3.4 kg
LED	twin lamp, m1200	1251 mm	242 mm	140 mm	920 ± 80 mm	5.2 kg
LED	twin lamp, m1500	1551 mm	242 mm	140 mm	1220 ± 80 mm	5.8 kg
LED	4-lampig, m1200	1251 mm	542 mm	180 mm	750 ± 10 mm	11.0 kg
LED	4-lampig, m1500	1551 mm	542 mm	180 mm	1050 ± 10 mm	12.7 kg

AREAS OF APPLICATION

Polymer luminaire for surface ceiling mounting with LED lamps, single, twin or four lamps. Useable in industrial applications and in areas with special safety requirements and special demands on the illumination level from great mounting heights.

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibreglass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65 (single, twin or four lamp) resp. optional IP 67 (single lamp). Thermally separated lamp chamber and driver chamber. Short sealing system

consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube with sealing system for easy LED replacement (easy eXchange LED). With reflector tubes that can be swivelled independently made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in steps of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency

lighting. Two cable entries M20 on face side and 4 x 1.5 mm² through wiring.

Two access covers.

L80 B10 > 100,000 h at +40 °C.

4 kV transient filter. 8 years manufacturer warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing using two stainless steel mounting clamps with variable mounting distance. Quick-mounting pressure cap with LUCON® luminaire connection system optionally available (see options). Suspension system possible (see accessories).

Subject to technical changes. Please refer to our homepage for current data. Product illustrations similar, project illustrations may contain special equipment.

ERFURT LED HIGH OUTPUT 1, HIGH OUTPUT 2, HIGH OUTPUT 3 – SINGLE LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 H01 <input type="checkbox"/> 840/4000 K	5330	38	-40 °C to +40 °C	438 480 A4 B1 – 5300lm
m1200 H02 <input type="checkbox"/> 840/4000 K	6610	48	-40 °C to +40 °C	438 480 A4 B1 – 6600lm
m1200 H03 <input type="checkbox"/> 840/4000 K	7900	58	-40 °C to +40 °C	438 480 A4 B1 – 8000lm
m1500 H01 <input type="checkbox"/> 840/4000 K	6600	47	-40 °C to +40 °C	438 680 A4 B1 – 6600lm
m1500 H02 <input type="checkbox"/> 840/4000 K	11490	85	-40 °C to +40 °C	438 680 A4 B1 – 11500lm
m1500 H03 <input type="checkbox"/> 840/4000 K	13100	97	-40 °C to +40 °C	438 680 A4 B1 – 13000lm

ERFURT LED HIGH OUTPUT 1, HIGH OUTPUT 2, HIGH OUTPUT 3 – TWIN LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 H01 <input type="checkbox"/> 840/4000 K	10660	76	-40 °C to +40 °C	439 480 A4 B1 – 10600lm
m1200 H02 <input type="checkbox"/> 840/4000 K	13220	96	-40 °C to +40 °C	439 480 A4 B1 – 13200lm
m1200 H03 <input type="checkbox"/> 840/4000 K	15800	116	-40 °C to +40 °C	439 480 A4 B1 – 16000lm
m1500 H01 <input type="checkbox"/> 840/4000 K	13200	94	-40 °C to +40 °C	439 680 A4 B1 – 13200lm
m1500 H02 <input type="checkbox"/> 840/4000 K	22980	170	-40 °C to +40 °C	439 680 A4 B1 – 23000lm
m1500 H03 <input type="checkbox"/> 840/4000 K	26200	194	-40 °C to +40 °C	439 680 A4 B1 – 26000lm

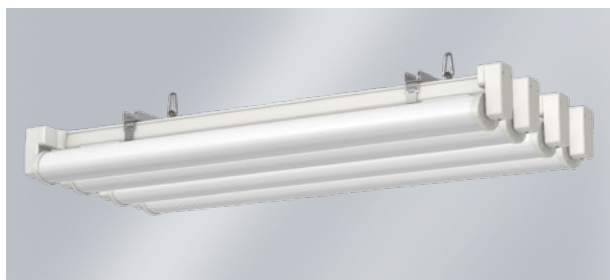
When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / **A**

2 = narrow beam
3 = medium beam
4 = wide beam

Reflector tube / **B**

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)



> ERFURT HIGH OUTPUT four lamp

ERFURT LED HIGH OUTPUT 3 –FOUR LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 H03 <input type="checkbox"/> 840/4000 K	31600	232	-40 °C to +40 °C	439 480 A4 B1 – 31600lm
m1500 H03 <input type="checkbox"/> 840/4000 K	52400	388	-40 °C to +40 °C	439 680 A4 B1 – 52000lm

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / **A**

2 = narrow beam
3 = medium beam
4 = wide beam

Reflector tube / **B**

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

For additional articles, please turn the page! ▶

ERFURT LED HIGH OUTPUT OPTIONS FOR ALL VERSIONS

Version	Article no.
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	445 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Halogen-free version	445 032
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
LUCON® - luminaire connection system (1 unit)	100 111
Polymer cable gland with strain relief, M20 (both sides)	201 427
Polymer cable gland with strain relief, M20 (single sided)	200 427
RAL finish	445 960
Swimming pool version	445 036
Version for operating with PASSAU LED	Available on request

ERFURT LED HIGH OUTPUT ADDITIONAL OPTIONS FOR SINGLE AND TWIN LAMP VERSION

Version	Article no.
Integrated light- and motion sensor XARA®	Available on request
IP 67 version only m1200/m1500 single lamp with access cover 130 mm	445 400
Through wiring 4 × 2.5 mm ²	445 821
Through wiring 5 × 1.5 mm ²	445 831
Through wiring 5 × 2.5 mm ²	445 383

ERFURT LED HIGH OUTPUT ACCESSORIES

Version	Article no.
easy eXchange LED replacement kit	See appendix B
Mounting clamp polymer white for chlorine atmosphere, acid resistant (pair)	200 226
Safety clip/theft protection (only in connection with standard mounting)	200 224



- > Stainless steel mounting clamps, included in scope of delivery

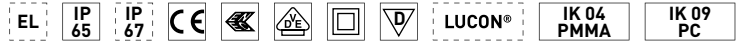


- > Polymer mounting clamps, white (pair), Article no.200 226

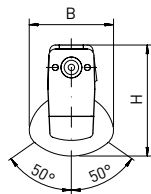
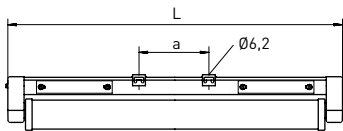


- > With easy eXchange LED, for more information see introduction pages and appendix B





single lamp m1200/1500



easy eXchange LED
(see appendix B)

easy eXchange DRIVER
(optional, see appendix B)



narrow beam

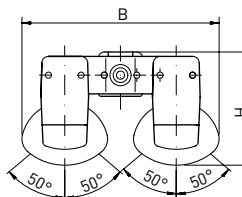
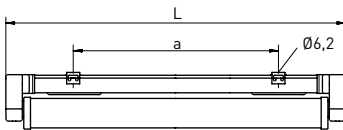


medium beam



wide beam

twin lamp m1200/1500



Further dimensioned drawings available on our website

Lamp	Version	L	B	H	a	Max. weight
LED	single lamp, m1200	1251 mm	107 mm	140 mm	590 ± 40 mm	2.8 kg
LED	single lamp, m1500	1551 mm	107 mm	140 mm	890 ± 40 mm	3.4 kg
LED	twin lamp, m1200	1251 mm	242 mm	140 mm	920 ± 80 mm	5.2 kg
LED	twin lamp, m1500	1551 mm	242 mm	140 mm	1220 ± 80 mm	5.8 kg

AREAS OF APPLICATION

Polymer luminaire for surface ceiling mounting with LED lamps, single or twin lamps. Useable in industrial applications and areas with special safety requirements. **Long expected service life, useable up to +55°C.**

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibreglass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65 (single or twin lamp) resp. optionally IP 67 (single lamp). Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Reflector tube with sealing system for easy LED replacement (easy eXchange LED). With reflector tubes that can be swivelled independently made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). Reflector tube can be locked in increments of 10°.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two cable entries M20 on face side and 4 x 1.5 mm² through wiring. Two access covers.

L80 B10 > 75,000 h at +55°C. 4 kV transient filter. 8 years manufacturer warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing using two stainless steel mounting clamps with variable mounting distance. Quick-mounting pressure cap with LUCON® luminaire connection system optionally available (see options). Suspension system possible (see accessories).

ERFURT LED INDUSTRY – SINGLE LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	4640	27	-40 °C to +55 °C	436 480 A4 B4 - E - 4640lm
m1200 <input type="checkbox"/> 840/4000 K	8300	48	-40 °C to +55 °C	436 480 A4 B4 - E - 8300lm
m1500 <input type="checkbox"/> 840/4000 K	6300	36	-40 °C to +55 °C	436 680 A4 B4 - E - 6300lm
m1500 <input type="checkbox"/> 840/4000 K	10380	60	-40 °C to +55 °C	436 680 A4 B4 - E - 10380lm

ERFURT LED INDUSTRY – TWIN LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	9280	54	-40 °C to +55 °C	437 480 A4 B4 - E - 9280lm
m1200 <input type="checkbox"/> 840/4000 K	16600	96	-40 °C to +55 °C	437 480 A4 B4 - E - 16600lm
m1500 <input type="checkbox"/> 840/4000 K	12600	72	-40 °C to +55 °C	437 680 A4 B4 - E - 12600lm
m1500 <input type="checkbox"/> 840/4000 K	20760	120	-40 °C to +55 °C	437 680 A4 B4 - E - 20760lm

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / **A**

2 = narrow beam
3 = medium beam
4 = wide beam

Reflector tube / **B**

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

ERFURT LED INDUSTRY OPTIONS

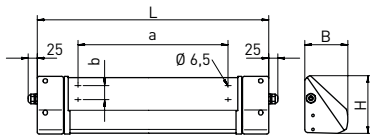
Version	Article no.
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	445 010
DALI	100 502
easy eXchange DRIVER m1200 access cover version (only IP 65, single lamp), for easy exchange of driver	200 950
easy eXchange DRIVER m1500 access cover version (only IP 65, single lamp), for easy exchange of driver	200 951
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Halogen-free version	445 032
IP 67 version only m1200/m1500 single lamp with access cover 130 mm	445 400
LUCON® - luminaire connection system (1 unit)	100 111
Polymer cable gland with strain relief, M20 (both sides)	201 427
Polymer cable gland with strain relief, M20 (single sided)	200 427
RAL finish	445 960
Swimming pool version	445 036
Through wiring 4 × 2.5 mm ²	445 821
Through wiring 5 × 1.5 mm ²	445 831
Through wiring 5 × 2.5 mm ²	445 383
Version for operating with PASSAU LED	Available on request

ERFURT LED INDUSTRY ACCESSORIES

Version	Article no.
easy eXchange DRIVER replacement kit	Available on request
easy eXchange LED replacement kit	See appendix B
Mounting clamp polymer white for chlorine atmosphere, acid resistant (pair)	200 226
Safety clip/theft protection (only in connection with standard mounting)	200 224

FULDA LED

LED



- FOCUSSED LIGHTING**
(see appendix D)
- easy eXchange DRIVER**
(optional, see appendix B)
- K** Further colour temperatures
(optional)

- asymmetric beam
- asymmetric beam with indirect downlighting

Lamp	Version	L	B	H	a	b	Max. weight
LED	m1200	1317 mm	123 mm	165 mm	1085 ± 4 mm	40 mm	4.0 kg
LED	m1500	1617 mm	123 mm	165 mm	1385 ± 4 mm	40 mm	5.3 kg

AREAS OF APPLICATION

Polymer luminaire for ceiling and wall mounting with LED lamps. Useable in work pits used for maintenance and repair work. Suitable for production facilities and suppliers for the food and beverage industry, work pits, underpasses, underground and suburban railway stations and passages.

HOUSING

Acid, alkaline and fuel-resistant luminaire housing made of fibreglass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65 and IP 66. High protection rating IP 69K optionally available. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber. Anti-graffiti coating for lamp diffuser optionally available (protects against dirt and paint residue, see options).

LIGHTING TECHNOLOGY

Lamp diffuser made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with inner aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Two cable glands on face side M20 and 4 x 1.5 mm² through wiring. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. 2 kV transient filter.

MOUNTING

Single or row mounting. Ceiling, wall or corner fixing using two stainless steel mounting plates.

FULDA LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m1200 □ 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	545 480 A4 B4 - E - ...
m1500 □ 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	545 680 A4 B4 - E - ...

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

0 = asymmetric beam with indirect
downlighting
6 = asymmetric beam

Lamp diffuser / B

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropolal® (fracture proof)

FULDA LED OPTIONS

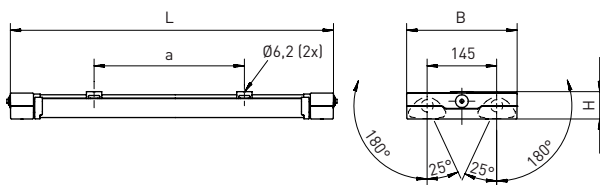
Version	Article no.
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	545 015
DALI	100 502
easy eXchange DRIVER m1200 access cover version (only IP 65, single lamp), for easy exchange of driver	200 950
easy eXchange DRIVER m1500 access cover version (only IP 65, single lamp), for easy exchange of driver	200 951
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Halogen-free version	545 032
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
IP 69K version	545 400
Lateral cable entries M20 (pair) on level with the access cover	201 438
RAL finish	545 960
Through wiring 4 × 2.5 mm ²	545 821
Through wiring 5 × 1.5 mm ²	545 831
Through wiring 5 × 2.5 mm ²	545 391
Version for operating with PASSAU LED	See PASSAU LED
Version for row mounting with 2 membrane seals instead of cable glands (only IP 65)	545 003

FULDA LED ACCESSORIES

Version	Article no.
easy eXchange DRIVER replacement kit	Available on request



> Optional with easy eXchange DRIVER, for more information see introduction pages and appendix B



- FOCUSSED LIGHTING**
(see appendix D)
 - XARA® lighting control**
(optional)
 - Further colour temperatures**
(optional)
- medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1260 mm	230 mm	61 mm	800 mm	3.1 kg
LED	m1500	1560 mm	230 mm	61 mm	1100 mm	3.5 kg

AREAS OF APPLICATION

Very flat polymer luminaire for surface ceiling mounting with LED lamps. Useable in industrial and public applications, multi-storey car parks, swimming pools (see options), and areas near offices with special safety requirements.

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibreglass-reinforced polymer, similar to RAL 9010, with low installed height. Useable for indoor and outdoor areas according to protection rating IP 65. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of silicone-free elastomer.

LIGHTING TECHNOLOGY

Two reflector tubes that can be swivelled independently made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®). 25° internal rotation on each reflector tube for focussed light emission and up to 180° external rotation for indirect lighting. For ceiling mounting, the reflector tubes can be swivelled up to 60° outwards.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two face-side cable membranes M20 and 4 x 1.5 mm² through wiring. 2 kV transient filter. Adjustable luminous flux via NFC programming (optionally available).

MOUNTING

Single or row mounting. Ceiling installation with two polymer mounting clamps, variable mounting distance. Suspension system for up to 180° external rotation on site.

GENF

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m1200 <input type="checkbox"/> 840/4000 K	5200 - 6840 - 12540	32 - 40 - 72	-25 °C to +35 °C	335 480 34 A4 -E-....
m1500 <input type="checkbox"/> 840/4000 K	8540 - 10560 - 15660	50 - 60 - 88	-25 °C to +35 °C	335 680 34 A4 -E-....

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

Reflector tube / A

- 2 = PMMA Transopal® (impact strengthened)
- 8 = PC Tropolal® (fracture proof)

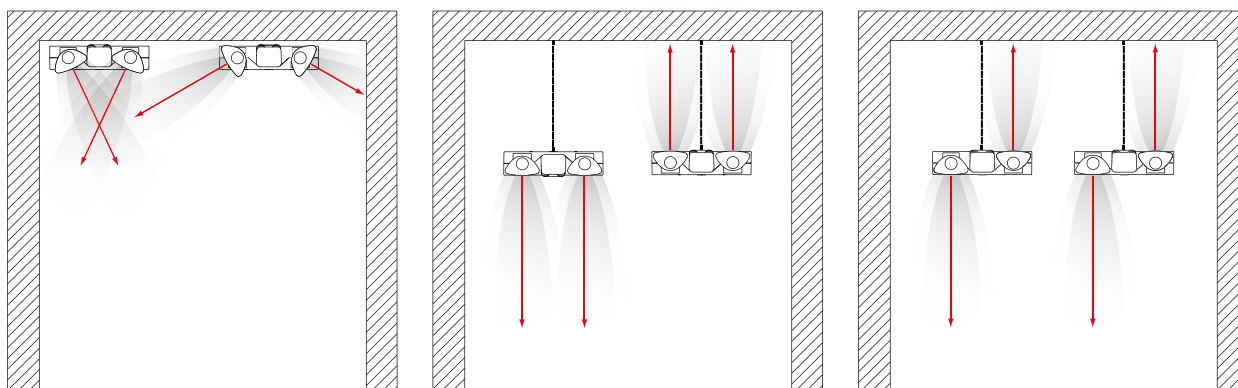
GENF OPTIONS

Version	Article no.
4 kV transient filter	100 530
Adjustable luminous flux via NFC programming (barcode and RFID detection device required), twin lamp	100 037
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	335 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Halogen-free version	335 032
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Polymer cable gland with strain relief, M20 (both sides)	201 427
Polymer cable gland with strain relief, M20 (single sided)	200 427
RAL finish	335 960
Rear cable entry M20, sides closed (pair)	201 300
Swimming pool version	Available on request
Through wiring 4 × 2.5 mm ²	335 821
Through wiring 5 × 1.5 mm ²	335 831
Through wiring 5 × 2.5 mm ²	335 383
Version for operating with PASSAU LED	See PASSAU LED

GENF ACCESSORIES

Version	Article no.
Mobile barcode and RFID detection device for NFC programming	106 598

GENF, SAMPLE APPLICATIONS



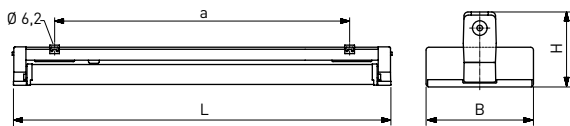
> Ceiling mounting: direct light distribution, inner rotation up to 25°, outer rotation up to 60°

> Suspension system: direct/indirect light distribution

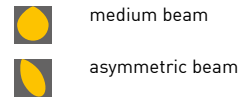
> Suspension system: direct/indirect light distribution in one luminaire, outer rotation up to 180°

GERA LED

LED



- **FOCUSSED LIGHTING**
(see appendix D)
- **easy eXchange DRIVER**
(optional, see appendix B)
- **K** Further colour temperatures
(optional)



Lamp	Version	L lengthwise (standard)	L crosswise (optional)	B	H	a	Max. weight
LED	m1200	1251 ± 2 mm	1285 mm	191 mm	132 mm	980 ± 80 mm	3.2 kg
LED	m1500	1551 ± 2 mm	1585 mm	191 mm	132 mm	1280 ± 80 mm	4.1 kg

AREAS OF APPLICATION

Polymer luminaire for recessed ceiling mounting with LED lamps. Useable in panel ceilings with 2 panel widths, module 100. Suitable, for example, in underground stations, passages, multi-storey car parks and swimming pools (optional).

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibre-glass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Lamp diffuser made of PMMA clear or PC clear (fracture proof) with internal Transopal® additional diffusor and internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two access covers, two cable entries M20 on the face side and 4 x 1.5 mm² through wiring. 2 kV transient filter.

MOUNTING

Single or row mounting. Panel fixing for panel width module 100, lengthwise to the panel with stainless steel mounting clamps. Captive end caps. Ceiling mounting frame and universal panel suspensions available as accessories. Recessed mounting crosswise to the panel optional.

GERA LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	784 480 A4 B4 -E -
m1500 <input type="checkbox"/> 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	784 680 A4 B4 -E -

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

3 = medium beam
6 = asymmetric beam

Lamp diffuser / B

1 = PMMA clear
4 = PC (fracture proof) clear

GERA LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	784 010
DALI	100 502
easy eXchange DRIVER m1200 access cover version (only IP 65, single lamp), for easy exchange of driver	200 950
easy eXchange DRIVER m1500 access cover version (only IP 65, single lamp), for easy exchange of driver	200 951
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Halogen-free version	784 007
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Lateral cable entries M20 (pair) on level with the access cover	201 438
Polymer cable gland with strain relief, M20 (both sides)	201 427
Polymer cable gland with strain relief, M20 (single sided)	200 427
RAL finish	784 960
Swimming pool version	784 036
Through wiring 4 × 2.5 mm ²	784 821
Through wiring 5 × 1.5 mm ²	784 834
Through wiring 5 × 2.5 mm ²	784 391
Version for operating with PASSAU LED	See PASSAU LED

GERA LED ACCESSORIES

Version	Article no.
easy eXchange DRIVER replacement kit	Available on request
Mounting clamp polymer white for chlorine atmosphere, acid resistant (pair)	200 226

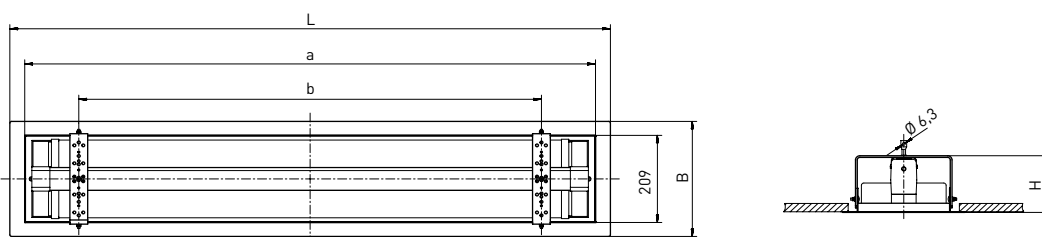


> Stainless steel mounting clamps, included in scope of delivery



> Optional with easy eXchange DRIVER, for more information see introduction pages and appendix B

INSTALLATION IN CLOSED CEILINGS

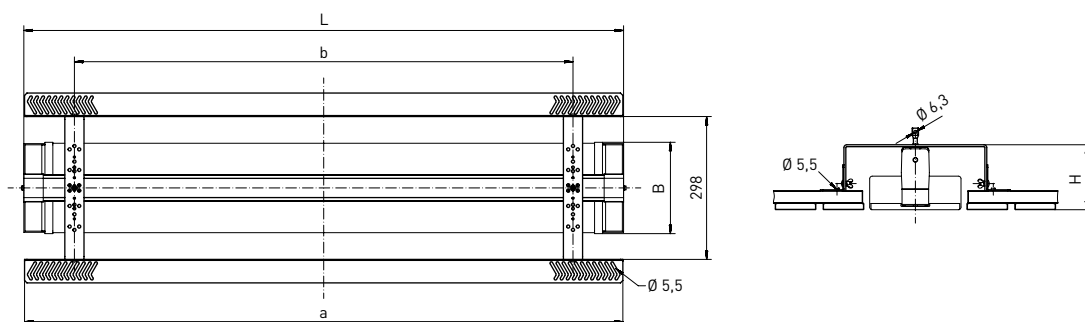
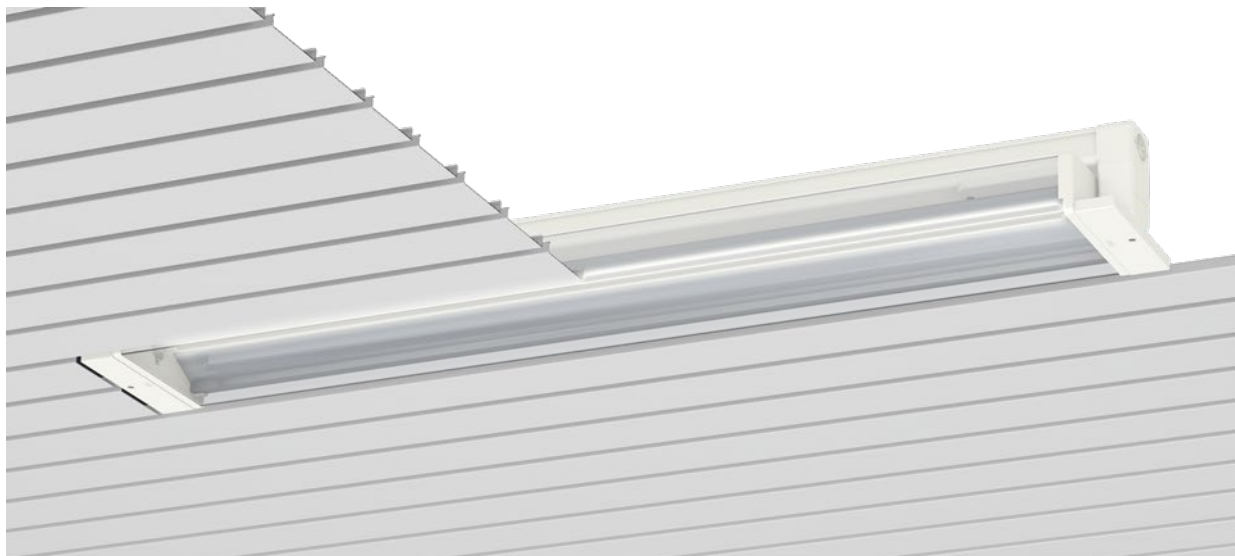


Version	Required ceiling cut-out	L	B	H	a	b	Max. weight
m1200	1295 x 242 mm	1350 mm	276 mm	136 mm	1283 mm	1040 mm	3.6 kg
m1500	1595 x 242 mm	1650 mm	276 mm	136 mm	1583 mm	1340 mm	4.2 kg

GERA LED ACCESSORIES

Version	Article no.
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting in closed ceiling initial/end	203 282
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting in closed ceiling intermediate	203 283
Ceiling installation frame m1200, powder coated RAL 9010, for single mounting in closed ceiling	203 230
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting in closed ceiling initial/end	203 284
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting in closed ceiling intermediate	203 285
Ceiling installation frame m1500, powder coated RAL 9010, for single mounting in closed ceiling	203 231

INSTALLATION IN PANEL CEILINGS



PANEL DIRECTION LENGTHWISE (STANDARD)

Version	Required panel recess	L lengthwise (standard)	B	H	a	b	Max. weight
m1200	1265 x 215 mm	1251 mm	191 mm	134 mm	1248 mm	1040 mm	3.6 kg
m1500	1565 x 215 mm	1551 mm	191 mm	134 mm	1548 mm	1340 mm	4.2 kg

PANEL DIRECTION CROSSWISE

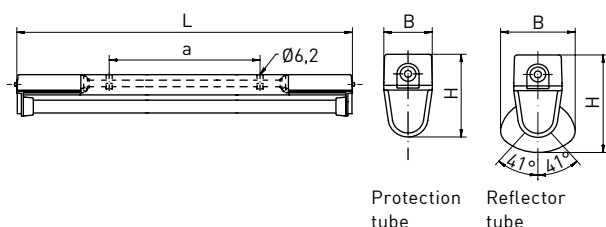
Version	Required panel recess	L crosswise	B	H	a	b	Max. weight
m1200	13 units	1285 mm	191 mm	134 mm	1248 mm	1040 mm	3.6 kg
m1500	16 units	1585 mm	191 mm	134 mm	1548 mm	1340 mm	4.2 kg

GERA LED ACCESSORIES

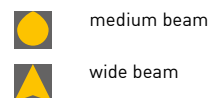
Version	Article no.
Panel ceiling fixings, universal (m1200)	200 230
Panel ceiling fixings, universal (m1500)	200 231

HAMBURG LED

LED



K Further colour temperatures (optional)



Lamp	Version	L	B	H	a	Max. weight
LED	With protection tube, m600	649 ± 2 mm	68 mm	123 mm	180 ± 30 mm	3.0 kg
LED	With protection tube, m1200	1259 ± 2 mm	68 mm	123 mm	740 ± 80 mm	3.9 kg
LED	With protection tube, m1500	1559 ± 2 mm	68 mm	123 mm	1040 ± 80 mm	4.6 kg
LED	With reflector tube, m600	649 ± 2 mm	107 mm	145 mm	180 ± 30 mm	3.0 kg
LED	With reflector tube, m1200	1259 ± 2 mm	107 mm	145 mm	740 ± 80 mm	3.9 kg
LED	With reflector tube, m1500	1559 ± 2 mm	107 mm	145 mm	1040 ± 80 mm	4.6 kg

AREAS OF APPLICATION

Polymer luminaire for surface ceiling mounting with LED lamps. Useable in industrial applications.

HOUSING

Weather-proof luminaire housing made of thermoplastic polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

With protection tube 38 mm or a reflector tube that can be swivelled made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver, 230 V AC/DC. Two M20 cable glands on face side and 5 x 1.5 mm² through wiring. L80 B10 > 50,000 h at +40 °C.

MOUNTING

Single or row mounting. Ceiling installation using two polymer stirrup clamps, variable mounting distance.

HAMBURG LED – MEDIUM BEAM, WITH REFLECTOR TUBE

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	1960	13	-25 °C to +40 °C	305 280 34 A1 – Z1
m1200 <input type="checkbox"/> 840/4000 K	3540	21	-25 °C to +40 °C	305 480 34 A1 – Z1
m1500 <input type="checkbox"/> 840/4000 K	5490	33	-25 °C to +40 °C	305 680 34 A1 – Z1

When ordering, please replace the highlighted letters with the corresponding numbers.

Reflector tube / A

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

HAMBURG LED – WIDE BEAM, WITH PROTECTION TUBE

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	1960	13	-25 °C to +40 °C	305 280 44 A2 – Z1
m1200 <input type="checkbox"/> 840/4000 K	3940	25	-25 °C to +40 °C	305 480 44 A2 – Z1
m1500 <input type="checkbox"/> 840/4000 K	5120	31	-25 °C to +40 °C	305 680 44 A2 – Z1

When ordering, please replace the highlighted letters with the corresponding numbers.

Protection tube / A

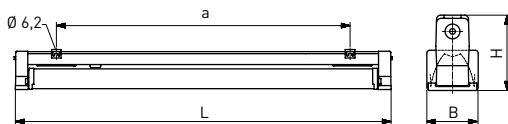
2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

HAMBURG LED OPTIONS

Version	Article no.
Further colour temperatures	Available on request
Halogen-free version	303 003
RAL finish	303 960
Through wiring 4 x 2.5 mm ²	303 822
Through wiring 5 x 2.5 mm ²	303 392

JENA LED

LED



- **FOCUSSED LIGHTING**
(see appendix D)
 - **easy eXchange DRIVER**
(optional)
 - **K** Further colour temperatures
(optional)
- medium beam
 - asymmetric beam

Lamp	Version	L lengthwise (standard)	L crosswise (optional)	B	H	a	Max. weight
LED	m1200	1251 ± 2 mm	1285 ± 2 mm	91.5 mm	132 mm	980 ± 80 mm	2.4 kg
LED	m1500	1551 ± 2 mm	1585 ± 2 mm	91.5 mm	132 mm	1280 ± 80 mm	3.2 kg

AREAS OF APPLICATION

Polymer luminaire for recessed ceiling mounting with LED lamps. Useable in panel ceilings with a module width of 100. Suitable, for example, in underground and suburban railway stations, passages, multi-storey car parks and swimming pools.

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibre-glass-reinforced polymer, similar to RAL 9010. Useable for indoor and outdoor areas according to protection rating IP 65. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Lamp diffuser made of PMMA Transopal® (impact strengthened) or PC Tropal® (fracture proof) with internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two access covers, two cable entries M20 and 4 x 1.5 mm² through wiring. 2 kV transient filter.

MOUNTING

Single or row mounting. Panel fixing for panel width module 100, lengthwise to the panel with stainless steel mounting clamps. Captive end caps. Ceiling mounting frame and universal panel suspensions available as accessories. Recessed mounting crosswise to the panel optional.

JENA LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	783 480 A4 B4 -E -
m1500 <input type="checkbox"/> 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	783 680 A4 B4 -E -

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

3 = medium beam
6 = asymmetric beam

Lamp diffuser / B

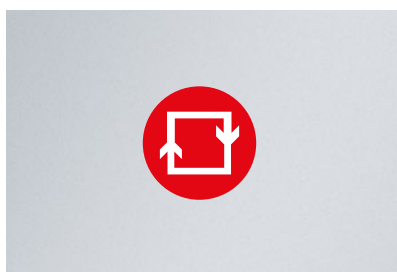
2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropolal® (fracture proof)

JENA LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	783 010
DALI	100 502
easy eXchange DRIVER m1200 access cover version (only IP 65, single lamp), for easy exchange of driver	200 950
easy eXchange DRIVER m1500 access cover version (only IP 65, single lamp), for easy exchange of driver	200 951
End cap crosswise to the direction of the panels (longer cover)	781 001
Further colour temperatures	See appendix C
Halogen-free version	783 007
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Lateral cable entries M20 (pair) on level with the access cover	201 438
Polymer cable gland with strain relief, M20 (both sides)	201 427
Polymer cable gland with strain relief, M20 (single sided)	200 427
RAL finish	783 960
Swimming pool version	783 036
Through wiring 4 × 2.5 mm ²	783 821
Through wiring 5 × 1.5 mm ²	783 834
Through wiring 5 × 2.5 mm ²	783 391
Version for operating with PASSAU LED	See PASSAU LED

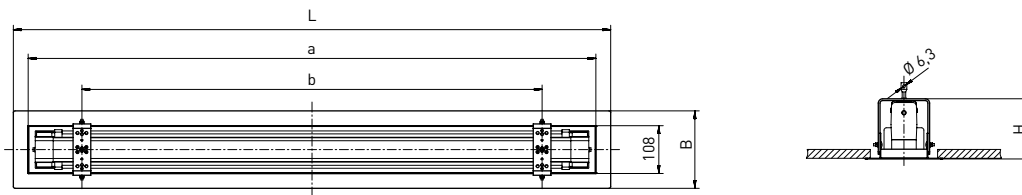
JENA LED ACCESSORIES

Version	Article no.
easy eXchange DRIVER replacement kit	Available on request
Mounting clamp polymer white for chlorine atmosphere, acid resistant (pair)	200 226



- > Optional with easy eXchange DRIVER, for more information see introduction pages and appendix B

INSTALLATION IN CLOSED CEILINGS

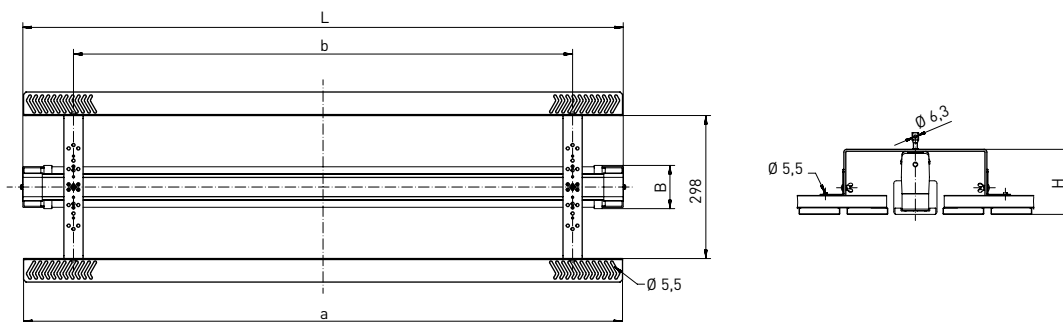


Version	Required ceiling cut-out	L	B	H	a	b	Max. weight
m1200	1295 x 150 mm	1350 mm	175 mm	136 mm	1283 mm	1040 mm	3.3 kg
m1500	1595 x 150 mm	1650 mm	175 mm	136 mm	1583 mm	1340 mm	3.9 kg

JENA LED ACCESSORIES

Version	Article no.
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting in closed ceiling initial/end	203 288
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting in closed ceiling intermediate	203 289
Ceiling installation frame m1200, powder coated RAL 9010, for single mounting in closed ceiling	203 238
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting in closed ceiling initial/end	203 290
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting in closed ceiling intermediate	203 291
Ceiling installation frame m1500, powder coated RAL 9010, for single mounting in closed ceiling	203 239

INSTALLATION IN PANEL CEILINGS



PANEL DIRECTION LENGTHWISE (STANDARD)

Version	Required panel recess	L lengthwise (standard)	B	H	a	b	Max. weight
m1200	1265 x 115 mm	1251 mm	91.5 mm	134 mm	1248 mm	1040 mm	3.3 kg
m1500	1565 x 115 mm	1551 mm	91.5 mm	134 mm	1548 mm	1340 mm	3.9 kg

PANEL DIRECTION CROSSWISE

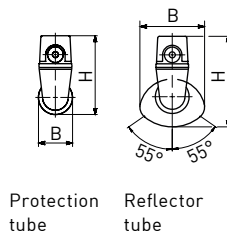
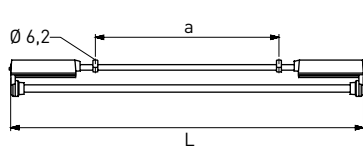
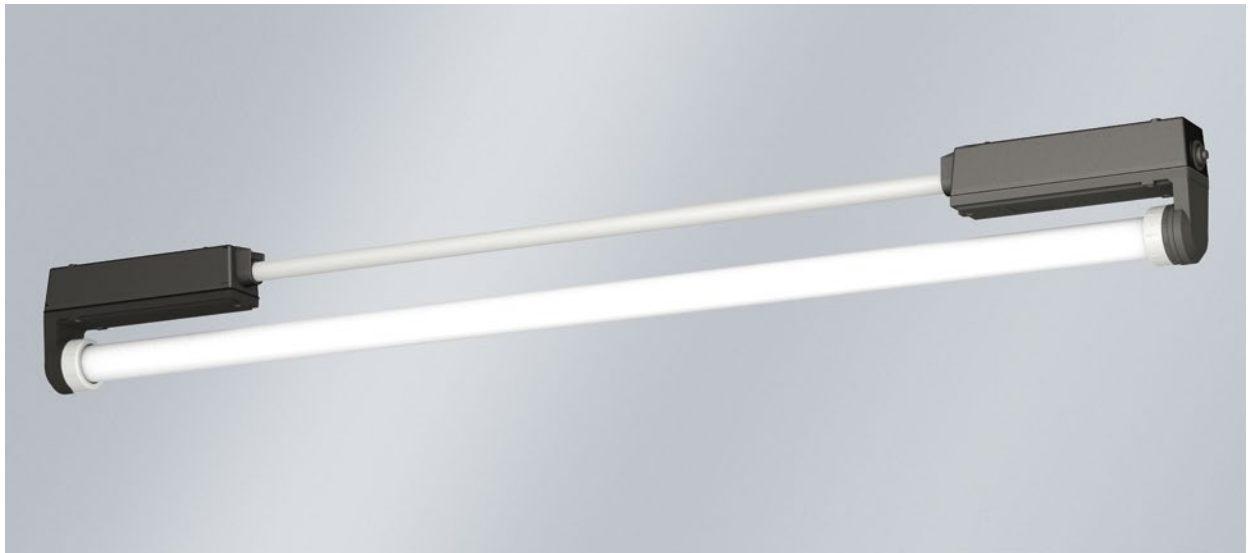
Version	Required panel recess	L crosswise	B	H	a	b	Max. weight
m1200	13 units	1285 mm	91.5 mm	134 mm	1248 mm	1040 mm	3.3 kg
m1500	16 units	1585 mm	91.5 mm	134 mm	1548 mm	1340 mm	3.9 kg

JENA LED ACCESSORIES

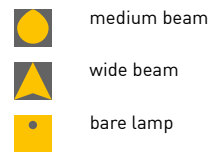
Version	Article no.
Panel ceiling fixings, universal (m1200)	200 230
Panel ceiling fixings, universal (m1500)	200 231

KIEL LED

LED



K Further colour temperatures (optional)



Protection tube

Reflector tube

Lamp	Version	L	B	H	a	Max. weight
LED	With protection tube, m600	638 ± 2 mm	56 mm	130 mm	90 ± 30 mm	2.3 kg
LED	With protection tube, m1200	1248 ± 2 mm	56 mm	130 mm	650 ± 80 mm	3.1 kg
LED	With protection tube, m1500	1548 ± 2 mm	56 mm	130 mm	950 ± 80 mm	3.9 kg
LED	With reflector tube, m600	638 ± 2 mm	107 mm	151 mm	90 ± 30 mm	2.3 kg
LED	With reflector tube, m1200	1248 ± 2 mm	107 mm	151 mm	650 ± 80 mm	3.1 kg
LED	With reflector tube, m1500	1548 ± 2 mm	107 mm	151 mm	950 ± 80 mm	3.9 kg

AREAS OF APPLICATION

Polymer luminaire for surface ceiling mounting with LED lamps. Useable in industrial applications.

HOUSING

Weather-proof luminaire housing made of thermosetting polymer, similar to RAL 9010 and RAL 9005. Useable for indoor and outdoor areas according to protection rating IP 65. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

With protection tube 38 mm or a reflector tube that can be swivelled made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC. Two M20 cable entries on face side and 4 x 1.5 mm² through wiring. L80 B10 > 50,000 at +40/+45 °C.

MOUNTING

Single or row mounting. Ceiling installation using two polymer stirrup clamps, variable mounting distance.

KIEL LED – MEDIUM BEAM, WITH REFLECTOR TUBE

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	1960	13	-25 °C to +40 °C	375 280 34 A1 – Z1
m1200 <input type="checkbox"/> 840/4000 K	3540	21	-25 °C to +45 °C	375 480 34 A1 – Z1
m1500 <input type="checkbox"/> 840/4000 K	5490	33	-25 °C to +45 °C	375 680 34 A1 – Z1

When ordering, please replace the highlighted letters with the corresponding numbers.

Reflector tube/ A

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

KIEL LED – WIDE BEAM, WITH PROTECTION TUBE

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	1960	13	-25 °C to +40 °C	375 280 44 A2 – Z1
m1200 <input type="checkbox"/> 840/4000 K	3940	25	-25 °C to +45 °C	375 480 44 A2 – Z1
m1500 <input type="checkbox"/> 840/4000 K	5120	31	-25 °C to +45 °C	375 680 44 A2 – Z1

When ordering, please replace the highlighted letters with the corresponding numbers.

Protection tube/ A

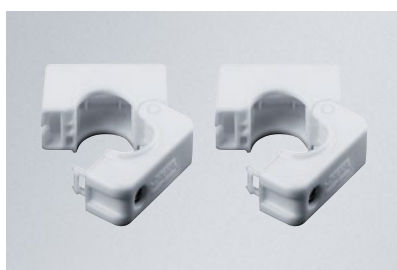
2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

KIEL LED – BARE LAMP, PMMA TRANSOPAL® (IMPACT STRENGTHENED), WITH PROTECTION TUBE

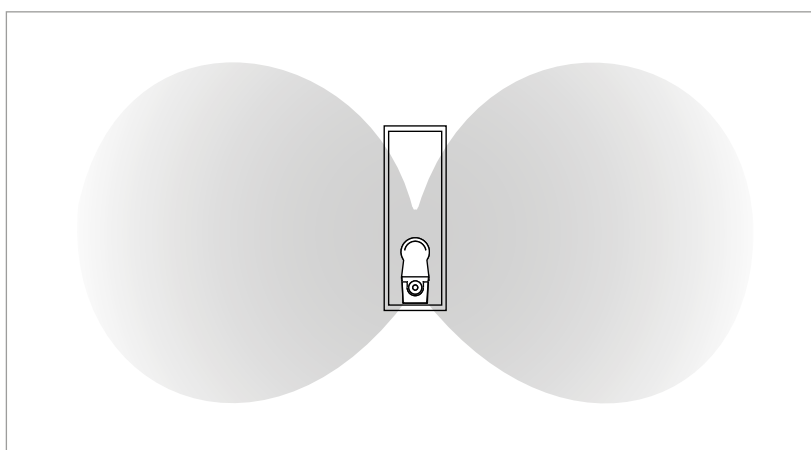
Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	1960	13	-25 °C to +40 °C	375 280 44 23 – Z1
m1200 <input type="checkbox"/> 840/4000 K	3570	21	-25 °C to +45 °C	375 480 44 23 – Z1
m1500 <input type="checkbox"/> 840/4000 K	4460	25	-25 °C to +45 °C	375 680 44 23 – Z1

KIEL LED OPTIONS

Version	Article no.
Further colour temperatures	Available on request
Polymer cable gland with strain relief, M20 (pair)	201 475
RAL finish	375 960
Through wiring 4 x 2.5 mm ²	303 822



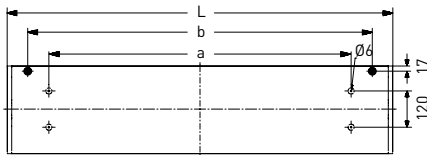
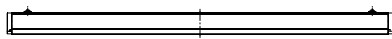
- > Polymer stirrup clamps, included in scope of delivery




- > Schematic LIDC diagram of the KIEL LED bare lamp in a backlit information box (side view)

LONDON LED

LED



easy eXchange LED
(see appendix B)

 medium beam

K Further colour temperatures (optional)

Lamp	Version	L	B	H	a	b	Max. weight
LED	m600	666 ± 2 mm	285 mm	73 mm	390 ± 3 mm	530 ± 2 mm	7.2 kg
LED	m1200	1276 ± 2 mm	285 mm	73 mm	1000 ± 3 mm	1140 ± 2 mm	11.8 kg
LED	m1500	1576 ± 2 mm	285 mm	73 mm	1300 ± 3 mm	1440 ± 2 mm	13.9 kg

AREAS OF APPLICATION

Aluminium luminaire for recessed and surface ceiling mounting with LED lamps. Useable in underground stations, pedestrian underpasses and tunnels, passages, multi-storey car parks, swimming pools (see options), sports halls, transport areas and under canopies.

HOUSING

Silver anodised aluminium profile housing, similar to RAL 9006. 285 mm profile width with low installed height. Cover screen with tool-free opening. Useable for indoor and outdoor areas according to protection rating IP 65. Sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber. Protection class II.

LIGHTING TECHNOLOGY

Two LED units, can be swivelled independently of each other in 10° steps. The light distribution of the luminaire is adjusted on site. Cover screen made of PMMA (impact strengthened) or PC (fracture proof), clear with decorative screen print pattern. Internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

LED units with reverse polarity protected connection plugs. Built-in driver 230 V AC/ DC, optionally suitable for emergency lighting. Through wiring 4 x 1.5 mm². Ready for connection via two rear-mounted cable entries. 2 kV transient filter.

MOUNTING

Single mounting. Optional continuous row version or on NORKA trunking system 285 (the luminaire must be ordered in this specification). Mounting on four concealed mounting apertures at the rear. Ceiling mounting frame optionally available (see accessories).

LONDON LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	3420	20	-25 °C to +40 °C	615 280 34 A4 -E
m1200 <input type="checkbox"/> 840/4000 K	6840	40	-25 °C to +40 °C	615 480 34 A4 -E
m1500 <input type="checkbox"/> 840/4000 K	9560	58	-25 °C to +40 °C	615 680 34 A4 -E

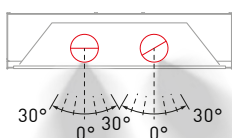
When ordering, please replace the highlighted letters with the corresponding numbers.

Cover screen / A

3 = PMMA (impact strengthened) clear with decorative screen print pattern
 5 = PC (fracture proof) clear with decorative screen print pattern

LONDON LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
Ball impact resistant version	Available on request
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	610 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Protection against unauthorised opening	610 003
Swimming pool version	686 036
Through wiring 4 x 2.5 mm ²	610 822
Version for NORKA trunking system 285	610 103
Version for operating with PASSAU LED	Available on request
Version with two pairs of cable entries on the face side (continuous row version)	201 442



> LED unit can be swivelled in 10° steps.

> medium beam [0°, 0°]



> asymmetric beam [-30°, +30°]



> asymmetric beam [+30°, +30°]



For additional articles, please turn the page! ►

NOTE

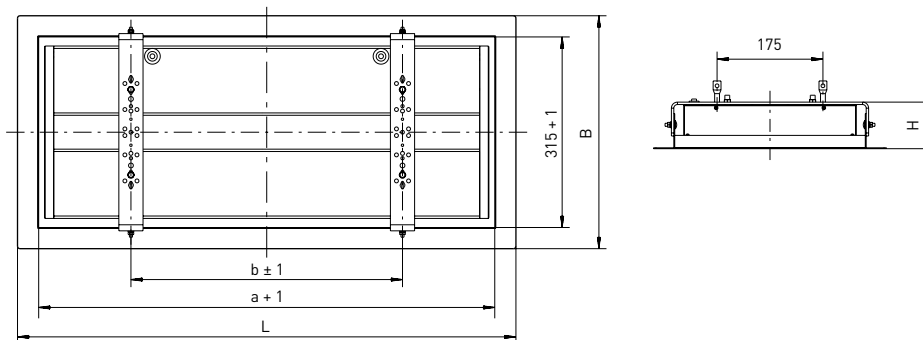
LIDC data for various turning positions of the LED unit is available on request.
 The luminaire is delivered with the LED units in the 0°, 0° position.

IMPORTANT

The distance of the mounting apertures has been modified for the version on the trunking system. The standard version for ceiling installation cannot be installed on the trunking system.

LONDON LED ACCESSORIES

Version	Article no.
Ceiling installation frame m600, powder coated RAL 9010, for continuous row mounting initial/end	203 193
Ceiling installation frame m600, powder coated RAL 9010, for continuous row mounting intermediate	203 196
Ceiling installation frame m600, powder coated RAL 9010, for single mounting	203 190
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting initial/end	203 194
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting intermediate	203 197
Ceiling installation frame m1200, powder coated RAL 9010, for single mounting	203 191
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting initial/end	203 192
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting intermediate	203 198
Ceiling installation frame m1500, powder coated RAL 9010, for single mounting	203 195
easy eXchange LED replacement kit	See appendix B



Version	Required ceiling cut-out	L	B	H	a	b	Max. weight
m600	700 x 356 mm	754 mm	385 mm	77 mm	684 mm	390 mm	3.1 kg
m1200	1310 x 356 mm	1364 mm	385 mm	77 mm	1294 mm	1000 mm	4.2 kg
m1500	1610 x 356 mm	1664 mm	385 mm	77 mm	1594 mm	1300 mm	4.8 kg

SUITABLE SUPPLEMENT

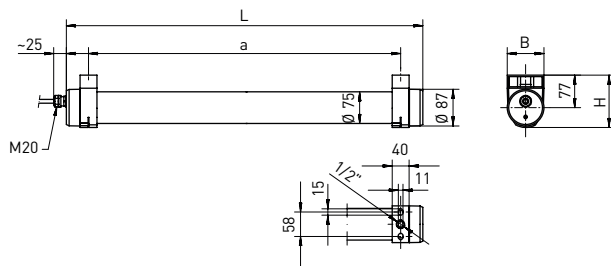
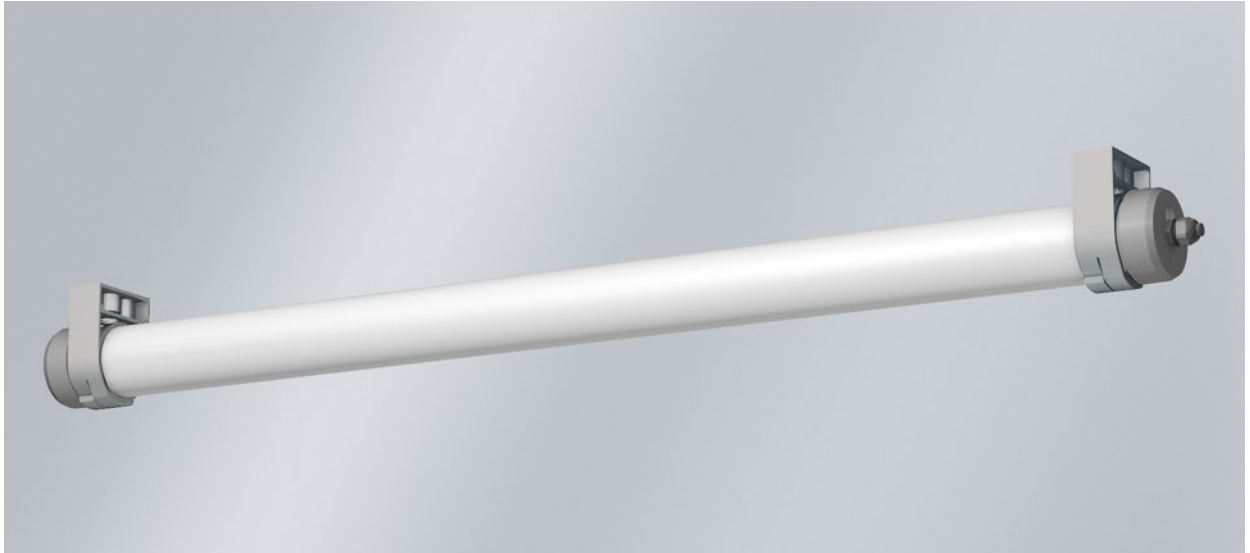


TRUNKING SYSTEM 285



LUGANO

LED



K Further colour temperatures (optional)



medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m600	650 ± 2 mm	87 mm	124 mm	545 - 10 mm	2.7 kg
LED	m1200	1260 ± 2 mm	87 mm	124 mm	1155 - 10 mm	3.7 kg
LED	m1500	1560 ± 2 mm	87 mm	124 mm	1455 - 10 mm	4.6 kg

AREAS OF APPLICATION

Gas-tight and ammonia-resistant tubular luminaire with LED lamps. Useable indoors and outdoors with special requirements.

HOUSING

Luminaire tube (Ø 75 mm) made of polymer with two end caps made of PBT, electric grey. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Resistant to pressurised water up to 20 m; compliant with protection rating IP 68, 20 m. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K.

LIGHTING TECHNOLOGY

Luminaire tube made of PMMA Transopal® (impact strengthened), homogeneously illuminated.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in DALI driver 230 V AC/DC and 2 m connecting cable 5 x 1.5 mm² (mains 3 x 1.5 mm², DALI 2 x 1.5 mm²).

L80 B10 > 100,000 h at +40 °C.

8 years warranty.

MOUNTING

Single or continuous row mounting. Ceiling or wall fixing with two polymer mounting clamps.

LUGANO

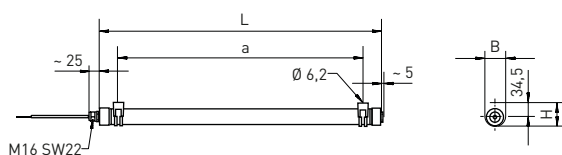
Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m600 <input type="checkbox"/> 840/4000 K	1740	13	-25 °C to +40 °C	776 280 34 21
m1200 <input type="checkbox"/> 840/4000 K	3480	25	-25 °C to +40 °C	776 480 34 21
m1500 <input type="checkbox"/> 840/4000 K	5240	36	-25 °C to +40 °C	776 680 34 21

LUGANO OPTIONS

Version	Article no.
Further colour temperatures	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Luminaire tube coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	776 010
Through wiring 5 x 1.5 mm ² (mains 3 x 1.5 mm ² , DALI 2 x 1.5 mm ²) with second connecting cable (2 m)	776 831
Version for operating with PASSAU LED	Available on request

LUZERN 38 LED

LED



o **FOCUSED LIGHTING**
[see appendix D]

K Further colour temperatures
(optional)



medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m600	690 ± 2 mm	50 mm	57.5 mm	600 - 10 mm	0.6 kg
LED	m1200	1250 ± 2 mm	50 mm	57.5 mm	1160 - 10 mm	0.9 kg
LED	m1500	1530 ± 2 mm	50 mm	57.5 mm	1440 - 10 mm	1.0 kg

AREAS OF APPLICATION

Tubular luminaire with LED lamps. Useable in industrial applications and for decorative indoor and outdoor lighting.

HOUSING

Polymer luminaire tube (Ø 38 mm). End caps white. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Resistant to pressurised water to 1 m due to protection rating IP 68, 1 m.

LIGHTING TECHNOLOGY

Luminaire tube made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. One cable gland M16 on face side. Built-in driver 230 V AC/DC. 2 kV transient filter and 2 x 1.5 mm² 2 m connecting cable without plug. Protection class II. Adjustable luminous flux via NFC programming (optionally available).

MOUNTING

Single mounting. Ceiling or wall fixing using two stainless steel/transparent polymer mounting clamps, variable mounting distance or pendant suspension (see options).

LUZERN 38 LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 □ 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C to +35 °C	538 280 34 A4 -E-....
m1200 □ 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +35 °C	538 480 34 A4 -E-....
m1500 □ 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +35 °C	538 680 34 A4 -E-....

■ Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

Luminaire tube / A

3 = PC Tropol® (fracture proof)

4 = PMMA Transopal®

(impact strengthened)

LUZERN 38 LED OPTIONS

Version	Article no.
Adjustable luminous flux via NFC programming (barcode and RFID detection device required)	100 037
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	538 010
DALI	100 502
Further colour temperatures	See appendix C
Halogen-free version	538 032
Swimming pool version	538 036
Through wiring 2 x 1.5 mm ² with 2nd connecting cable 2 m, open end	538 690

- > Standardversion with 2 m connecting cable
2 x 1.5 mm², open end



- > Optional: Through wiring 2 x 1.5 mm² with
2nd connecting cable 2 m, open end
Article no. 538 690



LUZERN 38 LED ACCESSORIES

Version	Article no.
Mobile barcode and RFID detection device for NFC programming	106 598
Mounting clamps, chlorine resistant, polymer grey, Ø 38 mm, for ceiling and wall mounting (pair)	538 003
Mounting clamps, stainless steel/polymer transparent, Ø 38 mm, for suspension system (pair), (not suitable for chlorine atmosphere)	538 319
Suspension system, 1 m, made of stainless steel/polymer transparent, Ø 38 mm, pair, (not suitable for chlorine atmosphere)	537 266



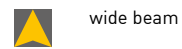
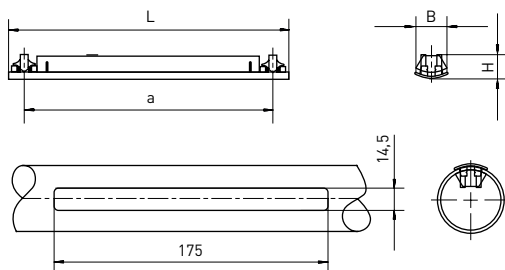
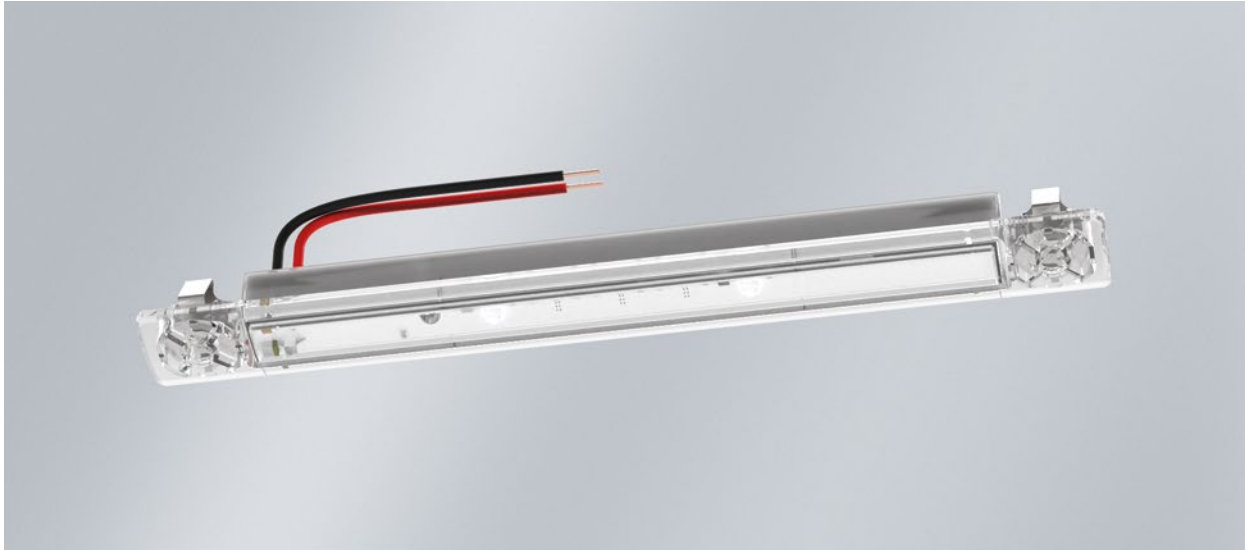
- > Mounting clamps for LUZERN 38 LED, stainless steel / transparent polymer (pair), (not suitable for chlorine atmosphere), included in scope of delivery



- > Mounting clamps for LUZERN 38 LED, stainless steel/polymer transparent, Ø 38 mm, for suspension system (pair), (not suitable for chlorine atmosphere), Article no. 538 319



- > Mounting clamps for LUZERN LED 38, chlorine resistant, polymer grey, Ø 38 mm, for ceiling and wall mounting (pair), Article no. 538 003



Lamp	Version	L	B	H	a	Max. weight
LED	Hand rail	180 mm	19.8 mm	15.3 mm	159 mm	0.043 kg

AREAS OF APPLICATION

Luminaire for integration into hand rails for emergency lighting according to DIN EN 60598-2-22, usable as tunnel safety lighting in railway stations and stairways or for path illumination.

HOUSING

Usable for indoor and outdoor areas according to protection rating IP 66. Resistant to pressurised water up to 1 m compliant with IP 68 protection rating, 1 m and impact resistance IK 09.

LIGHTING TECHNOLOGY

Lamp diffuser made from PC (fracture proof), clear.

ELECTRICAL VERSION

The operation of this luminaire requires a separate SELV, which is connected to the 230 V mains and supplies 24 V constant voltage (SK III).

L80 B10 > 90,000 h at +45 °C.

MOUNTING

Installation using two latching retaining clips.

MEPPEN WITH MONITORING

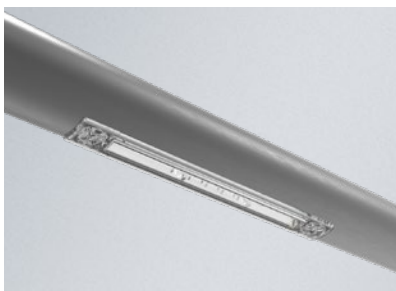
The MEPPEN luminaire is also available in a monitoring version for connection to the INOTEC CLS emergency lighting system. Monitoring is carried out without an additional data cable via the 24 V supply line. Function and operating duration tests required in accordance with DIN EN 62034 have been carried out and recorded using the INOTEC CLS emergency lighting unit. Faults with destination information of the luminaire are displayed on the control unit of the CLS emergency lighting unit or forwarded to a higher-level monitoring system (PC software or website).

MEPPEN – WITHOUT MONITORING

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
Hand rail <input type="checkbox"/> 740/4000 K	129	1.16	-25 °C to +45 °C	856 180 44 41 – MC3
Hand rail <input type="checkbox"/> 740/4000 K	374	2.79	-25 °C to +45 °C	856 180 44 41 – MC7

MEPPEN – WITH MONITORING

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
Hand rail <input type="checkbox"/> 740/4000 K	129	1.56	-25 °C to +45 °C	856 180 44 42 – MC3
Hand rail <input type="checkbox"/> 740/4000 K	374	2.88	-25 °C to +45 °C	856 180 44 42 – MC7



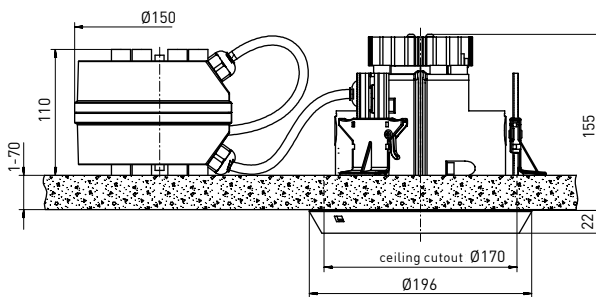
> MEPPEN installed in hand rail





> The luminaire MEPPEN is fixed with two latching retaining clips within the hand rail.

MERKUR LED

LED



K Further colour temperatures (optional)

-  narrow beam
-  wide beam
CDP prism screen

Lamp	Version	L	B	H	a	Max. weight
LED	m1	196 mm	196 mm	177 mm	-	2.2 kg

AREAS OF APPLICATION

Recess-mounted ceiling luminaire made of polymer that is resistant to temperature, acid, alkaline substances and fuel. Useable in industrial and public applications, such as swimming pools (see options).

HOUSING

Weather-proof luminaire housing made of fibreglass-reinforced polymer, similar to RAL 9005. Useable for indoor and outdoor areas according to protection rating IP 65. Sealing system made of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Cover screen made of single pane safety glass with polymer frame for cover glass. Internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Supply voltage 220-240 V AC/DC, optionally suitable for emergency lighting. With connecting cable (1.5 m) 2 x 1.0 mm². 2 kV transient filter.

MOUNTING

Separated driver chamber, useable in addition to the luminaire. Mounting with quick-mounting frame with mounting clamp system. Frame for cover glass with easy to install snap lock.

MERKUR LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1 <input type="checkbox"/> 840/4000 K	4300	27	-25 °C to +45 °C	978 140 A 4 61 - H1

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

2 = narrow beam
4 = wide beam
(CDP prism screen)

MERKUR LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Impact resistance IK10	100 555
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
RAL finish for frame for cover glass	978 911
Swimming pool version	978 970
Theft protection for frame for cover glass	975 901
Version for operating with PASSAU LED	Available on request

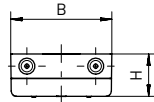
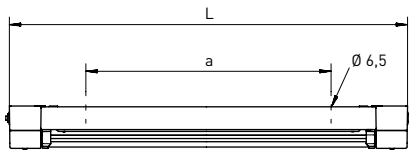
MERKUR LED ACCESSORIES

Version	Article no.
Adapter ring for ceiling cutout Ø 200 mm	978 901
Adapter ring for ceiling cutout Ø 250 mm	978 902
Panel ceiling fixing size 1	975 911

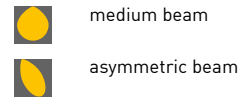


MÜNCHEN LED

LED



- **FOCUSSED LIGHTING**
[see appendix D]
- **XARA® lighting control**
(optional)
- **K** Further colour temperatures
(optional)



Lamp	Version	L	B	H	a	Max. weight
LED	m600	782 ± 2 mm	191 mm	80 mm	493 ± 5 mm	3.5 kg
LED	m1200	1392 ± 2 mm	191 mm	80 mm	1103 ± 5 mm	5.6 kg
LED	m1500	1692 ± 2 mm	191 mm	80 mm	1403 ± 5 mm	6.1 kg

AREAS OF APPLICATION

Polymer luminaire for recessed and surface ceiling mounting with LED lamps. Useable, e.g., in underground and suburban railway stations, passages, multi-storey car parks and swimming pools (see options). Useable in production facilities and suppliers in the food and beverage industry.

HOUSING

Flat, weather-proof and UV-resistant luminaire housing made of fibre-glass-reinforced polymer, similar to RAL 9010, with low installed height. Useable for indoor and outdoor areas according to protection rating IP 65. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Lamp diffuser made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof) with internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Two access covers, four cable entries M20 on the face side and 4 x 1.5 mm² through wiring. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. 2 kV transient filter.

MOUNTING

Single or row mounting. Ceiling installation or installation on NORKA trunking system 191 using split washers for easy mounting. Captive end caps. Ceiling mounting frames and universal panel suspensions optionally available (see accessories).

MÜNCHEN LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 <input type="checkbox"/> 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C to +40 °C	455 280 A4 B4 - E - ...
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	455 480 A4 B4 - E - ...
m1500 <input type="checkbox"/> 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	455 680 A4 B4 - E - ...

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

3 = medium beam
6 = asymmetric beam

Lamp diffuser / B

2 = PMMA Transopal®
(impact strengthened)
8 = PC Tropol® (fracture proof)

MÜNCHEN LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	455 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Halogen-free version	455 032
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Polymer cable gland with strain relief, M20 (both sides)	201 427
Polymer cable gland with strain relief, M20 (single sided)	200 427
RAL finish	455 960
Rear-mounted cable entry M20 (4 pieces), sides closed	201 310
Swimming pool version	455 036
Through wiring 4 × 2.5 mm ²	455 823
Through wiring 5 × 1.5 mm ²	455 833
Through wiring 5 × 2.5 mm ²	455 933
Version for operating with PASSAU LED	See PASSAU LED

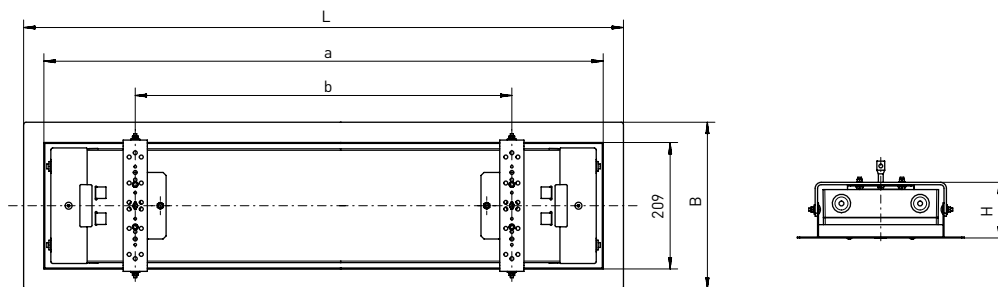
SUITABLE SUPPLEMENT



TRUNKING SYSTEM 191

For additional articles, please turn the page! ►

INSTALLATION IN CLOSED CEILINGS

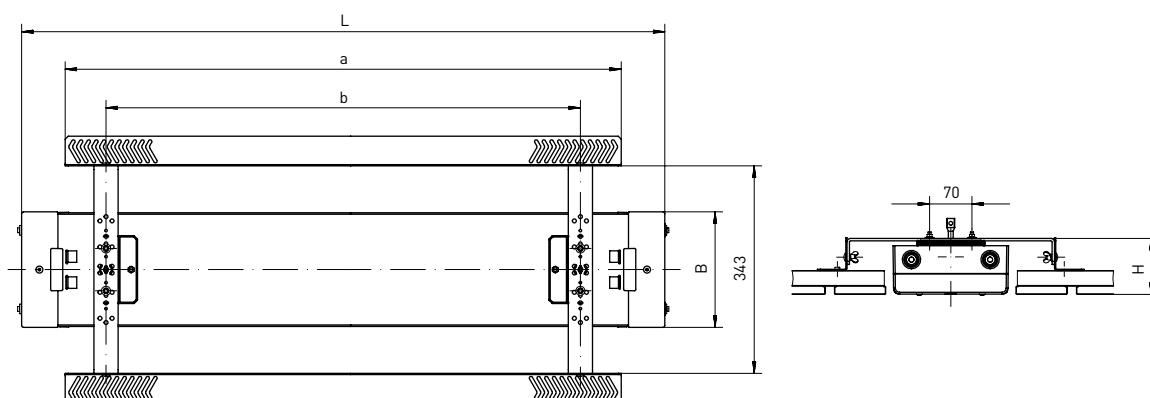


Version	Required ceiling cut-out	L	B	H	a	b	Max. weight
m600	820 x 242 mm	872 mm	276 mm	92 mm	805 mm	503 mm	2.5 kg
m1200	1430 x 242 mm	1482 mm	276 mm	92 mm	1415 mm	1113 mm	3.6 kg
m1500	1730 x 242 mm	1782 mm	276 mm	92 mm	1715 mm	1413 mm	4.2 kg

MÜNCHEN LED ACCESSORIES

Version	Article no.
Ceiling installation frame m600, powder coated RAL 9010, for continuous row mounting in closed ceiling initial/end	203 210
Ceiling installation frame m600, powder coated RAL 9010, for continuous row mounting in closed ceiling intermediate	203 211
Ceiling installation frame m600, powder coated RAL 9010, for single mounting in closed ceiling	203 226
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting in closed ceiling initial/end	203 212
Ceiling installation frame m1200, powder coated RAL 9010, for continuous row mounting in closed ceiling intermediate	203 213
Ceiling installation frame m1200, powder coated RAL 9010, for single mounting in closed ceiling	203 227
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting in closed ceiling initial/end	203 214
Ceiling installation frame m1500, powder coated RAL 9010, for continuous row mounting in closed ceiling intermediate	203 215
Ceiling installation frame m1500, powder coated RAL 9010, for single mounting in closed ceiling	203 228

INSTALLATION IN PANEL CEILINGS



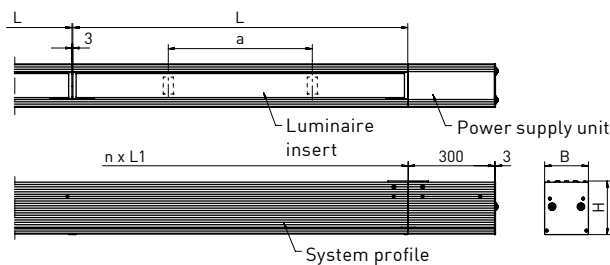
Version	Required panel recess	L	B	H	a	b	Max. weight
m600	8 units	782 mm	191 mm	92 mm	638 mm	503 mm	1.8 kg
m1200	14 units	1392 mm	191 mm	92 mm	1248 mm	1113 mm	3.6 kg
m1500	17 units	1692 mm	191 mm	92 mm	1548 mm	1413 mm	4.2 kg

MÜNCHEN LED ACCESSORIES

Version	Article no.
Panel ceiling fixings, universal, m600	220 233
Panel ceiling fixings, universal, m1200	200 234
Panel ceiling fixings, universal, m1500	200 235

NIGHTLINE

LED



- FOCUSSED LIGHTING**
(see appendix D)
- easy eXchange DRIVER**
(optional)
- XARA® lighting control**
(optional)
- Further colour temperatures**
(optional)

- medium beam
- asymmetric beam

Lamp	Version	L	L1	B	H	a	Max. weight
LED	m1500	1443 ± 2 mm	4338 mm	152 mm	186 mm	780 ± 25 mm	12.0 kg/m

AREAS OF APPLICATION

Continuous row version made of anodised extruded aluminium profile with LED lamps. Continuous, homogeneous light emission. Useable in underground and metro stations, multi-storey car parks, foyers and swimming pools (optional).

HOUSING

Weather and age resistant extruded profile made of anodised aluminium. Luminaire insert made of fibre-glass-reinforced polymer. Useable for indoor and outdoor areas according to protection rating IP 65. Thermally separated lamp chamber and driver chamber. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

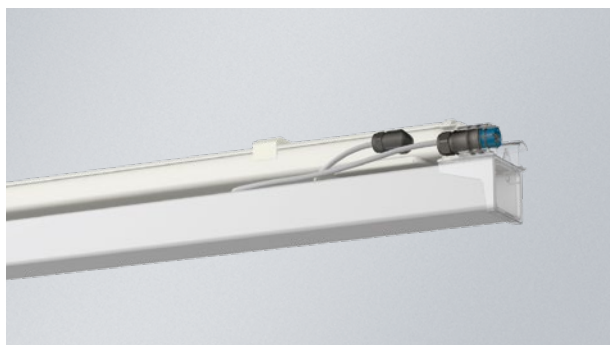
Lamp diffuser made of PMMA Transopal® (impact strengthened) or PC Tropal® (fracture proof) with internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire insert ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Through wiring 5 x 2.5 mm² (DALI 7 x 2.5 mm²) with plug-and-socket system. 2 kV transient filter.

MOUNTING

Continuous row mounting of the aluminium profile to the ceiling module. Mounting with tube pendulum possible (see accessories).



NOTE

NIGHTLINE consists of two parts: the luminaire inserts and the system profile made of aluminium.

NIGHTLINE – LUMINAIRE INSERT, MEDIUM BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m1500 □ 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	788 680 34 A4 -E-....

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

Lamp diffuser / A

- 2 = PMMA Transopal® (impact strengthened)
- 8 = PC Tropol® (fracture proof)

NIGHTLINE – LUMINAIRE INSERT, ASYMMETRIC BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m1500 □ 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	788 680 64 AB -E-....

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

Lamp diffuser / A

- 2 = PMMA Transopal® (impact strengthened)
- 8 = PC Tropol® (fracture proof)

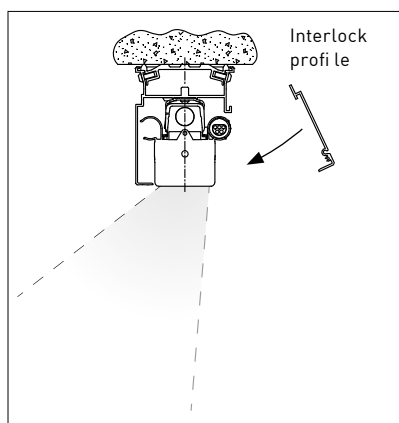
Direction / B

- 1 = Version asymmetric beam 1
- 2 = Version asymmetric beam 2

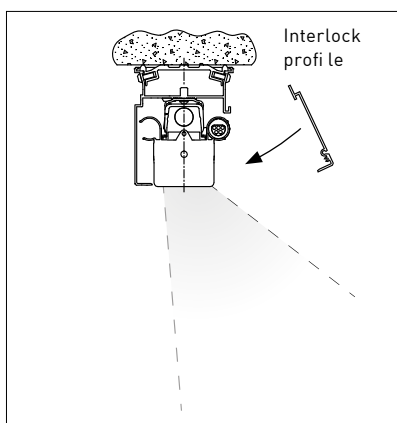
NIGHTLINE SYSTEM PROFILE

Version	Article no.
NIGHTLINE Power supply unit (5-pole)	788 105
NIGHTLINE Power supply unit (7-pole)	788 107
NIGHTLINE System profile end cap	788 101
NIGHTLINE System profile for 3 x m1500, max. length 4338 mm	788 150

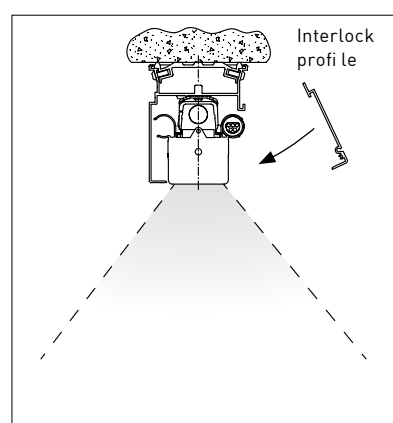
NIGHTLINE – OVERVIEW DIRECTION



> NIGHTLINE version asymmetric beam 1



> NIGHTLINE version asymmetric beam 2



> NIGHTLINE version medium beam

NIGHTLINE OPTIONS

Version	Article no.
4 kV transient filter	100 530
Coating to RAL	Available on request
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	788 010
DALI	100 502
easy eXchange DRIVER m1500 access cover version (only IP 65, single lamp)	200 951
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
RAPDEX access cover version with integrated driver, m1500 (article no.), single lamp	Available on request
Swimming pool version	788 036
Version for operating with PASSAU LED	Available on request

NIGHTLINE ACCESSORIES

Version	Article no.
Additional auxiliary tool for luminaire insert	788 207
Blind cover m1500 incl. connection cable 5 x 2.5 mm ² , plug/socket system	788 203
Blind cover m1500 incl. connection cable 7 x 2.5 mm ² , plug/socket system	788 204
Mounting kit for ceiling mounting, for system profile 3 x m1500	788 201
Mounting kit for pendant installation, for system profile 3 x m1500 (pair), system height 500 mm (other heights available on request)	788 202
Plug/Socket system cap for luminaire insert at the end, 5-pole	788 205
Plug/Socket system cap for luminaire insert at the end, 7-pole	788 206

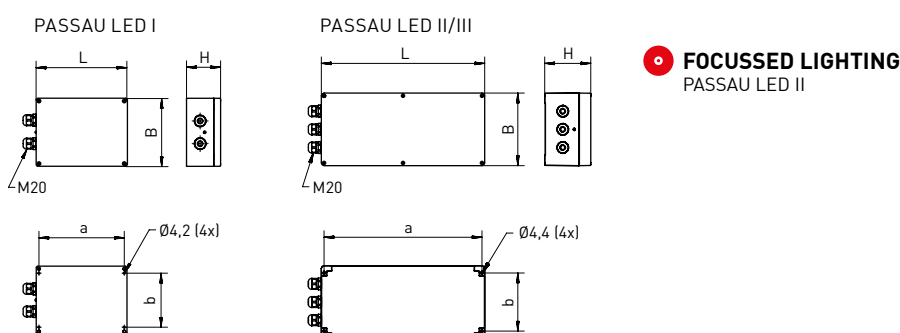
Example of configuration

Example of configuration for ca. 13.02 meters of the NIGHTLINE continuous row system

Amount	Description	Article no.
9 x	NIGHTLINE luminaire insert, medium beam, PMMA Transopal® (impact strengthened)	788 680 34 24 - E - MC3
1 x	NIGHTLINE Power supply unit (5-pole)	788 105
1x	NIGHTLINE System profile end cap	788 101
3 x	NIGHTLINE System profile for 3 x m1500, max. length 4338 mm	788 150
3 x	Mounting kit for ceiling mounting, for system profile 3 x m1500	788 201
1 x	Plug/Socket system cap for luminaire insert at the end, 5-pole	788 205



PASSAU LED



Lamp	Version	Emergency lighting duration	L	B	H	a	b	Max. weight
LED	PASSAU LED I	1 h / 3 h	200 mm	150 mm	75 mm	188 mm	119 mm	1.2 kg
LED	PASSAU LED II	1 h / 3 h	360 mm	160 mm	100 mm	348 mm	128 mm	2.2 kg
LED	PASSAU LED III	1 h / 3 h	360 mm	160 mm	100 mm	348 mm	128 mm	2.2 kg

AREAS OF APPLICATION

Electronic single-battery emergency lighting supply unit for the supply of a LED luminaire. Useable in emergency lighting systems according to EN 50172/ VDE 0108 in industrial applications. Permissible ambient temperature in continuous mode -5°C to $+35^{\circ}\text{C}$; in standby mode 0°C to $+40^{\circ}\text{C}$.

HOUSING

Housing made of fiberglass-reinforced polymer. Useable for indoor and outdoor areas according to protection rating IP 65.

ELECTRICAL CONSTRUCTION

Fully automatic self test with status display by LED according to EN 62034, electronic driver for mains and emergency operation, mains monitoring, battery charging, protection against total discharge, including maintenance-free NiMH battery. Emergency lighting duration 1 h or 3 h. Maximum cable length between luminaire and supply unit: 50 m. Two or three cable glands.

MOUNTING

Wall fixing through four fastening points.

NOTE

The desired luminaire for operation on a PASSAU LED emergency lighting supply unit must be ordered separately.

NOT SUITABLE FOR STANDARD LED LUMINAIRES! WHEN ORDERING THE LUMINAIRE, ADD THE NOTE "PASSAU LED" AS THE CONSTRUCTION OF THE LUMINAIRE MUST BE ADAPTED.

PASSAU LED I – FOR TEGEL

Please order the luminaire separately. When ordering the luminaire, please add the note "PASSAU LED".

Version	Luminous flux/lm Emergency mode	System- leistung/W	Ambient temperature	Article no.
for TEGEL	320	6 W	-5 °C to + 35 °C / CO 0 °C to + 40 °C / SO	845 AB0

When ordering, please replace the highlighted letters with the corresponding numbers.

Emergency lighting duration / A
1 = 1 h
3 = 3 h

Driver / B
0 = Standard
1 = DALI driver and DALI emergency lighting supply unit

PASSAU LED II – FOR LUMINAIRES WITH FOCUSED LIGHTING

Please order the luminaire separately. When ordering the luminaire, please add the note "PASSAU LED".

Version	Luminous flux/lm Emergency mode	System- leistung/W	Ambient temperature	Article no.
m600	745	Luminaire plus 2 W	-5 °C to + 35 °C / CO 0 °C to + 40 °C / SO	847 AB1 – m600
m1200	1020	Luminaire plus 2 W	-5 °C to + 35 °C / CO 0 °C to + 40 °C / SO	847 ABC – m1200
m1500	1055	Luminaire plus 2 W	-5 °C to + 35 °C / CO 0 °C to + 40 °C / SO	847 ABC – m1500

Continuous operation = CO
Standby operation = SO

When ordering, please replace the highlighted letters with the corresponding numbers.

Emergency lighting duration / A
1 = 1 h
3 = 3 h

Driver / B
0 = Standard
1 = DALI driver and DALI emergency lighting supply unit

Lumen package / C
7 = MC1 – MC7
9 = MC9

PASSAU LED III – FOR URANUS, URANUS PF

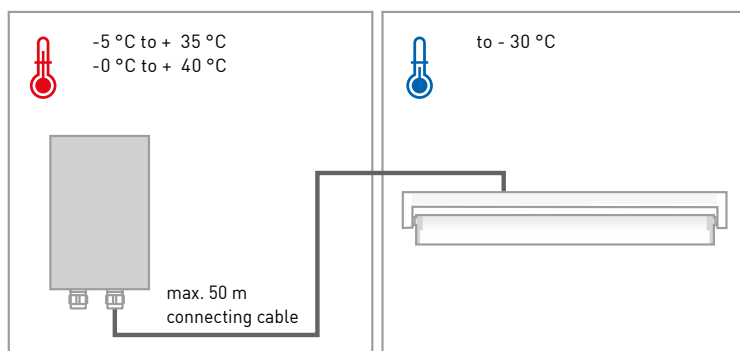
Please order the luminaire separately. When ordering the luminaire, please add the note "PASSAU LED".

Version	Luminous flux/lm Emergency mode	System- leistung/W	Ambient temperature	Article no.
for URANUS, URANUS PF	720	Luminaire plus 2 W	-5 °C to + 35 °C / CO 0 °C to + 40 °C / SO	849 AB0

When ordering, please replace the highlighted letters with the corresponding numbers.

Emergency lighting duration / A
1 = 1 h
3 = 3 h

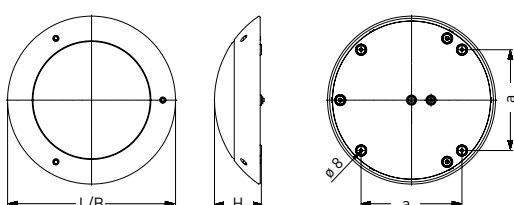
Driver / B
0 = Standard
1 = DALI driver and DALI emergency lighting supply unit






> The external use of the PASSAU LED permits an expanded useful temperature range.

PHALANX 430

LED



-  **XARA® lighting control**
[optional]
-  Further colour temperatures
[optional]

 medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	430	430 mm	430 mm	120 mm	258 mm	5.8 kg

AREAS OF APPLICATION

Extremely impact-resistant surface mounted luminaire with LED lamps. Vandalism-proof up to 150 Joule while retaining full operation. Useable in all areas at risk of deliberate or negligent destruction.

HOUSING

Luminaire housing made of cast aluminium, powder-coated RAL 7016. Useable for indoor and outdoor areas according to protection rating IP65. Anti-graffiti coating for lamp diffuser protects against dirt and paint residue, optionally available (see options).

LIGHTING TECHNOLOGY

Convex, 4 mm thick lamp diffuser made of PC (fracture proof), opal white.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two rear-mounted cable entries M20. 4 kV transient filter.

L80 B10 > 100,000 h at +30 °C. Retains operation in case of vandalism.

8 years warranty.

MOUNTING

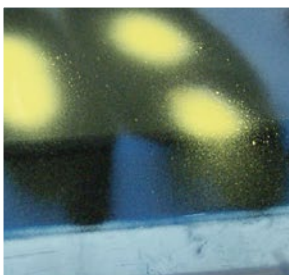
Single mounting. Ceiling or wall fixing with four concealed mounting apertures on the rear. Special caps optionally available (see options).

PHALANX 430

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
430 <input type="checkbox"/> 840/4000 K	1970	15	-25 °C to +30 °C	318 480 34 01 - E
430 <input type="checkbox"/> 840/4000 K	2500	17	-25 °C to +30 °C	318 480 34 02 - E

PHALANX 430 OPTIONS

Version	Article no.
Coating to RAL	Available on request
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	318 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Special nut, three holes (requires special tool)	318 009
Version for operating with PASSAU LED	Available on request



> Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating), Article no. 318 010



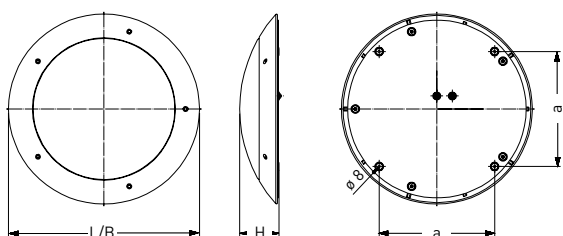
> Special nut, three holes Article no. 318 009


PHALANX 430 ACCESSORIES


Version	Article no.
Key for three hole screw/nut	734 008

PHALANX 620

LED



-  **XARA® lighting control**
[optional]
-  Further colour temperatures
[optional]

 medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	620	620 mm	620 mm	128 mm	375 mm	11.5 kg

AREAS OF APPLICATION

Extremely impact-resistant surface mounted luminaire with LED lamps. Vandalism-proof up to 150 Joule while retaining full operation. Useable in all areas at risk of deliberate or negligent destruction.

HOUSING

Luminaire housing made of cast aluminium, powder-coated RAL 7016. Useable for indoor and outdoor areas according to protection rating IP 65. Anti-graffiti coating for lamp diffuser protects against dirt and paint residue, optionally available [see options].

LIGHTING TECHNOLOGY

Convex, 4 mm thick lamp diffuser made of PC (fracture proof), opal white.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two rear-mounted cable entries M20. 4 kV transient filter.

L80 B10 > 100,000 h at +40 °. Retains operation in case of vandalism. 8 years warranty.

MOUNTING

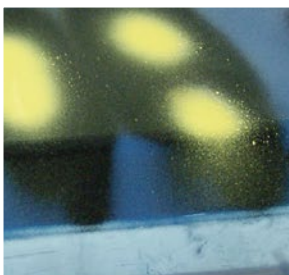
Single mounting. Ceiling or wall fixing with four concealed mounting apertures on the rear. Special caps optionally available [see options].

PHALANX 620

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
620 <input type="checkbox"/> 840/4000 K	3030	23	-40 °C to +40 °C	319 680 34 01
620 <input type="checkbox"/> 840/4000 K	6900	54	-40 °C to +40 °C	319 680 34 02

PHALANX 620 OPTIONS

Version	Article no.
Coating to RAL	Available on request
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	318 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Special nut, three holes (requires special tool)	318 009
Version for operating with PASSAU LED	Available on request



> Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating), Article no. 318 010



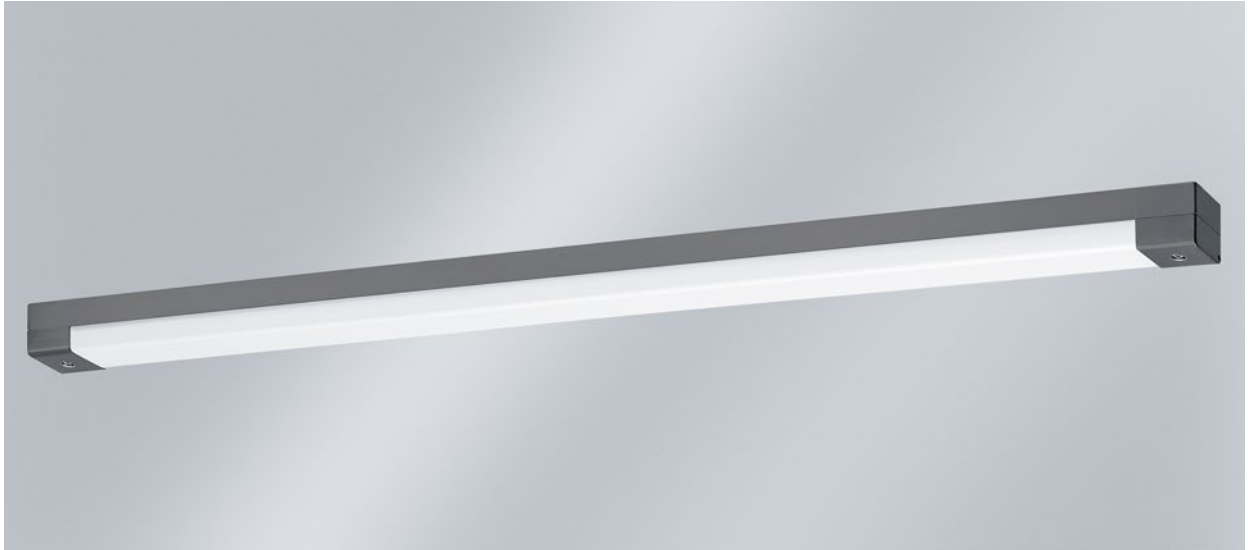
> Special nut, three holes Article no. 318 009

PHALANX 620 ACCESSORIES

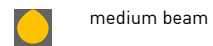
Version	Article no.
Key for three hole screw/nut	734 008

PHALANX LINEAR 75

LED

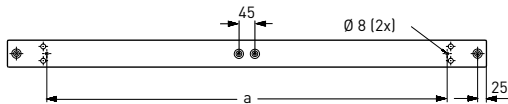


XARA® lighting control
(optional)



medium beam

K Further colour temperatures
(optional)



Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1340 ± 2 mm	75 mm	75 mm	1120 ± 2 mm	5.3 kg
LED	m1500	1640 ± 2 mm	75 mm	75 mm	1420 ± 2 mm	6.5 kg

AREAS OF APPLICATION

Extremely impact-resistant surface mounted ceiling luminaire with LED lamps. Vandalism-proof up to 150 joules. Useable in prisons, detention cells and all areas at risk of deliberate or negligent destruction.

HOUSING

Luminaire housing made of metal, powder-coated RAL 7016, protection rating IP 44. Anti-graffiti coating for lamp diffuser protects against dirt and paint residue, optionally available (see options).

LIGHTING TECHNOLOGY

Rectangular, 4 mm thick lamp diffuser made of PC (fracture proof) opal white or PC (fracture proof) clear structured.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver, 230 V AC/DC, optionally suitable for emergency lighting. LED unit exchangeable. Four rear-mounted cable entries M20 and 3 x 1.5 mm² through wiring. 4 kV transient filter.

L80 B10 > 100,000 h at +40 °C. Retains operation in case of vandalism. 8 years warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing with two concealed rear mounting apertures. Luminaire cover fixing with two stainless steel sealing screws with hexagon sockets. Special screws optionally available (see options).

PHALANX LINEAR 75

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	5330	38	-40 °C to +40 °C	655 480 34 A1
m1500 <input type="checkbox"/> 840/4000 K	6660	47	-40 °C to +40 °C	655 680 34 A1

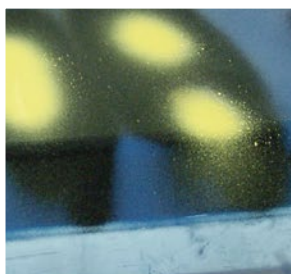
When ordering, please replace the highlighted letters with the corresponding numbers.

Luminaire cover / A

0 = PC (fracture proof) opal white
9 = PC (fracture proof) clear structured

PHALANX LINEAR 75 OPTIONS

Version	Article no.
Coating to RAL	Available on request
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	655 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Halogen-free version	655 007
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Special screw, oval (requires special tool)	700 003
Special screw, semi-circle (requires special tool)	700 001
Special screw, three hole (requires special tool)	700 002
Through wiring 5 × 1.5 mm ²	655 832
Through wiring 5 × 2.5 mm ²	655 392
Version for operating with PASSAU LED	Available on request



> Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating), Article no. 655 010



> Version with lamp diffuser, PC (fracture proof), clear structured



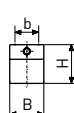
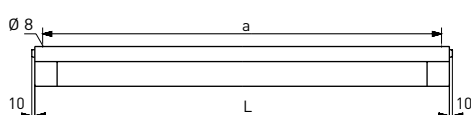
> Special three hole, semi-circle and oval screws, Article no. 700 002 / 700 001 / 700 003



PHALANX LINEAR 75 ACCESSORIES

Version	Article no.
Key for oval screw	717 008
Key for semi-circle screw	734 007
Key for three hole screw/nut	734 008

PHALANX LINEAR 115

LED



-  **XARA® lighting control** (optional)
-  Further colour temperatures (optional)



medium beam

asymmetric beam

Lamp	Version	L	B	H	a	b	Max. weight
LED	m1200	1340 ± 2 mm	115 mm	130 mm	1290 ± 2 mm	80 ± 2 mm	8.2 kg
LED	m1500	1640 ± 2 mm	115 mm	130 mm	1590 ± 2 mm	80 ± 2 mm	10.5 kg

AREAS OF APPLICATION

Extremely impact-resistant surface mounted ceiling luminaire with LED lamps. Vandalism-proof up to 150 joules. Useable in prisons, detention cells and all areas at risk of deliberate or negligent destruction.

HOUSING

Luminaire housing made of metal, powder-coated similar to RAL 7016, protection rating IP 44, with integrated polymer luminaire. Useable for indoor and outdoor areas according to protection rating IP 65. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K. Anti-graffiti coating for lamp diffuser protects against dirt and paint residue, optionally available (see options). Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Rectangular, 4 mm thick lamp diffuser made of PC (fracture proof) opal white or PC (fracture proof) clear structured.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver, 230 V AC/DC, optionally suitable for emergency lighting. Luminaire housing with two face-side cable entries M20, recessed luminaire with two access covers. 4 x 1.5 mm² through wiring. 4 kV transient filter.

L80 B10 > 100,000 h at +40 °C. Retains operation in case of vandalism. 8 years warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing with four concealed mounting apertures on the rear. Luminaire cover fixing with two stainless steel sealing screws with hexagon sockets. Special screws optionally available (see options).

PHALANX LINEAR 115 – PC (FRACTURE PROOF) OPAL WHITE, MEDIUM BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	5330	38	-40 °C to +40 °C	743 480 A4 92
m1500 <input type="checkbox"/> 840/4000 K	6660	47	-40 °C to +40 °C	743 680 A4 92

PHALANX LINEAR 115 – PC (FRACTURE PROOF) CLEAR STRUCTURED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	5330	38	-40 °C to +40 °C	743 480 A4 92
m1500 <input type="checkbox"/> 840/4000 K	6660	47	-40 °C to +40 °C	743 680 A4 92

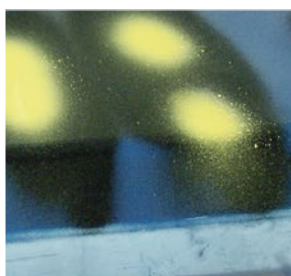
When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

3 = medium beam
6 = asymmetric beam

PHALANX LINEAR 115 OPTIONS

Version	Article no.
Closed on face side with two rear mounted cable entries	Available on request
Coating to RAL	Available on request
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	743 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Halogen-free version	743 007
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Special screw, oval (requires special tool)	700 003
Special screw, semi-circle (requires special tool)	700 001
Special screw, three hole (requires special tool)	700 002
Through wiring 4 × 2.5 mm ²	743 822
Through wiring 5 × 1.5 mm ²	743 832
Through wiring 5 × 2.5 mm ²	743 392
Version for operating with PASSAU LED	Available on request
Version MARBURG LED (stainless steel housing)	743 100



> Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating), Article no. 743 010



> Version with luminaire cover in PC (fracture proof) clear structured and option MARBURG LED (stainless steel housing)



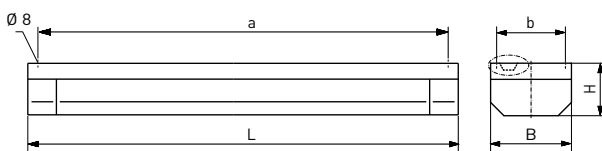
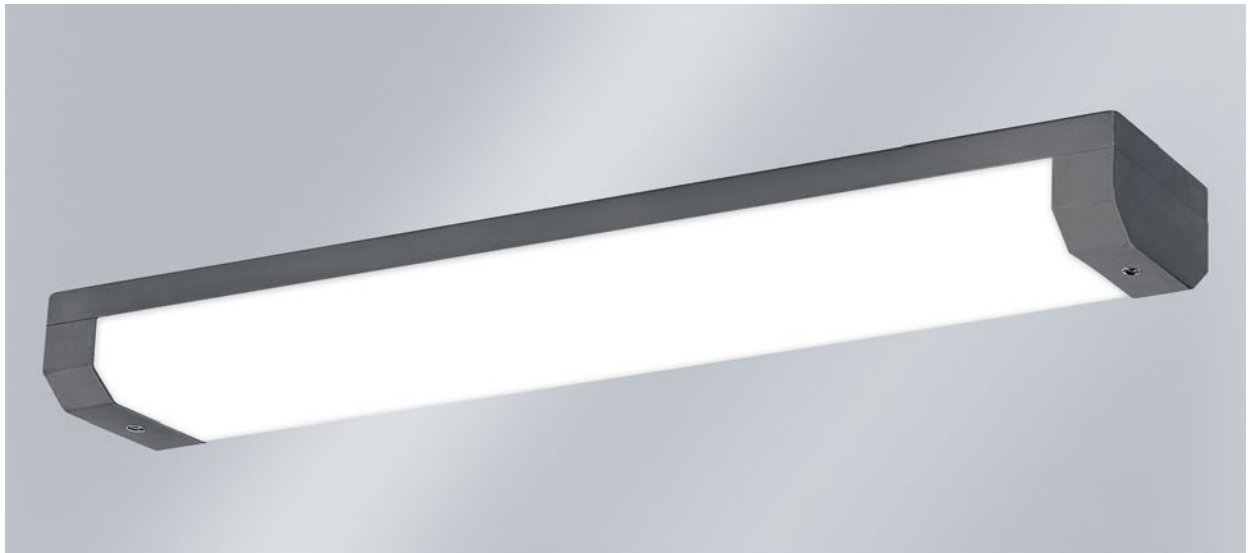
> Special three hole, semi-circle and oval screws, Article no. 700 002 / 700 001 / 700 003

PHALANX LINEAR 115 ACCESSORIES



Version	Article no.
Key for oval screw	717 008
Key for semi-circle screw	734 007
Key for three hole screw/nut	734 008

PHALANX LINEAR 200

LED



-  **XARA® lighting control** (optional)
-  Further colour temperatures (optional)

-  medium beam
-  asymmetric beam

Lamp	Version	L	B	H	a	b	Max. weight
LED	m1200	1340 ± 2 mm	200 ± 2 mm	130 mm	1290 ± 2 mm	170 mm	15.3 kg
LED	m1500	1640 ± 2 mm	200 ± 2 mm	130 mm	1590 ± 2 mm	170 mm	18.3 kg

AREAS OF APPLICATION

Extremely impact-resistant surface mounted ceiling luminaire with LED lamps. Vandalism-proof up to 150 joules. Useable in all areas at risk of deliberate or negligent destruction.

HOUSING

Luminaire housing made of metal, powder coated similar to RAL 7016, protection rating IP 44, with integrated polymer luminaire. Useable for indoor and outdoor areas according to protection rating IP 65. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K. With concealed cable channel on the rear. Anti-graffiti coating for lamp diffuser protects against dirt and paint residue, optionally available (see options). Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Rectangular, 4 mm thick lamp diffuser made of PC (fracture proof) opal white or PC (fracture proof) clear structured.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Luminaire housing with two rear-side cable entries M20, recessed luminaire with two access covers. 4 x 1.5 mm² through wiring. 4 kV transient filter.

L80 B10 > 100,000 h at +40 °C. Retains operation in case of vandalism. 8 years warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing with four concealed mounting apertures on the rear. Concealed cable duct on rear with 2 x M20 for flush mounting. Luminaire cover fixing with two stainless steel sealing screws with hexagon sockets. Special screws optionally available (see options).

PHALANX LINEAR 200 – PC (FRACTURE PROOF) OPAL WHITE, MEDIUM BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	5330	38	-40 °C to +40 °C	733 480 34 02
m1200 <input type="checkbox"/> 840/4000 K	10660	76	-40 °C to +40 °C	736 480 34 02
m1500 <input type="checkbox"/> 840/4000 K	6660	47	-40 °C to +40 °C	733 680 34 02
m1500 <input type="checkbox"/> 840/4000 K	13320	94	-40 °C to +40 °C	736 680 34 02

PHALANX LINEAR 200 – PC (FRACTURE PROOF) CLEAR STRUCTURED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	5330	38	-40 °C to +40 °C	733 480 A4 92
m1200 <input type="checkbox"/> 840/4000 K	10660	76	-40 °C to +40 °C	736 480 A4 92
m1500 <input type="checkbox"/> 840/4000 K	6660	47	-40 °C to +40 °C	733 680 A4 92
m1500 <input type="checkbox"/> 840/4000 K	13320	94	-40 °C to +40 °C	736 680 A4 92

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

3 = medium beam
6 = asymmetric beam

PHALANX LINEAR 200 OPTIONS

Version	Article no.
Coating to RAL	Available on request
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	733 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Halogen-free version	733 007
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Special screw, oval (requires special tool)	700 003
Special screw, semi-circle (requires special tool)	700 001
Special screw, three hole (requires special tool)	700 002
Through wiring 4 × 2.5 mm ²	733 822
Through wiring 5 × 1.5 mm ²	733 832
Through wiring 5 × 2.5 mm ²	733 392
Version for operating with PASSAU LED	Available on request
Version KREUZBERG LED (stainless steel housing)	733 100



> Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating), Article no. 733 010



> Special three hole, semi-circle and oval screws, Article no. 700 002 / 700 001 / 700 003



> Concealed rearward cable channel



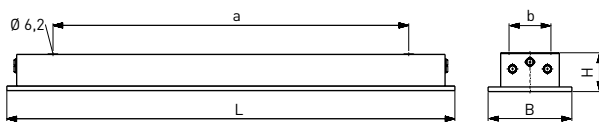
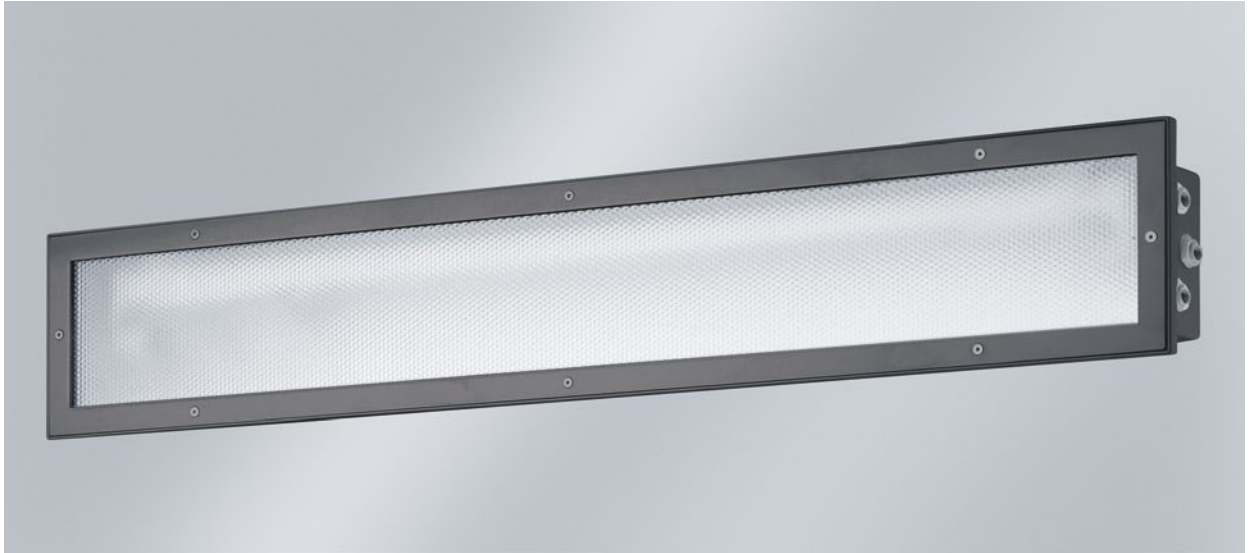
> Version with luminaire cover in PC (fracture proof) clear structured and option KREUZBERG LED (stainless steel housing)

PHALANX LINEAR 200 ACCESSORIES

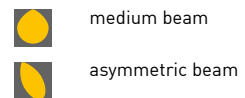
Version	Article no.
Key for oval screw	717 008
Key for semi-circle screw	734 007
Key for three hole screw/nut	734 008

PHALANX LINEAR 240

LED



K Further colour temperatures (optional)



Lamp	Version	L	B	H	a	b	Max. weight
LED	m1200	1360 ± 2 mm	240 mm	112 mm	1065 mm	118 mm	7.9 kg
LED	m1500	1660 ± 2 mm	240 mm	112 mm	1365 mm	118 mm	10.0 kg

AREAS OF APPLICATION

Extremely impact-resistant luminaire for wall and ceiling surface mounting with LED lamps. Vandalism-proof up to 150 joules. Useable in all areas at risk of deliberate or negligent destruction.

HOUSING

Metal installation housing, powder coated inside and outside, RAL 7016. With integrated polymer luminaire. Useable for indoor and outdoor areas according to protection rating IP 65. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K. Anti-graffiti coating for lamp diffuser protects against dirt and paint residue, optionally available (see options). Short sealing system consisting of age-resistant, form retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Flat, 3 mm thick cover screen made of PC (fracture proof), clear/structured or PC (fracture proof) opal white.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Luminaire housing with six face-side cable entries M20, recessed luminaire with two access covers. 4 x 1.5 mm² through wiring. 4 kV transient filter.

L80 B10 > 100,000 h at +40 °C. Retains functionality in case of vandalism. 8 years warranty.

MOUNTING

Single or row mounting. Fixing with four rear bores, flush on the rear recess wall. Fixing of the luminaire cover with stainless steel sealing screws with hexagon sockets. Special screws optionally available (see options).

PHALANX LINEAR 240 – COVER SCREEN PC (FRACTURE PROOF) OPAL WHITE, MEDIUM BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	5330	38	-40 °C to +40 °C	729 480 34 02
m1500 <input type="checkbox"/> 840/4000 K	6660	47	-40 °C to +40 °C	729 680 34 02

PHALANX LINEAR 240 – COVER SCREEN PC (FRACTURE PROOF) CLEAR STRUCTURED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 <input type="checkbox"/> 840/4000 K	5330	38	-40 °C to +40 °C	729 480 A4 92
m1500 <input type="checkbox"/> 840/4000 K	6660	47	-40 °C to +40 °C	729 680 A4 92

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

3 = medium beam
6 = asymmetric beam

PHALANX LINEAR 240 OPTIONS

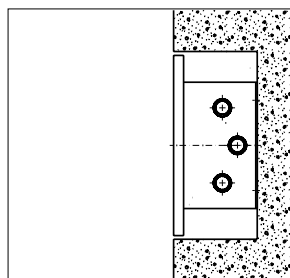
Version	Article no.
Coating to RAL	Available on request
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	729 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	Available on request
Halogen-free version	729 007
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Special screw, two-hole (requires special tool)	700 004
Through wiring 4 × 2.5 mm ²	729 822
Through wiring 5 × 1.5 mm ²	729 832
Through wiring 5 × 2.5 mm ²	729 392
Version for operating with PASSAU LED	Available on request
Version LUTTEROTH LED (stainless steel housing, powder-coated RAL 9010)	729 100



> Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating), Article no. 729 010



> Special two-hole screw, Article no. 700 004



> Concrete recess dimensions: Luminaire dimensions + 10 mm



> Version with cover screen PC (fracture proof) opal white

PHALANX LINEAR 240 ACCESSORIES

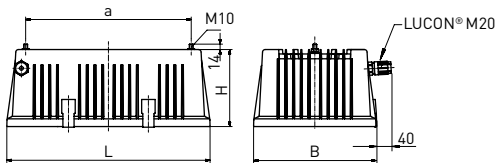
Version	Article no.
Key for two-hole screw	734 009

POLARIS





LED



POLARIS with fixing bolts



Further dimensioned drawings available on our website

-  narrow beam
single pane safety glass
structured
-  medium beam
PMMA Transopal®
(impact strengthened)
-  asymmetric beam
single pane safety glass
clear or PC (fracture
proof) clear
with ADP prism screen
-  concentrated beam
single pane safety glass
clear or PC clear

Lamp	Version	L	B	H	a	Max. weight
LED array	with fixing bolts	528 mm	318 mm	200 mm	430 mm	11.0 kg
LED Array	with swivel bracket, crosswise	589 mm	358 mm	340 mm	430 mm	13.0 kg
LED Array	with swivel bracket, lengthwise	568 mm	380 mm	445 mm	200 mm	13.0 kg
LED Array	prepared for suspension system	528 mm	318 mm	260 mm	430 mm	11.0 kg

AREAS OF APPLICATION

Floodlights with LED array. Useable in cold storage, warehouses, dispatch and outdoor facilities and industrial cranes, as well as, optionally, environments containing chlorine, such as swimming pools. **POLARIS HT version up to +65 °C.**

HOUSING

Robust luminaire housing, made of cast aluminium with coated surface, colour similar to RAL 9006. Useable for indoor and outdoor areas according to protection rating IP 65. Sealing system made of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Hinged, frameless cover screen made of PC (fracture proof) clear, safety glass cover screen (single pane) clear or structured safety glass cover screen (single pane). Internal aluminium reflector (MIRO-SILVER®) with adapter for a prism screen for asymmetric (ADP), circular (CDP) or linear (LDP) deglare.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Supply voltage 220-240 V AC/DC. Two types are available:

Standard version

Built-in DALI-driver. Ready for connection via LUCON® luminaire connection system.

Version HT

Built-in DALI-driver. Ready for connection via LUCON® luminaire connection system. Maximum ambient temperature up to +65 °C.

MOUNTING

Ceiling installation with two fixing bolts M10 or stainless steel swivel bracket. Pole-mount adapter for swivel bracket (lengthwise or crosswise) or ceiling plate for short ceiling mounting distances optionally available (see accessories). Lengthwise pole attachment also available. Suspension system possible. Optional anti-vibration damper (not chlorine-resistant, only suspended installation) for cranes.

POLARIS

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
248	24100	142	-35 °C to +55 °C	988 248 0 A BC - H1
310	31000	184	-35 °C to +45 °C	988 310 0 A BC - H1

When ordering, please replace the highlighted letters with the corresponding numbers.

Colour temperature / A

3 = 830/3000 K
4 = 840/4000 K
5 = 850/5000 K

Cover screen / B

4 = PC (fracture proof) clear
6 = Single pane safety glass clear
7 = Single pane safety glass structured

Installation type / C

1 = Ceiling mounting with 2 x M10 bolts
2 = Swivel bracket, lengthwise
3 = Swivel bracket, crosswise
4 = Swivel bracket, anti vibration damper, lengthwise
5 = Swivel bracket, anti vibration damper, crosswise
6 = Prepared for suspension system

POLARIS – VERSION HT

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
186 HT	19000	114	-35 °C to +65 °C	988 187 0 A BC - H1

When ordering, please replace the highlighted letters with the corresponding numbers.

Colour temperature / A

3 = 830/3000 K
4 = 840/4000 K
5 = 850/5000 K

Cover screen / B

4 = PC (fracture proof) clear
6 = Single pane safety glass clear
7 = Single pane safety glass structured

Installation type / C

1 = Ceiling mounting with 2 x M10 bolts
2 = Swivel bracket, lengthwise
3 = Swivel bracket, crosswise
4 = Swivel bracket, anti vibration damper, lengthwise
5 = Swivel bracket, anti vibration damper, crosswise
6 = Prepared for suspension system

NOTICE REGARDING LIDC LIGHTING CHARACTERISTIC

You can obtain your required lighting characteristic as follows:

Lighting characteristic	Cover screen / A	Additional screen (see accessories)
concentrated beam	4 = PC (fracture proof) clear	-
	6 = single pane safety glass clear	-
medium beam	4 = PC (fracture proof) clear	+ PMMA Transopal®
	6 = single pane safety glass clear	+ PMMA Transopal®
asymmetric beam	4 = PC (fracture proof) clear	+ ADP prism screen:
	6 = single pane safety glass clear	+ ADP prism screen:
narrow beam	7 = single pane safety glass structured	-

The additional screen must be ordered separately.

For additional articles, please turn the page! ►

POLARIS OPTIONS

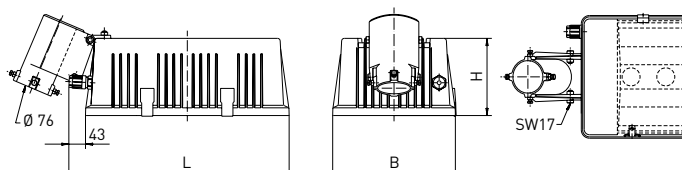
Version	Article no.
Ball impact resistant version via locking swivel bracket	982 007
Ceiling bracket for ball impact resistant version (pair)	982 110
Halogen-free version	988 032
Polymer cable gland with strain relief, M20	988 936
RAL finish	988 960
Swimming pool version prepared for suspension system	988 036
Swimming pool version with swivel bracket, crosswise	982 108
Version for harsh operating conditions	982 193
Version for operating with PASSAU LED	Available on request
Vibration-proof version with anti-vibration damper (swivel bracket for crane fixing, not chlorine resistant)	982 189

POLARIS ACCESSORIES

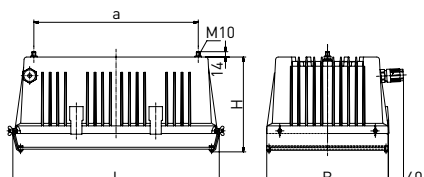
Version	Article no.
ADP prism screen, asymmetric deglare (asymmetric)	988 501
CDP prism screen, circular deglare	988 502
Ceiling bracket for short ceiling distance (pair)	982 109
LDP prism screen, linear deglare (linear to the luminaire)	988 503
PMMA Transopal® (impact strengthened) screen, medium beam	988 504
Pole extension, can be swivelled and locked from 8° to 53°, for pole-top diameter of 76 mm	982 128
Pole-mount adapter for swivel bracket for a pole-top diameter of 70 to 89 mm	982 125
Pole-mount adapter for swivel bracket for a pole-top diameter of 96 to 110 mm	982 126
Wearing screen with frame	982 103



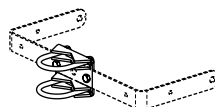
POLARIS ACCESSORIES



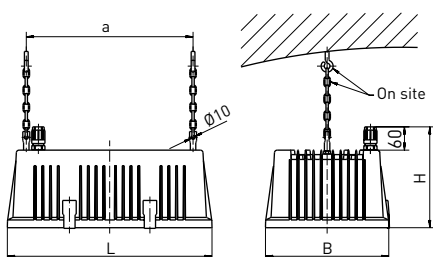
> POLARIS with pole-mount adapter
 Can be swivelled and locked 8° to 53°, for pole top diameter 76 mm
 Pole-mount adapter, article no. 982 128



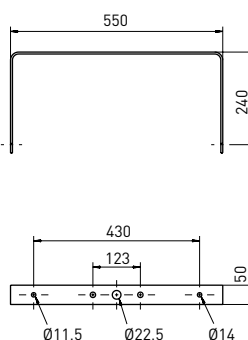
> POLARIS with wearing screen
 Wearing screen, article no. 982 103



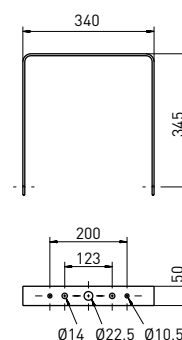
> Pole-mount adapter for swivel bracket
 For pole top diameter
 70 - 89 mm – article no. 982 125
 96 - 110 mm – article no. 982 126



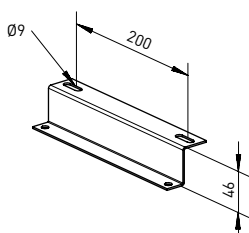
> POLARIS for suspension system
 Suspension system and ceiling installation
 have to be provided on site



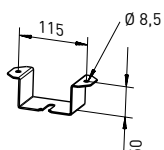
> Swivel bracket
 Fixed crosswise
 Dimensions in mm ± 2 mm



> Swivel bracket
 Fixed lengthwise
 Dimensions in mm ± 2 mm

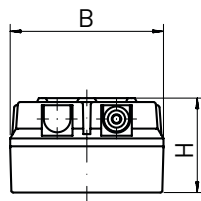
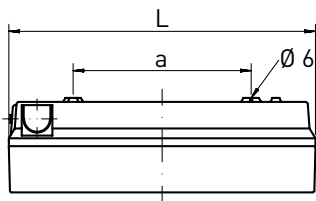


> Ceiling bracket for ball impact resistant version
 (see options)
 (pair), article no. 982 110



> Ceiling bracket for short ceiling distance
 (pair), article no. 982 109

Lamp	Version	L	B	H	a	b	Max. weight
LED Array	with pole attachment	571 mm	318 mm	200 mm	-	-	14.0 kg
LED Array	with wearing screen	540 mm	318 mm	248 mm	430 mm	-	14.0 kg
LED array	for suspension system	528 mm	318 mm	260 mm	430 mm	-	11.0 kg



Picture 1



Picture 2



Picture 3

Lamp	Version	L	B	H	a	Max. weight
LED	Escape route luminaire	310 mm	155 mm	96 mm	180 mm	1.1 kg

AREAS OF APPLICATION

Single-battery escape route luminaire with LED lamps. Viewing distance 28 m.

HOUSING

Weather-proof and UV-resistant luminaire housing made of polymer, anthracite. Useable for indoor and outdoor areas according to protection rating IP 65. Sealing system made of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Hinged lamp diffuser made of PC (fracture proof) opal or with pictogram according to EN ISO 7010 for safety luminaires.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. One M20 lateral cable entry. Emergency operation through integrated emergency lighting unit, including automatic self-test, charging, indicator, mains monitoring and protection against total discharge. Emergency lighting duration 1 h or 3 h.

MOUNTING

Single mounting. Wall fixing through two sealed openings in the luminaire base.

SCHÖNEFELD, PC (FRACTURE PROOF) OPAL WHITE, SINGLE-BATTERY ESCAPE ROUTE LUMINAIRE

Version	Emergency lighting duration/h	System power/W	Ambient temperature	Article no.
No picture <input type="checkbox"/> 840/4000 K	1	6	-5 °C bis +30 °C / CO 0 °C bis +35 °C / SO	421 610-E
Picture 1 <input type="checkbox"/> 840/4000 K	1	6	-5 °C bis +30 °C / CO 0 °C bis +35 °C / SO	421 611-E
Picture 2 <input type="checkbox"/> 840/4000 K	1	6	-5 °C bis +30 °C / CO 0 °C bis +35 °C / SO	421 612-E
Picture 3 <input type="checkbox"/> 840/4000 K	1	6	-5 °C bis +30 °C / CO 0 °C bis +35 °C / SO	421 613-E
No picture <input type="checkbox"/> 840/4000 K	3	6	-5 °C bis +30 °C / CO 0 °C bis +35 °C / SO	421 620-E
Picture 1 <input type="checkbox"/> 840/4000 K	3	6	-5 °C bis +30 °C / CO 0 °C bis +35 °C / SO	421 621-E
Picture 2 <input type="checkbox"/> 840/4000 K	3	6	-5 °C bis +30 °C / CO 0 °C bis +35 °C / SO	421 622-E
Picture 3 <input type="checkbox"/> 840/4000 K	3	6	-5 °C bis +30 °C / CO 0 °C bis +35 °C / SO	421 623-E

Continuous operation = CO
Standby operation = SO

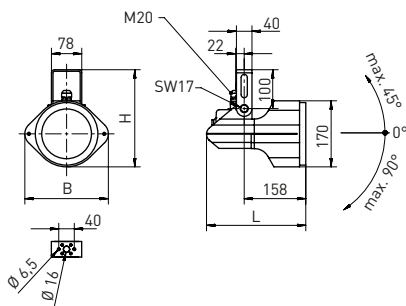
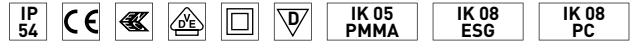
SCHÖNEFELD OPTIONS

Version	Article no.
DALI central monitoring	Available on request






SPICA LED

LED



K Further colour temperatures (optional)

-  narrow beam
-  concentrated beam
CDP prism screen
-  medium beam
PC (fracture proof)
opal white

Lamp	Version	L	B	H	a	Max. weight
LED	Floodlight	256 mm	215 mm	250 mm	-	1.4 kg

AREAS OF APPLICATION

Polymer floodlight for ceiling and wall-surface mounting with LED. Useable in industrial facilities, under canopies and for facade illumination.

HOUSING

Luminaire housing made from weather-proof thermoplastic PPO, similar to RAL 9005. Aluminium swivel bracket, coated. Useable for indoor and outdoor areas according to protection rating IP54. Additional cover frame and cover screen for preventing water accumulation during uplighting optionally available (see accessories). Short sealing system comprised of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Cover screen made from single-pane safety glass or CDP prism screen with internal aluminium reflector.

ELECTRICAL CONSTRUCTION

Luminaire ready for installation and connection via plug-in terminal. Built-in driver, supply voltage 220-240 V AC/DC. 2 kV transient filter. One cable entry M20.

MOUNTING

Ceiling or wall fixation via swivel bracket.

SPICA LED – SAFETY GLASS COVER SCREEN CLEAR, NARROW BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
Floodlight <input type="checkbox"/> 840/4000 K	3400	22	-25 °C bis +40 °C	983 100 24 61

SPICA LED – PMMA CLEAR WITH CDP PRISM SCREEN, CONCENTRATED BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
Floodlight <input type="checkbox"/> 840/4000 K	3400	22	-25 °C bis +40 °C	983 100 84 11

SPICA LED – PC (FRACTURE PROOF) OPAL WHITE, MEDIUM BEAM

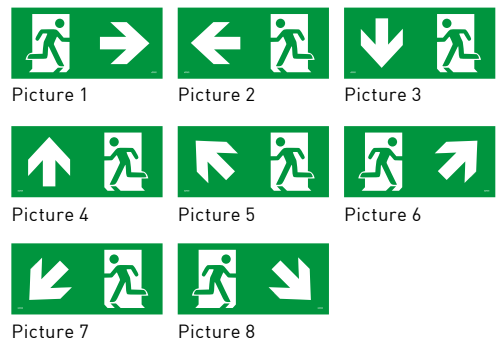
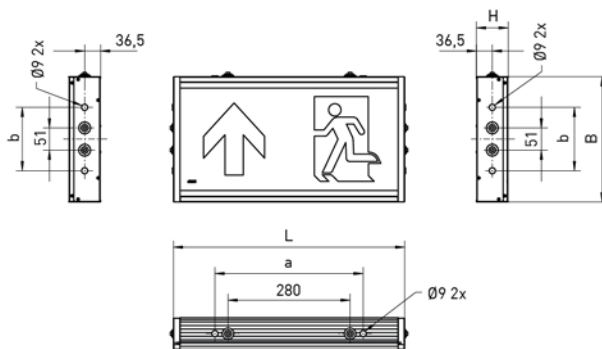
Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
Floodlight <input type="checkbox"/> 840/4000 K	4240	27	-25 °C bis +25 °C	983 100 34 01

SPICA LED OPTIONS

Version	Article no.
DALI	100 502
Further colour temperatures 3000 K or 5000 K	Available on request
RAL finish	983 960
Swimming pool version	983 970

SPICA LED ACCESSORIES

Version	Article no.
Cover frame for ceiling illumination	981 929



Lamp	Version	L	B	H	a	b	Max. weight
LED	Escape route luminaire	530 ± 2 mm	285 mm	73 mm	340 mm	145 mm	4.6 kg

AREAS OF APPLICATION

Centrally powered escape route luminaires with LED lamps. Suitable for use in emergency lighting mode according to EN 50172 (VDE0108). Useable in industrial applications. Viewing distance 48 m.

HOUSING

Luminaire housing made of anodised aluminium profile, similar to RAL 9006. Useable for indoor and outdoor areas according to protection rating IP 65. Short sealing system consisting of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Hinged lamp diffuser made of PC opal white with internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Mains operation using LED driver 230 V AC/DC. Ready for connection with lateral M20 cable entries. 2 kV transient filter.

MOUNTING

Single mounting. Ceiling or wall mounting with sealed mounting apertures.

STEGLITZ

Version		System power/W	Ambient temperature	Article no.
No picture	<input type="checkbox"/> 840/4000 K	9	-25 °C bis +30 °C	617 290 34 01 -E-0 A
Picture 1	<input type="checkbox"/> 840/4000 K	9	-25 °C bis +30 °C	617 290 34 01 -E-1 A
Picture 2	<input type="checkbox"/> 840/4000 K	9	-25 °C bis +30 °C	617 290 34 01 -E-2 A
Picture 3	<input type="checkbox"/> 840/4000 K	9	-25 °C bis +30 °C	617 290 34 01 -E-3 A
Picture 4	<input type="checkbox"/> 840/4000 K	9	-25 °C bis +30 °C	617 290 34 01 -E-4 A
Picture 5	<input type="checkbox"/> 840/4000 K	9	-25 °C bis +30 °C	617 290 34 01 -E-5 A
Picture 6	<input type="checkbox"/> 840/4000 K	9	-25 °C bis +30 °C	617 290 34 01 -E-6 A
Picture 7	<input type="checkbox"/> 840/4000 K	9	-25 °C bis +30 °C	617 290 34 01 -E-7 A
Picture 8	<input type="checkbox"/> 840/4000 K	9	-25 °C bis +30 °C	617 290 34 01 -E-8 A

When ordering, please replace the highlighted letters with the corresponding numbers.

Connection point / A

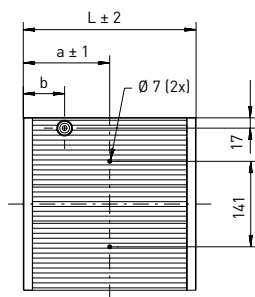
- 1 = left
- 2 = right
- 3 = top

STEGLITZ OPTIONS

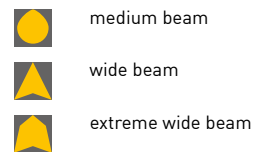
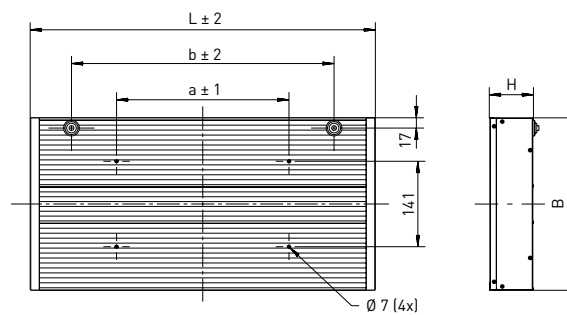
Version	Article no.
Central monitoring	Available on request



Version m1:



Version m2:



K Further colour temperatures (optional)

Lamp	Version	L	B	H	a	b	Max. weight
LED Array	m1	285 mm	285 mm	73 mm	142.5 mm	68 mm	5.0 kg
LED Array	m2	570 mm	285 mm	73 mm	285 mm	434 mm	8.8 kg

AREAS OF APPLICATION

Aluminium luminaire for recessed and surface ceiling mounting with LED array, single or twin lamp. Useable in underground and suburban railway stations, pedestrian underpasses and tunnels, passages, multi-storey car parks, swimming pools, transport areas, under canopies and façades.

HOUSING

Silver anodised aluminium profile housing. Hinged cover screen. Useable for indoor and outdoor areas according to protection rating IP 65. Protection class II.

LIGHTING TECHNOLOGY

Clear cover screen made of PMMA or PC (fracture proof) with printed image, or white printed cover screen made of PMMA or PC (fracture proof), or PMMA Transopal® (impact strengthened) without printed image. Internal aluminium reflector, extreme wide beam. Version with integrated prism screen for rotation-symmetric glare reduction (circular deglare), wide beam.

ELECTRICAL CONSTRUCTION

Built-in driver 230 V AC/DC supply voltage. Ready for connection via one rear-mounted cable entry. 2 kV transient filter.

MOUNTING

Single mounting. Optional continuous row version or on NORKA trunking system 285. Ceiling installation via rear 2/4-point fixing system.

TALON – ONE LED ARRAY

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1 ■ 830/3000 K	2260	15	-35 °C bis +45 °C	685 127 03 A9 – H1
m1 ■ 830/3000 K	4770	29	-35 °C bis +40 °C	685 142 03 A9 – H1
m1 □ 840/4000 K	2260	15	-35 °C bis +45 °C	685 127 04 A9 – H1
m1 □ 840/4000 K	4770	29	-35 °C bis +40 °C	685 142 04 A9 – H1
m1 ■ 850/5000 K	2260	15	-35 °C bis +45 °C	685 123 05 A9 – H1
m1 ■ 850/5000 K	4770	29	-35 °C bis +40 °C	685 142 05 A9 – H1

When ordering, please replace the highlighted letters with the corresponding numbers.

extreme wide beam:**Cover screen / A**

- 1 = PMMA clear
- 4 = PC (fracture proof) clear

medium beam:**Cover screen / A**

- 2 = PMMA Transopal® (impact strengthened)
- 3 = PMMA white printed
- 5 = PC (fracture proof) white printed

TALON – ONE LED ARRAY AND CDP PRISM SCREEN, WIDE BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1 ■ 830/3000 K	2260	15	-35 °C bis +45 °C	685 127 83 A9 – H1
m1 ■ 830/3000 K	4770	29	-35 °C bis +40 °C	685 142 83 A9 – H1
m1 □ 840/4000 K	2260	15	-35 °C bis +45 °C	685 127 84 A9 – H1
m1 □ 840/4000 K	4770	29	-35 °C bis +40 °C	685 142 84 A9 – H1
m1 ■ 850/5000 K	2260	15	-35 °C bis +45 °C	685 123 85 A9 – H1
m1 ■ 850/5000 K	4770	29	-35 °C bis +40 °C	685 142 85 A9 – H1

When ordering, please replace the highlighted letters with the corresponding numbers.

Cover screen / A

- 1 = PMMA clear
- 4 = PC (fracture proof) clear

TALON – TWO LED ARRAYS

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m2 ■ 830/3000 K	9540	55	-35 °C bis +35 °C	685 242 03 A9 – H1
m2 □ 840/4000 K	9540	55	-35 °C bis +35 °C	685 242 04 A9 – H1
m2 ■ 850/5000 K	9540	55	-35 °C bis +35 °C	685 242 05 A9 – H1

When ordering, please replace the highlighted letters with the corresponding numbers.

extreme wide beam:**Cover screen / A**

- 1 = PMMA clear
- 4 = PC (fracture proof) clear

medium beam:**Cover screen / A**

- 2 = PMMA Transopal® (impact strengthened)
- 3 = PMMA white printed
- 5 = PC (fracture proof) white printed

For additional articles, please turn the page! ►

TALON – TWO LED ARRAYS AND CDP PRISM SCREEN, WIDE BEAM

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m2 ■ 830/3000 K	9540	55	-35 °C bis +35 °C	685 242 83 A9 -H1
m2 □ 840/4000 K	9540	55	-35 °C bis +35 °C	685 242 84 A9 -H1
m2 ■ 850/5000 K	9540	55	-35 °C bis +35 °C	685 242 85 A9 -H1

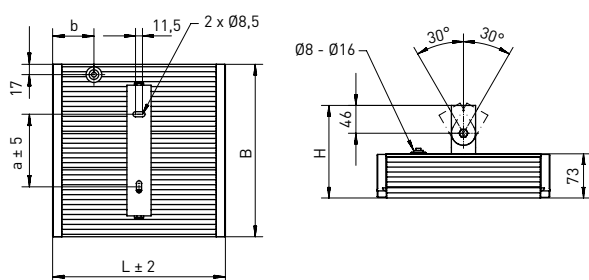
When ordering, please replace the highlighted letters with the corresponding numbers.

Cover screen / A

1 = PMMA clear
4 = PC (fracture proof) clear

TALON OPTIONS

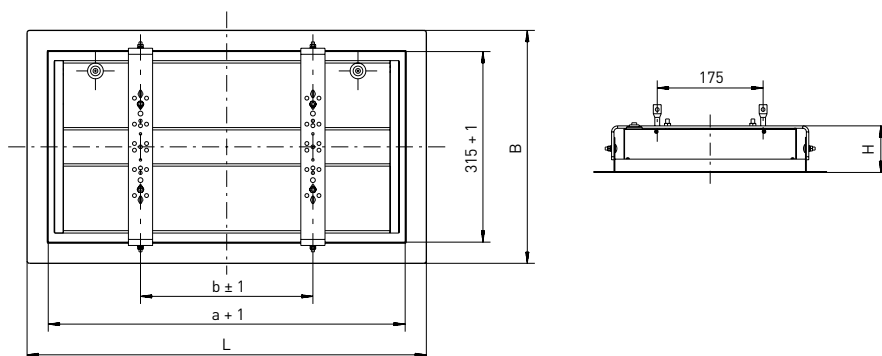
Version	Article no.
Ball impact resistant version	100 901
DALI	100 502
Further colour temperatures	Available on request
Protection against unauthorised opening	610 003
Swimming pool version	685 036
Swivel bracket for module size m1	685 107
Version for NORKA trunking system 285	685 037
Version with two pairs of cable entries on the face side (continuous row version)	201 442



Version	L ± 2	B	H	a ± 5	b ± 2	Max. weight
TALON with swivel bracket, module size m1	285 mm	285 mm	153 mm	120 mm	68 mm	5.9 kg

TALON ACCESSORIES

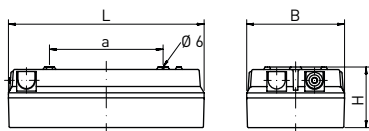
Version	Article no.
Recessed ceiling mounting frame, powder coated RAL 9010, module size m1	685 610
Recessed ceiling mounting frame, powder coated RAL 9010, module size m2	685 620



Version	Required ceiling cut-out	L	B	H	a	b	Max. weight
m1	325 x 356 mm	375 mm	385 mm	77 mm	305 mm	215 mm	1.5 kg
m2	610 x 356 mm	660 mm	385 mm	77 mm	590 mm	285 mm	2.2 kg



Bludenz
Schruns
Vandans
Tschagguns
Bartholomäberg
Kaltbrunn
Vandans
St. Anton im Montafon
Bartholomäberg
Lorüns
Bludenz-Moos
Vandans
Bludenz
Bartholomäberg
Schruns



Picture 1

Picture 2

Picture 3

Lamp	Version	L	B	H	a	Max. weight
LED	Escape route luminaire	310 mm	155 mm	96 mm	180 mm	1.1 kg

AREAS OF APPLICATION

Escape route luminaire with LED lamps. Viewing distance 28 m.

HOUSING

Weather-proof and UV-resistant luminaire housing made of polymer, anthracite. Useable for indoor and outdoor areas according to protection rating IP 65. Sealing system made of age-resistant, form-retaining silicone/synthetic rubber.

LIGHTING TECHNOLOGY

Hinged lamp diffuser made of PC (fracture proof) opal or with pictogram according to EN ISO 7010 for safety luminaires.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation with one lateral cable gland M20.

There are two types of luminaire:

Version centrally powered

TEGEL as centrally powered escape route luminaire with built-in driver 230 V AC/DC.

Version for PASSAU LED I

TEGEL without driver for operation on PASSAU LED I. The emergency lighting supply unit PASSAU LED I must be ordered separately.

MOUNTING

Single mounting. Wall fixing through two openings in the luminaire base.

TEGEL, PC (FRACTURE PROOF) OPAL WHITE, AS CENTRALLY POWERED ESCAPE ROUTE LUMINAIRE

Version		System power/W	Ambient temperature	Article no.
No picture	<input type="checkbox"/> 840/4000 K	4	-30 °C bis +40 °C	421 520-E
Picture 1	<input type="checkbox"/> 840/4000 K	4	-30 °C bis +40 °C	421 521-E
Picture 2	<input type="checkbox"/> 840/4000 K	4	-30 °C bis +40 °C	421 522-E
Picture 3	<input type="checkbox"/> 840/4000 K	4	-30 °C bis +40 °C	421 523-E

TEGEL, PC (FRACTURE PROOF) OPAL WHITE, FOR OPERATION WITH PASSAU LED I

Electronic single-battery emergency lighting supply unit PASSAU LED I to be ordered separately

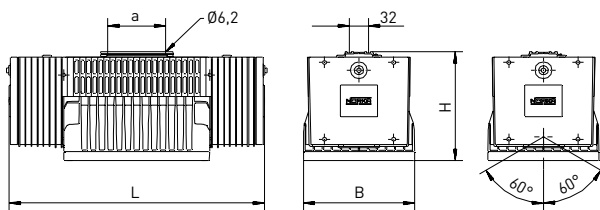
Version		System power/W	Ambient temperature	Article no.
No picture	<input type="checkbox"/> 840/4000 K	6	-30 °C bis +40 °C	421 525-E
Picture 1	<input type="checkbox"/> 840/4000 K	6	-30 °C bis +40 °C	421 526-E
Picture 2	<input type="checkbox"/> 840/4000 K	6	-30 °C bis +40 °C	421 527-E
Picture 3	<input type="checkbox"/> 840/4000 K	6	-30 °C bis +40 °C	421 528-E






TEGEL OPTIONS

Version	Article no.
Central monitoring	Available on request

URANUS

LED



-  narrow beam
-  medium beam
(PMMA Transopal®
(impact strengthened)
with additional screen)
-  wide beam
CDP prism screen
-  extreme wide beam
-  concentrated beam

Lamp	Version	L	B	H	a	Max. weight
LED Array	Floodlight	425.5 mm	185 mm	180 mm	96 mm	4.7 kg

AREAS OF APPLICATION

Floodlight with LED array. Useable in industrial facilities with different mounting heights, for illuminating buildings and advertising spaces and for car park illumination, among others.

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibre-glass-reinforced polymer. Reflector housing made of cast aluminium, similar to RAL 9005. Reflector housing swivelling and locking up to 120°. Thermally separated lamp chamber and driver chamber. Sealing system made of age-resistant, form-retaining silicone/synthetic rubber. Useable for indoor and outdoor areas according to protection rating IP 65. Protection class II.

LIGHTING TECHNOLOGY

Cover screen made of single pane safety glass clear or PC (fracture proof), clear with internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230-240 V AC/DC, optionally suitable for emergency lighting. Two cable glands on face side M20 and 5 x 2.5 mm² through wiring. Two additional, concealed cable glands M20 at rear.

MOUNTING

Single mounting. Ceiling or wall fixing using aluminium mounting clamp.

URANUS

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
077	7500	49	-25 °C bis +45 °C	967 077 AB C9 -H1
113	11400	72	-25 °C bis +45 °C	967 113 AB C9 -H1
150	15100	95	-25 °C bis +45 °C	967 150 AB C9 -H1

When ordering, please replace the highlighted letters with the corresponding numbers.

LIDC characteristic / A

2 = narrow beam
 3 = medium beam
 PMMA Transopal® (impact strengthened) with additional screen
 4 = wide beam
 (CDP prism screen)
 5 = extreme wide beam
 8 = concentrated beam

Colour temperature / B

3 = 830/3000 K
 4 = 840/4000 K
 5 = 850/5000 K

Cover screen / C

4 = PC (fracture proof) clear
 6 = Single pane safety glass clear

URANUS OPTIONS

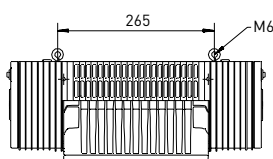
Version	Article no.
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	967 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
RAL finish	967 960
Swimming pool version	967 036
Version for operating with PASSAU LED	See PASSAU LED



- > Aluminium mounting clamps, included in scope of delivery

URANUS ACCESSORIES

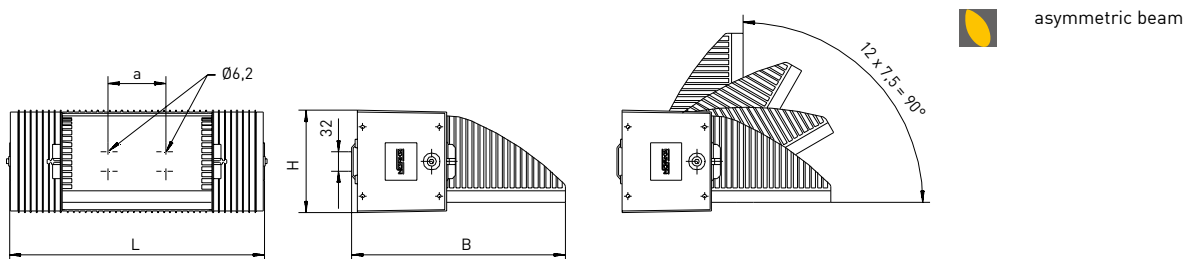
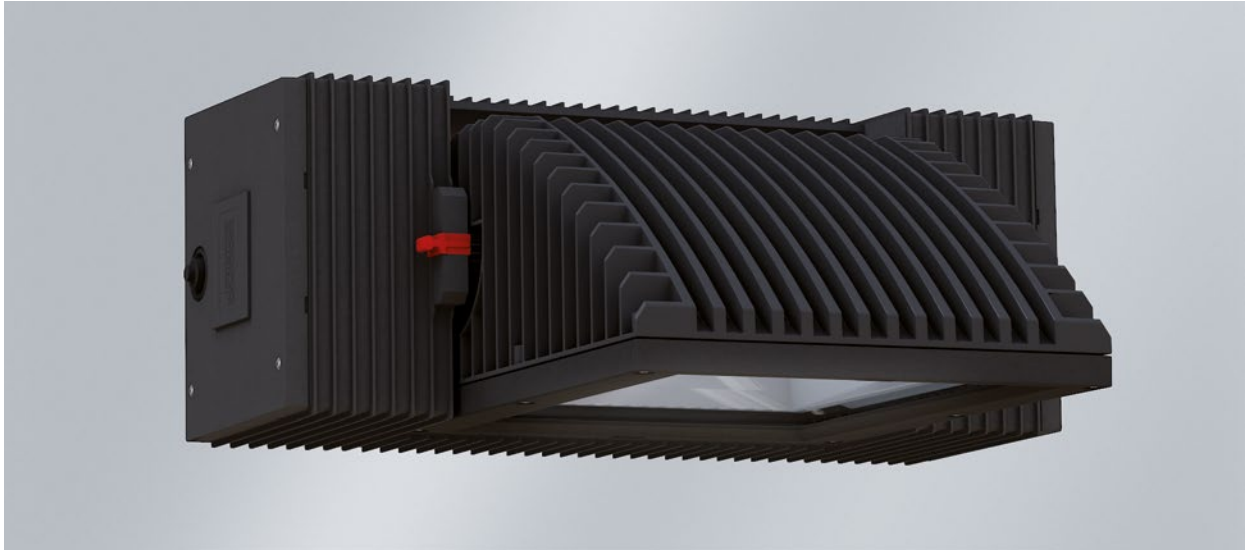
Version	Article no.
Anti-vibration damper	967 935
Eyebolts M6 (pair), galvanised steel, for suspended installation	967 901



- > **Eyebolts M6 (pair)**
Galvanised steel, for suspension system, Article no.967 901

URANUS PF

LED



asymmetric beam

Lamp	Version	L	B	H	a	Max. weight
LED Array	Floodlight	424 mm	364 mm	170 mm	96 mm	5.4 kg

AREAS OF APPLICATION

Floodlight with LED array. Useable in industrial facilities with different mounting heights, for illuminating buildings and advertising spaces and for car park illumination, among others.

HOUSING

Weather-proof and UV-resistant luminaire housing made of fibre-glass-reinforced polymer. Reflector housing made of cast aluminium, similar to RAL 9005. Reflector housing can be swivelled and locked up to 90°. Thermally separated lamp chamber and driver chamber. Sealing system made of age-resistant, form-retaining silicone/synthetic rubber. Useable for indoor and outdoor areas according to protection rating IP 65. Protection class II.

LIGHTING TECHNOLOGY

Cover screen made of single pane safety glass clear or PC (fracture proof), clear with internal aluminium reflector (MIRO-SILVER®).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230-240 V AC/DC, optionally suitable for emergency lighting. Two cable glands on face side M20 and 5 x 2.5 mm² through wiring. Two additional, concealed cable glands M20 at rear.

MOUNTING

Single mounting. Ceiling or wall fixing using aluminium mounting clamp.

URANUS PF

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
077	7500	49	-25 °C bis +45 °C	968 077 1 A B9 -H1
113	11400	72	-25 °C bis +45 °C	968 113 1 A B9 -H1
150	15100	95	-25 °C bis +45 °C	968 150 1 A B9 -H1

When ordering, please replace the highlighted letters with the corresponding numbers.

Colour temperature / A

3 = 830/3000 K
4 = 840/4000 K
5 = 850/5000 K

Cover screen / B

4 = PC (fracture proof) clear
6 = Single pane safety glass clear

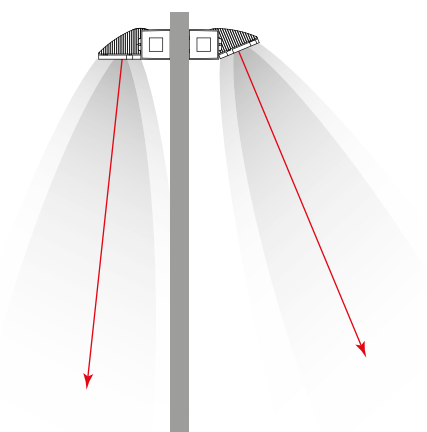
URANUS PF OPTIONS

Version	Article no.
Cover coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	967 010
DALI	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
RAL finish	967 960
Swimming pool version	967 036
Version for operating with PASSAU LED	See PASSAU LED



> Aluminium mounting clamps, included in scope of delivery

URANUS PF – SAMPLE OF APPLICATION



> Illumination of car parks and forecourts with URANUS PF, external rotation in 12 x 7.5° stages



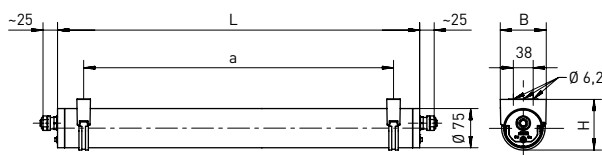


MARKT
(PYRA

High IP protection ratings protect the inner workings of the lighting against fine dusts such as brake dust from trams and underground trains.

ZUG LED

LED



- FOCUSSED LIGHTING**
(see appendix D)
 - XARA® lighting control**
(optional)
 - Further colour temperatures**
(optional)
- medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m600	802 mm	89 mm	97 mm	700 ± 25 mm	2.7 kg
LED	m1200	1412 mm	89 mm	97 mm	1310 ± 25 mm	3.9 kg
LED	m1500	1712 mm	89 mm	97 mm	1610 ± 25 mm	4.9 kg

AREAS OF APPLICATION

Tubular luminaire with LED lamps. Useable in industrial applications, in work pits used for maintenance and repair work and for decorative indoor and outdoor lighting with special requirements, such as swimming pools (see options). Useable in production facilities and suppliers in the food and beverage industry.

HOUSING

Polymer luminaire tube (Ø 75 mm) with two quick-mounting pressure caps and protection against unauthorised opening. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Resistant to pressurised water up to 20 m; due to protection rating IP 68, 20 m. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K.

LIGHTING TECHNOLOGY

Luminaire tube made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof), homogeneous illumination.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. One cable gland M20 per face side and 4 x 1.5 mm² through wiring. 2 kV transient filter.

MOUNTING

Single or row mounting. Ceiling or wall fixing using two mounting clamps made of stainless steel and black and transparent polymer with variable mounting distance.

ZUG LED

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 □ 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C bis +40 °C	775 280 34 A4 -E-
m1200 □ 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C bis +40 °C	775 480 34 A4 -E-
m1500 □ 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C bis +40 °C	775 680 34 A4 -E-

Standard luminous flux T8, for other lumen packages, see appendix D

When ordering, please replace the highlighted letters with the corresponding numbers.

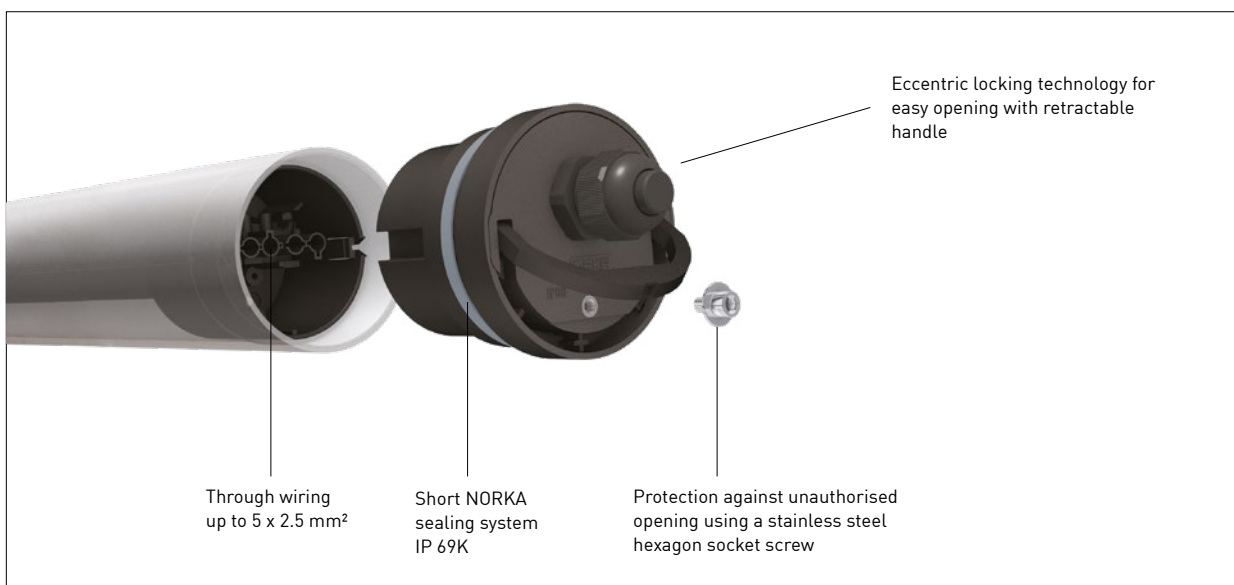
Luminaire tube / A

2 = PMMA Transopal® (impact strengthened)

8 = PC Tropol® (fracture proof)

ZUG LED OPTIONS

Version	Article no.
4 kV transient filter	100 530
DALI (through wiring includes 2 x 1.5 mm ² control line)	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Halogen-free version	770 035
HCL (Human Centric Lighting)	Available on request
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Luminaire tube coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	775 010
Swimming pool version without polymer mounting clamps	770 038
Through wiring 4 x 2.5 mm ²	775 981
Through wiring 5 x 1.5 mm ²	775 831
Through wiring 5 x 2.5 mm ²	775 392
Version for operating with PASSAU LED	See PASSAU LED



> ZUG LED quick-mounting pressure cap

For additional articles, please turn the page! ►

ZUG LED ACCESSORIES

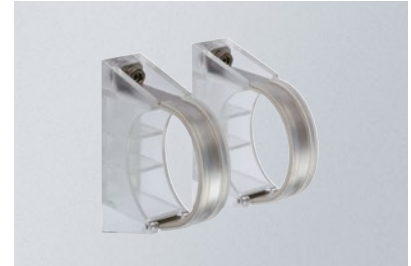
Version	Article no.
Mounting bracket, chlorine resistant, polymer grey, Ø 75 mm, for ceiling- and wall-mounting (pair)	770 210
Mounting clamp stainless steel/transparent polymer (pair), (not suitable for a chlorinated atmosphere)	770 208
Mounting clamps, stainless steel V4A, angled (pair), (not suitable for chlorine atmosphere)	770 118
Mounting clamps, stainless steel/black polymer (pair), (not suitable for chlorine atmosphere)	770 209
Quick mounting clamp (pair), (not suitable for chlorine atmosphere)	770 211
Suspension system for 1 m suspension with stainless steel clamps (pair), (not suitable for chlorine atmosphere)	770 166



> Mounting clamps stainless steel and black and transparent polymer (pair), (not suitable for chlorine atmosphere), included in scope of delivery



> Mounting bracket, chlorine resistant, polymer grey, Ø 75 mm, for ceiling- and wall-mounting (pair), Article no. 770 210



> Mounting clamp stainless steel/transparent polymer (pair), (not suitable for chlorine atmosphere), Article no. 770 208



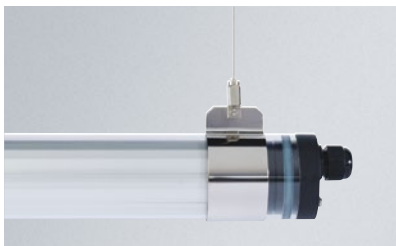
> Mounting clamps, stainless steel V4A, angled (pair), (not suitable for chlorine atmosphere), Article no. 770 118



> Mounting clamps stainless steel/black polymer (pair), (not suitable for chlorine atmosphere), Article no. 770 209



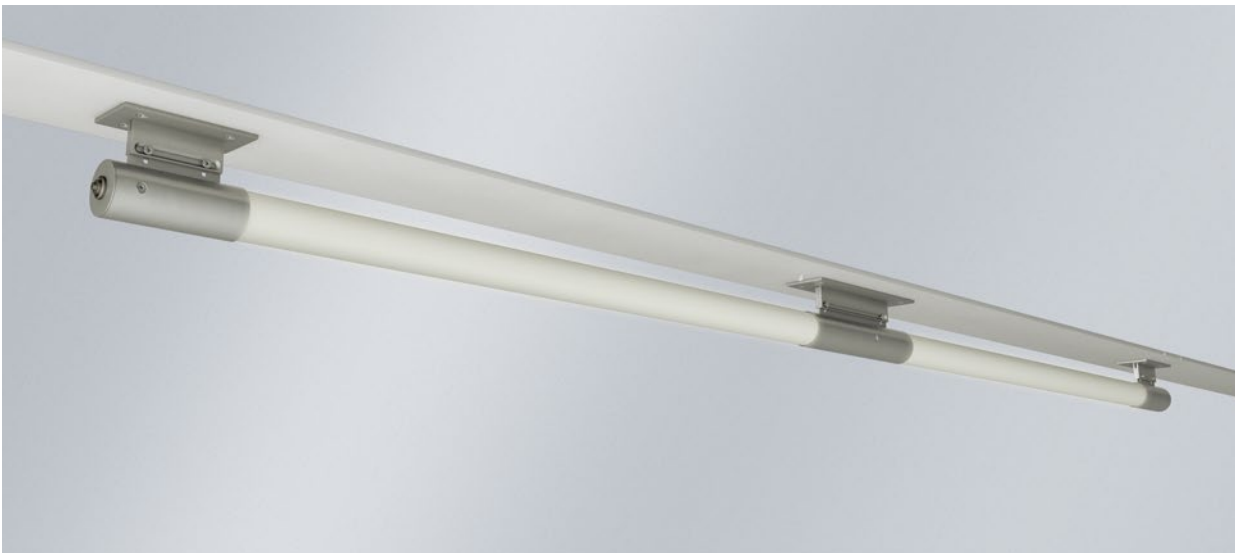
> Quick mounting clamp (pair), (not suitable for chlorine atmosphere), Article no. 770 211



> Suspension system for 1 m suspension with stainless steel clamps (pair), (not suitable for chlorine atmosphere), Article no. 770 166

ZUG LED ACCESSORIES

Version	Article no.
Center piece (not suitable for chlorine atmosphere)	775 008
End cap with internal luminaire fastening clamp (fixes the luminaire in 5 x 45° steps for a uniform appearance in the continuous row system), (not suitable for chlorine atmosphere)	775 007
End cap without luminaire fastening clamp (not suitable for chlorine atmosphere)	775 009



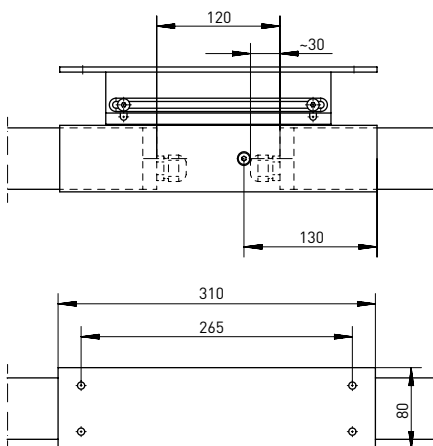
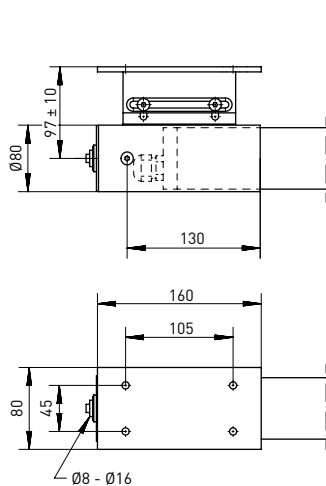
> Stainless steel suspension system with end cap and centre piece (not suitable for chlorine atmosphere)



> End cap (not suitable for chlorine atmosphere)
Article no. 775 007 with internal luminaire fastening clamp
Article no. 775 009 without luminaire fastening clamp

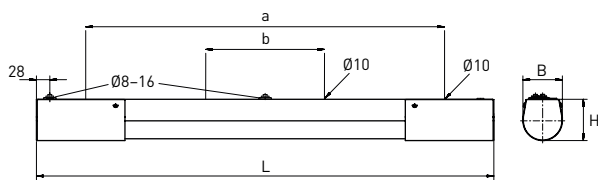
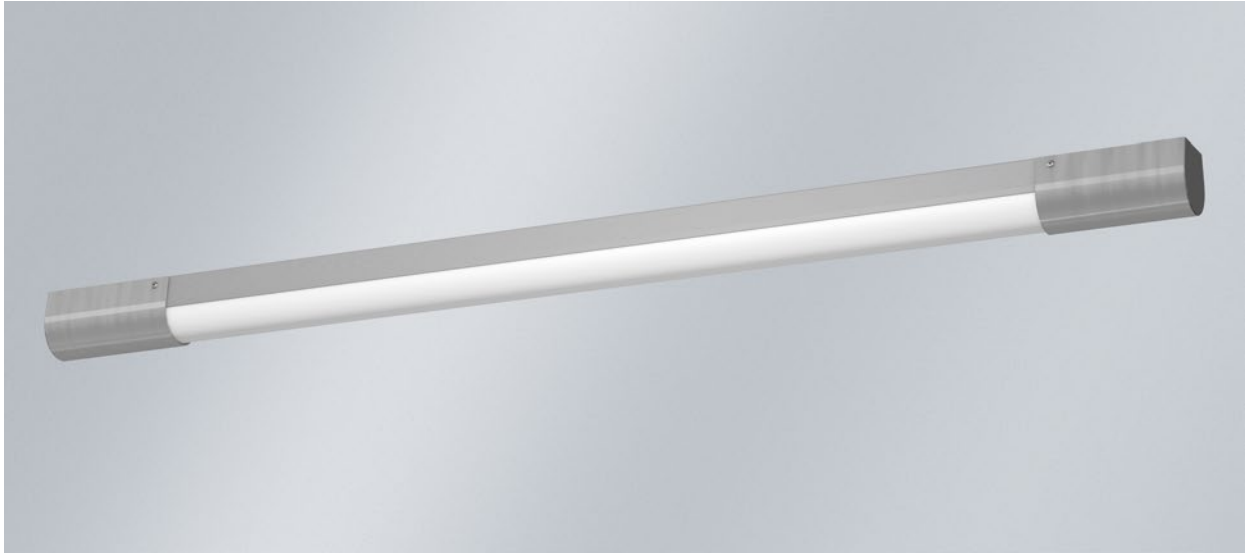


> Centre piece (not suitable for chlorine atmosphere)
Article no. 775 008



ZUG LED AL

LED



- **FOCUSED LIGHTING**
[see appendix D]
- **K** Further colour temperatures (optional)
- medium beam

Lamp	Version	L	B	H	a	b	Max. weight
LED	m600	956 mm	82.5 mm	86 mm	750 mm	-	5.7 kg
LED	m1200	1566 mm	82.5 mm	86 mm	1350 mm	360 mm	8.0 kg

AREAS OF APPLICATION

Extremely impact-resistant surface mounted ceiling luminaire with LED lamps. Vandalism-proof up to 50 joules. Useable in prisons, detention cells and all areas at risk of deliberate or negligent destruction.

HOUSING

Polymer luminaire tube (Ø 75 mm) with two quick-mounting pressure caps in vandalism-proof, polished stainless steel housing. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Resistant to pressurised water to 20 m due to protection rating IP 68, 20 m. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K. Anti-graffiti coating for luminaire tube protects against dirt and paint residue, optionally available (see options).

LIGHTING TECHNOLOGY

4 mm thick cover screen made of PC Tropol® (fracture proof).

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Luminaire housing with three rear-side cable entries M20 and 4 x 1.5 mm² through wiring.

MOUNTING

Single mounting. Ceiling or wall mounting with two or four concealed rearward mounting apertures.

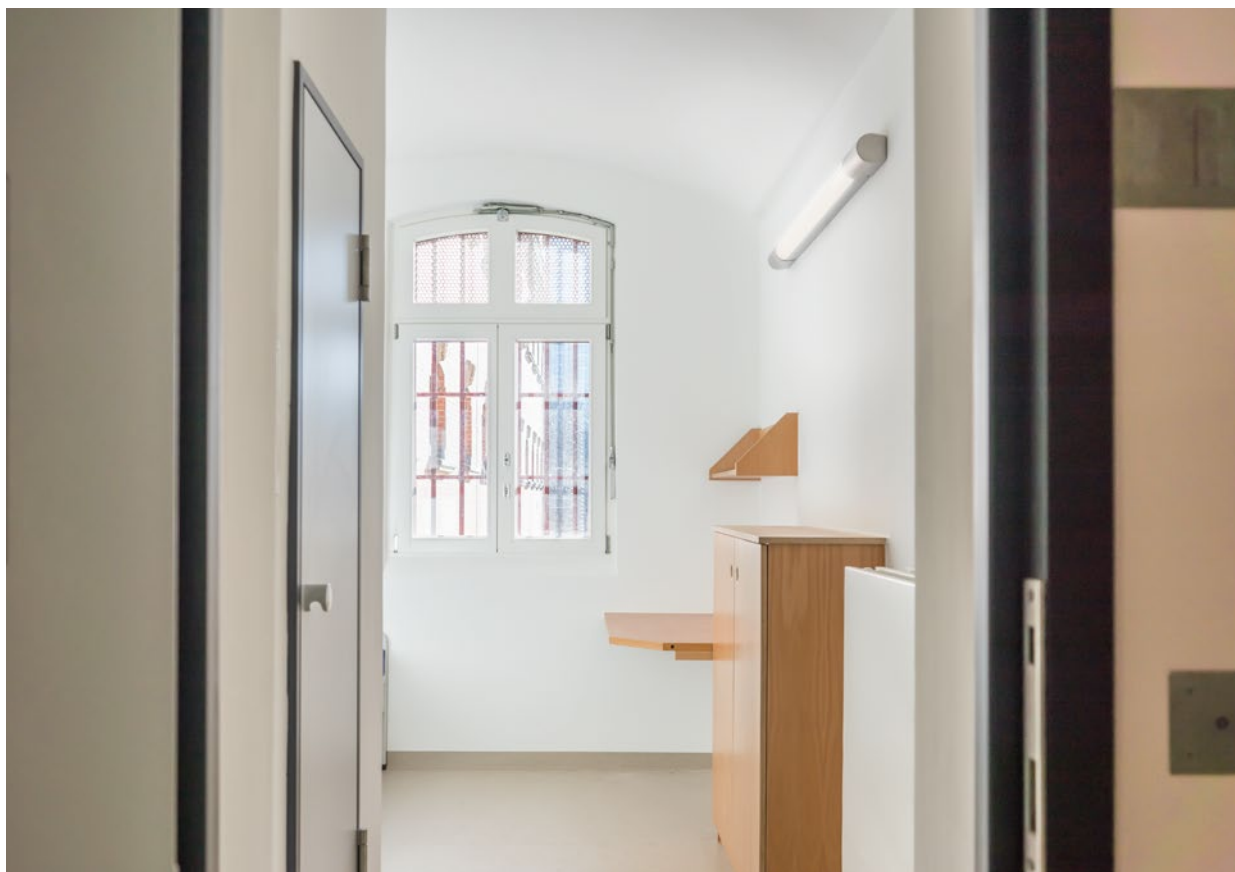
ZUG LED AL

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.+ MC
m600 <input type="checkbox"/> 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C bis +40 °C	722 280 34 84 - E - ...
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C bis +40 °C	722 480 34 84 - E - ...

■ Standard luminous flux T8, for other lumen packages, see appendix D

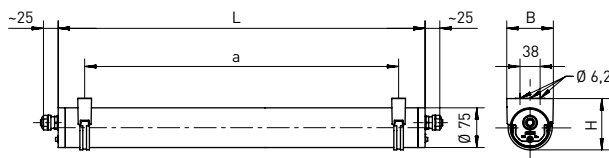
ZUG LED AL OPTIONS

Version	Article no.
4 kV transient filter	100 530
DALI (through wiring includes 2 x 1.5 mm ² control line)	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Further colour temperatures	See appendix C
Halogen-free version	770 035
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Luminaire tube coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	775 010
Through wiring 4 x 2.5 mm ²	775 981
Through wiring 5 x 1.5 mm ²	775 831
Through wiring 5 x 2.5 mm ²	775 392
Version for operating with PASSAU LED	See PASSAU LED



ZUG LED EXTREME

LED



K Further colour temperatures (optional)



medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1412 mm	89 mm	97 mm	1310 ± 25 mm	4.0 kg
LED	m1500	1712 mm	89 mm	97 mm	1610 ± 25 mm	4.9 kg

AREAS OF APPLICATION

Tubular luminaire with LED lamps. Useable in industrial applications, in work pits used for maintenance and repair work and for decorative indoor and outdoor lighting with special requirements, such as swimming pools (see options). **Long expected service life, useable up to +65 °C.**

HOUSING

Polymer luminaire tube (Ø 75 mm) with two quick-mounting pressure caps and protection against unauthorised opening. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Resistant to pressurised water up to 20 m; due to protection rating IP 68, 20 m. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K.

LIGHTING TECHNOLOGY

Luminaire tube made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof), homogeneous illumination.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. One cable gland M20 per face side and 4 x 1.5 mm² through wiring.

L80 B10 > 100.000 h at +65 °C. 4 kV transient filter. 8 years warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing using two mounting clamps made of stainless steel and black and clear polymer with variable mounting distance.

ZUG LED EXTREME

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 □ 840/4000 K	4030	28	-40 °C bis +65 °C	777 480 34 A1
m1500 □ 840/4000 K	5050	35	-40 °C bis +65 °C	777 680 34 A1

When ordering, please replace the highlighted letters with the corresponding numbers.

Luminaire tube / A

2 = PMMA Transopal® (impact strengthened)

8 = PC Tropol® (fracture proof)

ZUG LED EXTREME OPTIONS

Version	Article no.
DALI (through wiring includes 2 x 1.5 mm ² control line)	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Halogen-free version	770 035
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Luminaire tube coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	775 010
Swimming pool version without polymer mounting clamps	770 038
Through wiring 4 x 2.5 mm ²	775 981
Through wiring 5 x 1.5 mm ²	775 831
Through wiring 5 x 2.5 mm ²	775 392
Version for operating with PASSAU LED	Available on request

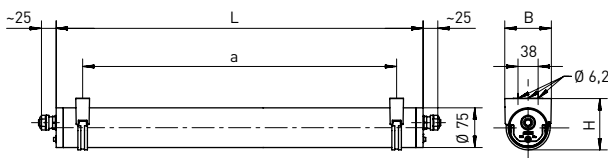
ZUG LED EXTREME ACCESSORIES

Version	Article no.
Center piece (not suitable for chlorine atmosphere)	775 008
End cap with internal luminaire fastening clamp (fixes the luminaire in 5 x 45° steps for a uniform appearance in the continuous row system), (not suitable for chlorine atmosphere)	775 007
End cap without luminaire fastening clamp (not suitable for chlorine atmosphere)	775 009
Mounting bracket, chlorine resistant, polymer grey, Ø 75 mm, for ceiling- and wall-mounting (pair)	770 210
Mounting clamp stainless steel/transparent polymer (pair), (not suitable for a chlorinated atmosphere)	770 208
Mounting clamps, stainless steel V4A, angled (pair), (not suitable for chlorine atmosphere)	770 118
Mounting clamps, stainless steel/black polymer (pair), (not suitable for chlorine atmosphere)	770 209
Quick mounting clamp (pair), (not suitable for chlorine atmosphere)	770 211
Suspension system for 1 m suspension with stainless steel clamps (pair), (not suitable for chlorine atmosphere)	770 166

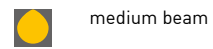
Images of
accessories
see ZUG LED

ZUG LED HIGH OUTPUT

LED



- XARA® lighting control** (optional)
- Further colour temperatures (optional)



medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1412 mm	89 mm	97 mm	1310 ± 25 mm	4.0 kg
LED	m1500	1712 mm	89 mm	97 mm	1610 ± 25 mm	4.9 kg

AREAS OF APPLICATION

Tubular luminaire with LED lamps. Useable in industrial applications and for areas with special safety requirements and special demands on the illumination level from great mounting heights. **Useable up to +35 °C.**

HOUSING

Polymer luminaire tube (Ø 75 mm) with two quick-mounting pressure caps and protection against unauthorised opening. Useable in indoor and outdoor areas according to IP 65, IP 66 and IP 67. Resistant to pressurised water up to 20 m due to protection rating IP 68 rating, 20 m. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K.

LIGHTING TECHNOLOGY

Luminaire tube made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof), homogeneous illumination.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. Two face side cable glands (M20) and 4 x 1.5 mm² through wiring.

L80 B10 > 100.000 h at +35 °C.

4 kV transient filter. 8 years warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing using two mounting clamps made of stainless steel/polymer black/clear with variable mounting distance.

ZUG LED HIGH OUTPUT

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 H01 □ 840/4000 K	5330	38	-40 °C bis +35 °C	778 480 34 A1 - 5330lm
m1200 H02 □ 840/4000 K	6610	48	-40 °C bis +35 °C	778 480 34 A1 - 6610lm
m1200 H03 □ 840/4000 K	7900	58	-40 °C bis +35 °C	778 480 34 A1 - 7900lm
m1500 H01 □ 840/4000 K	6600	47	-40 °C bis +35 °C	778 680 34 A1 - 6600lm
m1500 H02 □ 840/4000 K	11490	85	-40 °C bis +35 °C	778 680 34 A1 - 11490lm
m1500 H03 □ 840/4000 K	13100	97	-40 °C bis +35 °C	778 680 34 A1 - 13100lm

When ordering, please replace the highlighted letters with the corresponding numbers.

Luminaire tube / A

2 = PMMA Transopal® (impact strengthened)

8 = PC Tropolal® (fracture proof)

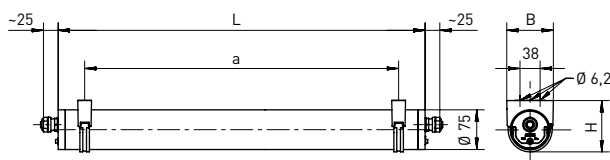
ZUG LED HIGH OUTPUT OPTIONS

Version	Article no.
DALI (through wiring includes 2 x 1.5 mm ² control line)	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Halogen-free version	770 035
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Integrated light- and motion sensor XARA®	Available on request
Luminaire tube coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	775 010
Swimming pool version without polymer mounting clamps	770 038
Through wiring 4 x 2.5 mm ²	775 981
Through wiring 5 x 1.5 mm ²	775 831
Through wiring 5 x 2.5 mm ²	775 392
Version for operating with PASSAU LED	Available on request


ZUG LED HIGH OUTPUT ACCESSORIES

Version	Article no.
Center piece (not suitable for chlorine atmosphere)	775 008
End cap with internal luminaire fastening clamp (fixes the luminaire in 5 x 45° steps for a uniform appearance in the continuous row system), (not suitable for chlorine atmosphere)	775 007
End cap without luminaire fastening clamp (not suitable for chlorine atmosphere)	775 009
Mounting bracket, chlorine resistant, polymer grey, Ø 75 mm, for ceiling- and wall-mounting (pair)	770 210
Mounting clamp stainless steel/transparent polymer (pair), (not suitable for a chlorinated atmosphere)	770 208
Mounting clamps, stainless steel V4A, angled (pair), (not suitable for chlorine atmosphere)	770 118
Mounting clamps, stainless steel/black polymer (pair), (not suitable for chlorine atmosphere)	770 209
Quick mounting clamp (pair), (not suitable for chlorine atmosphere)	770 211
Suspension system for 1 m suspension with stainless steel clamps (pair), (not suitable for chlorine atmosphere)	770 166

Images of accessories see ZUG LED



 **XARA® lighting control**
(optional)

 medium beam

Lamp	Version	L	B	H	a	Max. weight
LED	m1200	1412 mm	89 mm	97 mm	1310 ± 25 mm	4.0 kg
LED	m1500	1712 mm	89 mm	97 mm	1610 ± 25 mm	4.9 kg

AREAS OF APPLICATION

Tubular luminaire with LED lamps. Useable in industrial applications, in work pits used for maintenance and repair work and for decorative indoor and outdoor lighting with special requirements, such as swimming pools (see options). **Long expected service life, useable up to +55 °C.**

HOUSING

Polymer luminaire tube (Ø 75 mm) with two quick-mounting pressure caps and protection against unauthorised opening. Useable for indoor and outdoor areas according to protection rating IP 65, IP 66 and IP 67. Resistant to pressurised water up to 20 m due to protection rating IP 68, 20 m. Suitable for intensive cleaning processes using pressure washers due to high protection rating IP 69K.

LIGHTING TECHNOLOGY

Luminaire tube made of PMMA Transopal® (impact strengthened) or PC Tropol® (fracture proof), homogeneous illumination.

ELECTRICAL CONSTRUCTION

Luminaire ready for mounting and installation. Built-in driver 230 V AC/DC, optionally suitable for emergency lighting. One cable gland M20 per face side and 4 x 1.5 mm² through wiring.

L80 B10 > 75,000 h at +55°C. 4 kV transient filter. 8 years manufacturer warranty.

MOUNTING

Single or row mounting. Ceiling or wall fixing using two mounting clamps made of stainless steel and black and clear polymer with variable mounting distance.

ZUG LED INDUSTRY

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
m1200 □ 840/4000 K	4640	27	-40 °C bis +55 °C	779 480 34 A4 -E-4640lm
m1200 □ 840/4000 K	8300	48	-40 °C bis +55 °C	779 480 34 A4 -E-8300lm
m1500 □ 840/4000 K	6300	36	-40 °C bis +55 °C	779 680 34 A4 -E-6300lm
m1500 □ 840/4000 K	10380	60	-40 °C bis +55 °C	779 680 34 A4 -E-10380lm

When ordering, please replace the highlighted letters with the corresponding numbers.

Luminaire tube / A

2 = PMMA Transopal® (impact strengthened)

8 = PC Tropolal® (fracture proof)

ZUG LED INDUSTRY OPTIONS

Version	Article no.
DALI (through wiring includes 2 x 1.5 mm ² control line)	100 502
Emergency lighting version (Please specify precise specifications in your inquiry)	Available on request
Halogen-free version	770 035
Inrush current limiter ESSB II v2 (including 4 kV transient filter)	100 922
Luminaire tube coated, increased resistance to acids, bases, cleaning agents (anti-graffiti coating)	775 010
Swimming pool version without polymer mounting clamps	770 038
Through wiring 4 × 2.5 mm ²	775 981
Through wiring 5 × 1.5 mm ²	775 831
Through wiring 5 × 2.5 mm ²	775 392
Version for operating with PASSAU LED	Available on request

ZUG LED INDUSTRY ACCESSORIES

Version	Article no.
Center piece (not suitable for chlorine atmosphere)	775 008
End cap with internal luminaire fastening clamp (fixes the luminaire in 5 x 45° steps for a uniform appearance in the continuous row system), (not suitable for chlorine atmosphere)	775 007
End cap without luminaire fastening clamp (not suitable for chlorine atmosphere)	775 009
Mounting bracket, chlorine resistant, polymer grey, Ø 75 mm, for ceiling- and wall-mounting (pair)	770 210
Mounting clamp stainless steel/transparent polymer (pair), (not suitable for a chlorinated atmosphere)	770 208
Mounting clamps, stainless steel V4A, angled (pair), (not suitable for chlorine atmosphere)	770 118
Mounting clamps, stainless steel/black polymer (pair), (not suitable for chlorine atmosphere)	770 209
Quick mounting clamp (pair), (not suitable for chlorine atmosphere)	770 211
Suspension system for 1 m suspension with stainless steel clamps (pair), (not suitable for chlorine atmosphere)	770 166

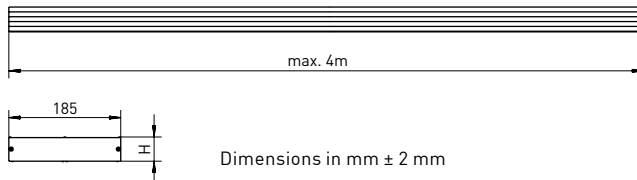
Images of
accessories
see ZUG LED





Mounting rails and trunking systems are used in numerous environments, for example to compensate for structural conditions and simplify installation, as here in a salt mine.

TRUNKING SYSTEM 185



Version	H	Weight	Article no.
Trunking system, aluminium, per metre or part thereof	40 mm	2.6 kg/m	580 100
Trunking system, aluminium, per metre or part thereof	70 mm	3.2 kg/m	580 150

AREAS OF APPLICATION

Trunking system with a module width of 185 mm. Mounting accessories for the DUBLIN LED luminaires. Useable in underground and suburban railway stations, pedestrian underpasses and tunnels, passages, swimming pools, transport areas and under canopies.

HOUSING

Anodised silver extruded aluminium profile in customisable lengths with two subdivided cable ducts or the separate laying of cables for various applications and equipment. Cables and wires are fixed using the four enclosed cable holders in the installation grooves, depending on the standard length.

MOUNTING

Row mounting. Ceiling installation via rear fixing points, spacing depending on the mounting situation (on site). Suspension system possible (on site).

TRUNKING SYSTEM 185 ACCESSORIES

Version	Module size	Weight	Article no.
Additional cable holder for trunking system 185			580 105
Blind cover for trunking system 185, aluminium, height 70 mm, with fixing, pre-cut (max. 2.0 m), per metre or part thereof	pre-cut max. 2.0 m	3.2 kg/m	580 114
Cover plate for trunking system 185, aluminium, 2 mm, per metre or part thereof	pre-cut max. 2.0 m	1.0 kg/m	580 102
End cap for trunking system 185, height 40 mm, incl. mounting parts			580 101
End cap for trunking system 185, height 70 mm, incl. mounting parts			583 101
Speaker housing with aluminium shutter for trunking system 185, 300 x 185 x 70 mm, perforated			580 115
Threaded eyebolt M8 x 30, galvanised steel, for on-site suspension system			200 458



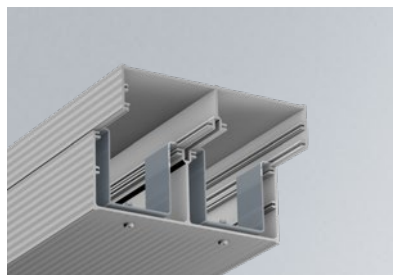
> Cover plate for trunking system 185, aluminium, Article no. 580 102



> Speaker housing with aluminium shutter, Article no. 580 115

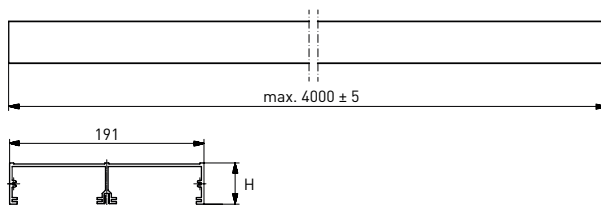


> Blind cover aluminium, 70 mm, Article no. 580 114



> Fixing for blind cover, included in blind cover

TRUNKING SYSTEM 191



Version	H	Weight	Article no.
Trunking system, aluminium, per metre or part thereof	40 mm	2.5 kg/m	466 100

AREAS OF APPLICATION

Trunking system with a module width of 191 mm. Mounting accessories for the MÜNCHEN LED luminaires. Useable in underground and suburban railway stations, pedestrian underpasses and tunnels, passages, swimming pools, transport areas and under canopies.

HOUSING

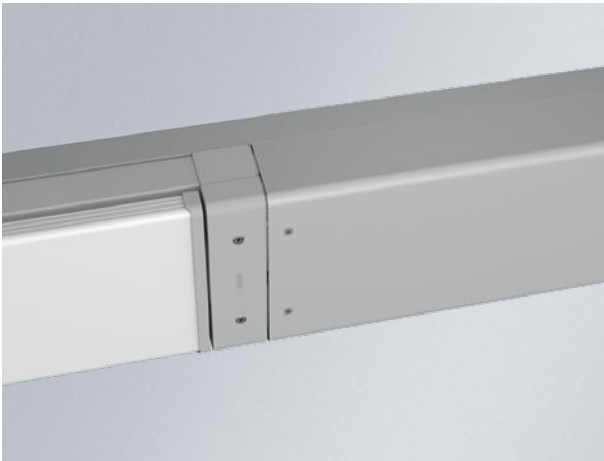
Anodised silver extruded aluminium profile in customisable lengths with two subdivided cable ducts or the separate laying of cables for various applications and equipment. Cables and wires are fixed using the four enclosed cable holders in the installation grooves, depending on the standard length.

MOUNTING

Row mounting. Ceiling installation via rear fixing points, spacing depending on the mounting situation (on site). Suspension system possible (on site).

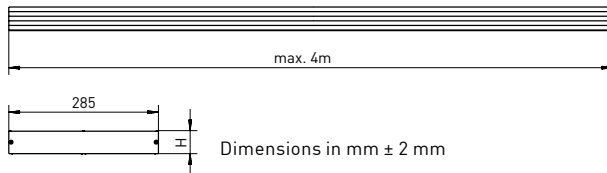
TRUNKING SYSTEM 191 ACCESSORIES

Version	Module size	Weight	Article no.
Additional cable holder for trunking System 191			466 105
Blind cover for trunking system 191, aluminium, height 80 mm, with fixing, pre-cut (max. 2.0 m)	pre-cut max. 2.0 m	3.1 kg/m	466 114
End cap for trunking system 191, height 40 mm, incl. mounting parts			466 101
Threaded eyebolt M8 × 30, galvanised steel, for on-site suspension system			200 458



- > MÜNCHEN LED in colour-coordinated RAL-finish on trunking system 191 with blind cover

TRUNKING SYSTEM 285



Version	H	Weight	Article no.
Trunking system, aluminium, per metre or part thereof	40 mm	4.0 kg/m	610 100
Trunking system, aluminium, per metre or part thereof	70 mm	5.3 kg/m	610 150

AREAS OF APPLICATION

Trunking system with a module width of 285 mm. Mounting accessories for the luminaires TALON and LONDON LED. Useable in underground and suburban railway stations, pedestrian underpasses and tunnels, passages, swimming pools, transport areas and under canopies.

HOUSING

Anodised silver extruded aluminium profile in customisable lengths with four subdivided cable ducts or the separate laying of cables for various applications and equipment. Cables and wires are fixed using the four enclosed cable holders in the installation grooves, depending on the standard length.

MOUNTING

Row mounting. Ceiling installation via rear fixing points, spacing depending on the mounting situation (on site). Suspension system possible (on site).



Subject to technical changes. Please refer to our homepage for current data. Product illustrations similar, project illustrations may contain special equipment.

TRUNKING SYSTEM 285 ACCESSORIES

Version	Module size	Weight	Article no.
Additional cable holder for trunking system 285			610 105
Blind cover for trunking system 285, aluminium, height 70 mm, with fixing, pre-cut (max. 2.0 m)	pre-cut max. 2.0 m	5.3 kg/m	611 114
Cover plate for trunking system 285, aluminium, 2 mm, per metre or part thereof	pre-cut max. 2.0 m	1.5 kg/m	610 102
End cap for trunking system 285, height 40 mm, incl. mounting parts			610 101
End cap for trunking system 285, height 70 mm, incl. mounting parts			611 101
Speaker housing with aluminium shutter for trunking system 285, 300 x 285 x 70 mm, perforated		3.9 kg/m	611 115
Threaded eyebolt M8 x 30, galvanised steel, for on-site suspension system			200 458



> Cover plate, aluminium, 2 mm, Article no. 610 102



> Speaker housing with aluminium shutter, perforated Article no. 611 115

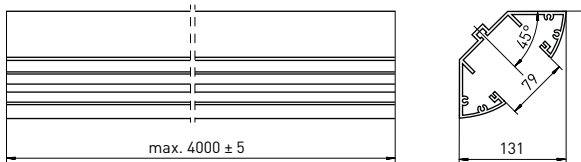


> Blind cover aluminium, 70 mm high, Article no. 611 114



> Fixing for blind cover

TRUNKING SYSTEM BELFAST



Version	H	Weight	Article no.
Trunking system, aluminium, per metre or part thereof	131 mm	4.5 kg/m	650 100

AREAS OF APPLICATION

Trunking system with a module width of 131 mm. Mounting accessories for luminaire BELFAST for corner mounting. Useable in prisons, detention cells and all areas at risk of deliberate or negligent destruction, as well as passages and pedestrian tunnels.

HOUSING

Anodised silver extruded aluminium profile in customisable lengths with two subdivided cable ducts. Cables and wires are fixed using the enclosed cable holders in the installation grooves, depending on the standard length.

MOUNTING

Row mounting. Corner installation via rear fixing points, spacing depending on the mounting situation.

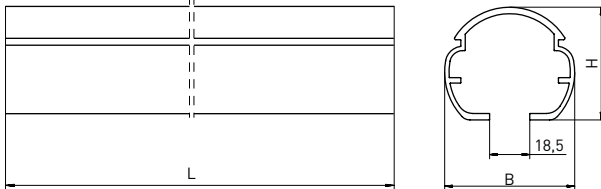
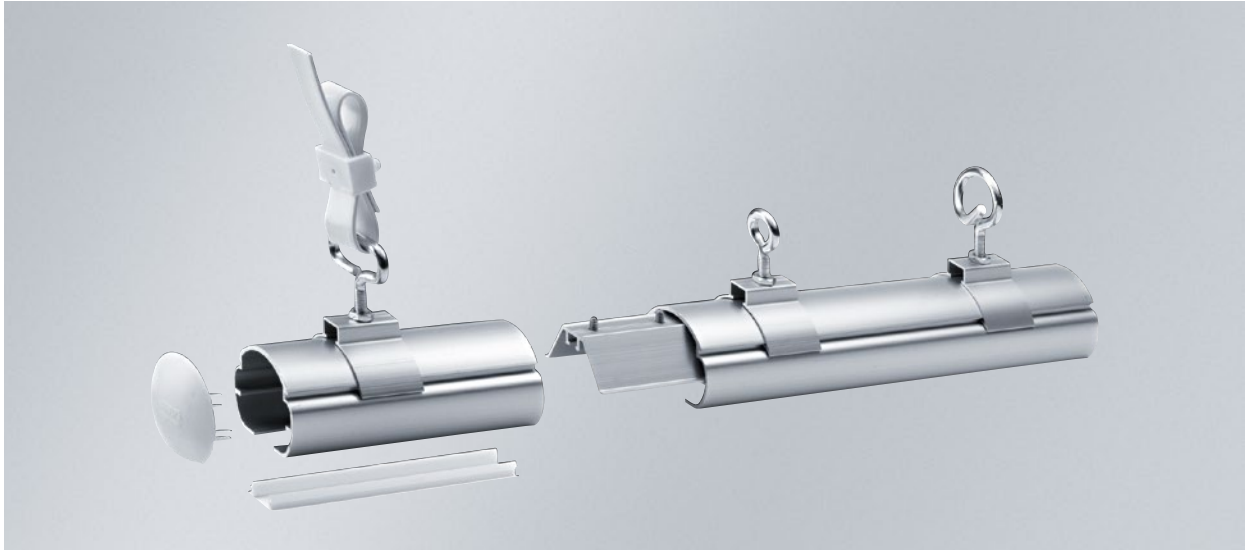
TRUNKING SYSTEM BELFAST ACCESSORIES

Version	Module size	Weight	Article no.
Blind cover for trunking system BELFAST, stainless steel, height 20 mm, with fixing, pre-cut (max. 2.0 m), per metre or part thereof	pre-cut max. 2.0 m	4.5 kg/m	650 114
End cap for trunking system BELFAST incl. mounting parts			650 115



> Blind cover made of stainless steel, Article no. 650 114





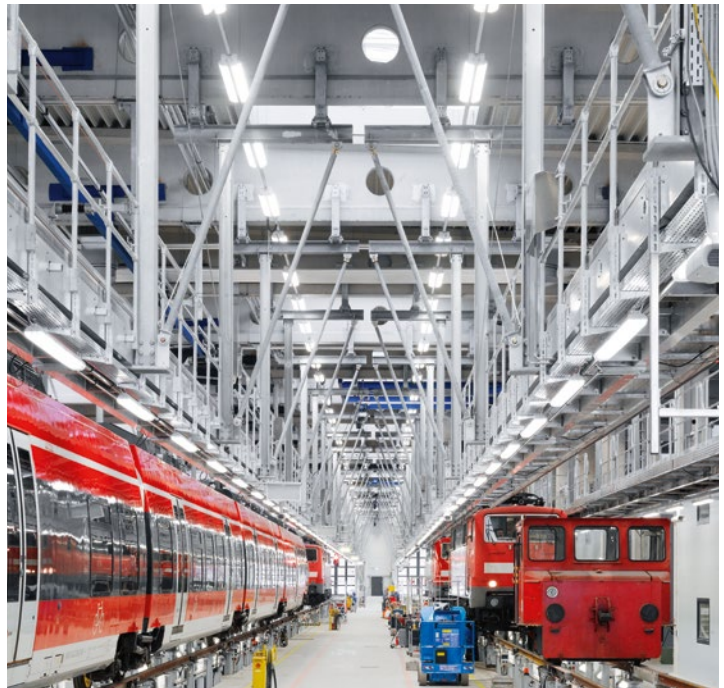
Version	L	B	H	Weight	Article no.
Mounting rail, aluminium	3000 mm	60 mm	60 mm	1.2 kg/m	200 550-3
Mounting rail, aluminium	6000 mm	60 mm	60 mm	1.2 kg/m	200 550-6
Mounting rail, aluminium, further lengths	Available on request	60 mm	60 mm	1.2 kg/m	Available on request

MATERIAL

Aluminium corrosion resistant, available in standard lengths of 3.0 m and 6.0 m. Round cross-section with smooth upper surface: dust repellent, easy cleaning and removal of deposits (hygiene friendly). Ø 60 mm.

MOUNTING

Profile connectors, mounting rail flanges and ceiling flanges. Polymer wide pendant with internal steel wires available on request. Maximum pendant spacing beneath each other 3.0 m, sliding profile nuts (luminaire holders) for attaching the luminaires, option of feeding through cables.



MOUNTING RAIL ALUMINIUM ACCESSORIES

Version	Article no.
Cable holder for mounting rail	200 593
Ceiling flange, polymer white, for wide pendant	200 290
Cover strip, polymer, 3.0 m	200 556-3
End cap, polymer, for front sealing of mounting rail	200 552
Mounting rail flange for pendant installation, stainless steel, with bracket screw, M8 x 30, galvanised, for polymer wide pendant	200 554
Mounting rail flange for suspension system, stainless steel, with M8 x 30 hook, galvanised, for customary wire or chain pendant	200 560
Mounting rail flange for suspension system, stainless steel, with threaded M8 x 30 eyelet, galvanised	200 555
Mounting rail flange, stainless steel, for direct ceiling installation	200 761
Profile connector, untreated aluminium, for connecting two mounting rail sections	200 551
Protective earth conductor connection, aluminium, with mark (1 per continuous row)	200 557
Pendant lock, polymer white, with cable clamps	200 294
Pendant lock, polymer white, without cable clamps	200 295
Schuko socket, IP 54, with mounting flange	200 591
Wide pendant, polymer white, with internal steel cores, by the meter, available in reels of 50 m (0.5 m per pendant required for looping)	200 280
Wide pendant, polymer white, with internal steel cores, with ceiling and mounting rail flange for 1.0 m suspension, as initial pendant (with cable clamps)	200 558
Wide pendant, polymer white, with internal steel cores, with ceiling and mounting rail flange for 1.0 m suspension, as intermediate or end pendant (without cable clamps)	200 559



> Article no. 200 556



> Article no. 200 557



> Article no. 200 593



> Article no. 200 753



> Article no. 200 551



> Article no. 200 591



> Article no. 200 761



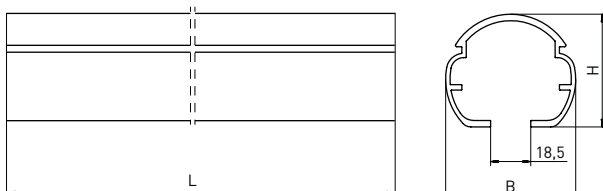
> Article no. 200 554



> Article no. 200 555



> Article no. 200 560



Version	L	B	H	Weight	Article no.
Mounting rail, polymer	4000 mm	60 mm	52 mm	1.1 kg/m	200 750-3
Mounting rail, polymer	6000 mm	60 mm	52 mm	1.1 kg/m	200 750-6
Mounting rail, polymer, further lengths	Available on request	60 mm	52 mm	1.1 kg/m	Available on request

MATERIAL

Fibreglass-reinforced polyester, white, corrosion resistant, available in standard lengths of 4.0 m and 6.0 m. Round cross-section with smooth upper surface: dust repellent, easy cleaning and removal of deposits, (particularly suitable high level hygiene areas), Ø 60 mm.

MOUNTING

Profile connectors, mounting rail flanges and ceiling flanges. Polymer wide pendant with internal steel wires available on request. Maximum pendant spacing beneath each other 2.0 m, sliding profile nuts (luminaire holders) for attaching the luminaires, option of feeding through cables.



POLYMER MOUNTING RAIL OPTIONS

Version	Article no.
Swimming pool version	Available on request

POLYMER MOUNTING RAIL ACCESSORIES

Version	Article no.
Cable holder for mounting rail	200 593
Ceiling flange, white polymer, for wide pendant	200 290
Cover strip, polymer, 3.0 m	200 556-3
End cap, polymer, for front sealing of mounting rail	200 552
Mounting flange for equipment, 4 boreholes M4	200 595
Mounting rail flange for direct ceiling installation, stainless steel	200 761
Mounting rail flange for pendant installation, stainless steel, with bracket screw M8 x 30, stainless steel, for polymer wide pendant	200 754
Mounting rail flange for suspension system, stainless steel, with M8 x 30 hook, stainless steel, for customary wire and cable pendants	200 760
Mounting rail flange for suspension system, stainless steel, with threaded M8 x 30 eyelet, stainless steel	200 755
Profile nut (luminaire holder), polymer, for luminaire fixture with M6 screw, stainless steel (two fixtures required per luminaire)	200 753
Profile connector, stainless steel, for connecting two mounting rail sections	200 751
Pendant lock, polymer white, with cable clamps	200 294
Pendant lock, polymer white, without cable clamps	200 295
Schuko socket, IP 54, with mounting flange	200 591
Wide pendant, polymer white, with internal steel cores, by the metre, available in reels of 50 m (0.5 m per pendant required for looping).	200 280
Wide pendant, polymer white, with internal steel cores, with ceiling and mounting rail flange for 1.0 m suspension, as initial pendant (with cable clamps)	200 758
Wide pendant, polymer white, with internal steel cores, with ceiling and mounting rail flange for 1.0 m suspension, as intermediate or end pendant (without cable clamps)	200 759



> Article no. 200 556



> Article no. 200 593



> Article no. 200 753



> Article no. 200 751



> Article no. 200 591



> Article no. 200 754



> Article no. 200 755



> Article no. 200 760



> Article no. 200 761



Powerful floodlights provide optimum and reliable illumination even from high mounting heights, as in this industrial plant.



INGRESS PROTECTION

As rule, NORKA luminaires are designed for a rated power of 230 V/50 Hz. Versions for other mains voltages and frequencies are available on request.

The ingress protection rating for luminaires is defined in EN 60 598. The products are labelled accordingly with IP codes. The first number indicates the protection against accidental contact and foreign bodies

while the second number refers to protection against water.

When installing the luminaires, the installer has to use all seals and cable entries provided with the luminaire. If these parts are not used or installed improperly, the indicated protection rating is not guaranteed.

Material codes

PMMA	=	polymethyl methacrylate
PC	=	polycarbonate
PBT	=	polyethylene terephthalate
PPO	=	polyphenylene oxide (old designation)
PPE	=	polyphenylene ether (new designation)
GRP	=	fibreglass-reinforced polymer
ALU	=	aluminium

Ingress protection for protection against accidental contact and foreign bodies

1st Index	Protection type Designation	Description
0	No protection	No special protection against injury from inadvertent contact with live or moving parts. No protection against ingress of foreign bodies.
1	Protection against large foreign bodies > 50 mm	Protection against inadvertent body contact of live and internal, moving parts (e.g. hand contact) but no protection against intentional contact with such parts. Protection against ingress of solid foreign bodies with a diameter greater than 50 mm.
2	Protection against medium-sized foreign bodies > 12 mm	Protection against hand contact with live or internal moving parts. Protection against ingress of solid foreign bodies with a diameter greater than 12.5 mm.
3	Protection against small foreign bodies > 2.5 mm	Protection against contact with live or internal moving parts with tools, wires and similar objects with a diameter greater than 2.5 mm. Protection against ingress of solid foreign bodies with a diameter greater than 2.5 mm.
4	Protection against granular foreign bodies > 1 mm	Protection against contact with live or internal moving parts with tools, wires and similar objects with a diameter greater than 1 mm. Protection against ingress of solid foreign bodies with a diameter greater than 1 mm.
5	Protected against dust	Total protection against contact with live or internal, moving parts. Protection against harmful dust deposits. While the ingress of dust is not completely prevented, dust can only enter the device in very small quantities that do not affect its operation.
6	Dust-proof	Total protection against contact with live or internal moving parts. Protection against dust ingress.

Ingress protection for water protection

2nd Index	Protection type Designation	Description
	No protection	No special protection.
1	Protection against vertically falling drops of water	Vertically dripping water must have no harmful effect.
2	Protection against drops of water falling at an angle	Water drops that impact at any angle up to 15° from the vertical must not cause any damage.
3	Protection against direct water spray	Water that impacts at any angle up to 60° from the vertical must not cause damage.
4	Protection against water spray	Water impacting on the luminaire from all directions must not cause any damage.
5	Protection against water jets	Water jets from a nozzle impacting on the luminaire from all directions do not result in water ingress.
6	Protection against flooding	Water temporarily flooding the luminaire (e.g. high water) must not lead to water ingress.
7	Protection against immersion in water	The luminaire is protected against water ingress if the device is immersed for a specific time and at specific pressure conditions in water. Observe the manufacturer instructions!
8	Protection against long periods of immersion under pressure	The luminaire is protected against water ingress if it is immersed at a specific pressure and for an unlimited time in water. Observe the manufacturer instructions!
9K	Protection against water ingress during high-pressure/steam jet cleaning	Hot water (80 °C) impacting from any direction under high pressure (80-100 bar) on the luminaire must not enter.

TABLE OF RESISTANCE

POLYMERS USED IN LUMINAIRE PRODUCTION

Polymer components have become important and proven functional elements in modern luminaire production. They are chosen, processed and used according to the latest technical knowledge.

However, inadmissible stress and exposure to damaging influences reduce the ageing resistance of these parts, which means that the serial polymer components wear much faster.

This table contains a list of materials that are most commonly used in the production of NORKA luminaires. The chemical resistances indicated are guide values only and apply to an ambient temperature of 25 °C.

If luminaires are installed and used according to the instructions, these polymer components will age normally, ensuring consistent reliability.

Please do not hesitate to contact us if you have any problems.

KEY:
■ resistant
 limited resistance
 — not resistant

Chemical substances, alphabetical	Phenolic resin Moulding material	Acrylic glass PMMA	Polycarbonate PC	Polyester	PBT/ Aluminium
Acetone	■	—	—	—	■
Ether	■	—	—	—	■
Alcohol, max. 30%	■	■	■	■	□
Alcohol, concentrated	■	—	—	□	■
Ammonia	■	■	—	□	■
Aniline	—	—	—	—	■
Benzol	■	—	—	—	□
Chloroform	■	—	—	—	■
Acetic acid, max. 5%	■	□	■	■	□
Acetic acid, max. 30%	—	—	—	■	—
Ethylacetate	■	—	—	—	■
Glycerine	■	■	□	■	■
NaCl solution	■	■	■	■	■
Hydrocarbons	■	□	—	□	■
Synthetic alkaline solutions	■	■	□	■	□
Sea water	■	■	■	■	□
Methyl chloride	■	—	—	—	□
Sodium hydroxide 2 %	■	■	—	□	—
Sodium hydroxide 10%	■	■	—	—	—
Normal petrol	■	■	□	■	■
Petroleum ether	■	■	□	■	■
Phenol	□	—	—	—	□
Nitric acid, max. 10%	■	■	■	■	—
Nitric acid, max. 20%	□	□	□	□	—
Hydrochloric acid, max. 15%	■	■	■	■	□
Hydrochloric acid, min. 20%	■	■	—	■	—
Sulphur dioxide	■	—	□	□	□
Sulphuric acid, max. 50%	■	■	■	■	—
Sulphuric acid, max. 70%	■	□	□	■	—
Soda	■	■	■	■	—
Premium petrol	■	■	—	■	■
Carbon tetrachloride	■	—	—	■	■
Oil of turpentine	■	□	□	■	■
Trichloroethylene	■	—	—	—	■
Hydrogen sulphide	■	■	■	■	■

Damaging influence	Possible cause	Effect
Inadmissibly high temperature	- excessive operating voltage - excessive ambient temperature - improper mounting	- deformation - embrittlement - discolouration
Short wave UV radiation	- high pressure mercury lamps with excessive UV radiation component - germicidal lamps	- yellowing - embrittlement
Aggressive substances	- softening agents (released from cable insulation etc.) - use of unsuitable cleaning agents and disinfectants	- crack formation - reduced stability - surface damage

EXPLOSION TEMPERATURE CLASSES

ALLOCATION OF FLAMMABLE GASES AND VAPOURS TO EXPLOSION GROUPS AND TEMPERATURE CLASSES

Explosion group	Temperature classes					
	T1 (450 °C)	T2 (300 °C)	T3 (200 °C)	T4 (135 °C)	T5 (100 °C)	T6 (85 °C)
IIA	Acetone (540 °C)	1,2-dichloroethane (440 °C)	Petrol (220–300 °C)	Acetaldehyde (140 °C)		
	Ammonia (630 °C)	Cyclohexanone (430 °C)	Diesel fuel (220–300 °C)			
	Benzol (555 °C)	i-amylacetate (380 °C)	Aeroplane fuel (220–300 °C)			
	Ethane (515 °C)	n-butane (365 °C)	Heating oil (220–300 °C)			
	Ethylacetate (460 °C)	n-butyl alcohol (340 °C)	n-hexane (240 °C)			
	Acetic acid (485 °C)					
	Carbon oxide (605 °C)					
	Methanol (455 °C)					
	Propane (470 °C)					
	Toluene (535 °C)					
IIB	City gas (560 °C)	Ethanol (425 °C)	Ethyl glycol (235 °C)	Ethyl ether (180 °C)		
		Ethylene (425 °C)	Hydrogen sulphide (270 °C)			
		Ethylene oxide (440 °C)				
IIC	Hydrogen (560 °C)	Acetylene (305 °C)				Carbon disulphide (95 °C)

Temperature class according to: IEC 60079-4	Ignition temperature range	Permissible surface temperature of electrical equipment
T1	> 450 °C	450 °C
T2	> 300 ... ≤ 450 °C	300 °C
T3	> 200 ... ≤ 300 °C	200 °C
T4	> 135 ... ≤ 200 °C	135 °C
T5	> 100 ... ≤ 135 °C	100 °C
T6	> 85 ... ≤ 100 °C	85 °C

Classification of the explosion hazard zones

Gases	Zone 0 is an area where a hazardous explosive atmosphere as a mixture of air and combustible gases, vapours or mists is present continuously, over prolonged periods of time or often.	Zone 1 is an area where during normal operations a hazardous explosive atmosphere as a mixture of air and combustible gases, vapours or mists may form occasionally.	Zone 2 is an area where during normal operations a hazardous explosive atmosphere as a mixture of air and combustible gases, vapours or mists does not normally occur or only briefly.
Dusts	Zone 20 is an area where a hazardous explosive atmosphere in the form of a cloud consisting of combustible dust contained in the air is present continuously, over prolonged periods of time or often.	Zone 21 is an area where during normal operations a hazardous explosive atmosphere in the form of a cloud consisting of combustible dust contained in the air is present occasionally.	Zone 22 is an area where during normal operations a hazardous explosive atmosphere in the form of a cloud consisting of combustible dust contained in the air does not normally occur or only briefly.

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VAT no.: DE 813 557 992

WEEE: DE 140 338 88

TECHNICAL INFORMATION:

Despite all the care taken in producing and copying these catalogue documents, errors cannot be completely ruled out. We reserve the right to make formal and technical changes. Any measurements, weights and design details are provided without obligation. Figures may vary from the products.

Detailed technical data regarding our products can be obtained from the respective product descriptions/data sheets or requested separately.

DELIVERY TERMS AND CONDITIONS:
















All deliveries shall take place in compliance with our General Conditions of Sale or those of our sales partners. The current version of our General Conditions of Sale can be found on our homepage at <http://norka.com/gtc>.

PRICES:






















For our prices, ask for our current pricing list.

SYMBOL GLOSSAR








LIGHT CHARACTERISTIC

	Bare lamp
	Medium beam
	Medium beam with indirect component
	Asymmetric beam
	Asymmetric beam with indirect component
	Narrow beam
	Narrow beam with indirect component
	Wide beam
	Wide beam with indirect component
	Extreme wide beam
	Extreme wide beam with indirect component
	Concentrated beam
	Concentrated beam with indirect component
	Concentrated wide beam
	Concentrated wide beam with indirect component

TECHNICAL SYMBOLS

	Luminaire protected against ingress of foreign bodies with a diameter > 12.5 mm		Protection class I / protective earthing Protection against electric shock is provided by the basic insulation and connection of all touchable metal parts to the protective earth conductor.
	Luminaire protected against ingress of foreign bodies with a diameter > 1 mm		
	Luminaire protected against ingress of foreign bodies with a diameter > 1 mm and splash-proof		Optional: Protection class I / protective earthing Protection against electric shock is provided by the basic insulation and connection of all touchable metal parts to the protective earth conductor.
	Dust and spray-proof luminaire		
	Dust and splash-proof luminaire		
	Luminaire protected against dust and water jets		Protection class II / double insulation Live parts are equipped with double insulation in addition to the basic insulation.
	Dust-proof luminaire protected against strong water jets		
	Luminaire protected against dust and temporary immersion		Optional: Protection class II / double insulation Live parts are equipped with double insulation in addition to the basic insulation.
	Luminaire protected against dust and permanent immersion (up to 20 m)		
	As standard: dust-proof luminaire protected against hot water used in high pressure cleaning		Protection class III / Safety extra low voltage SELV Protection against electric shock is based on the use of safety extra low voltage.
	Optional: dust-proof luminaire protected against hot water used in high pressure cleaning		Optional: luminaires are suitable for premises with a fire hazard due to dust or fibrous particles.
	CE certification indicates the conformity of a product with the applicable EC Directives.		Optional: luminaires are suitable for premises with a fire hazard due to dust or fibrous particles.
	European test and certification symbol for luminaires and their electric components. It indicates compliance with European standards governing safety and methods of operation.		
	German test and certification symbol for luminaires. It indicates compliance with German safety standards.		

TECHNICAL SYMBOLS

LUCON	As standard: luminaires are equipped with the LUCON®luminaire connection system.
LUCON®	Optional: luminaires are equipped with the LUCON®luminaire connection system.
	As standard: luminaires have been tested in line with EN 12 193 (or DIN VDE 0710) for ball impact resistance.
	Optional: luminaires have been tested in line with EN 12 193 (or DIN VDE 0710) for ball impact resistance.
	As standard: luminaires are designed for harsh operating conditions.
EL	As standard: emergency lighting with independent power supply, tested in line with IEC 61347-2-13.
EL	Optional: emergency lighting with independent power supply, tested in line with IEC 61347-2-13.
NFC	Optional: adjustable luminous flux via NFC programming
	XARA® The luminaire can be integrated into the lighting control system. The sensor is optional.
	FOCUSSED LIGHTING Luminaire with optional lumen package.
	The luminaire is optionally available in further colour temperatures.
	easy eXchange The luminaire is available with easy eXchange as standard or as optional components.

ZONE 1 Luminaires are approved for EX zone 1 in line with the ATEX Directive. This covers areas in which an explosive atmosphere may occasionally develop from a mixture of air and combustible gases, vapours or mists. Complies with device protection level Gb.

ZONE 2 Luminaires are approved for EX zone 2 in line with the ATEX Directive. This covers areas in which an explosive atmosphere usually does not form or may only develop temporarily from a mixture of air and combustible gases, vapours or mists. Complies with device protection level Gc.

ZONE 21 Luminaires are approved for EX zone 21 in line with the ATEX Directive. This covers areas in which an explosive atmosphere may occasionally develop in the form of a cloud of combustible dust present in the air. Complies with device protection level Db.

ZONE 22 Luminaires are approved for EX zone 22 in line with the ATEX Directive. This covers areas in which an explosive atmosphere usually does not develop or may only develop temporarily in the form of a cloud of combustible dust present in the air. Complies with device protection level Dc.

IK PROTECTION CLASSES

IK 02 PMMA	Luminaire with PMMA cover tested with an impact energy of 0.2 joules.
IK 03 PMMA	Luminaire with PMMA cover tested with an impact energy of 0.35 joules.
IK 04 ESG	Luminaire with single pane safety glass cover tested with an impact energy of 0.5 joules.
IK 04 PMMA	Luminaire with PMMA cover tested with an impact energy of 0.5 joules.
IK 07 ESG	Luminaire with single pane safety glass cover tested with an impact energy of 2 joules.
IK 07 PC	Luminaire with PC cover tested with an impact energy of 2 joules.
IK 07 PMMA	Luminaire with PMMA cover tested with an impact energy of 2 joules.
IK 07 ESG	Luminaire with single pane safety glass cover tested with an impact energy of 2 joules.
IK 08 PC	Luminaire with PC cover tested with an impact energy of 5 joules.
IK 08 PMMA	Luminaire with PMMA cover tested with an impact energy of 5 joules.
IK 09 PC	Luminaire with PC cover tested with an impact energy of 10 joules.
IK 09 ESG	Luminaire with single pane safety glass cover tested with an impact energy of 10 joules.
IK 10 PC	Luminaire with PC cover tested with an impact energy of 20 joules.
IK 11 PC	Luminaire with PC cover tested with an impact energy of 50 joules.
IK 11+ PC	Luminaire with PC cover tested with an impact energy of 150 J.

ORDERING PROCESS

- > Placeholder letters are integrated into the product overview tables to provide a clear overview of the versatility of the product range.
- > These placeholders always have to be replaced with the corresponding number when ordering.
- > Depending on the luminaire version, up to three of these placeholders (A, B, C or D) have to be replaced. The respective allocation of the version and the different variants are shown below the tables.

EXAMPLE FOR DETERMINING THE ARTICLE NUMBER:

Aim: luminaire CENTAURUS 650, wide beam, 830/3000 K, clear safety glass cover screen, with swivel bracket.

CENTAURUS

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no.
270	27020	159	-35 °C to +50 °C	915 270 AB CD -H1
400	39900	235	-35 °C to +40 °C	915 400 AB CD -H1
520	52250	305	-35 °C to +40 °C	915 520 AB CD -H1
650	65360	385	-35 °C to +35 °C	915 650 AB CD -H1

LIDC characteristic / A

- 2 = narrow beam (with individual reflectors)
- 3 = medium beam (without)
- 4 = wide beam (DDP prism screen)
- 8 = concentrated beam (DDP prism screen + individual reflectors)

Colour temperature / B

- 3 = 830/3000 K
- 4 = 840/4000 K
- 5 = 850/5000 K

Cover screen / C

- 4 = PC (fracture proof) clear
- 6 = single pane safety glass, clear

Installation type / D

- 2 = swivel bracket
- 6 = prepared for suspension system

Please enter the following article number when ordering: **915 650 43 62 -H1**

- > Please specify any additional options.

NOTE: Not all options are combinable. Please contact our Sales Department, which is happy to advise you in regard to options and accessories at any time.

ORDERING PROCESS FOR LED LUMINARIES WITH FOCUSED LIGHTING

- > The item selection tables for the luminaires show the guide values for the available luminous fluxes. The standard luminous flux for the direct replacement of luminaire lengths of a T8 fluorescent lamp is shaded in grey.
- > On the right you can find further guide values for the available luminous fluxes. When ordering, the corresponding guide value is added to the article number.
- > For optimised planning according to "Focussed lighting", please find the current luminous flux and system power values from the luminous flux table on the following pages or on our homepage.
- > Luminaire length and lumen package can be selected according to your energy optimised lighting design.

EXAMPLE FOR DETERMINING THE ARTICLE NUMBER:

Aim: luminaire ERFURT LED m1500 - MC 3, single lamp, medium beam, reflector tube PMMA Transopal® (impact strengthened)

ERFURT LED, SINGLE LAMP

Version	Luminous flux/lm	System power/W	Ambient temperature	Article no. + MC
m600 <input type="checkbox"/> 840/4000 K	1300 - 1710 - 2930	9 - 11 - 18	-25 °C to +40 °C	445 280 A4 B4 -E- ...
m1200 <input type="checkbox"/> 840/4000 K	2600 - 3420 - 6270	16 - 20 - 36	-25 °C to +40 °C	445 480 A4 B4 -E- ...
m1500 <input type="checkbox"/> 840/4000 K	4270 - 5280 - 7830	25 - 30 - 44	-25 °C to +40 °C	445 680 A4 B4-E- ...

LIDC characteristic / A

- 2 = narrow beam
- 3 = medium beam
- 4 = wide beam

Reflector tube / B

- 2 = PMMA Transopal® (impact strengthened)
- 8 = PC Tropol® (fracture proof)

Lumen package / + MC

- MC 1
- MC 3
- MC 5
- MC 7
- MC 9

Please enter the following article number when ordering: **445 680 34 21 - E - MC 3**

- > The luminaire is set to the selected lumen package (here: MC 3) at the factory.
- > Please specify any additional options.
NOTE: Not all options are combinable. Please contact our Sales Department, which is happy to advise you in regard to options and accessories at any time.

easy eXchange replacement kit

How to find the suitable easy eXchange replacement kit:

- Which light characteristics has the luminaire?
- Which version is the luminaire?
- Which lumen package is needed?
- Are further options needed?

EXAMPLE FOR DETERMINING THE ARTICLE NUMBER:

Aim: easy eXchange replacement kit for the luminaire **BERN LED m1500, medium beam, MC 3, DALI**.

BERN LED

MEDIUM BEAM

Version		Article no. + MC
m600	<input type="checkbox"/> 840/4000 K	536 280 34-R-....
m1200	<input type="checkbox"/> 840/4000 K	536 480 34-R-....
m1500	<input checked="" type="checkbox"/> 840/4000 K	536 680 34-R-....

Lumen package / + MC
MC 1
MC 3
MC 5
MC 7
MC 9

Please enter the following article number when ordering:

536 680 34-R-MC3

- > You find the available lumen packages in appendix D.
- > Please specify any additional options (for example DALI).

NOTE: Not all options are combinable. Please contact our Sales Department, which is happy to advise you in regard to options and accessories at any time.

easy eXchange LED replacement kit

How to find the suitable easy eXchange LED replacement kit:

- Which light characteristics has the luminaire?
- Which version is the luminaire?

EXAMPLE FOR DETERMINING THE ARTICLE NUMBER:

Aim: LED replacement tray for luminaire **ERFURT LED m1500, wide beam**.

> ERFURT LED, COBURG LED

MEDIUM BEAM

Version		Article no.
m600	<input type="checkbox"/> 840/4000 K	217 517 632-840-E-R
m1200	<input type="checkbox"/> 840/4000 K	217 517 634-840-E-R
m1500	<input type="checkbox"/> 840/4000 K	217 517 636-840-E-R

NARROW BEAM

Version		Article no.
m600	<input type="checkbox"/> 840/4000 K	217 517 622-840-E-R
m1200	<input type="checkbox"/> 840/4000 K	217 517 624-840-E-R
m1500	<input type="checkbox"/> 840/4000 K	217 517 626-840-E-R

> WIDE BEAM

Version		Article no.
m600	<input type="checkbox"/> 840/4000 K	217 517 502-840-E-R
m1200	<input type="checkbox"/> 840/4000 K	217 517 504-840-E-R
m1500	<input checked="" type="checkbox"/> 840/4000 K	217 517 506-840-E-R

Please enter the following article number when ordering: **217 517 506-840-E-R**

easy eXchange DRIVER replacement kit

How to find the suitable easy eXchange DRIVER replacement kit:

What is the length of the luminaire?

Is the built-in driver DALI compatible?

What is the lumen package of the luminaire?

EXAMPLE FOR DETERMINING THE ARTICLE NUMBER:

Aim: easy eXchange DRIVER replacement kit for luminaire ERFURT LED m1500, single lamp, DALI compatible, lumen package MC 3.

► FOR VERSION SINGLE LAMP

Version	Article no.
easy eXchange DRIVER replacement kit for version m1200 and lumen package	
MC1	200 480-MC1
MC3	200 480-MC3
MC5	200 480-MC5
MC7	200 480-MC7
MC9	200 480-MC9
easy eXchange DRIVER replacement kit for version m1200, DALI compatible and lumen package	
MC1	200 485-MC1
MC3	200 485-MC3
MC5	200 485-MC5
MC7	200 485-MC7
MC9	200 485-MC9
easy eXchange DRIVER replacement kit for version m1500 and lumen package	
MC1	200 680-MC1
MC3	200 680-MC3
MC5	200 680-MC5
MC7	200 680-MC7
MC9	200 680-MC9
► easy eXchange DRIVER replacement kit for version m1500, DALI compatible and lumen package	
MC1	200 685-MC1
► MC3	200 685-MC3
MC5	200 685-MC5
MC7	200 685-MC7
MC9	200 685-MC9

Please enter the following article number when ordering: **200 685 – MC3**



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 **parkcon**
REPERENANZAUM

 **Mobil**
REPERENANZAUM















High quality of light and uniform illumination – our ERFURT LED HIGH OUTPUT in use in an ice rink in Hamburg.

SPARE PARTS

APPENDIX A

Luminaire family	Version	Article no.		
General	Access cover GD 372 x 54 x 14 mm, with gasket and screws	200 971		
	Access cover MD 132 x 54 mm, with gasket and screws	200 973		
	Access cover SD 189 x 31 mm, with gasket and screws	200 977		
	Stainless steel mounting clamp (pair)	200 222		
	Polymer mounting clamp for chlorine atmosphere, acid-resistant, white (pair)	200 226		
	Polymer stirrup clamp, black (pair)	200 211		
	Polymer stirrup clamp, white (pair)	200 427		
	Polymer cable gland with strain relief, M20, white (pair)	201 427		
	Polymer cable gland with strain relief, M20, black (pair)	200 423		
	Cable entry M20, white (pair)	200 352		
	Silicone gasket 38 mm (pair)	200 351		
	Silicone gasket 50 mm (pair)	Available on request		
	BASEL LED	Polymer pressure cap, white, with mounting screw	200 220	
BEBRA LED	Polymer pressure cap, white, with mounting screw	200 119		
	Polymer stirrup clamp, black (pair)	200 211		
BERLIN LED	Lamp diffuser PC Tropol [®] , sloping side panels	421 040		
BERN LED	End cap, black, with cable gland M20, 2-pole	536 971		
	Mounting clamp, stainless steel / black / transparent polymer (pair)	534 220		
BITBURG LED, BITBURG LED EXTREME, BITBURG LED INDUSTRY	Polymer pressure cap, white, with stainless steel clamps	200 238		
	Stainless steel mounting clamp (pair)	200 222		
BRIG	Housing cover with membrane seal	539 924		
	Access cover with pressure balancing system	539 925		
BRÜNN LED	Polymer pressure cap, white, with mounting screws	485 020		
	Access cover 366 x 42 x 18 mm, with gasket and screws	200 241		
COBURG LED	Pressure cap with borehole for LED	835 970		
	Spare battery 1 h, 6.0 V / 2.0 Ah, including battery cable	100 420		
	Spare battery 3 h, 6.0 V / 4.0 Ah, including battery cable	100 430		
	Stainless steel mounting clamp (pair)	200 222		
COESFELD	Polymer pressure cap, white, with mounting screw	200 220		
	Polymer mounting clamp for chlorine atmosphere, acid-resistant, white (pair)	200 226		
COESFELD PLUS	Polymer pressure cap, white, with stainless steel clamps	200 238		
	Polymer mounting clamp for chlorine atmospheres, acid-resistant, white (pair)	200 226		
ERFURT LED, ERFURT LED EXTREME, ERFURT LED HIGH OUTPUT, ERFURT LED INDUSTRY	Polymer pressure cap, white, with mounting screw	200 220		
	Stainless steel mounting clamp (pair)	200 222		
FULDA LED	Pressure cap, right, polymer, white	545 970		
	Pressure cap, left, polymer, white	545 971		
	Stainless steel mounting plate with mounting materials (pair)	530 001		

Luminaire family	Version	Article no.
GENF	Polymer pressure cap, white, with mounting screws	335 970
	Polymer mounting clamp for chlorine atmospheres, acid-resistant, white (pair)	200 226
GERA LED	Pressure cap with panel end piece, lengthwise (pair)	784 970
	Pressure cap with panel end piece, crosswise (pair)	784 971
	Stainless steel mounting clamp (pair)	200 222
HAMBURG LED	Screw ring, 38 mm, white (pair)	200 318
	Polymer stirrup clamp, white (pair)	200 214
JENA LED	Pressure cap with panel end piece, lengthwise (pair)	783 970
	Stainless steel mounting clamp (pair)	200 222
KIEL LED	Polymer screw cap, black, including mounting materials	375 970
	Polymer folding stirrup clamp, white (pair)	200 214
LUZERN 38 LED	Mounting clamps, stainless steel/polymer transparent (pair)	537 010
TRUNKING SYSTEM 185	End cap for trunking system 185, height 40 mm Including mounting materials	580 101
	End cap for trunking system 185, height 70 mm Including mounting materials	583 101
TRUNKING SYSTEM 191	End cap for trunking system 191, height 40 mm Including mounting materials	466 101
TRUNKING SYSTEM 285	End cap for trunking system 285, height 40 mm Including mounting materials	610 101
	End cap for trunking system 285, height 70 mm Including mounting materials	611 101
TRUNKING SYSTEM BELFAST	End cap with fixing for trunking system BELFAST	650 115
MÜNCHEN LED	Polymer pressure cap, white, Including mounting materials	455 970
	Access cover 366 x 42 x 18 mm with gasket and screws	200 241
URANUS	Lateral housing cover including membrane seal	967 970
	Locking slide	14 177
	Aluminium mounting clamp	967 909
URANUS PF	Lateral housing cover including membrane seal	967 970
	Locking slide	14 177
	Aluminium mounting clamp	967 909
ZUG LED	End cap, black, with cable gland M20, 4-pole	775 971
	Mounting clamps, stainless steel/polymer transparent (pair)	770 212

easy eXchange ACCESSORIES

APPENDIX B

easy eXchange replacement kit

For luminaires with easy eXchange, the LED and the driver units can be changed in one go. You can find corresponding replacement kits here. Please note that the desired luminaire options, such as DALI, must be specified additionally.

BERN LED

MEDIUM BEAM

Version		Article no. + MC
m600	<input type="checkbox"/> 840/4000 K	536 280 34-R-....
m1200	<input type="checkbox"/> 840/4000 K	536 480 34-R-....
m1500	<input type="checkbox"/> 840/4000 K	536 680 34-R-....


- > You find the available lumen packages in appendix D.
- > Please specify any additional options (for example DALI).

BERLIN LED

MEDIUM BEAM

Version		Article no.
50	<input type="checkbox"/> 840/4000 K	421 050 34-E-R
100	<input type="checkbox"/> 840/4000 K	421 100 34-E-R
150	<input type="checkbox"/> 840/4000 K	421 150 34-E-R

easy eXchange DRIVER replacement kit

General information on NORKA  easy eXchange can be found at the beginning of this catalogue.

FOR VERSION SINGLE LAMP

Version	Article no.
easy eXchange DRIVER replacement kit for version m1200 and lumen package	
MC1	200 480-MC1
MC3	200 480-MC3
MC5	200 480-MC5
MC7	200 480-MC7
MC9	200 480-MC9
easy eXchange DRIVER replacement kit for version m1200, DALI compatible and lumen package	
MC1	200 485-MC1
MC3	200 485-MC3
MC5	200 485-MC5
MC7	200 485-MC7
MC9	200 485-MC9
easy eXchange DRIVER replacement kit for version m1500 and lumen package	
MC1	200 680-MC1
MC3	200 680-MC3
MC5	200 680-MC5
MC7	200 680-MC7
MC9	200 680-MC9
easy eXchange DRIVER replacement kit for version m1500, DALI compatible and lumen package	
MC1	200 685-MC1
MC3	200 685-MC3
MC5	200 685-MC5
MC7	200 685-MC7
MC9	200 685-MC9

Subject to technical changes. Please refer to our homepage for current data. Product illustrations similar, project illustrations may contain special equipment.

easy eXchange LED replacement kit

Some luminaires are available with a locking mechanism for easy LED replacement - easy eXchange LED. You can find spare LED plug-in units for these luminaires here.

ERFURT LED, COBURG LED

MEDIUM BEAM

Version	Article no.
m600 <input type="checkbox"/> 840/4000 K	217 517 632-840-E-R
m1200 <input type="checkbox"/> 840/4000 K	217 517 634-840-E-R
m1500 <input type="checkbox"/> 840/4000 K	217 517 636-840-E-R

NARROW BEAM

Version	Article no.
m600 <input type="checkbox"/> 840/4000 K	217 517 622-840-E-R
m1200 <input type="checkbox"/> 840/4000 K	217 517 624-840-E-R
m1500 <input type="checkbox"/> 840/4000 K	217 517 626-840-E-R

WIDE BEAM

Version	Article no.
m600 <input type="checkbox"/> 840/4000 K	217 517 502-840-E-R
m1200 <input type="checkbox"/> 840/4000 K	217 517 504-840-E-R
m1500 <input type="checkbox"/> 840/4000 K	217 517 506-840-E-R

ERFURT LED HIGH OUTPUT, ERFURT LED EXTREME

MEDIUM BEAM

Version	Article no.
m600 <input type="checkbox"/> 840/4000 K	218 518 632-840-EXC-R
m1200 <input type="checkbox"/> 840/4000 K	218 518 634-840-EXC-R
m1500 <input type="checkbox"/> 840/4000 K	218 518 636-840-EXC-R

NARROW BEAM

Version	Article no.
m600 <input type="checkbox"/> 840/4000 K	218 518 622-840-EXC-R
m1200 <input type="checkbox"/> 840/4000 K	218 518 624-840-EXC-R
m1500 <input type="checkbox"/> 840/4000 K	218 518 626-840-EXC-R

WIDE BEAM

Version	Article no.
m600 <input type="checkbox"/> 840/4000 K	218 518 502-840-EXC-R
m1200 <input type="checkbox"/> 840/4000 K	218 518 504-840-EXC-R
m1500 <input type="checkbox"/> 840/4000 K	218 518 506-840-EXC-R

DUBLIN LED

MEDIUM BEAM

Version	Article no.
m600 <input type="checkbox"/> 840/4000 K	585 300-840-E-R
m1200 <input type="checkbox"/> 840/4000 K	585 100-840-E-R
m1500 <input type="checkbox"/> 840/4000 K	585 200-840-E-R

LONDON LED


MEDIUM BEAM

Version	Article no.
m600 <input type="checkbox"/> 840/4000 K	615 300-840-E-R
m1200 <input type="checkbox"/> 840/4000 K	585 100-840-E-R
m1500 <input type="checkbox"/> 840/4000 K	585 200-840-E-R

Subject to technical changes. Please refer to our homepage for current data. Product illustrations similar, project illustrations may contain special equipment.

K COLOUR TEMPERATURES

APPENDIX C

LED luminaires with FOCUSED LIGHTING  and additional selected luminaires are available in the colour temperatures listed here. Please additionally enter the article number of the desired colour temperature when ordering. The standard colour temperature is 4000 K.

FURTHER COLOUR TEMPERATURES

	Article no.
For single lamp version, m600	
 2700K	122 700
 3000K	123 000
 5000K	125 000
 6500K	126 500
For single lamp version, m1200	
 2700K	142 700
 3000K	143 000
 5000K	145 000
 6500K	146 500
For single lamp version, m1500	
 2700K	162 700
 3000K	163 000
 5000K	165 000
 6500K	166 500
For twin lamp version, m600	
 2700K	222 700
 3000K	223 000
 5000K	225 000
 6500K	226 500
For twin lamp version, m1200	
 2700K	242 700
 3000K	243 000
 5000K	245 000
 6500K	246 500
For twin lamp version, m1500	
 2700K	262 700
 3000K	263 000
 5000K	265 000
 6500K	266 500

LUMINOUS FLUX TABLES FOR LED LUMINAIRES WITH FOCUSED LIGHTING

APPENDIX D

LUMEN PACKAGES OF LAMPS FOR M600

SINGLE LAMP

BERN LED, BRIG, ERFURT LED, MÜNCHEN LED, LUZERN 38 LED, ZUG LED

Article number of the lumen package	System power/W	Lamp luminous flux/lm
MC 1	9	1300
MC 3 (± 18 W, T8)	11	1710
MC 5	13	2110
MC 7	17	2730
MC 9	18	2930

TWIN LAMP

ERFURT LED

Article number of the lumen package	System power/W	Lamp luminous flux/lm
MC 1	14	2600
MC 3 (± 2 x 18 W, T8)	18	3420
MC 5	22	4220
MC 7	30	5460
MC 9	32	5860

LUMEN PACKAGES OF LAMPS FOR M1200

SINGLE LAMP

BERN LED, BITBURG LED, BRIG, BRÜNN LED, COBURG LED*, ERFURT LED, FULDA LED, GERA LED, JENA LED, MÜNCHEN LED, LUZERN 38 LED, ZUG LED, ZUG LED AL

Article number of the lumen package	System power/W	Lamp luminous flux/lm
MC 1	16	2600
MC 3 (± 36 W, T8)	20	3420
MC 5	27	4640
MC 7	34	5860
MC 9	36	6270

TWIN LAMP

ERFURT LED, GENF LED

Article number of the lumen package	System power/W	Lamp luminous flux/lm
MC 1	32	5200
MC 3 (± 2 x 36 W, T8)	40	6840
MC 5	54	9280
MC 7	68	11720
MC 9	72	12540

LUMEN PACKAGES OF LAMPS FOR M1500

SINGLE LAMP

BERN LED, BITBURG LED, BRÜNN LED, COBURG LED*, ERFURT LED, FULDA LED, GERA LED, JENA LED, MÜNCHEN LED, NIGHTLINE, ZUG LED, ZUG LED AL

Article number of the lumen package	System power/W	Lamp luminous flux/lm
MC 1	25	4270
MC 3 (± 58 W, T8)	30	5280
MC 5	36	6300
MC 7	42	7320
MC 9	44	7830

TWIN LAMP

ERFURT LED, GENF LED

Article number of the lumen package	System power/W	Lamp luminous flux/lm
MC 1	50	8540
MC 3 (± 2 x 58 W, T8)	60	10560
MC 5	72	12600
MC 7	84	14640
MC 9	88	15660

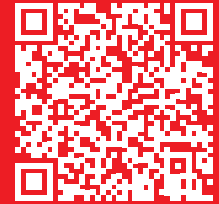
NOTE:

NORKA LED products mainly have a service life of **L80 B10 > 60,000 h at the specified ambient temperature**. Divergent service lives are specified separately.

* COBURG LED: plus 2 W system power

Standard luminous flux, corresponds to the luminous flux of a luminaire with T8 of the same length

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