



EMERGENCY LIGHTING

www.rzb-lighting.com



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Our catalogue emergency lighting A3 gives an overview of the RZB luminaire and technical program portfolio. It is a useful tool to help you find the product you are looking for. The A3 edition of our emergency lighting supersedes and replaces all previous editions, errors excepted.

We reserve the right to effect changes in our products at any time, without notice. As our luminaires are technical devices, they may only be used for their intended purpose and in accordance with our specifications.

Any use of our products in a manner not authorized by us, as well as effecting any change in any of our products, will exempt us from any legal obligations in the event of loss, damage or injury – except insofar as we authorize such nonconformance in writing.

Our Standard Terms of Sale and Delivery can be found in the appendix.

MONITORING SYSTEMS

New items are marked with a red frame.

Self-contained monitoring systems



Self-contained technology



Central Power Supply (CPS)



Low Power Supply (LPS)

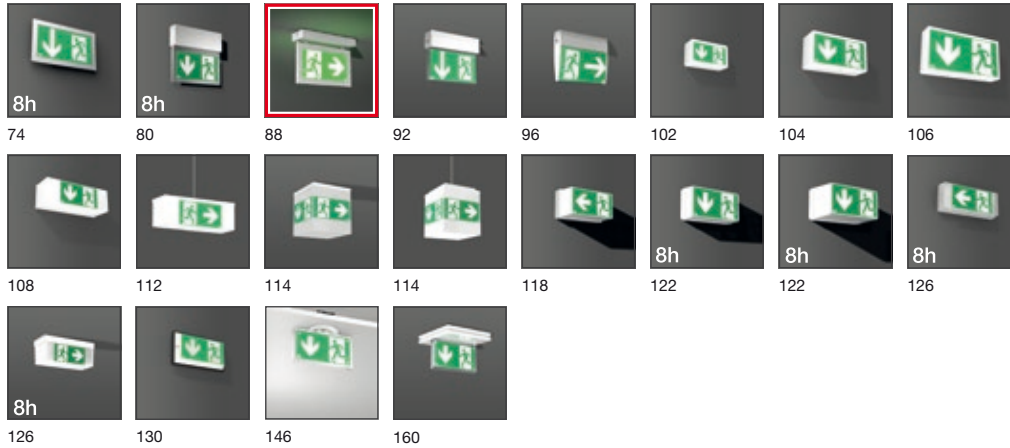


EXIT SIGNS AND SAFETY LUMINAIRES

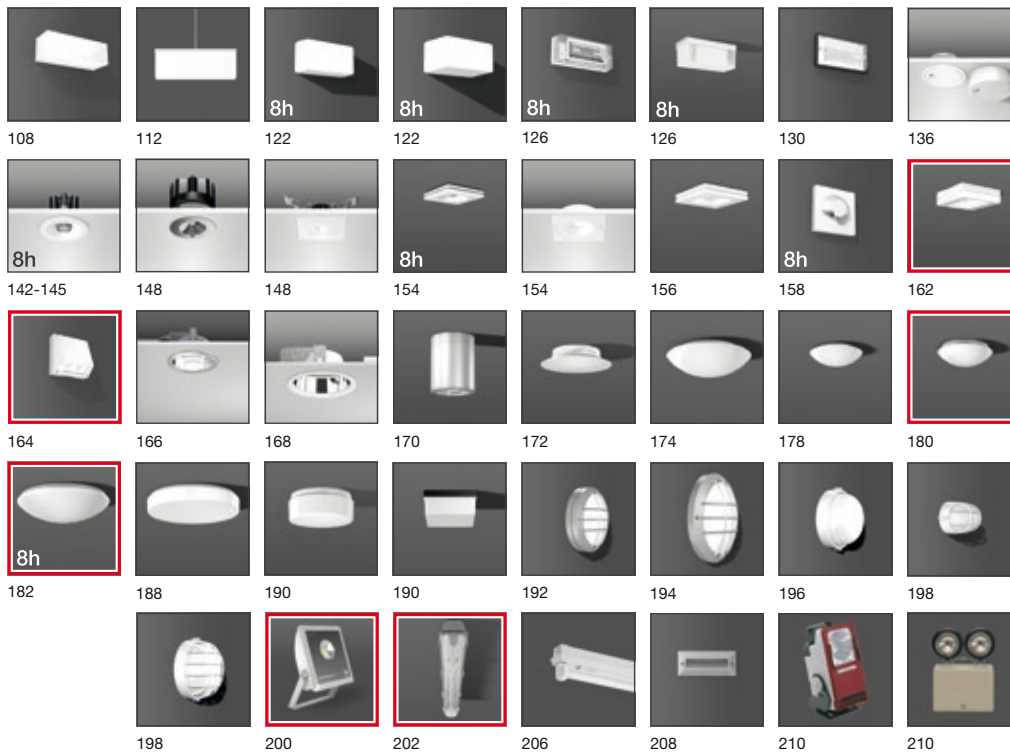
New items are marked with a red frame.



Exit signs



Safety luminaires



Note

In order to better distinguish between self-contained luminaires and luminaires for central emergency power supply, they are marked with the following colours at the top of the respective pages and in the tables:



Self-contained luminaires (BLUE)



Luminaires for Central Power Supply (GREEN)

About us

We have been making luminaires of exceptional quality for more than seven decades. At RZB, our daily activities center around the nowadays often mentioned subjects of innovation, quality, design, energy efficiency, environmental friendliness and customer service.

Our luminaires are manufactured using the most advanced production technologies available today. These products combine outstanding innovation with the latest lighting technologies; and the fact that we operate our own Research & Development lab guarantees that all of our products comply strictly with all applicable legal regulations.

The designs of our luminaires combine optimal technical characteristics and exemplary functionality, thus enabling us to offer our customers the best possible luminaires and lighting solutions. The use of select materials and our ISO 9001:2008 quality assurance system are your guarantee of the outstanding quality and exceptionally long service life of our luminaires. This applies in particular to the plastics, die-cast components, luminaire glasses, and surface coatings used

in our products.

Many items in our portfolio are on hand at all times, thanks to our highly efficient logistics workflows and the fact that we keep a great number of components and finished products always in stock.

We also provide presales advice, lighting system planning services, demos and workshops.



A view of our plant and its solar panels.

Solar panel surface:	30,000 square meters
Number of modules:	5,000
Output:	more than 1.1 megawatts
Greenhouse gas savings:	930,000 kilograms per year

Environmental stewardship

Improved light source energy efficiency, lamps miniaturization, and the dizzying pace of advances in LED technology are the challenges currently facing the luminaire industry today, particularly in view of the fact that lighting accounts for 20 percent of worldwide energy consumption.

The manufacture of incandescent light bulbs has been phased out by law in the EU, thus making it more urgent than ever for the European lighting industry to develop luminaires that use new types of more energy efficient lamps.

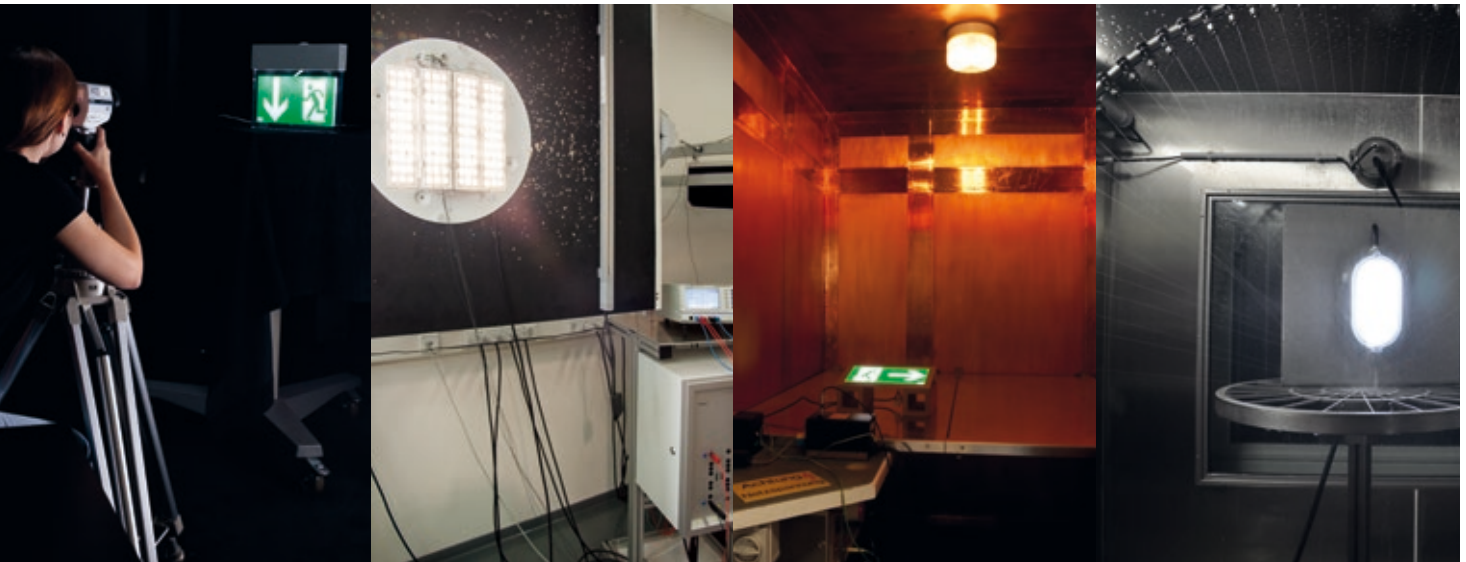
Energy efficiency without dimming the lights

Another environmental aspect that plays a key role in designing and developing our luminaires is the use of extremely high quality materials, which are selected with durability, environmentally friendly manufacturing, and recyclability firmly in mind. This is our way of making a lasting contribution to environmental stewardship.



Quality

Our quality assurance system
is ISO 9001:2008 compliant.



Photometry lab

Heat measurement lab

EMC lab

Protection type testing

Memberships in industry organizations

ZVEI:

licht.de



RZB emergency lighting: the smart choice

Superior quality luminaires and luminaire designs

We use the most advanced manufacturing technologies available and adhere to an extremely high development standard. We have more than three decades of experience in the use of high tech materials and the development of systems that allow for continuous improvement in the efficiency of emergency lighting.

All your luminaire needs from a single vendor

We offer a complete range of emergency and general lighting products. This means that we can offer you integrated solutions for both types of applications – which in turn saves you the trouble of dealing with other vendors.

Reliability

Our luminaires integrate extremely reliable electronics and are highly durable thanks to the use of exceptionally high quality electronic components and high tech LED lamps – not to mention our extensive testing program, whose scope far exceeds the statutory minimum.

Lighting technology

The luminaires that we develop in our state of the art lab meet all applicable industry standards. In emergency situations, our emergency luminaires enable building occupants to exit the building safely. And what's more, the use of high tech LEDs allows for greatly reduced energy consumption.

Installation

When developing our luminaires, we always keep in mind the aspect of installation-friendliness, thus guaranteeing rapid and simple handling in building construction settings, thanks to the use of elements such as plug-in connectors and modular technologies.

Customer service

We offer comprehensive planning services for customer specific emergency lighting systems, and also provide support for the commissioning phase. Plus you can count on outstanding after-sales service from our team of experienced technicians and engineers.

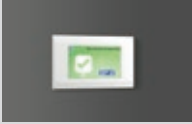



Sustainability

Environmental sustainability is a top priority for us in terms of not only the manufacturing process, but also – and especially – the finished product. All of our luminaires contain 100 percent recyclable materials that are notable for their exceptional durability and quality.





DALI	monitoring system	10
MultiDigit® <i>plus</i>	monitoring system	14
MWEB <i>plus</i>	monitoring system	18
MultiDigit® S63	monitoring system	22

System	DALI	MultiDigit [®] plus	MWEBplus	MultiDigit [®] S63
				
System structure	modular	modular	single module	single module
Colour display	•	–	–	–
Number of circuits, basic unit	2	1	1	1
Number of luminaires per circuit	64	125	125	63
Number of luminaires per basic unit	max. 128	max. 125	max. 125	max. 63
Expandable	•	• max. 60 modules	–	–
Max. number of luminaires	128	7 500	125	63
Error visualisation	Display	LED + Web browser	LED + Web browser	LED + PC via software
Potential-free contacts for error messages	–	•	•	•
E-mail communication	–	•	•	–
TCP / IP	optional	•	•	–
Display of building plans	–	•	•	–
Modular structure	–	•	–	–
Bus line topography	free	free	free	free
Bus line	NYM 1,5 mm ²	IY-ST(Y) 4 x 2 x 0.8	IY-ST(Y) 4 x 2 x 0.8	IY-ST(Y) 4 x 2 x 0.8
Application	small to large buildings	large to very large buildings	small to medium sized buildings	small buildings
Automatic test log maintenance	•	•	•	–
The status of individual luminaires can be requested	•	•	•	•
Type of installation	Recessed wall and surface wall installation	top hat rail	top hat rail	top hat rail

DALI interface | Monitoring systems for up to 2x64 self-contained luminaires

System benefits

- DALI monitoring units with touchscreen and logical menu guidance
- 2 circuits, with 64 luminaires each
- Automatic generation of detailed log book
- Execution of all mandatory controls at minimum costs
- Formation of groups
- System setup with software via USB
- Easy to install, setup and maintain
- Bus structure: star-shaped, linear and tree-shaped
- Control line: DC-isolated and reverse voltage protected
- No specific bus line required
- Password protection
- Emergency lighting function disabled outside of normal operating hours
- No need to respect bus line polarity

Easy to operate via touchscreen

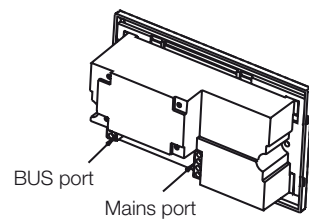


Max. line length	Min. cross-section of bus line	Cable type, e.g.:
150 m	0,75 mm ²	NYM
200 m	1,0 mm ²	NYM
300 m	1,5 mm ²	NYM

Attention!

All modules and luminaires for DALI must have order suffix (Y) .07

DALI interface



System description

This system is based on the DALI Standard (IEC 62034 and IEC 62386) and allows for central monitoring of up to 2x64 self-contained emergency luminaires.

It is operated and monitored via touchscreen (DALI control unit) with logical menu guidance for easy use.

The DALI control unit is housed in a high-quality plastic casing for either surface wall installation or recessed wall installation.

The DALI control unit communicates continuously with the connected self-contained emergency luminaires and is thus able to immediately display any error.

The logical menu guidance provides the operator within a few steps detailed information concerning type and location of the respective error as well as further indications for error elimination, if applicable.

Automatic self-test function of the luminaires as well as generation of a detailed test log contribute notably to a reduction of time and costs for mandatory emergency lighting systems tests.

Monitoring system for RZB self-contained luminaires with order suffix **.07**

Power supply: 230 V / 50-60 Hz

Power supply (bus line): max. 250 mA, 22.5 V

Max. bus length: 300 m (between control unit and last luminaire)

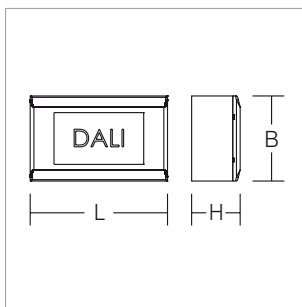
Transfer rate: 1,200 Bit/s at a voltage level of 16 V

Monitoring system DALI

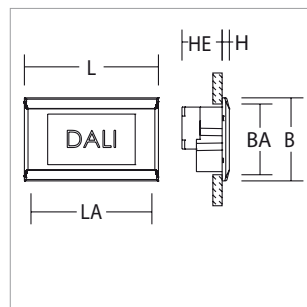
Surface / Recessed wall installation

985405 L 149, B 92, H 60

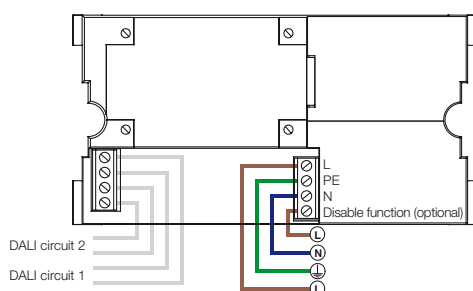
Surface wall installation



Recessed wall installation

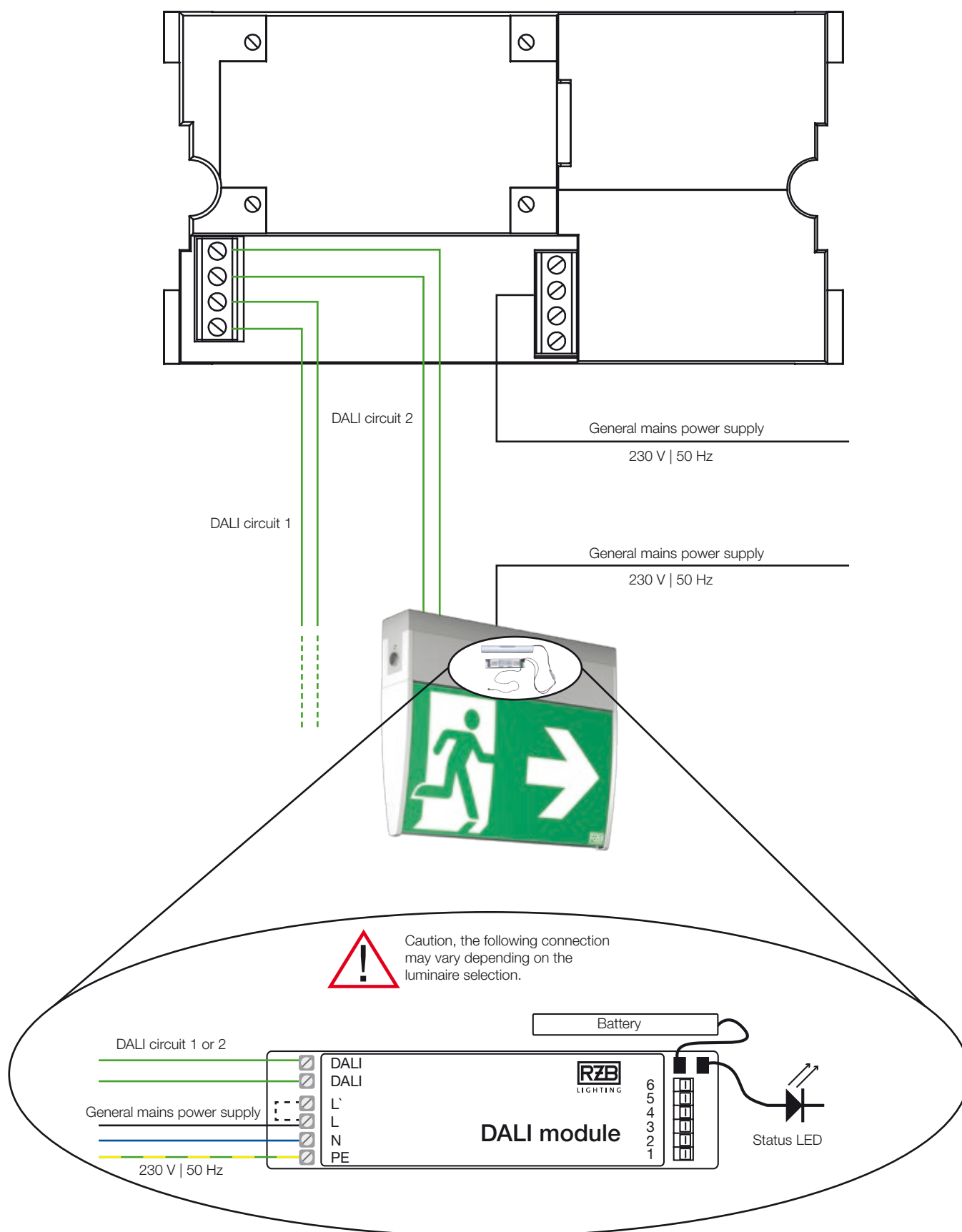


Rear view of DALI unit



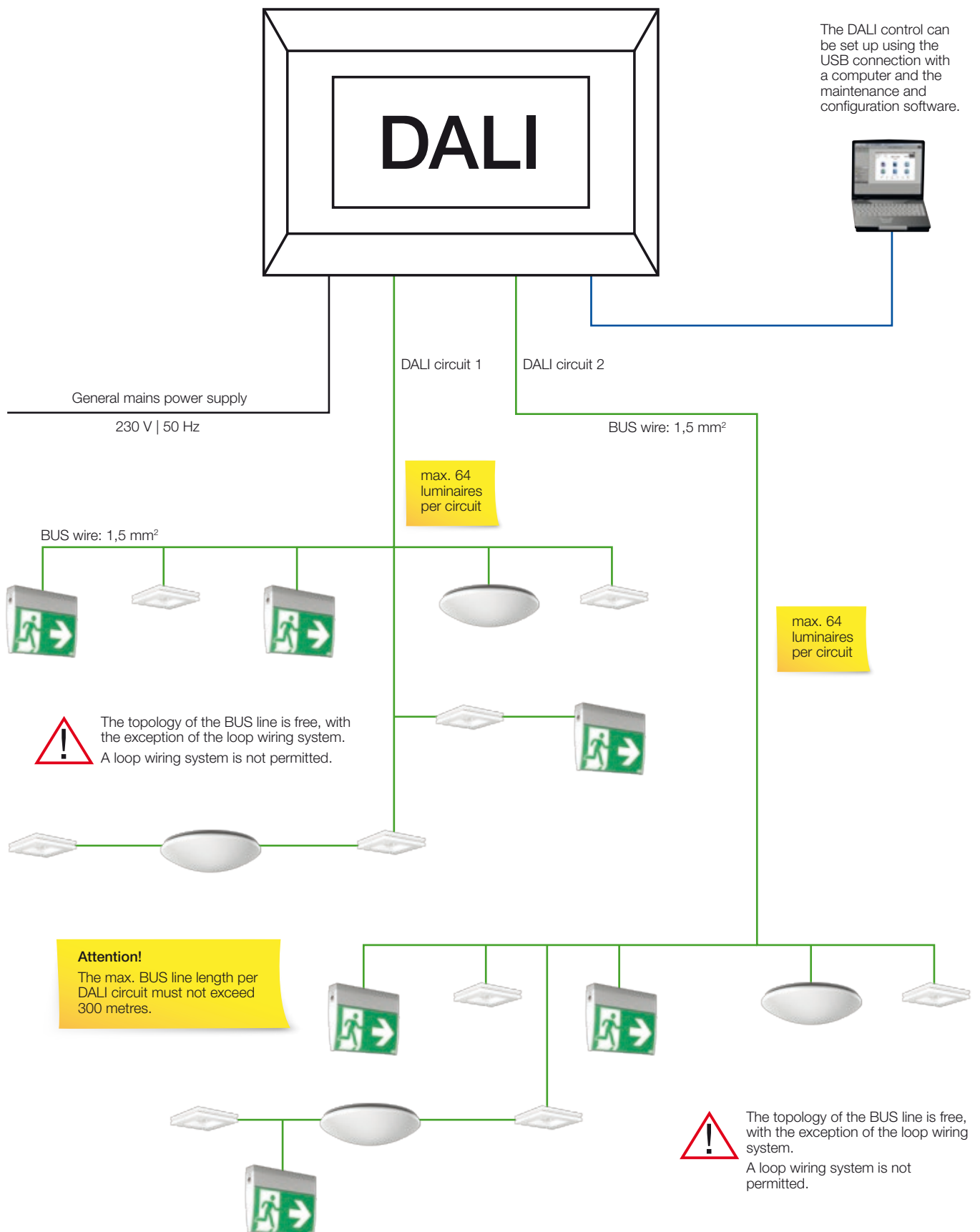
Monitoring via DALI interface

for max. 64 luminaires with max. 300 m per BUS line



Monitoring via DALI interface

for max. 64 luminaires with max. 300 m per BUS line

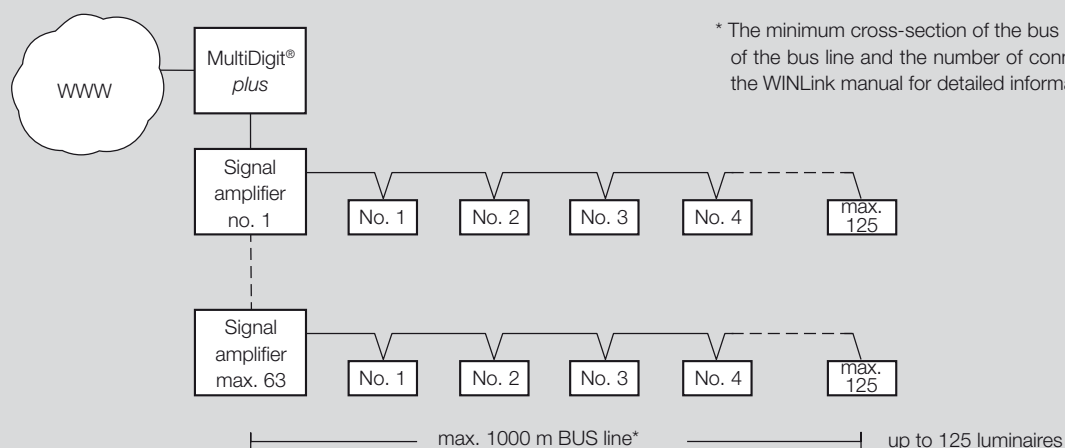


MultiDigit[®]plus | Monitoring systems for up to 7.500 self-contained luminaires

System benefits

- Automatic system configuration
- Plain-text reports of all malfunctions, with indication of failure location
- Coordination of self-test activation of all self-contained emergency luminaires
- Error message logs
- Detailed information and control options for each single emergency luminaire
- BUS line length: max. 2 x 1,000 m
- Simple installation of BUS line:
T-shaped, star-shaped, linear or even mixed structure. No need to respect polarity.
- Ongoing records of all system malfunctions
- Automatic generation of detailed system test log
- Max. 7.500 luminaires
- Execution of all mandatory emergency lighting system controls at minimum costs
- Password protection for system data changes
- The MultiDigit[®]plus module can be queried by any intranet/internet compatible PC that is connected to the network via web navigator. To do this, no special software is required. In this process the data stored in MultiDigit[®]plus are sent to the navigator via network, using the TCP-IP protocol. Any system failure will be immediately displayed in the navigation window. The integrated email function allows for sending a detailed error report to the system administrator. The network can be configured in such a way that the system can be addressed via internet.

General circuit diagram for the MultiDigit[®]plus monitoring system

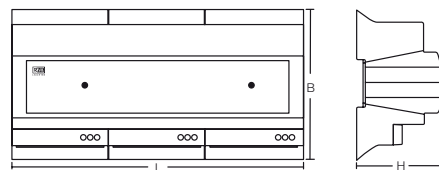


No. of luminaires per line	Max. line length	Min. cross-section of bus line	Cable type, e.g.:
40	1000 m	0.5 mm ²	J-Y(St) Y 2 x 2 x 0,8 mm (one pair)
80	1000 m	1.0 mm ²	J-Y(St) Y 2 x 2 x 0,8 mm (double pair)
125	1000 m	1.5 mm ²	J-Y(St) Y 4 x 2 x 0,8 mm (triple pair)

Attention!

All modules and luminaires for MultiDigit[®]plus must have order suffix (Y) .04

MultiDigit®plus



System description

The MultiDigit®plus system allows for permanent central monitoring of self-contained emergency luminaires, which report their momentary states via LAN network to a web browser based PC, which evaluates and controls the entire system. An immediate and clear overview of the entire system can thus be provided and used for determining the operational readiness of the emergency lighting system. The system is very easy to install. No special software is required. 125 self-contained emergency luminaires can be installed according to the general circuit diagram indicated below. When used in conjunction with signal amplifiers, the MultiDigit®plus system can monitor up to 7,500 luminaires. (Up to 63 signal amplifiers can be used.) The BUS line does not need to comply with any particular requirements; its structure can be T-shaped, star-shaped, linear or even mixed. Bus line polarity needs not to be considered.

Planning and installation

The address of the emergency luminaires' signal amplifiers is stored in a microcontroller and therefore needs to be indicated when ordering the system. It can be reprogrammed during the system setup.

System setup and training of the operating personnel by an RZB technician is available upon request and charge.

For information concerning technical issues and planning assistance, please contact your sales office.

Monitoring system for RZB self-contained luminaires with order suffix **.04**

Starter set MultiDigit®plus

Type of protection: IP 20
Protection class: I

For connecting a maximum 125 RZB luminaires with incorporated feedback (.04)

Type of installation: DIN profile track

Starter set MultiDigit®plus

981935.000 L 155, B 75, H 120

Signal amplifier

For connecting a further 125 RZB luminaires with incorporated feedback (.04)

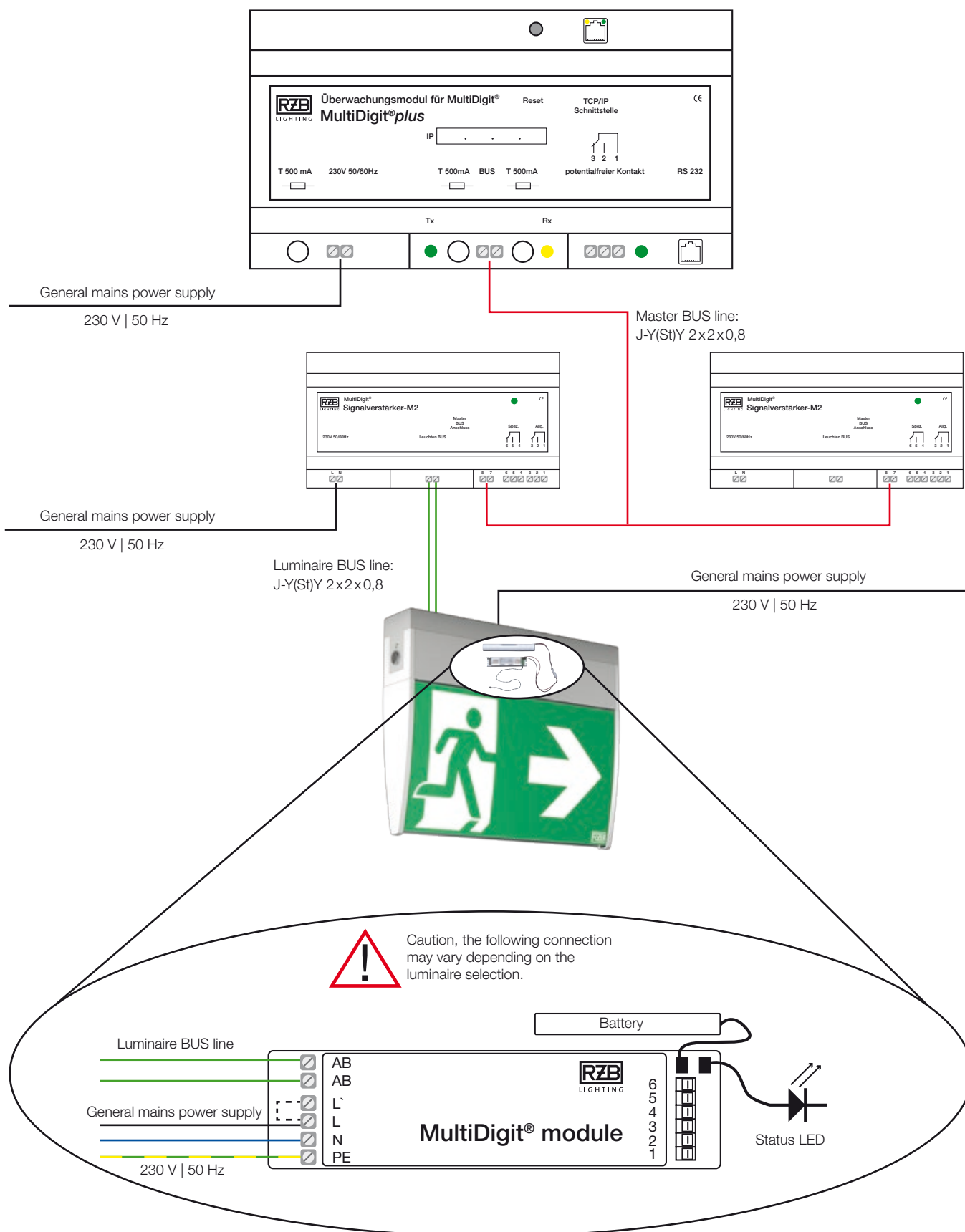
Type of installation: DIN profile track

Signal amplifier

671148.000 L 155, B 75, H 120

Monitoring via MultiDigit®plus

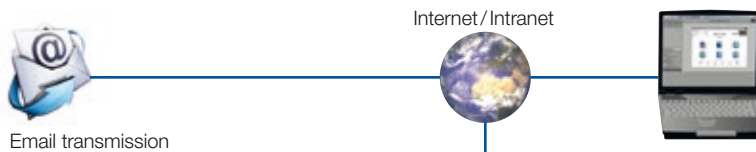
for max. 125 luminaires with max. 1000 m per BUS line



Monitoring via MultiDigit®plus

for max. 125 luminaires with max. 1000 m per BUS line

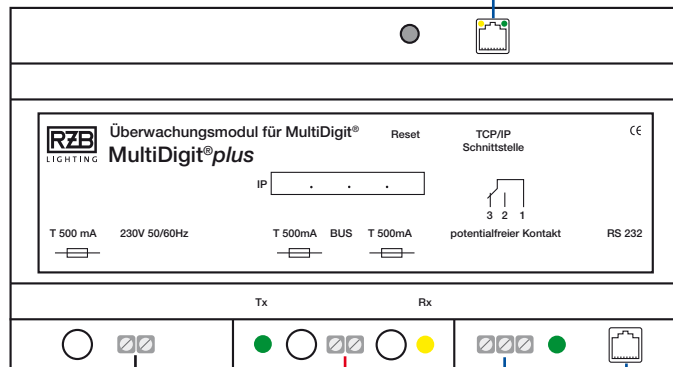
The MWEBplus monitoring system is equipped with a mail server. In the event of a malfunction, an e-mail is sent to up to two addresses.



The monitoring centre can be accessed with a standard web browser through the Internet or Intranet.

The integrated HTML visualisation software allows user-friendly control, configuration and monitoring.

High level of comfort in BUS wiring.
The polarity of the BUS line can be reversed.

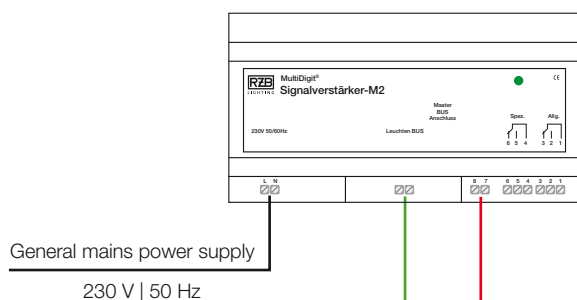


General mains power supply
230 V | 50 Hz

Signal amplifier
max. 63

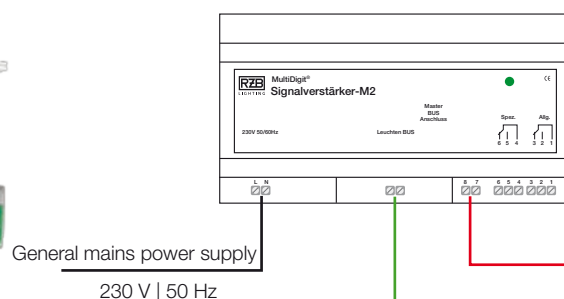
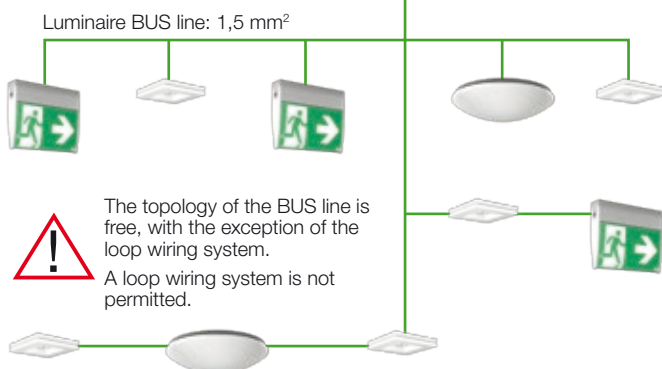


Potential-free contacts can be switched for example to a GLT monitoring system or to control consoles.



max. 125 luminaires

Master BUS line:
J-Y(St)Y 2x2x0,8



max. 125 luminaires

Luminaire BUS line: 1,5 mm²



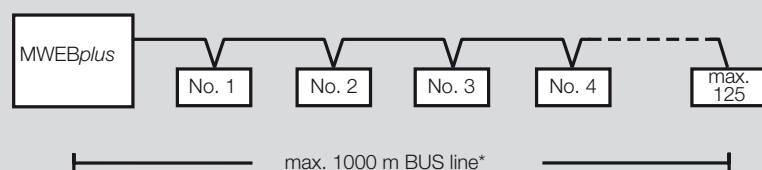
MWEBplus | Monitoring systems for up to 125 self-contained luminaires

System benefits

Continuous central local monitoring of all emergency luminaires.

- Automatic system configuration
- Plain-text reports of all malfunctions, with indication of failure location
- Coordination of self-test activation of all self-contained emergency luminaires
- Error message logs (PC and/or printer)
- Detailed information and control options for each single emergency luminaire
- Tap for forwarding collective/group errors
- Max. 125 luminaires
- Failures will be communicated automatically via e-mail to individually assignable addresses
- Simple installation of BUS line: T-shaped, star-shaped, linear or even mixed structure. No need to respect polarity.
- Ongoing records of all system malfunctions
- Automatic generation of detailed system test log
- Execution of all mandatory emergency lighting system controls at minimum costs
- Password protection for system data changes
- No need to respect bus line polarity

General circuit diagram for the MWEBplus monitoring system



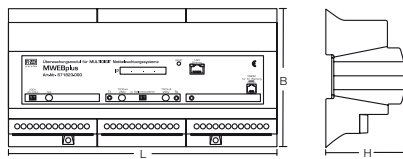
* The minimum cross-section of the bus line depends on the actual length of the bus line and the number of connected luminaires.

No. of luminaires per line	Max. line length	Min. cross-section of bus line	Cable type, e.g.:
40	1000 m	0.5 mm ²	J-Y(St) Y 2 x 2 x 0,8 mm (one pair)
80	1000 m	1.0 mm ²	J-Y(St) Y 2 x 2 x 0,8 mm (double pair)
125	1000 m	1.5 mm ²	J-Y(St) Y 4 x 2 x 0,8 mm (triple pair)

Attention!

All modules and luminaires for **MWEBplus** must have order suffix **(Y) .04**

Monitoring system MWEBplus



System description

The MWEBplus system allows for continuous central control of self-contained emergency luminaires, which report their momentary states to a PC, which evaluates and controls the entire system. An immediate and clear overview of the entire system can thus be provided and be used for determining the operational readiness of the emergency lighting system.

The system is very easy to set up. 125 self-contained emergency luminaires can be installed according to the general circuit diagram indicated on next page.

The BUS line does not need to comply with any particular requirements; its structure can be T-shaped, star-shaped, linear or even mixed.

MWEBplus constitutes the interface between the operating system and an on-site Ethernet network. Since MWEBplus performs the entire control and error management of the emergency lighting system, a separate PC for the monitoring system is not required.

The MWEBplus module can be accessed via web navigator from any PC in the network that is connected to intranet/internet, without the need for any special software.

For this purpose, the data stored in MWEBplus are transmitted to the navigator via TCP/IP protocol.

Any malfunction within the system will be immediately displayed; the incorporated e-mail function allows detailed information on the malfunction to be sent to the system administrator. The system can also be accessed via internet if the network is configured accordingly.

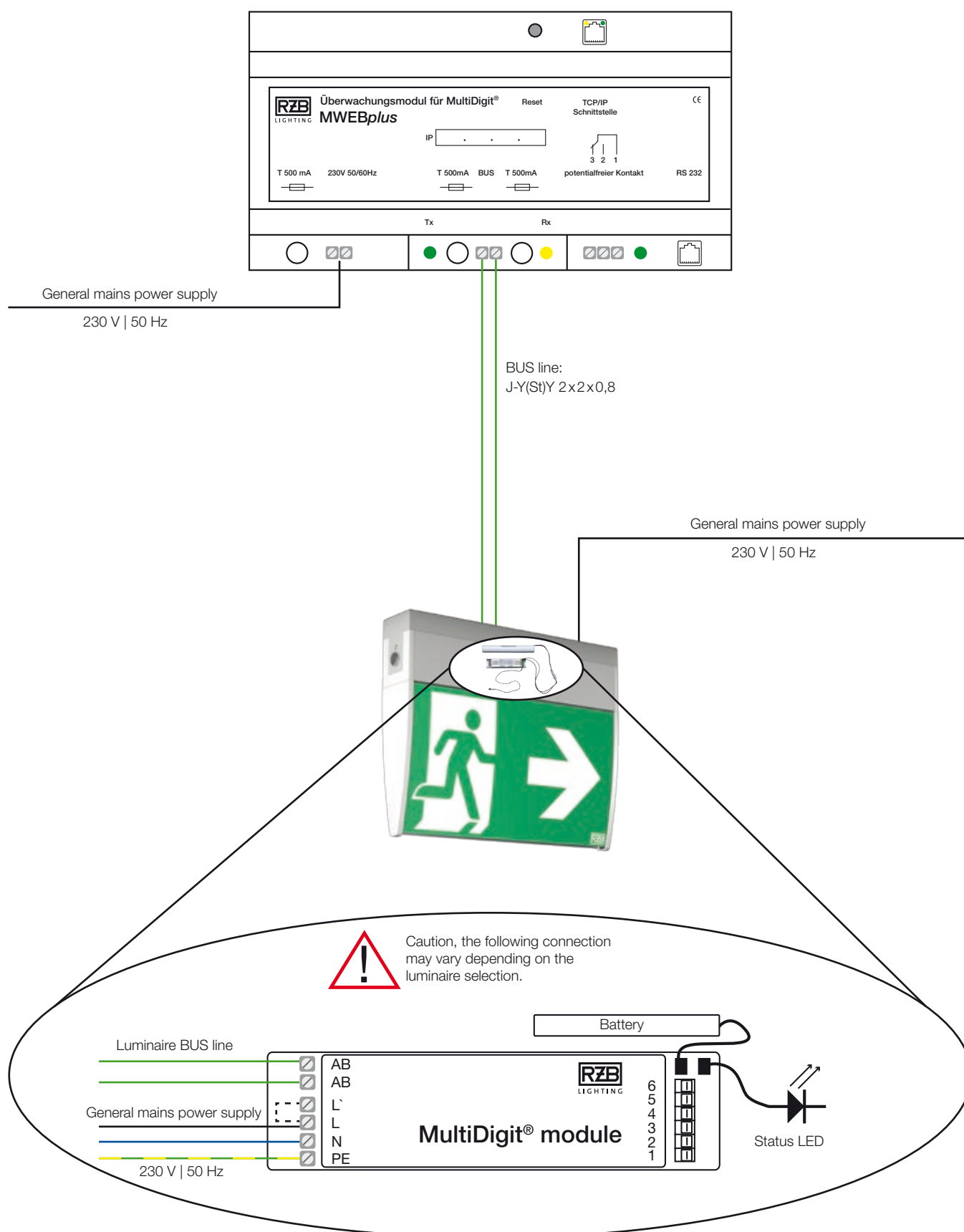
Monitoring system for RZB self-contained luminaires with order suffix **.04**

Monitoring module MWEBplus

671823.000	L 160, B 110, H 63
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Monitoring via MWEBplus

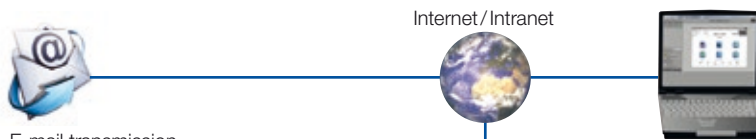
for max. 125 luminaires with max. 1000 m per BUS line



Monitoring via MWEBplus

for max. 125 luminaires with max. 1000 m per BUS line

The MWEBplus monitoring system is equipped with a mail server. In the event of a malfunction, an e-mail is sent to up to two addresses.

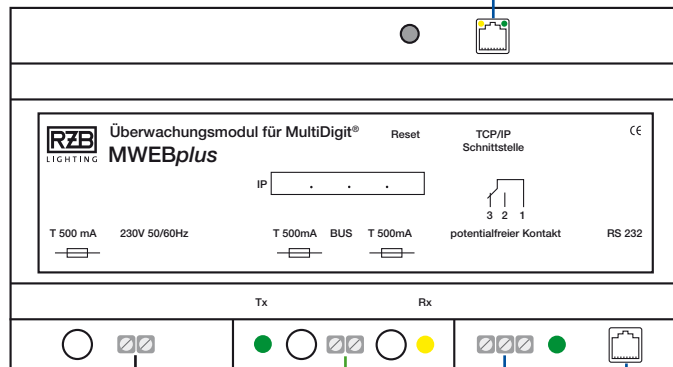


The monitoring centre can be accessed with a standard web browser through the Internet or Intranet.

The integrated HTML visualisation software allows user-friendly control, configuration and monitoring.

High level of comfort
in BUS wiring.

The polarity of the BUS line can be reversed.



General mains power supply

230 V | 50 Hz

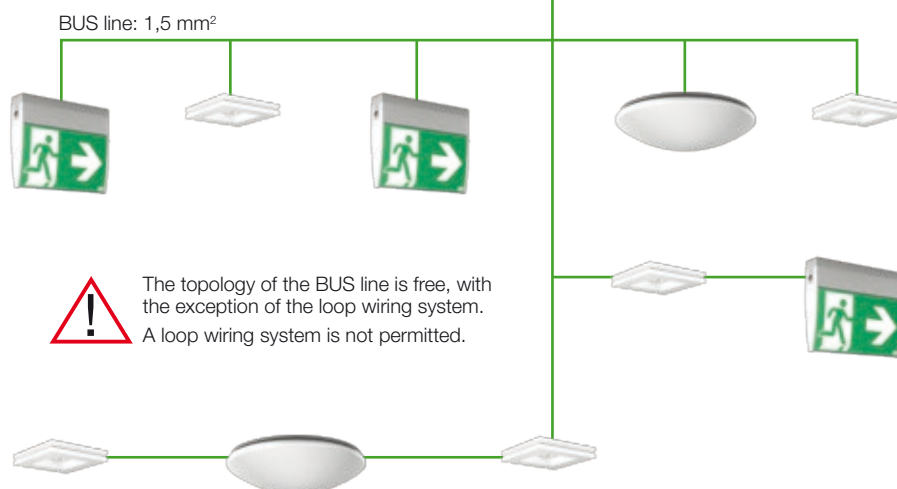


Connection for RZB maintenance computer

max. 125
luminaires



Potential-free contacts can be switched for example to a GLT monitoring system or to control consoles.



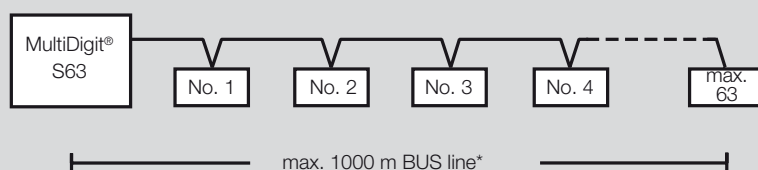
The topology of the BUS line is free, with the exception of the loop wiring system. A loop wiring system is not permitted.

MultiDigit® S63 | Monitoring systems for up to 63 self-contained luminaires

System benefits

- Central monitoring of the entire system
- Simple and clear structure
- Automatic function tests
- Simple test log generation
- Easy to install
- Execution of all mandatory tests at minimum costs
- Collective error display on the monitoring unit
- Blinking codes on each luminaire indicate the type of error
- Detailed error readout via USB
- Max. 63 luminaires

General circuit diagram for the MultiDigit® S63 monitoring system



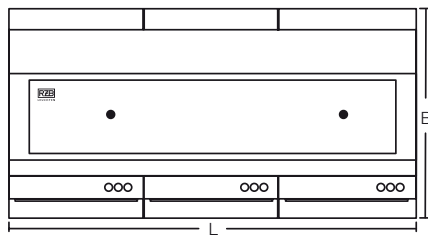
* The minimum cross-section of the bus line depends on the actual length of the bus line and the number of connected luminaires.

No. of luminaires per line	Max. line length	Min. cross-section of bus line	Cable type, e.g.:
40	1000 m	0.5 mm ²	J-Y(St) Y 2 x 2 x 0,8 mm (one pair)
80	1000 m	1.0 mm ²	J-Y(St) Y 2 x 2 x 0,8 mm (double pair)
125	1000 m	1.5 mm ²	J-Y(St) Y 4 x 2 x 0,8 mm (triple pair)

Attention!

All modules and luminaires for **MultiDigit® S63** must have order suffix (Y) .04

Monitoring system MultiDigit® S63



System description

The MultiDigit® S63 is a component of the MultiDigit® emergency lighting system, which is used for emergency luminaires monitoring. Each system can monitor up to 63 emergency luminaires. The MultiDigit® S63 can be linked to a module for collective alarm transmission to a building control system.

Functioning

The MultiDigit® S63 is supplied with a universal adaptor for DIN track systems, which allows for easy attachment of the MultiDigit® S63 to the mounting track. Plug terminals, which allow for connection of wires and cables ranging from 0.6 mm² to 1 mm², for connecting the MultiDigit® S63 to the BUS line are included.

The MultiDigit® S63 is connected to a PC via a USB interface. A PC software allows for entering the connected emergency elements in the configuration. Later on this link is necessary for individual luminaire status control; it is, however, not required for collective error messages.

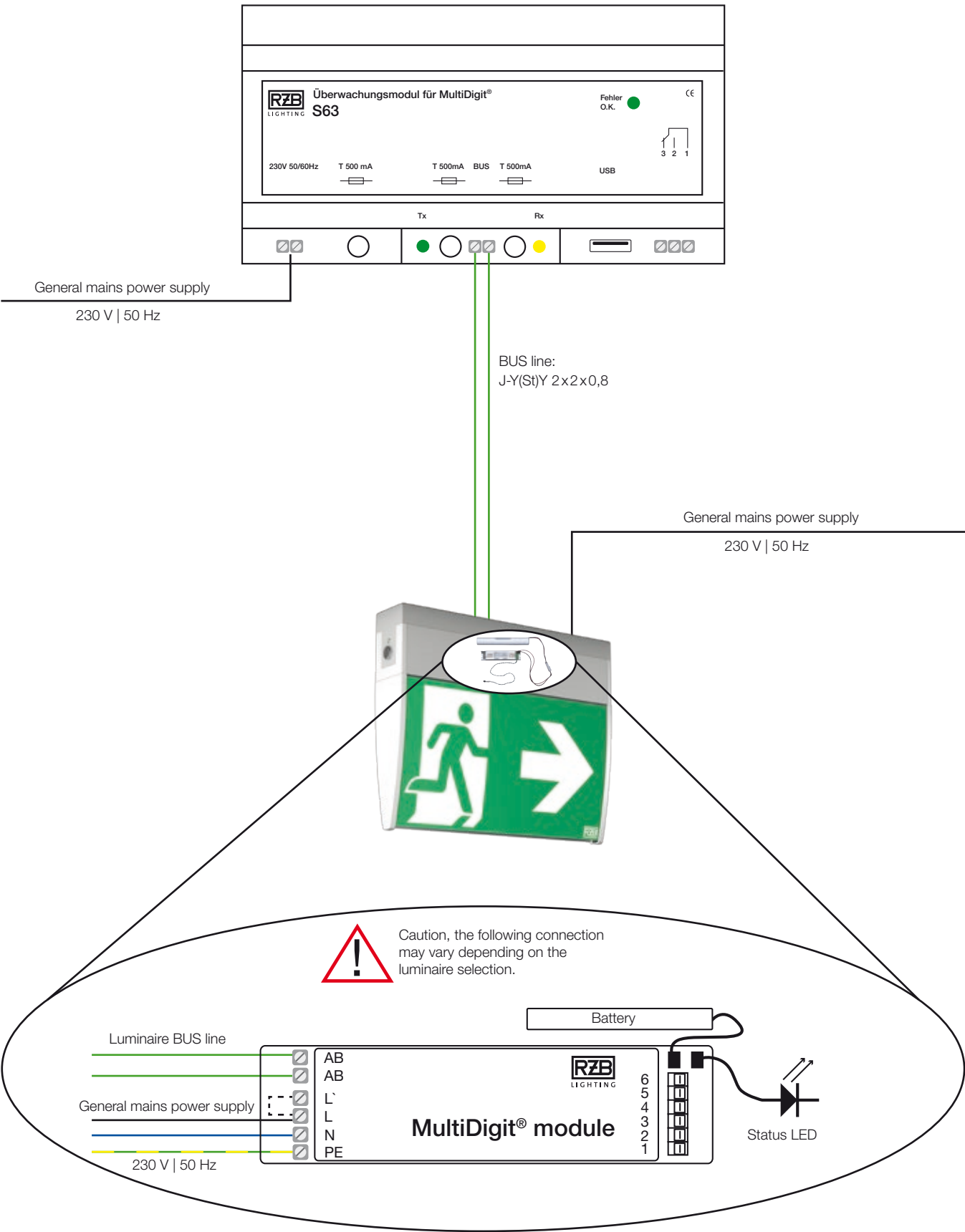
Monitoring system for RZB self-contained luminaires with order suffix **.04**

Type of protection:	IP 20
Protection class:	I
Power supply:	230 V / 50/60 Hz
Alarm delay:	10 seconds
Type of installation:	DIN profile track
Max. bus lenght:	1.000 m
Max. no. of luminaires that can be monitored:	63 Stück
Potential-free contact:	230 V AC / 5 A 24 V DC / 5 A

Monitoring system with MultiDigit® S63

981796.000 L 158, H 90, T 58

Monitoring via MultiDigit® S63
for max. 63 luminaires with max. 1000 m per BUS line

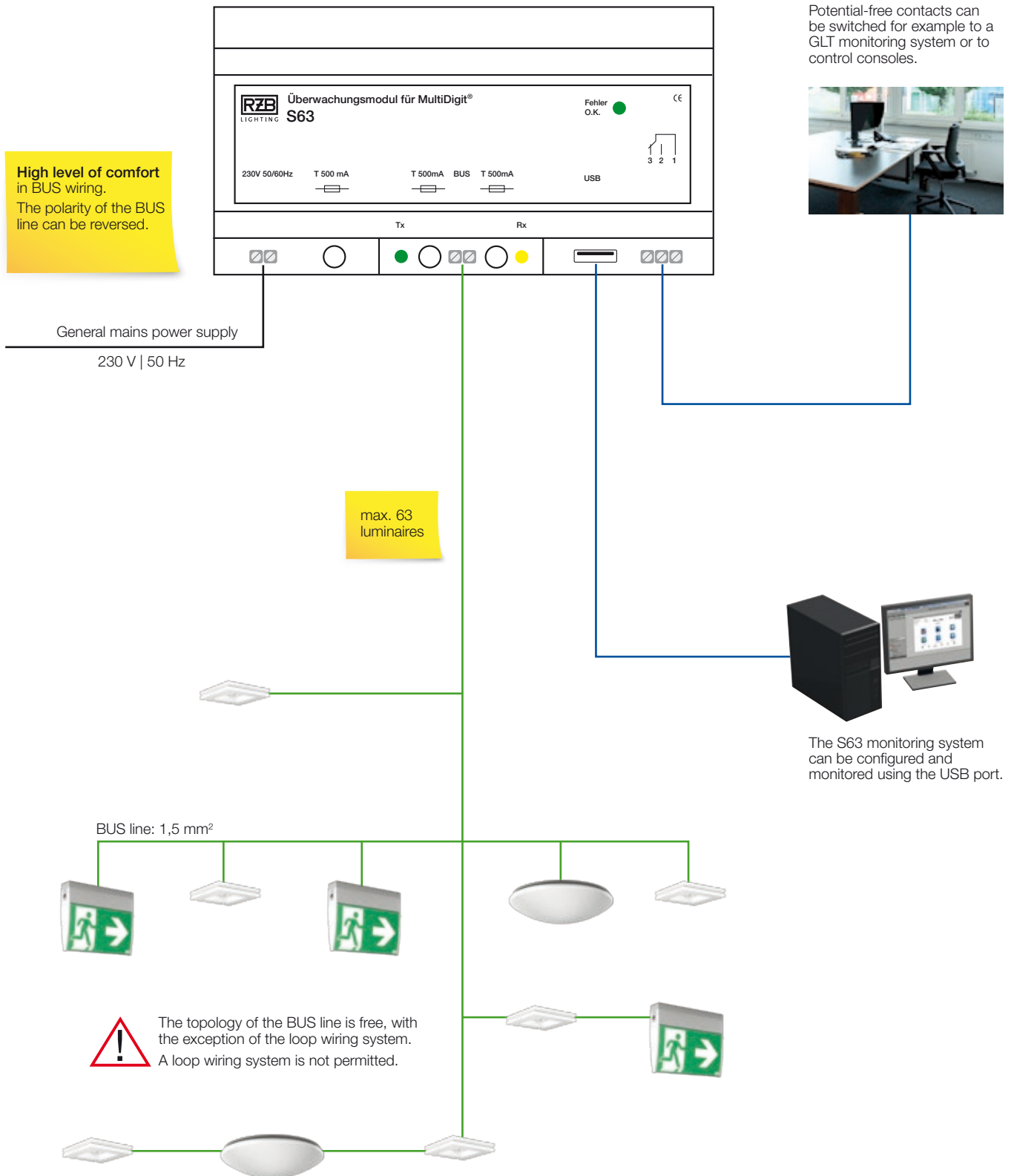


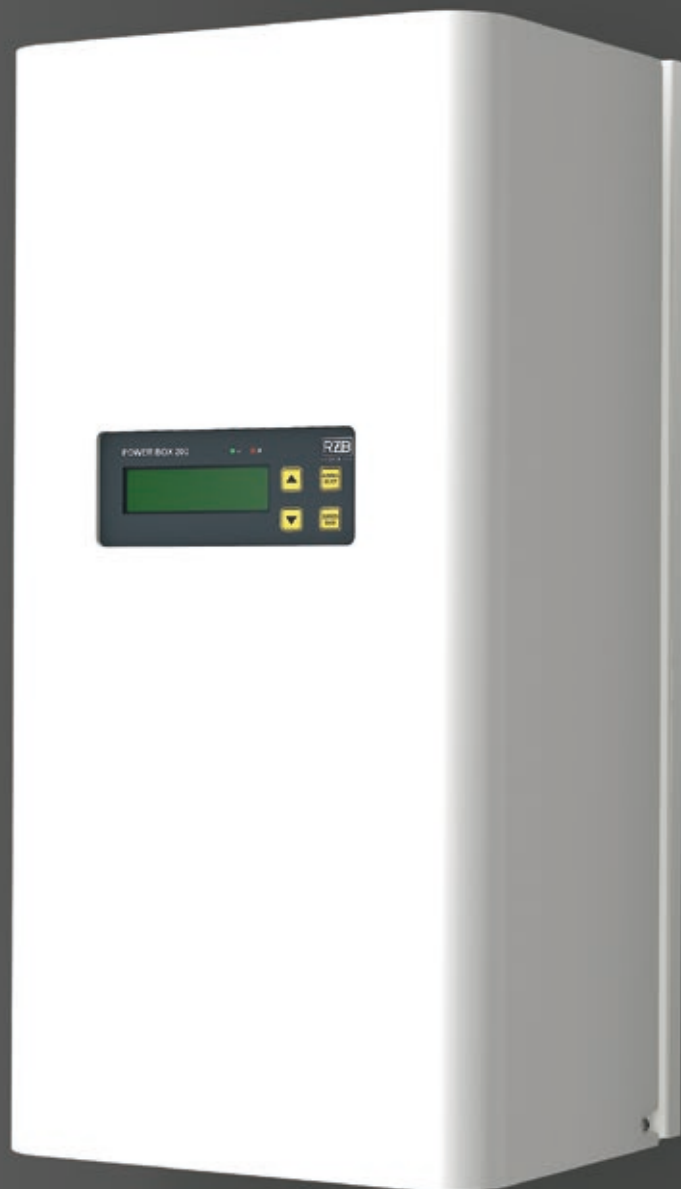
Monitoring via MultiDigit® S63

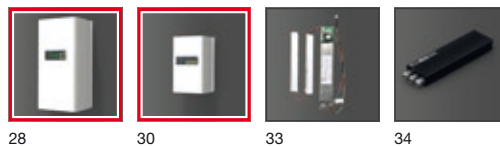
for max. 63 luminaires with max. 1000 m per BUS line

High level of comfort
in BUS wiring.
The polarity of the BUS
line can be reversed.

Potential-free contacts can
be switched for example to a
GLT monitoring system or to
control consoles.







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30

33

34



35

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Self-contained emergency conversion kits Connecting diagrams	37



Available from 1st quarter 2016

POWER BOX 200

Unrivalled: easy-to-use supply unit for emergency luminaires

Compact emergency power supply unit for 2 emergency luminaires

- Max. connectable load 200 Watts
- Rated operating time 1h | 3h | 8h
- Two outgoing circuits, individually switchable
- Input voltage 230 V AC
- Output voltage 230 V AC/DC
- Comfortable membrane keypad
- 2-Line LCD-Display
- Language german or english
- Menu-driven commissioning
- Inhibit mode
- Potential-free contact for collect failure
- Compact design
- Large terminal box
- Practical plug terminals
- Maintenance-free lead-acid battery



By choosing POWER BOX 200, you are selecting an advanced, cost-efficient and compact emergency power supply unit. The unit has two separate output circuits which can be switched on and off independently and supplies two emergency luminaires with enough power for either 1, 3 or 8 hours.

Setting new standards

The Power Box 200 sets new standards in user-friendly operation thanks to its two-line LCD display and a practical membrane keypad. The system status and all of the important parameters can be viewed altogether and easily controlled. The unit is started up by using the menu which is easy to follow. Even function test or duration test are made simple to carry out by using the membrane keypad.

Perfect for outdoor emergency luminaires

The permanent ambient temperature permitted for a self-contained luminaire cannot usually be maintained when the luminaire is outdoors. POWER BOX 200 can be placed up to 200 meters away from the emergency luminaire and can therefore also supply devices with power in outdoor areas. Situated indoors, the unit supplies luminaires with power in open (underground-)garages, cold stores and storage halls or also along escape routes, roofs, balconies or outdoor steps leading to a secure area or a public thoroughfare.

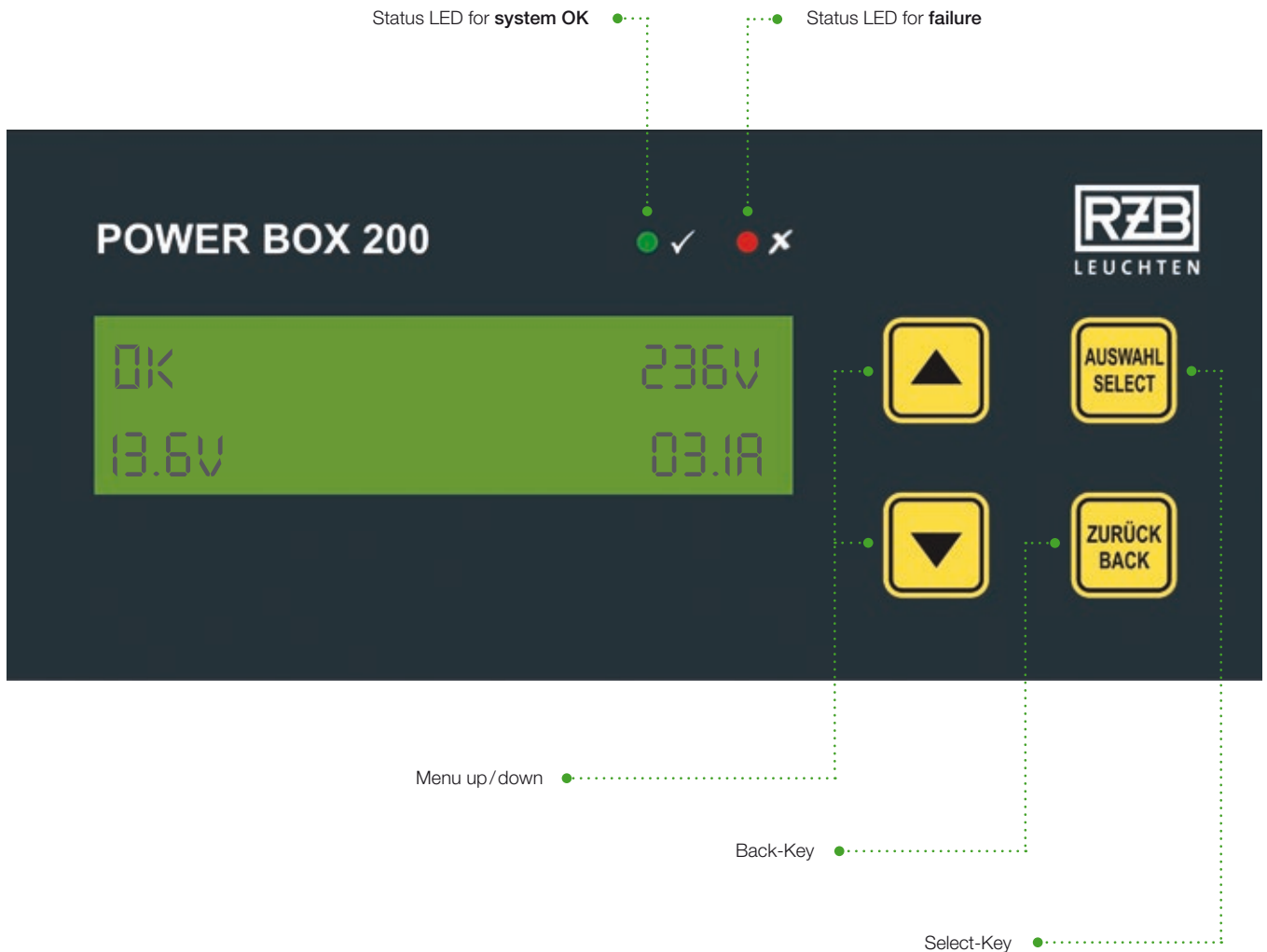
Real flexibility when positioning the unit

Definite advantage: in comparison to central batteries or group battery installations, the law does not specify any particular requirements for positioning emergency power supply units. The compact size and large range of the POWER BOX 200 provide you with even more options as to where you position the unit.

Areas of application:

- Outdoor luminaires
- Outdoor emergency staircases
- Emergency exit balconies
- Luminaires in environments with critical outdoor temperatures
- Luminaires whose housings have no space for emergency lighting modules
- Bollards or pole luminaires

DISPLAY | LCD-Display with membrane keypad



Batteries for POWER BOX 200

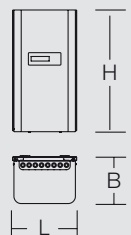
Reference number	1 h	3 h	8 h
67000.0.219	190 W	65 W	20 W
67000.0.220	200 W	80 W	25 W
67000.0.223	–	200 W	100 W

Technical data

Type of protection
Protection class
Rated operating time
Input voltage
Output voltage
Max. load
Outgoing circuits
Housing
Colour
Dimensions
Reference number
Battery

Power Box 200

IP 20
I
1h | 3h | 8h
230 V/50 Hz
230 V AC/DC
up to 200 W
two outgoing circuits, individually switchable
plastic / metal
white
L 350 x B 260 x H 665 mm
985494
Sealed, maintenance free, rechargeable lead-acid battery (please order separately)





Available from 1st quarter 2016

POWER BOX 20

Operated easily indoors. Secure supply for outdoors.

Compact emergency power supply unit for 1 emergency luminaire

- Max. connectable load 20 Watts
- Rated operating time 1h and 3h
- Input voltage 230 V AC
- Output voltage 230 V AC/DC
- Comfortable membrane keypad
- 9 LED status display
- Inhibit mode
- Potential-free contact for collect failure
- Compact design
- Large terminal box
- Practical plug terminals
- Maintenance-free lead-acid battery



POWER BOX 20 is an extremely easy-to-use, compact emergency power supply unit. The maintenance-free, long-life battery supplies 1 emergency luminaire with enough power for 1 to 3 hours.

Easier to use than any other module of its kind

POWER BOX 20 is fitted with a multi-functional display and is setting new standards in terms of how easy it is to use. 9 LEDs provide you with quick and clear information about the system's current status. The membrane keypad makes operating and controlling the unit extremely easy. Even function test or duration test can be started by simply pushing a button.

Perfect for outdoor emergency luminaires

The smart emergency power supply unit can be stretched over a distance of 200 metres and so is perfect for supplying outdoor emergency luminaires with power. POWER BOX 20 is the best solution for anywhere where the permanent ambient temperature permitted for a self-contained luminaire can not be maintained. Situated indoors, the unit supplies luminaires with power in open (underground-)garages, cold stores and storage halls or also along escape routes, roofs, balconies or outdoor steps leading to a secure area or a public thoroughfare.

No limitation on the kind of luminaire used

The POWER BOX 20 is especially suitable for luminaires with low output, that is, LED or fluorescent lamps up to a maximum of 18 Watts. However, all luminaire that can be run on 230 Volts AC/DC can be connected.

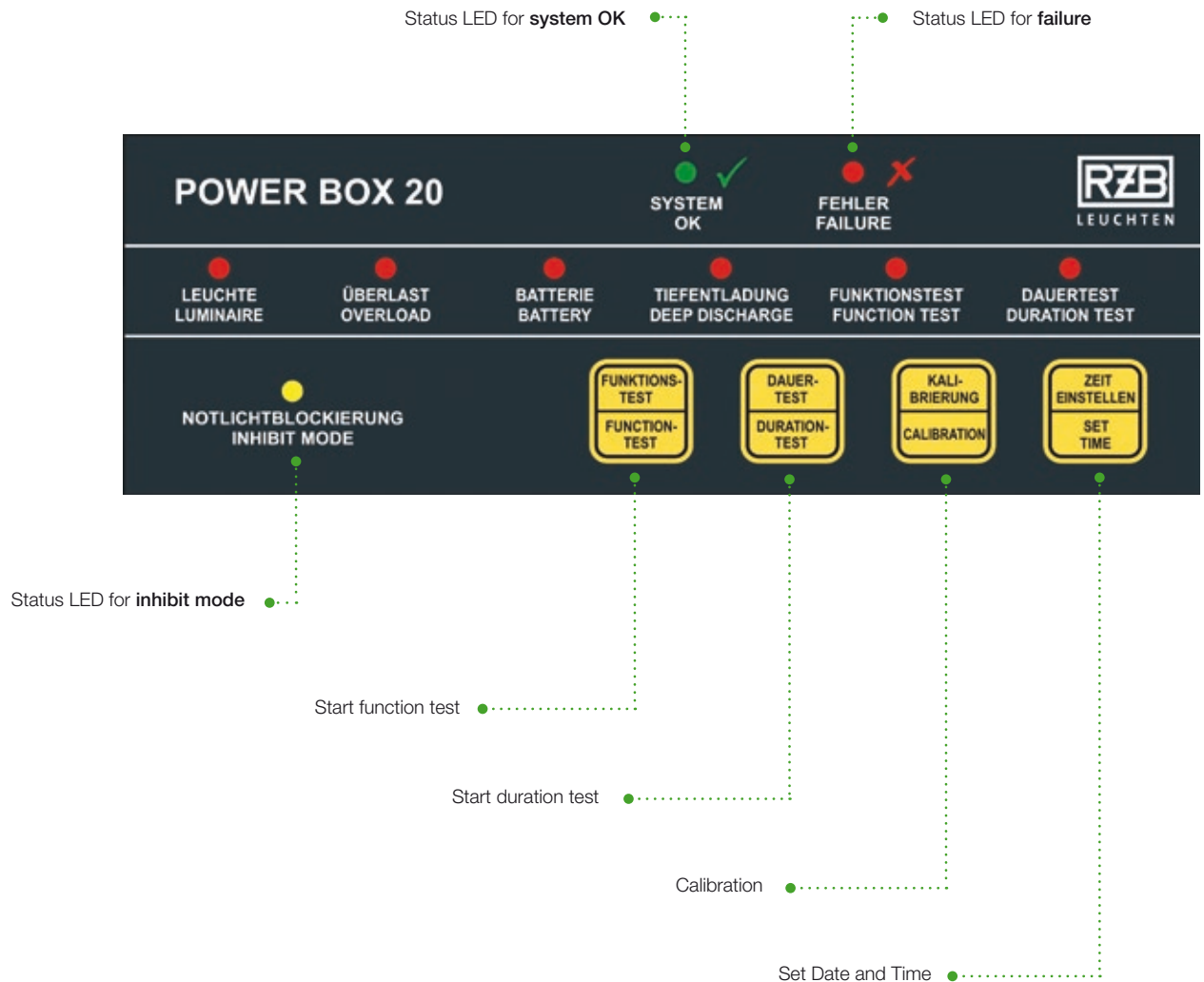
Real flexibility when positioning the unit

Definite advantage: in comparison to central batteries or group battery installations, the law does not specify any particular requirements for positioning emergency power supply units. The compact size and large range of the POWER BOX 20 provide you with even more options as to where you position the unit.

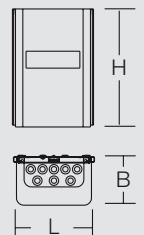
Areas of application:

- Individual luminaires in refrigerated warehouses
- Outdoor luminaires
- Luminaires in environments with critical outdoor temperatures
- Luminaires whose housings have no space for emergency lighting modules

DISPLAY | Multifunction-Display with membrane keypad



Technical data	Power Box 20
Type of protection	IP 20
Protection class	I
Rated operating time	1h 3h
Input voltage	230 V/50 Hz
Output voltage	230 V AC/DC
Max. load	20 W
Outgoing circuits	1
Housing	plastic / metal
Colour	white
Dimensions	L 210, B 130, H 310 mm
Reference number	985491
Battery	Sealed, maintainance free, rechargeable lead-acid battery (included)





EMERGENCY CONVERSION KITS
EMERGENCY LIGHTING FITMENT
POWER SUPPLY UNITS
CONVERSION KITS

System benefits

- High emergency ballast lumen factor reduces number of required luminaires
- Large LED indicator (5 mm)
- Constant light current control
- Complete series (standard, self-test, MultiDigit®)
- Universally suited for LLB/EB, irrespective of manufacturer
- Conversion kits for DALI available (upon request)

Universal installation kit for luminaires of general purpose lighting

Electronic module housing: metal, galvanised. Charging indicator lamp (LED): standard. NiCd high-temperature rechargeable battery and instructions for retrofitting this module into existing luminaires are included.

The modules conform to VDE0108 and EN60598, part 2-22.

After conversion the luminaire can be operated in maintained or non-maintained power mode. This module can be used together with the low-loss ballast (4-pin lamp holder, external starter required) or EB of the luminaire.

The ballast in the luminaire controls operation of the lamp(s) when mains power is applied. Should the mains power supply fail, one lamp is automatically powered by the battery via the emergency conversion kit.

Areas of application:

Converting general purpose lighting luminaires into self-contained safety luminaires.

Connecting diagrams:

You can find suitable connection diagrams on Pages 34 - 39.

Technical data	Emergency conversion kits Emergency lighting fitment Power supply units Conversion kits
Type of protection	IP 20
Protection class	I
Housing	metal, galvanized
Battery	NiMh high-temperature battery

LEH emergency lighting module for LED luminaires

General Information

The emergency lighting elements of the RZB LEH series are suitable for use in emergency lighting systems complying with VDE 0108 or EN50172. They are produced in accordance with EN60598-2-22 and IEC 61347-2-13. The LEH emergency lighting module must be used in a combination of LED driver for mains operation and an LED. That is, the LED driver must always be separate from the LED! In mains operation, the connected LED is supplied by the LED driver, while in emergency mode, the LED is supplied by the LEH emergency lighting module.

Conditions

To be able to use the LEH emergency lighting element in an LED luminaire, the following conditions must be met:

1. The LED must be supplied with \pm through two connecting cables.
2. Different or additional control cables in the LED (for voltage / signals) are not permitted.
3. The two connecting cables (\pm) of the LED must be freely accessible.
4. With electronic current limitation, the rated output of the LED in mains operation must be higher than the output that the emergency lighting module can supply in emergency mode.
5. The maximum current in mains operation must not be higher than 2.5A.

Compatibility

Before an LEH emergency lighting element is used in an LED luminaire, its compatibility with the LED configuration must be tested.



LED

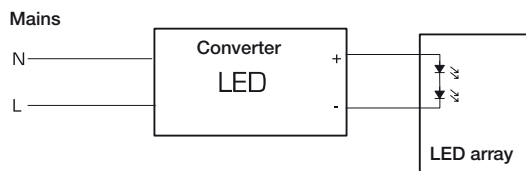
	Emergency lighting module for LED incl. battery Standard with automatic self-test			
Max. operating voltage DS	12 - 25 V	12 - 50 V	20 - 130 V	30 - 220 V
Max. operating voltage in no-load operation	33 V	60 V	150 V	250 V
Controlled output in emergency mode	3 W	3 W	3 W	3 W
Rated operating time	3 h	3 h	3 h	3 h
Module dimensions (mm)	210 x 32 x 22	210 x 32 x 22	210 x 32 x 22	210 x 32 x 22
Battery (NiMh)	NiMh 4,8 V / 4,5 Ah	NiMh 4,8 V / 4,5 Ah	NiMh 4,8 V / 4,5 Ah	NiMh 4,8 V / 4,5 Ah
Battery dimensions (mm)	D 19, L 2 x 180	D 19, L 2 x 180	D 19, L 2 x 180	D 19, L 2 x 180
Reference number	09-6554.040	09-6555.040	09-6556.040	09-6557.040
Spare battery	67000.0.207	67000.0.207	67000.0.207	67000.0.207

	Emergency lighting module for LED incl. battery with bus connection for MultiDigit [®] monitoring system			
Max. operating voltage DS	12 - 25 V	12 - 50 V	20 - 130 V	30 - 220 V
Max. operating voltage in no-load operation	33 V	60 V	150 V	250 V
Controlled output in emergency mode	3 W	3 W	3 W	3 W
Rated operating time	3 h	3 h	3 h	3 h
Module dimensions (mm)	210 x 32 x 22	210 x 32 x 22	210 x 32 x 22	210 x 32 x 22
Battery (NiMh)	NiMh 4,8 V / 4,5 Ah	NiMh 4,8 V / 4,5 Ah	NiMh 4,8 V / 4,5 Ah	NiMh 4,8 V / 4,5 Ah
Battery dimensions (mm)	D 19, L 2 x 180	D 19, L 2 x 180	D 19, L 2 x 180	D 19, L 2 x 180
Reference number	09-6554.050	09-6555.050	09-6556.050	09-6557.050
Spare battery	67000.0.207	67000.0.207	67000.0.207	67000.0.207

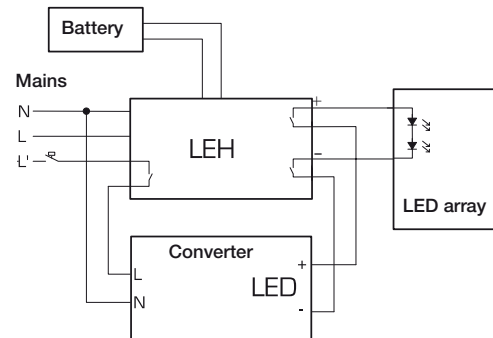
	Emergency lighting module for LED incl. battery with bus connection for RZB DALI monitoring system			
Max. operating voltage DS	12 - 25 V	12 - 50 V	20 - 130 V	30 - 220 V
Max. operating voltage in no-load operation	33 V	60 V	150 V	250 V
Controlled output in emergency mode	3 W	3 W	3 W	3 W
Rated operating time	3 h	3 h	3 h	3 h
Module dimensions (mm)	210 x 32 x 22	210 x 32 x 22	210 x 32 x 22	210 x 32 x 22
Battery (NiMh)	NiMh 4,8 V / 4,5 Ah	NiMh 4,8 V / 4,5 Ah	NiMh 4,8 V / 4,5 Ah	NiMh 4,8 V / 4,5 Ah
Battery dimensions (mm)	D 19, L 2 x 180	D 19, L 2 x 180	D 19, L 2 x 180	D 19, L 2 x 180
Reference number	09-6554.060	09-6555.060	09-6556.060	09-6557.060
Spare battery	67000.0.207	67000.0.207	67000.0.207	67000.0.207

LED self-contained emergency conversion kits | Connecting diagrams

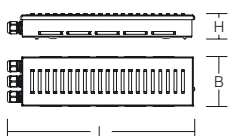
Standard LED luminaire



Wiring LED luminaire with emergency module



Emergency conversion kit for fluorescent lamps



Ideally suited for converting general purpose lighting luminaires into self-contained safety luminaires

Type of protection: IP 30

Protection class: I

Housing: metal, powder-coated. NiCd rechargeable battery included.

The low-loss ballast (4-pin lamp holder, external starter required) or the EB of the luminaire to be converted powers the lamp in mains mode. The emergency light module automatically powers the lamp in emergency mode. Switching mode: either maintained mode or non-maintained mode. Luminaire equipment, power supply units: charging indicator (LED), standard. Maintenance-free NiCd rechargeable batteries. Nominal operating time: 1 or 3 hours. Max. length of cable between emergency supply unit and lamp: LLB = 2 m, EB = 0.5 m. Permissible ambient temperature: 0 -40° C. Emergency ballast lumen factors, see previous page.

Available colours: 2 = white, 3 = black

Emergency conversion kit for fluorescent lamps in recessed or surface mounted housing L 390, B 100, H 55

981158.003	1h	6-80 W	2,3 kg
981158.003.04	1h	6-80 W	2,3 kg
981159.003	3h	6-80 W	2,3 kg
981159.003.04	3h	6-80 W	2,3 kg
981160.003	1h	14-80 W	2,3 kg
981160.003.04	1h	14-80 W	2,3 kg
981161.003	3h	14-80 W	2,5 kg
981161.003.04	3h	14-80 W	2,5 kg

Emergency conversion kit for fluorescent lamps

Ideally suited for converting general purpose lighting luminaires into self-contained safety luminaires

Type of protection: IP 20

Protection class: I

Electronic module housing: metal, galvanised. Charging indicator lamp (LED): standard. NiCd high-temperature rechargeable battery and instructions for retrofitting in luminaires included. The modules conform to VDE0108 and EN60598 Part 2-22. The converted luminaire can be operated in maintained (DS) or non-maintained (BS) power mode. The module can be used together with the low-loss ballast (4-pin lamp holder, external starter required) or EB luminaire equipment. The ballast in the luminaire controls operation of the lamp(s) when mains power is applied. Should the mains power supply fail, the lamp is automatically powered by the battery through the emergency conversion kit.



	Emergency kits 4 – 13 W (battery included)	Standard emergency kits 6 – 80 W (battery included)		Emergency conversion kits with high emergency ballast lumen factor 14 – 80 W (battery included)	
	Rated operating time 3h	Rated operating time 1h	Rated operating time 3h	Rated operating time 1h	Rated operating time 3h
Standard module					
Reference number	09-6453.010	09-6284.000	09-6287.000	09-6290.000	09-6293.000
MultiDigit® module (version .04)					
Reference number	09-6453.020	09-6286.000	09-6289.000	09-6292.000	09-6295.000
Module dimensions	150 x 31 x 23	180 x 40 x 28	180 x 40 x 28	180 x 40 x 28	180 x 40 x 28
Battery	3,6 V/4,5 Ah	4,8 V/1,8 Ah	4,8 V/4,5 Ah	4,8 V/4,5 Ah	7,2 V/4,5 Ah
Battery dimensions	D 33, L 182	D 24, L 2 x 88	D 33, L 242	D 33, L 242	D 33, L 2 x 182
Spare battery					
Spare battery	67000.0.63	67000.0.61	67000.0.62	67000.0.62	67000.0.63*

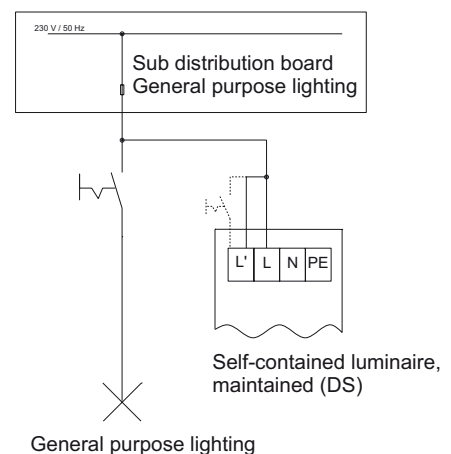
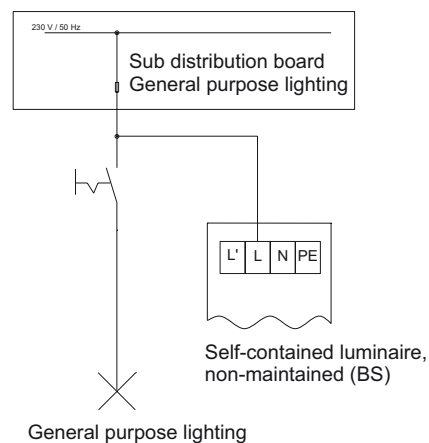
* 2 batteries required

Please note:

Constant phase = charging phase
must always be connected to L.

If the gate input is used, the same phase must
be applied to L' as to L.

The circuit must be potential-free.



Emergency ballast lumen factor

	Emergency kits 4 – 13 W (battery included)	Standard emergency kits 6 – 80 W (battery included)		Emergency conversion kits with high emergency ballast lumen factor 14 – 80 W (battery included)	
		Rated operating time 1h	Rated operating time 3h	Rated operating time 1h	Rated operating time 3h
Lamp/Wattage	Emergency ballast lumen factor mains/emergency in %				
T16 4 W	53%	–	–	–	–
T16 6 W	35%	50%	50%	–	–
T16 8 W	26%	37%	37%	–	–
T16 13 W	–	23%	23%	–	–
T16 14 W	–	21%	21%	49%	32%
T16 21 W	–	14%	14%	32%	21%
T16 24 W	–	12%	12%	28%	18%
T16 28 W	–	10%	10%	24%	16%
T16 35 W	–	8%	8%	19%	12%
T16 39 W	–	7%	7%	17%	11%
T16 49 W	–	6%	6%	14%	9%
T16 54 W	–	5%	5%	12%	8%
T16 80 W	–	3%	3%	8%	5%
T26 10 W	–	30%	30%	69%	45%
T26 15 W	–	20%	20%	46%	30%
T26 16 W	–	18%	18%	43%	28%
T26 18 W	–	16%	16%	38%	25%
T26 30 W	–	10%	10%	23%	15%
T26 36 W	–	8%	8%	19%	12%
T26 58 W	–	5%	5%	11%	7%
TC-L 18 W	–	16%	16%	38%	25%
TC-L 24 W	–	12%	12%	28%	18%
TC-L 36 W	–	8%	8%	19%	12%
TC-L 40 W	–	7%	7%	17%	11%
TC-L 55 W	–	5%	5%	12%	8%
TC-EL 5 W	42%	50%	50%	–	–
TC-EL 7 W	30%	42%	42%	–	–
TC-EL 9 W	23%	33%	33%	–	–
TC-EL 11 W	19%	27%	27%	–	–
TC-DEL 10 W	21%	30%	30%	–	–
TC-DEL 13 W	16%	23%	23%	–	–
TC-DEL 18 W	–	16%	16%	38%	25%
TC-DEL 26 W	–	11%	11%	26%	17%
TC-TEL 18 W	–	16%	16%	38%	25%
TC-TEL 26 W	–	11%	11%	26%	17%
TC-TEL 32 W	–	9%	9%	21%	14%
TC-TEL 42 W	–	–	–	16%	10%
T16-R 22 W	–	13%	13%	31%	20%
T16-R 40 W	–	7%	7%	17%	11%
T16-R 55 W	–	5%	5%	12%	8%
T16-R 60 W	–	5%	5%	11%	7%
T29-R 22 W	–	13%	13%	31%	20%
T32-R 32 W	–	9%	9%	21%	14%
T32-R 40 W	–	7%	7%	17%	11%

The above indicated emergency ballast lumen factors are recommended hypothetical values for ambient temperatures of 25° C. Colour rendering and luminous flux in emergency mode are mainly determined by lamp temperature and/or luminaire design and construction, light should be measured at lower temperatures for each type of luminaire. Any lamp manufactured with amalgam technology, such as the Philips PL-T TOP, shall be excluded and shall be subject to prior testing. Only quality products from reputable vendors are to be used. The values in the table above are intended as recommendations only and are subject to change. All applications shall be subject to prior testing. We reserve the right to effect changes in the table above without prior notice.

T16/T5 tubes have a so-called "cold spot" at the tip of the tube, usually positioned at that tube tip which bears the lettering. For improved emergency mode, this cold spot or tube tip should be connected to outputs 6 and 8 of the lamp terminal. The luminaire should be marked in such a way as to ensure that the tube is inserted in the right direction.

Self-contained emergency conversion kits | Connecting diagrams

The diagrams shown below refer to emergency conversion kits with the following article numbers

Standard	MultiDigit (.04)
09-6453.010	09-6453.020
09-6284.000	09-6286.000
09-6287.000	09-6289.000
09-6290.000	09-6292.000
09-6293.000	09-6295.000

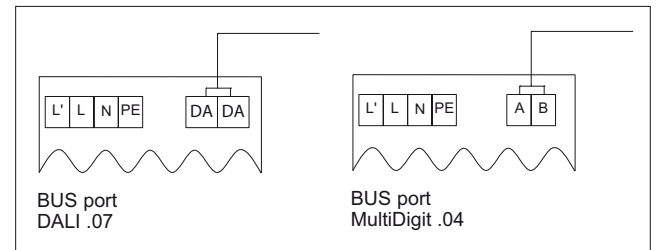
Attention: Connection diagrams with more than one lamp: one lamp starts in emergency mode.

In case your luminaires/EB are not suitable for these diagrams, please do not hesitate to contact us. We are looking forward to helping you.

Legend:

DA BUS connecting terminal for DALI interface .07

AB BUS connecting terminal, version for MultiDigit® .04



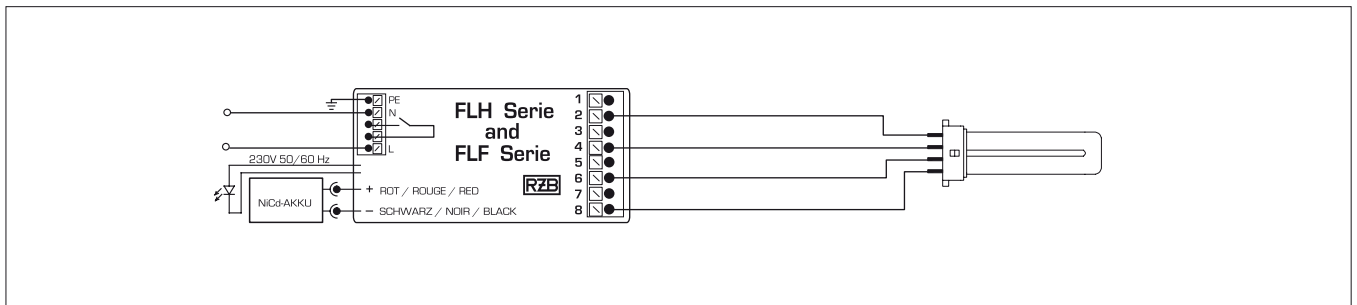
Please note:

Constant phase = charging phase must always be connected to L.

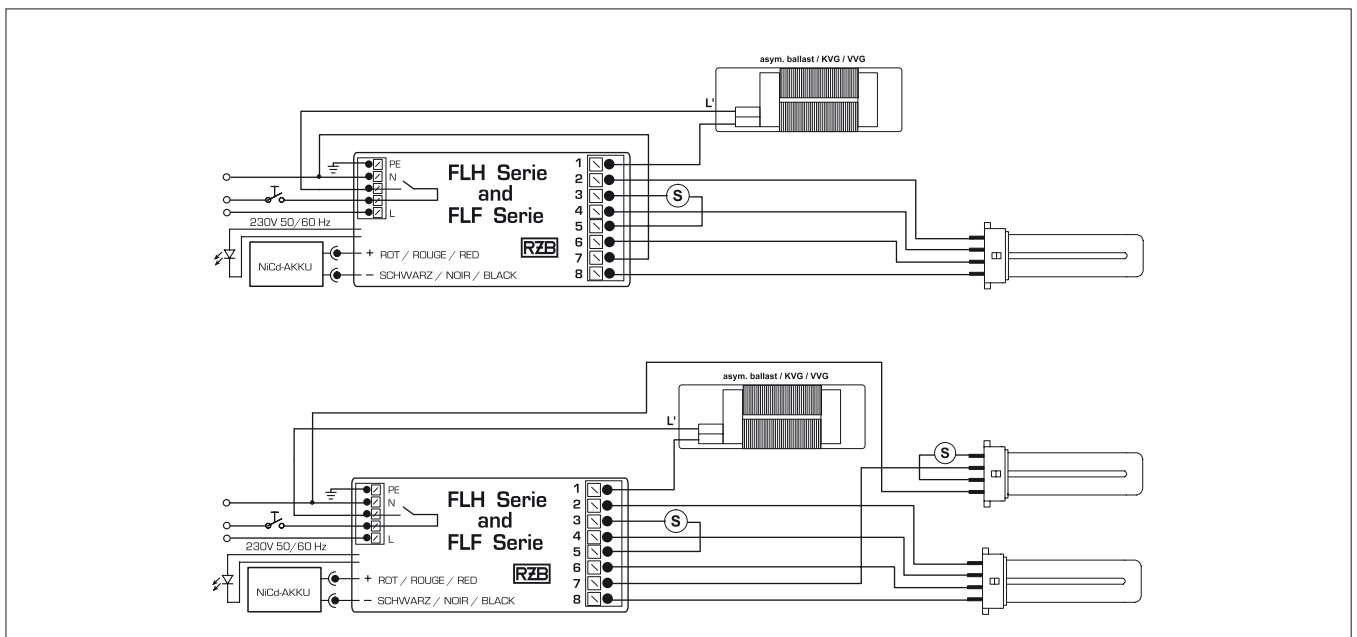
If the switch entrance is used, the same phase must be applied to L' as to L.

The circuit must be potential-free.

Connecting diagram 1: non-maintained

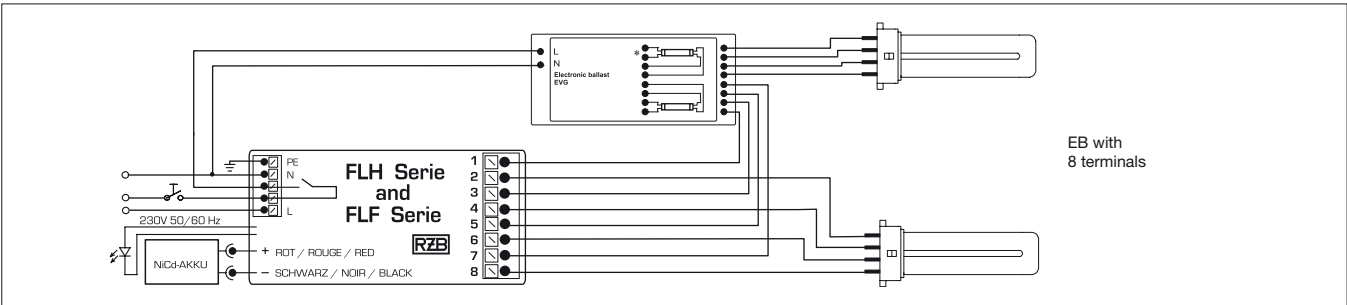
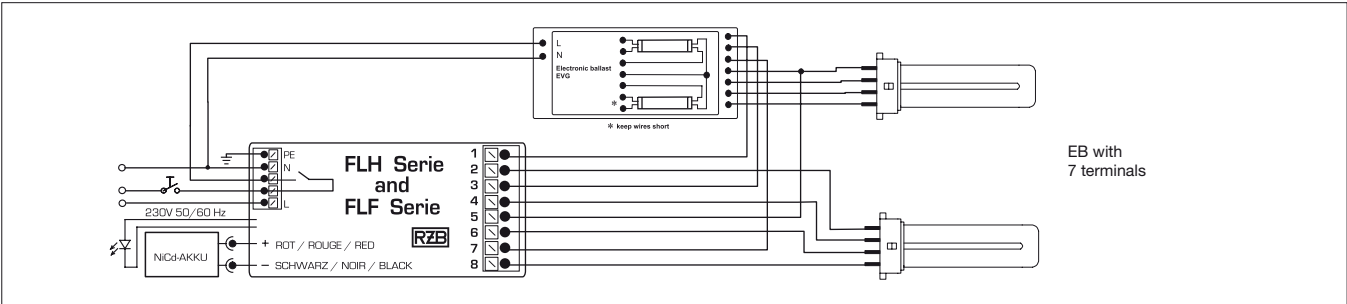
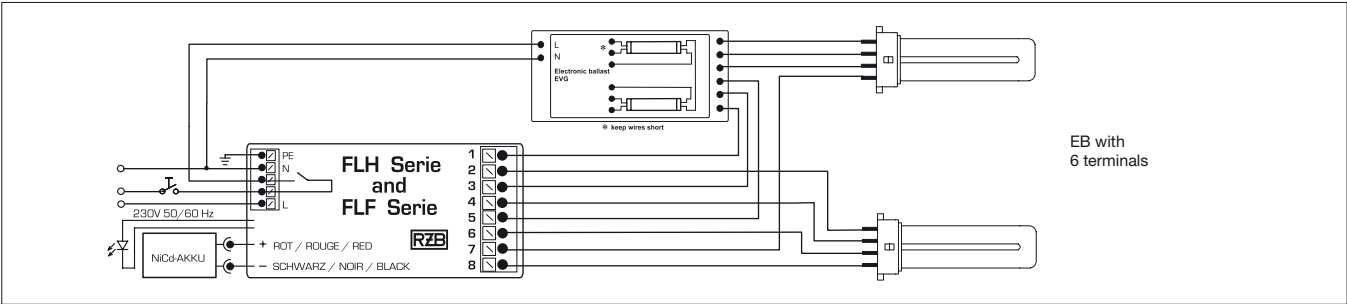
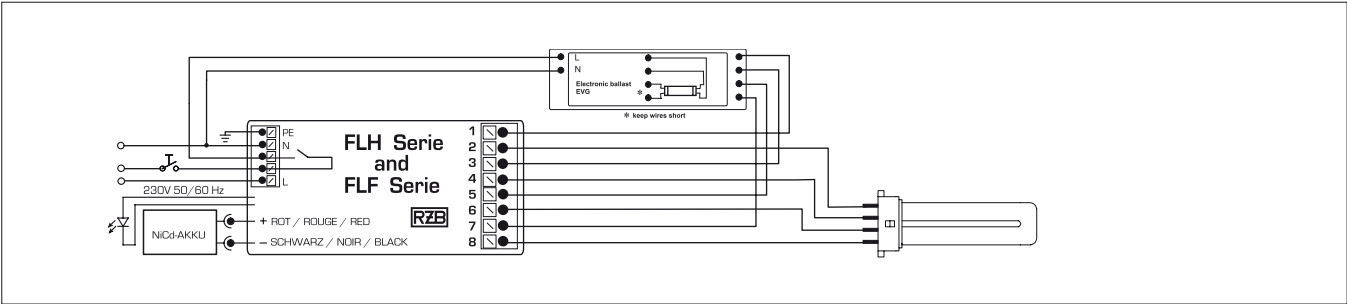


Connecting diagram 2: maintained, with CB/LLB for self-contained emergency conversion kits



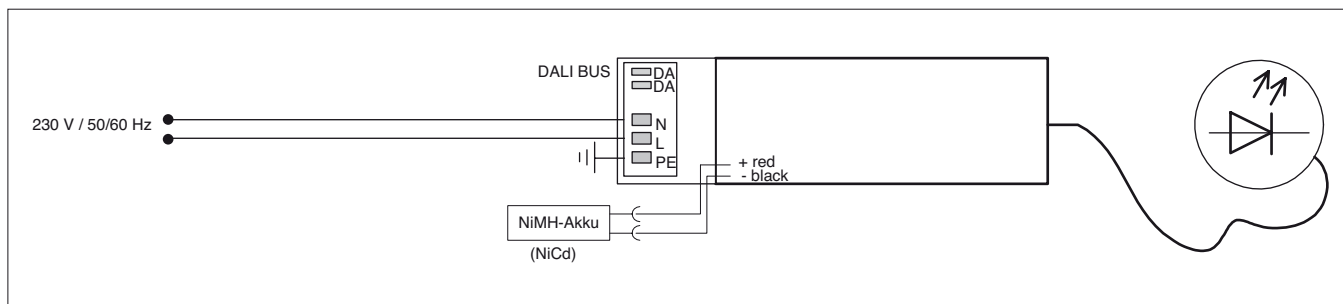
Self-contained emergency conversion kits | Connecting diagrams

Connecting diagram 3: maintained, with EB

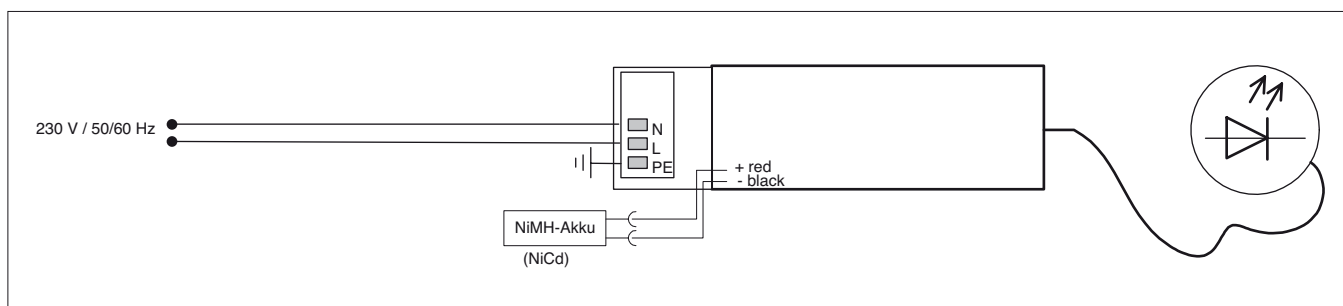


Self-contained emergency conversion kits | Connecting diagrams (Turia/Edo)

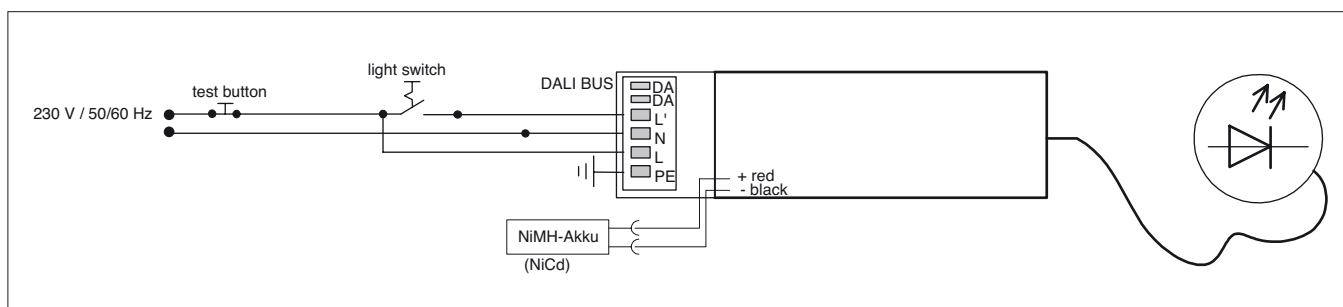
Turia / Edo: non-maintained, with DALI communication



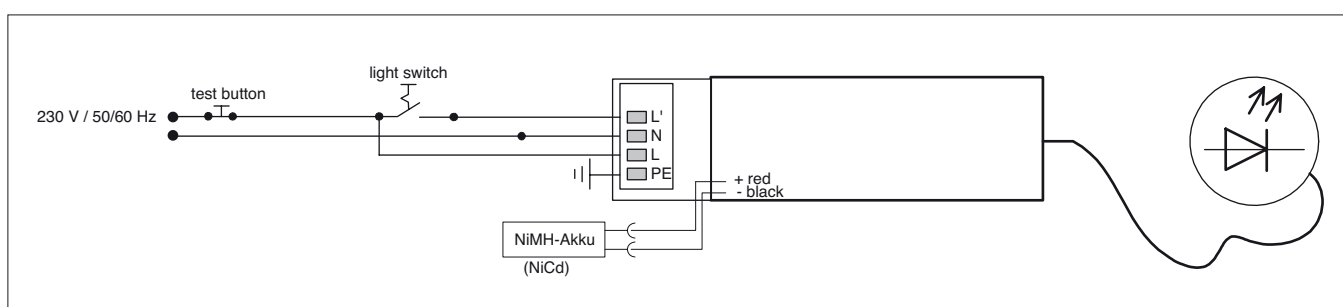
Turia / Edo: non-maintained



Turia / Edo: maintained, with DALI communication



Turia / Edo: maintained







Central Power Supply (CPS)	43
LUXIFAIR	44
Modular Central Power Supply (Sub-stations can be connected)	
LUXIFAIR <i>light</i>	50
Modular Central Power Supply (Sub-stations cannot be connected)	
RZB <i>basic</i>	52
Central Power Supply with fused output circuits	
Low Power Supply (LPS)	57
KV 1500	58
Modular battery system	
Quattro	60
Group battery system	
Accessories	
Battery cabinets, batteries	64
Monitoring modules, message and switchboards, etc.	66



Central Power Supply (CPS) in comparison

Type of system	LUXIFAIR	LUXIFAIR ^{light}	RZB ^{basic}
Module technology	•	•	•
Free programmable final circuits (maintained, non maintained)	•	•	–
AC-Control-Technology mixed operation mode BS/DS/GDS	•	•	–
Circuit monitoring	•	•	optional
Single luminaire monitoring (without BUS line)	•	•	–
AC-Control	•	•	–
Switches E-Switch (for installation in luminaires)	optional	optional	optional
UE220e (for installation in distribution boards)	optional	optional	optional
Sub distribution board	optional	–	optional
Sub-station (with same changeover and reporting functions as base)	optional	–	optional
Visualisation	optional	optional	–
Network connection	•	•	–
Staircase light switching	•	•	optional
Voltage [V] DC	216 V	216 V	24/42/48/60/110/216 V
Voltage [V] AC	230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz
			

LUXIFAIR | Central Power Supply (CPS)

- Fully automated, processor-controlled monitoring system
- Compact design of center board and sub-stations
- Mixed operation mode of all switching modes within one electric circuit
- Free choice of power source (Battery, EPS, second mains power supply)
- Single luminaire monitoring for DC and AC networks
- Integrated freely selectable single luminaire or circuit monitoring
- A PC can be connected for free programming of all system and customer data
- Single-wire technology to sub distribution boards
- Highly secure thanks to intelligent sub-stations with sub-masters for autonomous operation mode
- Remote maintenance via phone or internet
- SD card for programming, display texts, test log, etc.
- Programming software included

For more LUXIFAIR options:
see from page 66

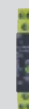
AC-Control
for single luminaire
monitoring and mixed
operation mode



AC-Control DALI
for single luminaire
monitoring and mixed
operation mode



3-phase network
monitoring module



3-phase network
monitoring module
for Bus communication



Message and switchboard



Printer for operating status
messages and testing
protocols



RZB LUXIFAIR is a series of
modular systems that can be
configured individually.

Additional LUXIFAIR options

Battery cabinet
page 64



Technical data	LUXIFAIR
Type of protection	IP 21
Protection class	I
Housing	Metal
Colour (Housing and doors)	RAL 7035 (light grey)



LUXIFAIR | Master

Microprocessor control and monitoring unit

The Master is a freely programmable control unit that also acts as the communication interface. The Master can be supported by further sub-masters, which form their own self-enclosed systems, but are always managed by the Master and communicate with each other via the Master bus or exchange switching commands that apply to both Master and sub-masters. Each master/sub-master forms its own communication bus, thus preventing communication overload on the overall system's bus systems.

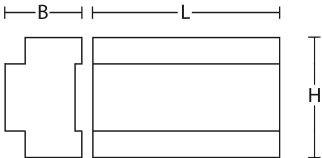
The Master unit provides all of the monitoring functions required by the applicable VDE and EN standards and is equipped with the following features:

- Illuminated blue-design-display: 4 lines with 20 characters each
- Plain text display of all reports
- 6 membrane buttons for operating the unit
- Operating states reports via LED
- Buffer storage for reports and function tests dating back more than 4 years
- USB – interface for connecting a PC
- SD card for programming, display texts, test log etc.
- 3 RS232 interfaces for expansion modules (print box, visualisation, phone line box, etc.)
- Remote maintenance via phone or internet
- Visualisation of the entire system on incorporated or existing PC (option)
- 8 freely programmable digital inputs
- Windows-compatible embOS (embedded operating system)
- Programmable function keys for rapid access to frequently used functions
- Plain text display of local emergency modes
- Automatic search for specific luminaire addresses
- 8 programmable switching options per electric circuit

LUXIFAIR Master is the system's central intelligence. It performs all of the monitoring, log and test functions stipulated in EN 50172 and EN 50171 and stores them on an SD card.

The emergency lighting system can be programmed using the illuminated display or very conveniently using a laptop/PC. LUXIFAIR Master, standard version, is equipped with a USB port.

As an option the Master can also be integrated into a safety lighting sub-station.



Technical data	LUXIFAIR Master
Type of protection	IP 20
Protection class	I
Display	4 x 20 characters
Type of installation	top hat rail
Space requirements	9 module spaces (MS)
Operation	6 x function keys or PC via USB
Special features	8 freely programmable inputs
Ports	1x USB, 3x RS232 via RJ45 jacks
Housing	plastic
Colour	grey
Dimensions	L 157, B 61, H 90 mm

LUXIFAIR | Sub distribution boards

Similar to illustration



PVC housing



steel cabinet

Sub distribution board WITHOUT fire-protected housing

Type	Dimensions (mm)	Power infeed terminal	Max. wattage (kW)	Outgoing circuits
PVC housing*				
UV2 PVC-1	H 385, B 295, T 110	3 x 16 mm ²	4	4
UV2 PVC-2	H 385, B 295, T 110	3 x 16 mm ²	4	8
Steel cabinet				
UV-SG-1	H 600, B 400, T 250	3 x 16 mm ²	4	4
UV-SG-2	H 600, B 400, T 250	3 x 16 mm ²	4	8
UV-SG-3	H 600, B 400, T 250	3 x 16 mm ²	4	12
UV-SG-4	H 800, B 600, T 250	3 x 35 mm ²	10	16
UV-SG-5	H 800, B 600, T 250	3 x 35 mm ²	10	20
UV-SG-6	H 800, B 600, T 250	3 x 35 mm ²	10	24
UV-SG-7	H 800, B 600, T 250	3 x 35 mm ²	10	28
UV-SG-8	H 800, B 600, T 250	3 x 35 mm ²	10	32
UV-SG-9	H 1000, B 600, T 250	3 x 35 mm ²	10	36
UV-SG-10	H 1000, B 600, T 250	3 x 35 mm ²	10	40
UV-SG-11	H 1000, B 600, T 250	3 x 35 mm ²	10	44

* Version with IOM 230 or IOM 24 possible. Sub distribution boards can be configured to customer's specific requirements. Fire-protected version (E 30) available upon request.



Sub distribution board WITH E30 fire-protected housing (incl. ventilation system)

Type	Abmessung (mm)	Power infeed terminal	Max. wattage (kW)	Outgoing circuits
Steel cabinet				
UV-E30-1	H 768, B 418, T 396	3 x 16 mm ²	4	4
UV-E30-2	H 768, B 418, T 396	3 x 16 mm ²	4	8
UV-E30-3	H 768, B 418, T 396	3 x 16 mm ²	4	12
UV-E30-4	H 768, B 668, T 396	3 x 35 mm ²	10	16
UV-E30-5	H 768, B 668, T 396	3 x 35 mm ²	10	20
UV-E30-6	H 768, B 668, T 396	3 x 35 mm ²	10	24
UV-E30-7	H 768, B 668, T 396	3 x 35 mm ²	10	28
UV-E30-8	H 768, B 668, T 396	3 x 35 mm ²	10	32
UV-E30-9	H 1068, B 668, T 396	3 x 35 mm ²	10	36
UV-E30-10	H 1068, B 668, T 396	3 x 35 mm ²	10	40
UV-E30-11	H 1068, B 668, T 396	3 x 35 mm ²	10	44

Technical data

LUXIFAIR sub distribution board

Connection

block terminals

Type of installation

surface mounting

Fire-protected

optional (additional cost)

Housing

plastic/metal

Door stop

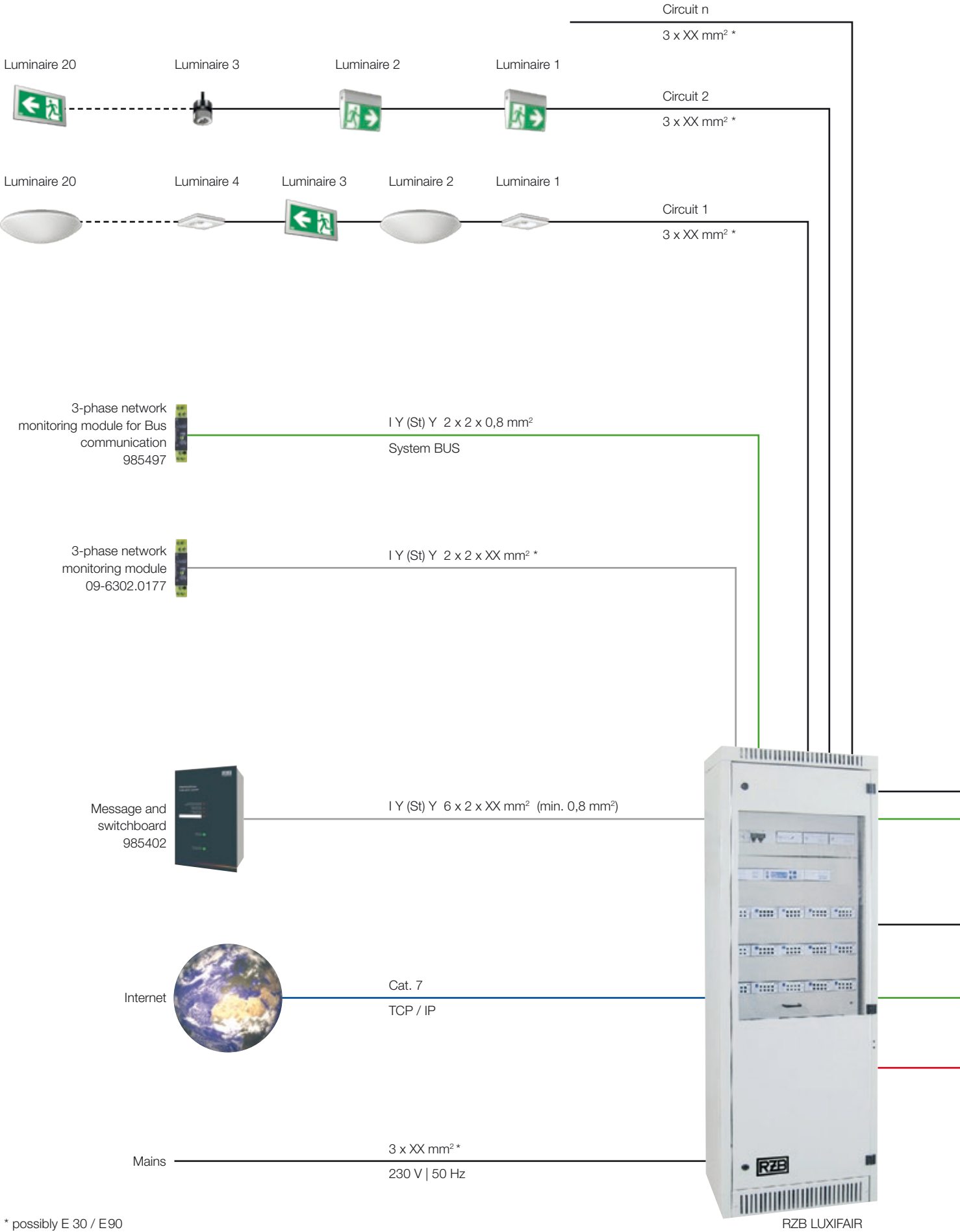
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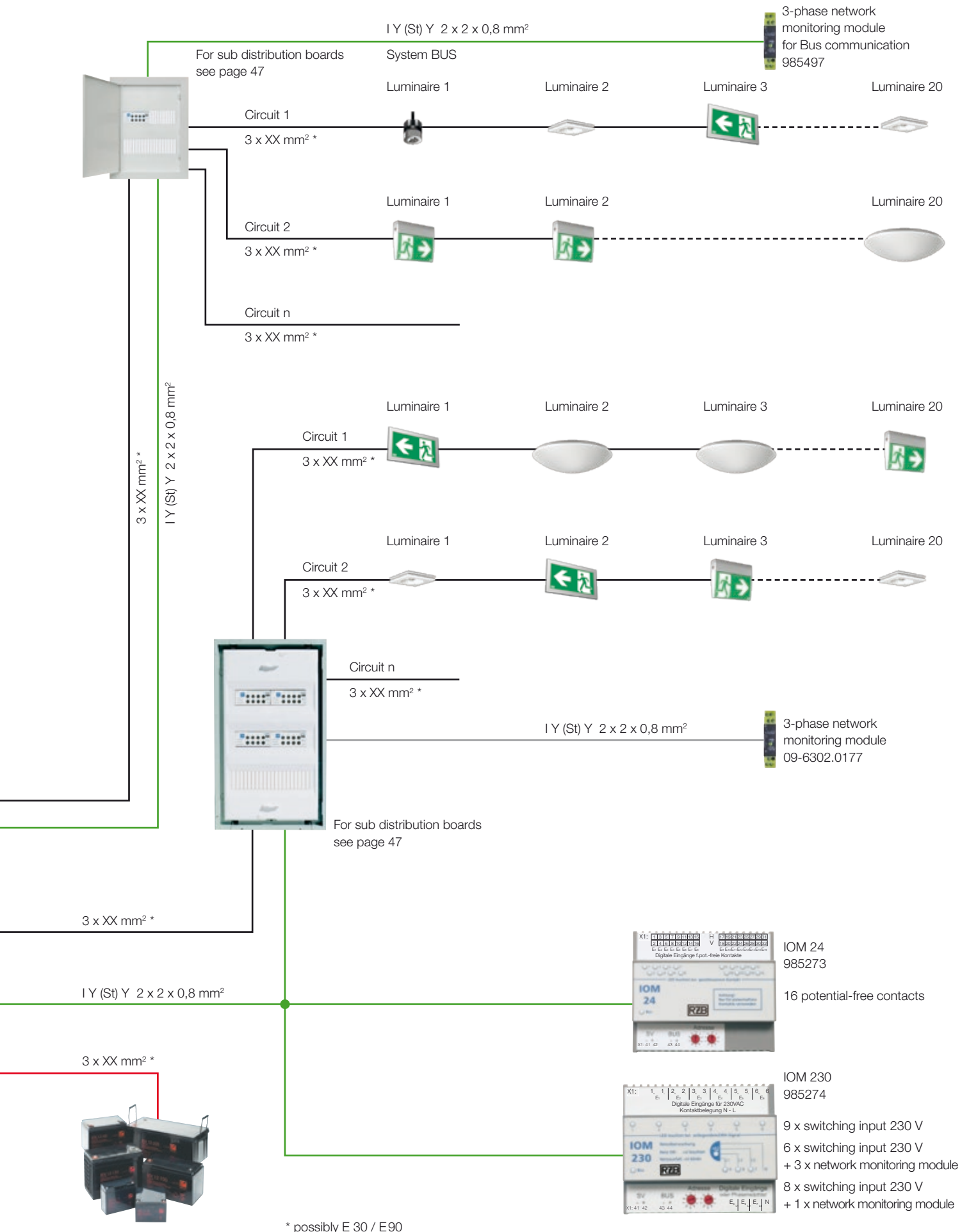
Cable entry

top

Colour (Housing and doors)

RAL 7035 (light grey)





LUXIFAIRlight | Central Power Supply (CPS)

- Fully automated, processor-controlled monitoring system
- Battery and electronic housings made of sheet steel: can be set up separately.
Dimensions: 900 x 600 x 500 mm, each housing
- Mixed operation mode (AC-Control module required)
- Single changeover of each final circuit; freely programmable for maintained mode, non-maintained mode, switched maintained mode and staircase light circuit
- Integrated freely selectable single luminaire / circuit monitoring
- A PC can be connected for free programming of all system and customer data
- Potential-free outputs for message forwarding
- Single luminaire monitoring with plain text indication of target location
- Illuminated blue-design-display: 4 lines with 20 characters each, on the housing door
- Plain text display of all reports
- 6 membrane buttons for operating the unit
- Buffer storage for reports and function tests dating back more than 4 years
- USB interface for connecting a PC
- Direct connection to ECM (continuous conduction mode)
- Programming software included

For more LUXIFAIRlight options:
see from page 66

AC-Control
for single luminaire
monitoring and mixed
operation mode



3-phase network
monitoring module



3-phase network
monitoring module
for Bus communication



Message and switchboard



Printer for operating status
messages and testing
protocols



The LUXIFAIRlight electronics housing and battery cabinet can be set up separately and can be installed wall mounted. The battery can be stored in a battery cabinet or on a support. Battery cabinets: see page 64. Supports are available on request. Frame on request.

Please note the max. battery capacity of **100 Ah!**

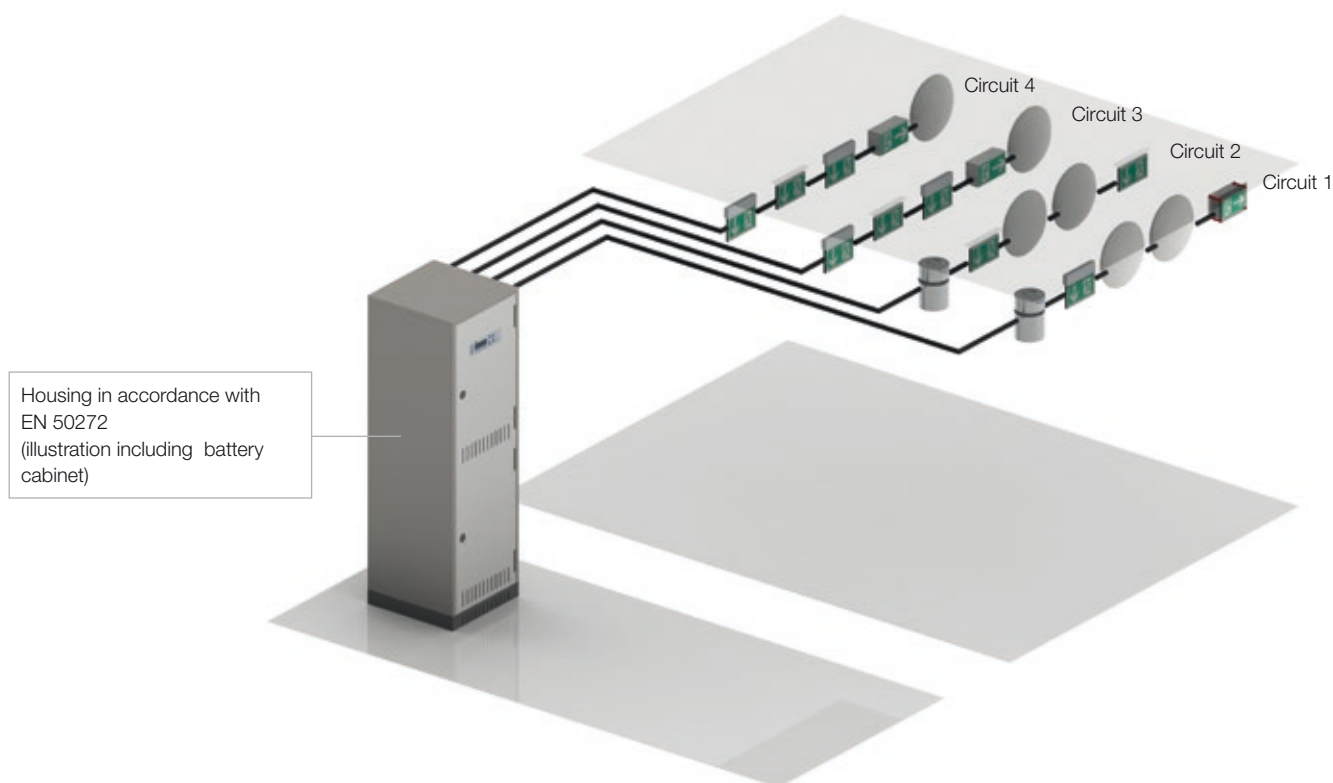
Batteries are **not** included in the price.



The LUXIFAIRlight central battery system contains all of the components stipulated in VDE 0108, part 100, VDE 0100, part 718, EN 50171 and EN 50272.

Technical data	LUXIFAIRlight
Type of protection	IP 21
Protection class	I
Housing	Metal
Available colour for housing and doors:	RAL 7035 (light grey)

LUXIFAIRlight | Installation example



	Charging current	Maximum rating of the changeover facility	ECM	Circuits	Dimensions (H x B x L mm)	Reference number
Circuit monitoring, single luminaire monitoring DS (maintained) / BS (non-maintained) or mixed operation						
LUXIFAIRlight 4	max. 5 A	4 kW	1	4	900 x 600 x 500	985366
LUXIFAIRlight 8	max. 5 A	4 kW	2	8	900 x 600 x 500	985367
LUXIFAIRlight 12	max. 5 A	4 kW	3	12	900 x 600 x 500	985368
LUXIFAIRlight 16	max. 5 A	4 kW	4	16	900 x 600 x 500	985369
LUXIFAIRlight 20	max. 5 A	4 kW	5	20	900 x 600 x 500	985370
LUXIFAIRlight 24	max. 5 A	8 kW	6	24	900 x 600 x 500	985371
LUXIFAIRlight 28	max. 5 A	8 kW	7	28	900 x 600 x 500	985372
LUXIFAIRlight 32	max. 5 A	8 kW	8	32	900 x 600 x 500	985373
LUXIFAIRlight 36	max. 5 A	8 kW	9	36	900 x 600 x 500	985374
LUXIFAIRlight 40	max. 5 A	8 kW	10	40	900 x 600 x 500	985375

Battery cabinet and batteries are not included!

Suitable battery cabinet, up to 45 Ah	900 x 600 x 500	985377
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Larger battery cabinets are available on request.

RZBbasic | Central Power Supply (CPS)

- Fully automated, processor-controlled monitoring system
- Modular structure
- Sheet steel cabinet
- Central monitoring of sub distribution boards
- Free programming of all system and customer data
- Single luminaire monitoring and circuit monitoring, optional
- Basic version with battery voltage 216 V (220 V), other battery voltages (24 V, 42 V, 60 V, 110 V) on request
- E30 or E90 twin cabinets can also be supplied upon request

For more RZBbasic options:
see from page 66

E-Switch
for installation in luminaires



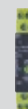
UE220e switch
for installation in distributors



Printer for operating status
messages and testing
protocols



3-phase network
monitoring module



Message and switchboard



Additional RZBbasic options

Battery cabinet
page 64



RZBbasic is a series of modular systems; the number and the distribution of the circuits are to be determined beforehand. The system can be configured individually.

RZBbasic comes complete with a control unit, plastic foil keyboard and four-line display.

Technical data	RZBbasic
Protection type (Housing)	IP 21
Protection class	I
Mains connection	Typ E - single-phase alternating current 230 V 50 Hz Typ D - three-phase current 400 V 50 Hz
Mains voltage	UN ± 10%
Formfaktor	ca. 1,1 bei Drehstrom ca. 1,4 bei Wechselstrom
Level of radio interference	„N“ according to VDE 0875
Operating temperature	0 °C - 40 °C at max. installation height of 1,000 m above zero level
Residual ripple	< 5% with parallel arranged battery
Housing	Metal
Colour (Housing and doors)	RAL 7035 (light grey)

RZBbasic | Components



Microprocessor control and monitoring unit (standard)

- Illuminated plain text display: 4 lines with 16 characters each
- Plastic foil keyboard
- Buffer storage for reports and function tests dating back 2 years
- 4 integrated timers for maintained light circuits control
- Simple BUS connection of sub distribution boards
- Potential separation of the processor unit ensures high level of interference immunity
- Serial RS232 interface on the door for connection of a PC for data collection (standard)
- Central control unit interface: all reports with opening and closing contact
- Outgoing circuits can be individually programmed as maintained, non-maintained or switched maintained light
- Simple to service thanks to the plug-in connections on all modules
- Some functions password-protected
- Direct access to frequently required functions
- Error messages in clear text

RZBbasic | Sub distribution boards



Similar to illustration

Design:	steel cabinet
Paint coating:	Housing and doors RAL 7035 (light grey)
Type of protection:	IP 21
Fitting:	up to 36 x D01/D02 or 26 x circuit breakers

Fire-protected housing also available. A BUS interface circuit board can also be installed (necessary for circuit or single monitoring).

Type	Dimensions	max. D01/LSS
E1/UV	on request	16/14
E2/UV	on request	24/21

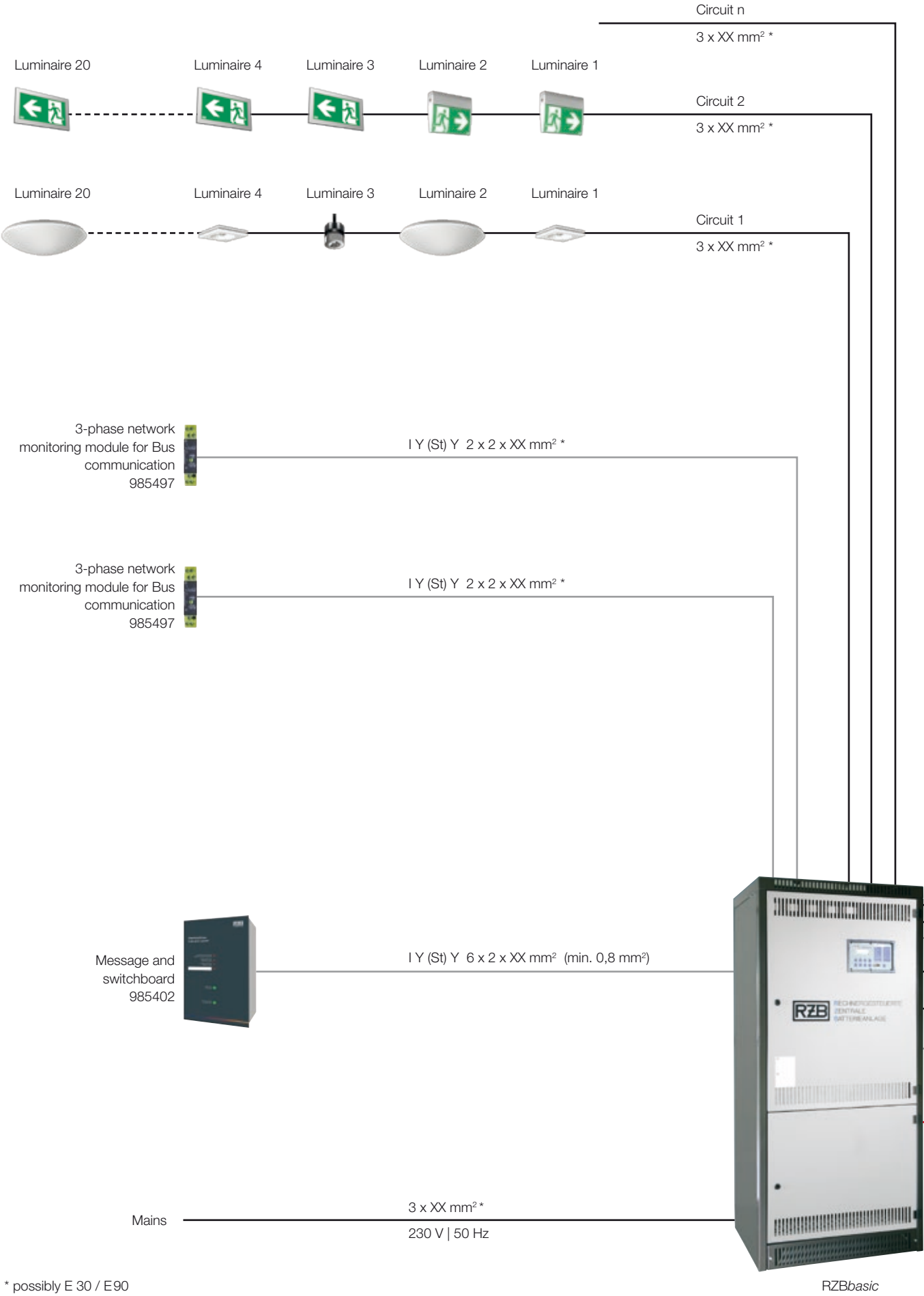


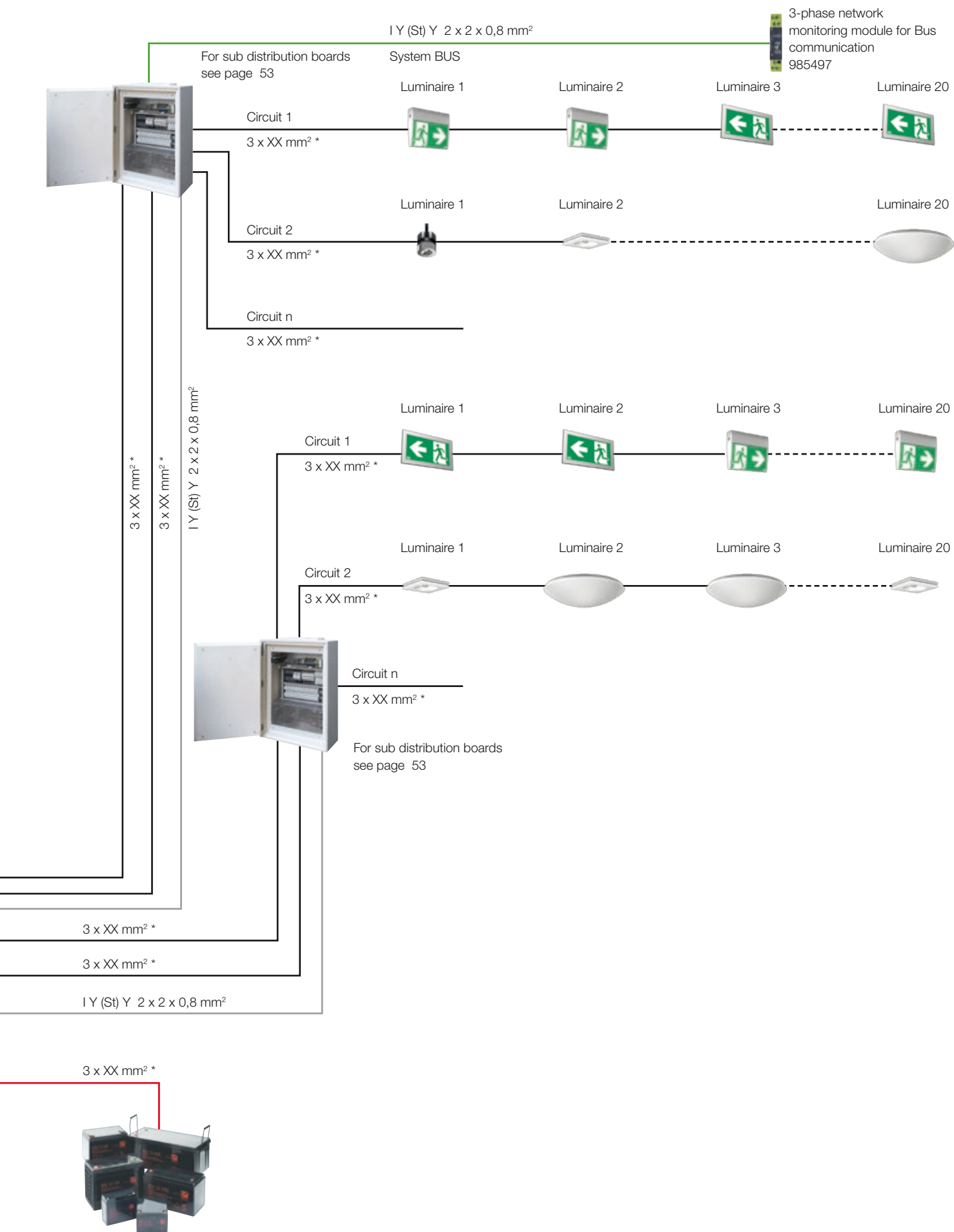
Similar to illustration

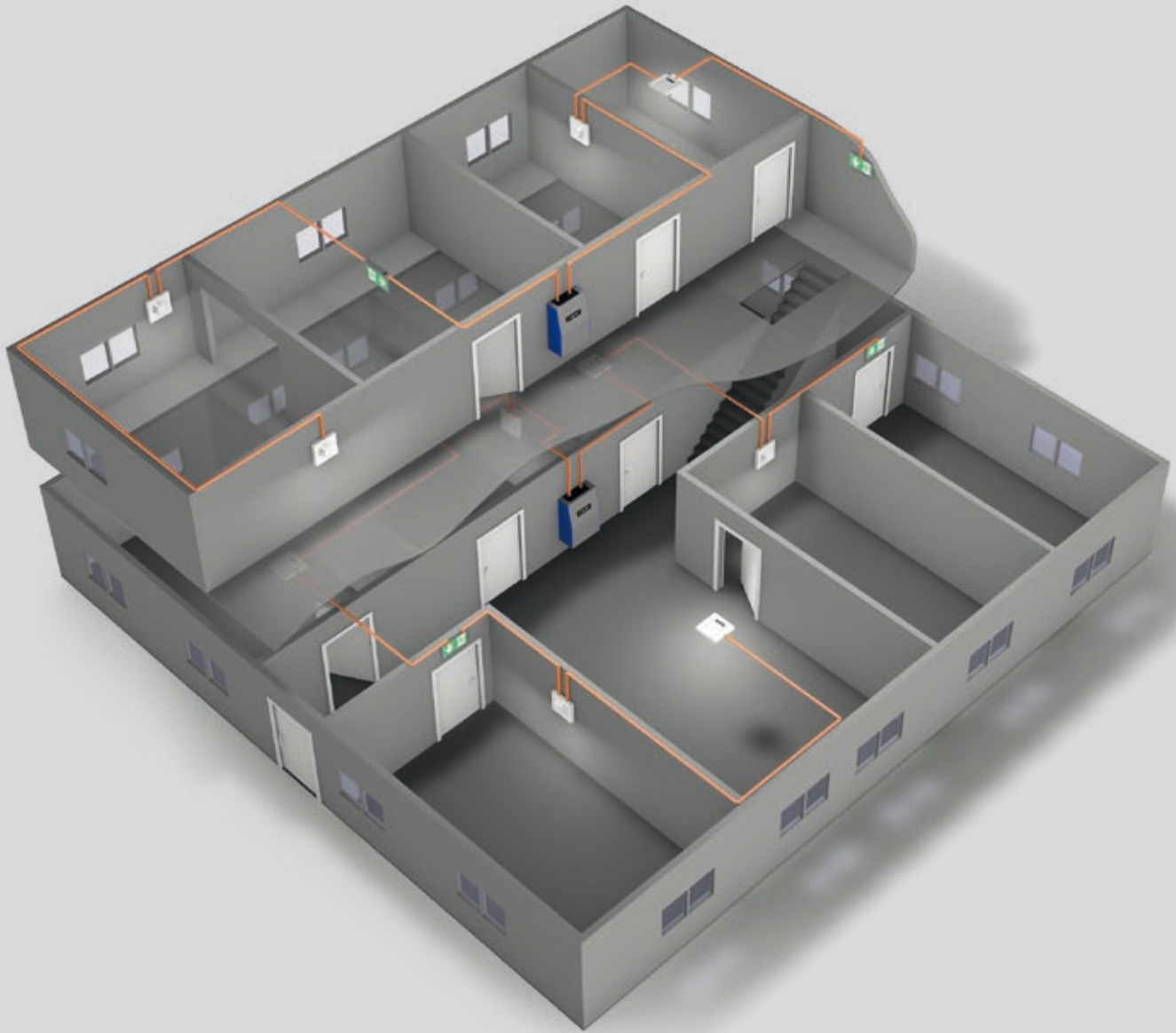
Fire-protected housing E-30

Design:	30 minutes fire-protected housing, Tested in line with DIN 4102 Part 12
Attention:	Distributors and module cabinets are not equipped.



Type	Dimensions	max. D01/LSS
T1 UV-E30	on request Housing for fuses	12/18
T2 UV-E30	on request Housing for fuses	30/30
T3 UV-E30	on request Module cabinet	60/72
T4 UV-E30	on request Module cabinet	120/120







Low Power Supply (LPS) in comparison

Type of system	KV 1500	Quattro	
Wattage	500 W/3h or 1500 W/1h	350 VA/1h 350 VA/3h	250 VA/1h 225 VA/3h
Modular technology	•	–	
mixed operation mode (maintained, non maintained, switchable mode)	•	•	
Circuit monitoring	•	•	
Switches			
E-Switch (for installation in luminaires)	•	•	
UE220e (for installation in distribution boards)	•	•	
Number of circuits	4/8/12/16/20	4	
Visualisation	optional	optional	
Cross-linked systems	optional	optional	
Monitoring with TCP/IP	optional	•	
Voltage AC/DC	230/216 V	230 VAC / 230 VAC	
			

RZB KV 1500 | Low Power Supply (LPS)

- Fully automated, processor-controlled monitoring system
- Modular technology
- Sheet steel cabinet
- Single changeover of each final circuit; freely programmable for maintained mode, non-maintained mode, switched maintained mode and staircase light circuit
- Integrated freely selectable single luminaire or circuit monitoring
- A PC can be connected free programming of all system and customer data
- Single luminaire monitoring with plain text indication of target location
- Twin housing with battery compartment
- Programming software included in the scope of delivery

For more KV 1500 options:
see from page 66

E-Switch
for installation in luminaires



UE220e switch
for installation in distributors



3-phase network
monitoring module



3-phase network
monitoring module
for Bus communication



AC-Control
for single luminaire
monitoring and mixed
operation mode



Message and switchboard



Printer for operating status
messages and testing
protocols



The KV 1500 group battery system contains all of the components stipulated in VDE 0108 part 100, VDE 0100 part 718, EN 50171, and EN50272.

Technical data	RZB KV 1500
Type of protection	IP 21
Protection class	I
Housing	Metal
Available colour for housing and doors:	RAL 7035 (light grey)

RZB KV 1500 | Overview

Type of system	KV 1500/4	KV 1500/8	KV 1500/12	KV 1500/16	KV 1500/20
Modular technology	yes	yes	yes	yes	yes
LUXIFAIR Master	standard	standard	standard	standard	standard
No. of circuits	4	8	12	16	20
Freely programmable final circuit (maintained, non-maintained, switched maintained mode and staircase light circuit)	yes	yes	yes	yes	yes
Circuit monitoring	standard	standard	standard	standard	standard
Single luminaire monitoring with mixed operation mode	standard	standard	standard	standard	standard
TCP/IP	optional	optional	optional	optional	optional
Light switch setting sensor module	standard	standard	standard	standard	standard
Wattage 1h	1500 W	1500 W	1500 W	1500 W	1500 W
Wattage 3h	500 W	500 W	500 W	500 W	500 W
Visualisation	optional	optional	optional	optional	optional
Voltage	230/216 V	230/216 V	230/216 V	230/216 V	230/216 V
Housing	Free-standing cabinet, twin cabinet (1200 x 600 x 430)	Free-standing cabinet, twin cabinet (1200 x 600 x 430)	Free-standing cabinet, twin cabinet (1200 x 600 x 430)	Free-standing cabinet, twin cabinet (1200 x 600 x 430)	Free-standing cabinet, twin cabinet (1200 x 600 x 430)
Reference number	985481	985482	985483	985484	985485

Batteries and connectors are not included.

Batteries for Low Power Supply (KV 1500)



- Sealed, rechargeable block batteries
- Type: OGiV
- Designlife: 5 years at 20°C ambient temperature
- Extremely low gassing rate
- Low self-discharge
- 100% recyclable

- 18 batteries are needed

Batteries for Low Power Supply (battery connector included)

67000.0.152	Designlife 5 years
67000.0.168	Designlife 10 years

Quattro | Low Power Supply (LPS)

- Easy to install
- Intuitive menu navigation
- TCP/IP and WEB server as standard
- Software-based cross-linking possible
- Standard and mixed operation
- Compact design
- Single changeover of each final circuit, freely programmable
- Easy maintenance and service
- Single luminaire monitoring with clear-text indication of target location
- Combined cabinet and battery compartment

For more Quattro options:
see from page 66

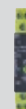
E-Switch
for installation in luminaires



UE220e switch
for installation in distributors



3-phase network
monitoring module



AC-Control
for single luminaire
monitoring and mixed
operation mode

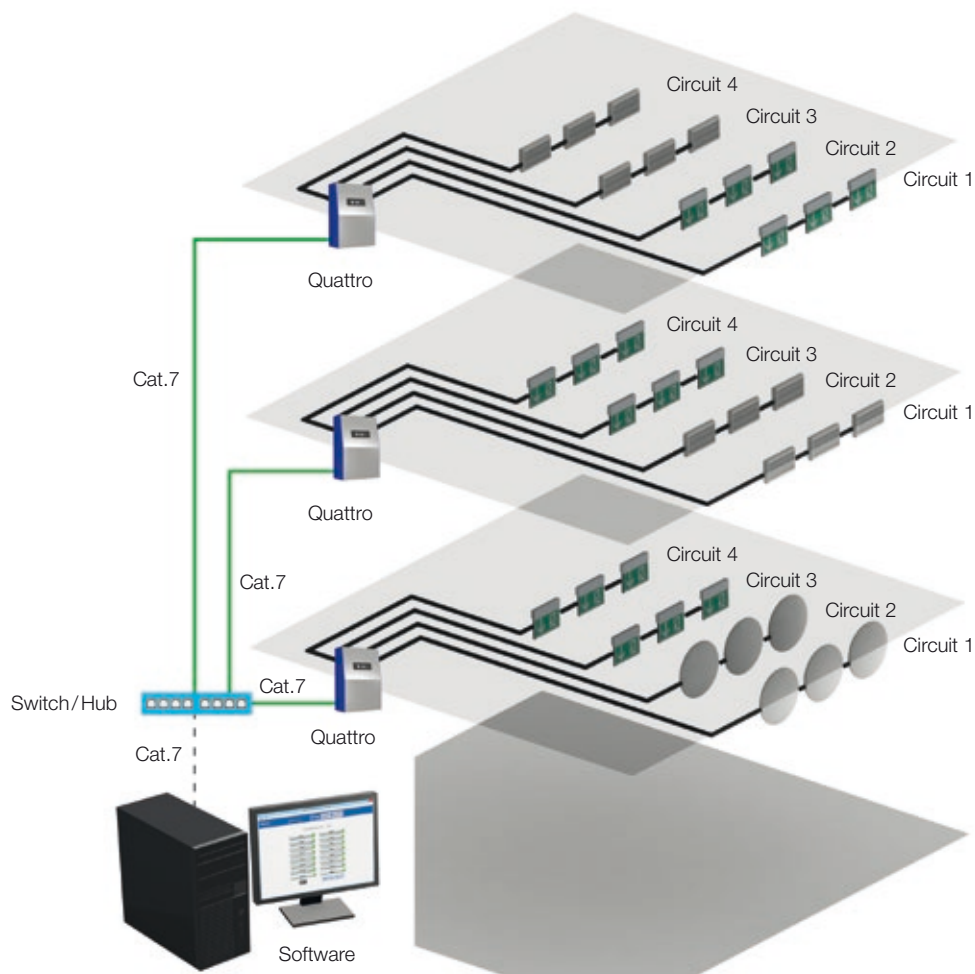


Message and switchboard



Technical data	Quattro
Type of protection	IP 20
Protection class	I
Housing	plastic/metal
Colour	silver/blue

Quattro | Installation example (circuit monitoring)



Type of system	Quattro		
Rated operating time	1h	3h	8h
Max. total wattage	250 / 350 VA	225 / 350 VA	85 VA
Single luminaire monitoring	standard		
Mixed mode	standard		
Circuit monitoring	standard		
No. of circuits	4		
Max. number of luminaires per circuit	20		
Max. rating per circuit	220 W		
Output voltage AC	230 V		
Cross-linking and TCP/IP	standard		
WEB-Server	standard		
Housing	Twin housing		
Dimensions	see page 63		

Battery included.



QUATTRO

Decentralised Power supply unit (LPS system)
For supplying safety luminaires within a fire area

Compact emergency light supply unit

- 4 circuits in standard or mixed operation
- For the connection of up to 80 luminaires
- Consumer rating up to 350 VA
- TCP/IP interface
- USB port for saving the logbook and the system configuration
- 4 freely programmable light switch inputs
- Emergency lighting disable function
- Battery included in the scope of delivery

Easy assembly and installation

Thanks to generously dimensioned connecting area with cable inlets from above and the connection through terminal blocks.

Fail-safe mode

Safety at all events

WEB server

The web server allows system information to be retrieved through the Intranet and/or Internet.

Connection

Simple connection by means of terminal blocks

Software (optional)

for cross-linking

Password protection

Functions/operating levels can be protected using different passwords.

TCP/IP functionality as standard

Up to 16 Quattro units (255 as option) can be monitored and remotely maintained using optionally available software. In addition, the status of each individual Quattro unit can also be queried without additional software, using any web browser.

Remote maintenance

All functions and information of the Quattro can be used and/or monitored as on the display, using optional software.

Areas of application:

- Warehouses, workshops
- Kindergardens
- Staircases
- Hotels
- Accommodation facilities

Type	Rated operating time	Power	Battery included	Dimensions (H x B x T mm)	Reference number
Quattro Typ 1	1 h	250 VA 200 W	2x12V 17 Ah	610 x 410 x 205	985533
Quattro Typ 2	1 h	350 VA 280 W	4x12V 17 Ah	610 x 410 x 205	985534
Quattro Typ 3	3 h	225 VA 180 W	4x12V 17 Ah	610 x 410 x 205	985535
Quattro Typ 4	3 h	350 VA 280 W	2x12V 28Ah	880 x 410 x 205	985536
Quattro Typ 5	8 h	85 VA 68 W	2x2x12V 18Ah	610 x 410 x 205	985541

Type	Dimensions (H x B x T mm)	Reference number
BUS tableau	–	985537
E30 housing	1178 x 678 x 345	985538
Software (CD)	–	985540

**BUS tableau**

Reference number 985537

Technical data	Quattro	
Type of protection	IP 20	
Protection class	I	
Input voltage	230 V/50 Hz	
Output voltage	230 V AC	
Switch inputs	4	
Outgoing circuits	4	
Battery voltage	12 V	
Max. load	350 VAC depending on the system	
Max. load per circuit	220 W	
Housing	plastic/metal	
Colour	silver/blue	
Battery	sealed, maintenance free, rechargeable lead-acid battery (included)	

Battery cabinets

All of the housings listed below are powder-coated and enamelled.

Housing: Sheet steel
Type of protection: IP 21
Colour (Housing and doors): RAL 7035 (light grey)

Type	Dimensions	Reference number
RZB BS0	900 x 600 x 500 mm	985377
RZB BS8.20-3G	1800 x 600 x 600 mm	985238
RZB BS8.21-3G	1800 x 800 x 600 mm	985107

Other battery cabinets available on request.

All doors are right hinged. Free-standing housing doors open to an angle of 180 °. Housing bases with a height of 100 or 200 mm are available for adjustment to other housings. All housings are available in other colours at extra cost.

Cables can be channelled from below or above (rear) into the free-standing housings, but only from above in case of wall-mounted housings. Cable inlets from above (rear) are standard for emergency lighting equipment.

The front and rear panels of all housings can be removed for transportation purposes.



Battery frames

Wide selection of frames available on request



Calculating the aeration and ventilation of electr. operation rooms

Stationary, sealed maintenance-free lead battery (OGiV)	Max. battery wattage 8 h	Max. battery wattage 3 h	Max. battery wattage 1 h	Air volume flow Q [m³/h] for ventilating the installation room	Ventilation cross sections per supply and exhaust air opening in the installation room A [cm²] (natural ventilation)	Square recess per supply and exhaust air opening, lateral length [cm]	Pipe per supply and exhaust air opening, nominal diameter [mm]	Number of battery cabinets	Battery cabinets Minimum requirements for use of 18 blocks	Dimensions of battery cabinet [B x T x H]
17 Ah	429 W	1074 W	2786 W	0,78 m³/h	21,83 cm²	4,67 cm	52,73 mm	1	BS 8.20 -3G	600 x 600 x 1800
24 Ah	605 W	1414 W	3618 W	0,99 m³/h	27,80 cm²	5,27 cm	59,51 mm	1	BS 8.20 -3G	600 x 600 x 1800
28 Ah	761 W	1782 W	4417 W	1,18 m³/h	32,92 cm²	5,74 cm	64,76 mm	1	BS 8.20 -3G	600 x 600 x 1800
33 Ah	874 W	2030 W	4752 W	1,39 m³/h	39,02 cm²	6,25 cm	70,50 mm	1	BS 8.20 -3G	600 x 600 x 1800
45 Ah	1166 W	2548 W	5886 W	1,92 m³/h	53,65 cm²	7,32 cm	82,67 mm	1	BS 8.20 -3G	600 x 600 x 1800
55 Ah	1468 W	3261 W	7668 W	2,14 m³/h	59,99 cm²	7,75 cm	87,42 mm	1	BS 8.20 -3G	600 x 600 x 1800
75 Ah	2008 W	4179 W	9558 W	3,18 m³/h	89,01 cm²	9,43 cm	106,48 mm	1	BS 8.20 -3G	600 x 600 x 1800
80 Ah	2170 W	4644 W	10778 W	3,44 m³/h	96,32 cm²	9,81 cm	110,77 mm	1	BS 8.21 -3G	800 x 600 x 1800
90 Ah	2386 W	5119 W	12312 W	3,88 m³/h	108,52 cm²	10,42 cm	117,57 mm	1	BS 8.21 -3G	800 x 600 x 1800
100 Ah	2754 W	6145 W	14296 W	4,31 m³/h	120,71 cm²	10,99 cm	124,00 mm	1	BS 8.21 -3G	800 x 600 x 1800
120 Ah	3315 W	7171 W	17064 W	5,18 m³/h	145,09 cm²	12,05 cm	135,95 mm	2	BS 8.21 -3G	800 x 600 x 1800
134 Ah	3996 W	8996 W	20628 W	5,37 m³/h	150,46 cm²	12,27 cm	138,44 mm	1	BS 8.21 -3G	800 x 600 x 1800
150 Ah	4158 W	8888 W	21384 W	6,23 m³/h	174,36 cm²	13,20 cm	149,03 mm	2 Stck	BS 8.20 -3G	600 x 600 x 1800
200 Ah	5572 W	12528 W	28404 W	8,67 m³/h	242,64 cm²	15,58 cm	175,81 mm	2 Stck	BS 8.21 -3G	800 x 600 x 1800

- Discharge data refer to 108 cells (18 blocks) at 25°C
- Aeration and ventilation data refer to high-voltage charging
- When calculating the required battery capacity, 25 % aging reserve has to be taken into account

Batteries

Larger battery capacities can be achieved by parallel arrangement of identical battery types.

This type of arrangement is recommended for the following battery types:











BTX 12-120 LS, BTX 12-134 LS, BTX 12-150 LS, BTX 12-200 LS

Batteries

- Sealed, rechargeable block batteries
- Type: OGiV (other types on request)
- Designlife: 10 years at 20°C ambient temperature
- Extremely low gassing rate
- Low self-discharge
- Various capacities in 12 V blocks
- 100% recyclable



Accessories

Type		LUXIFAIR <i>light</i>	LUXIFAIR	RZB <i>basic</i>	KV 1500	RZBeasy PRO
3-phase network monitoring module		•	•	•	•	•
3-phase network monitoring module for Bus communication		•	•	–	•	–
Message and switchboard (surface mounting)		•	•	•	•	•
Printer for operating status messages and testing protocols		•	•	•	•	–
E-Switch for installation in luminaires		•	•	•	•	•
UE220e switch for installation in distributors		•	•	•	•	•
Electronic switch for dimming operation		•	•	•	•	•
Electronic switch with voltage control		•	•	•	•	•
AC-Control for single luminaire monitoring and mixed operation mode		•	•	–	•	–
AC-Control DALI for single luminaire monitoring and mixed operation mode		•	•	–	•	–

Accessories for all CPS and LPS systems



3-phase network monitoring module

Type of protection:	IP 20
Protection Class:	II
Input voltage:	230/400 V 50/60 Hz
Own rating:	< 4VA
Min. operating value:	85% of nominal voltage
Contact set:	2 change-over relays, potential-free
Installation:	C profile track
Display:	LED OFF if power fails

Suitable for installation in systems complying with DIN VDE 0108.

For installation in sub distribution boards for detecting undervoltage and power failures in single-phase or three-phase power systems. Construction width: 35 mm.

3-phase network monitoring module for all systems

09-6302.0177 L 88, B 18, H 65



3-phase network monitoring module for Bus communication

Type of protection:	IP 20
Protection Class:	II
Input voltage:	230/400 V 50/60 Hz
Own rating:	< 4VA
Min. operating value:	programmable
Installation:	C profile track
Display:	1. Mode LED (<U)

- Lights up when the mains supply is ok
- Flashes rhythmically when undervoltage is detected
- Flashes at intervals of 2 x fast, 1x slow when the mains voltage has returned but the reset delay is active
- Is off when the DNÜ is not supplied with operating voltage

2. Bus LED

- Lights up when there is a bus connection
- Flashes slowly when the bus connection is faulty
- Flashes quickly when the DNÜ has not yet been configured

Suitable for installation in systems complying with DIN VDE 0108.

The BUS power monitoring module is a bus-capable power monitoring module for one, two and three-phase networks. It monitors the network phases for undervoltage, failure and phase shift (in DS networks). In addition, it has a switching and monitoring input which can be addressed by means of potential-free contacts and can be used for diesel startup time monitoring (diesel contact) or other switching options.

BUS network monitoring module for LUXIFAIR, LUXIFAIR/light and KV 1500

985497 L 85, B 34, H 58

Accessories for all CPS and LPS systems

Message and switchboard

Type of protection:	IP 30
Protection class:	II
In accordance with DIN VDE 0100 part 718	
Displays:	<ul style="list-style-type: none"> - Operational readiness of the system - Battery mode - Collective error - 4. Message individually assignable
Installation:	surface mounting / recessed mounting
Housing:	Plastic
Terminals:	1,5 mm ²

Message and switchboard (surface mounting) without battery for RZBbasic

985486	L 150, B 40, H 200
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for LUXIFAIR, LUXIFAIRlight, KV1500 and RZBeasy PRO

985402	L 150, B 40, H 200
--------	--------------------



Printer for operating status messages and testing protocols

VDE 0108 Part 100 stipulates that emergency lighting operated by central battery system must be function-tested every day of operation and the results be recorded in a protocol. Manual testing and recording in writing can be eliminated by implementation of an automatic testing facility with protocol printer.

All errors and system status changes are recorded with indication of date and time.

The elimination of the faults is indicated with date and time.

Printer for RZBbasic, LUXIFAIR, LUXIFAIRlight and KV 1500

985138	L 100, B 100, H 50
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E-Switch

(for installation in luminaires)

Electronic switch for luminaires with electronic ballasts (EB) and incandescent lamps in emergency lighting systems according to DIN VDE 0108

Thanks to the E-Switch, luminaires can be used both for general and for emergency lighting.

When voltage is present on the emergency power supply, the switch disconnects the luminaire from the general lighting power supply system. The time lag in switching eliminates any spark gaps in the changeover facility (relays), thus ensuring safe disconnection from the power supply.

E-Switch is for installation in luminaires; the relevant installation instructions must be followed.

Input voltage:	General lighting power supply 230 V AC (± 10%)
	Emergency power supply: 220 V DC (± 20%)

Ambient temperature:	-5 bis 50°C
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Changeover time:	100 ms
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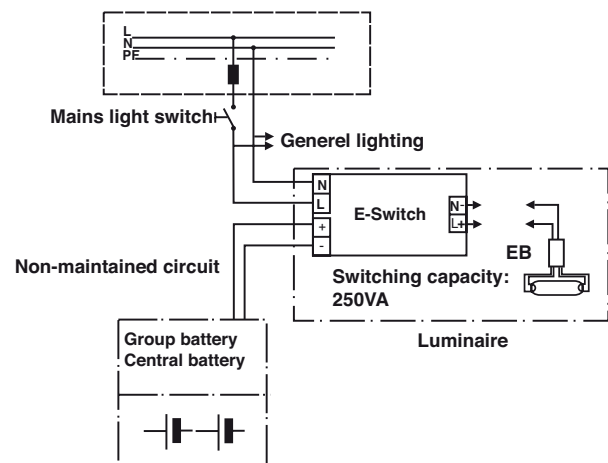
Switching power:	250 VA (short circuit proof $20 \times I_{nom}$)
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Housing:	plastic, black
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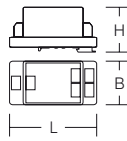
Suitable for installation in systems complying with DIN VDE 0108-100 EN50172.

E-Switch for all systems

981352.003	L 82, B 30, H 21
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Accessories for all CPS and LPS systems



UE220e switch for installation in distribution boards

UE220e electronic switch for C and top hat rail (installation in distribution boards)

Thanks to the UE220e switch, luminaires can be used simultaneously both for general and for emergency lighting. When voltage is present on the emergency power supply, the switch disconnects the luminaire from the general lighting power supply system.

Input voltage: General lighting power supply: 230 V AC (+/- 10%)

Emergency power supply: 220 V DC (+/- 20%)

Ambient temperature: -5 to +50 °C

Changeover time: 100 ms

Switching power: 500 VA (short circuit proof $20 \times I_{nom}$)

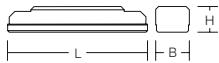
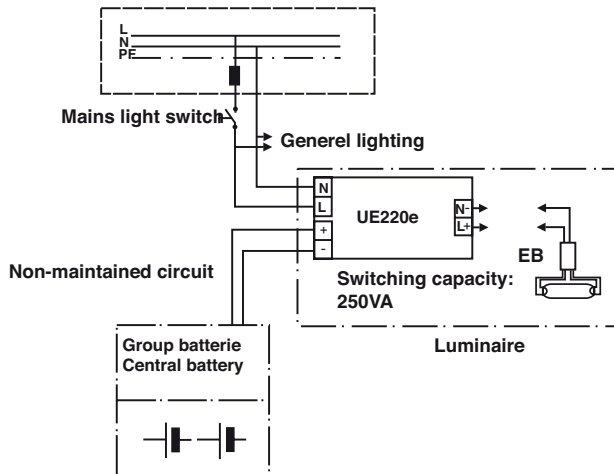
Housing: plastic, grey

Suitable for installation in systems complying with DIN VDE 0108-100 EN50172.

UE 220e for all systems

981353.009 L 96, B 48, H 50

Note: installation in the distributor



Electronic switch for dimming operation

Switching module for operating dimmable, combined safety luminaires on mains and emergency power supplies

Version for:

- Selective changeover from non-maintained to maintained power mode during mains operation, depending on the switching mode of the general lighting
- Dimming luminaires in mains mode via a 1-10 V interface
- Dimming luminaires in emergency mode via integrated potentiometer

Control:

- Switched phase on general lighting system
- 1-10V signal from lighting control

Input voltage: General lighting power supply: 230 V AC (+/- 10%)

Emergency power supply: 220 V DC (+/- 20%)

Ambient temperature: -5 to +50 °C

Changeover time: 100 ms

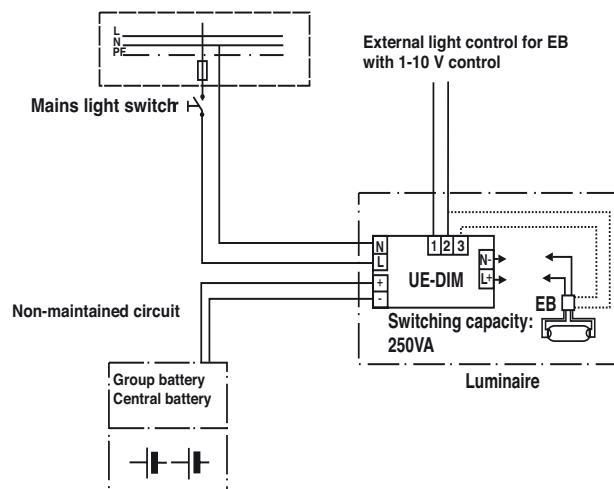
Switching power: 250 VA (short circuit proof $20 \times I_{nom}$)

Housing: plastic, grey

Suitable for installation in systems complying with DIN VDE 0108-100 EN50172.

UE-DIM for all systems

09-6230.000 L 175, B 42, H 32



Accessories for all CPS and LPS systems

Electronic switch with voltage control

Switching module for operating dimmable, combined safety luminaires on mains and emergency power supplies

Version for:

- Selective changeover from non-maintained to maintained power mode during mains operation, depending on the switching mode of the general lighting
- Selective activation in emergency mode depending on the general lighting power supply

Control:

- Switched phase on general lighting system
- Non-switched phase on general lighting system
- Codable function

Input voltage: General lighting power supply: 230 V AC (+/- 10%)
Emergency power supply: 220 V AC/DC (+/- 20%)

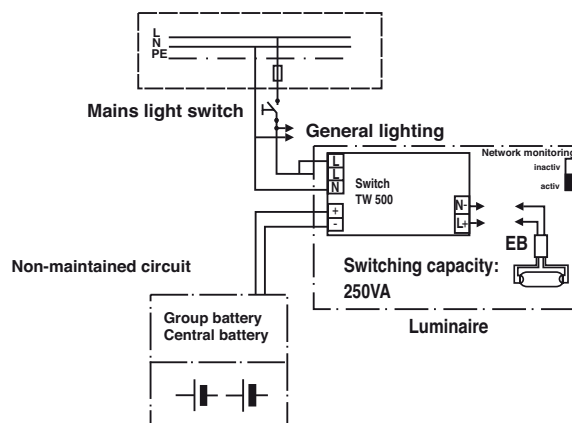
Ambient temperature: -5 to +50 °C

Changeover time: 100 ms

Switching power: 250 VA (short circuit proof $20 \times I_{nom}$)

Housing: plastic, black

Suitable for installation in systems complying with DIN VDE 0108-100 EN50172.



TW 500 for all systems

981811.002 L 105, B 35, H 24

AC-Control for single luminaire monitoring and mixed operation mode

Monitoring module for monitoring individual luminaires of 2-120 W. When an AC control module is used, maintained and non-maintained luminaires can be combined in one electric circuit. Individual circuits can be switched using the inputs of the IO module. The luminaire address can be set manually via an externally accessible rotary encoding switch.

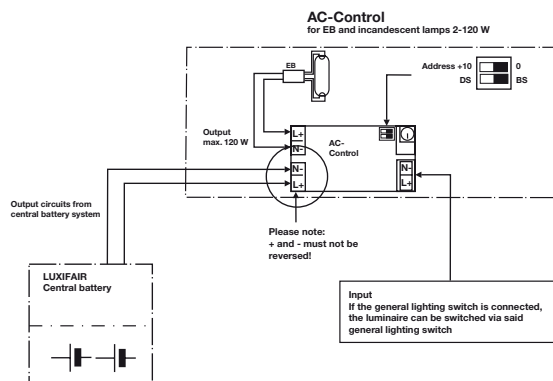
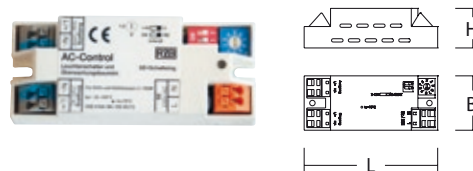
Dimensions: L 81 x B 33 x H 24

Input voltage: 230 V AC (+10% / -15%)
230 V DC (+20% / -20%)

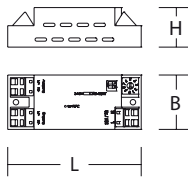
Housing: Plastic, grey

AC-Control for LUXIFAIR and LUXIFAIRlight

985487 L 81, B 33, H 24

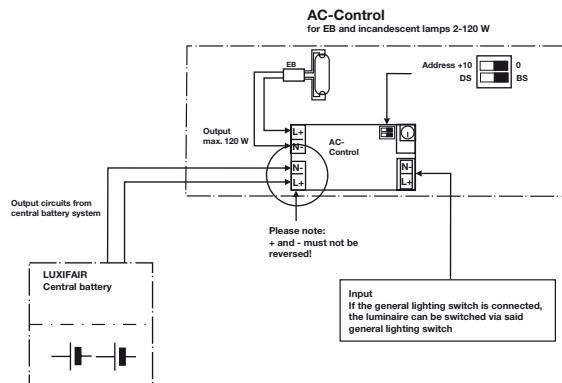


Accessories for all CPS and LPS systems



AC-Control DALI for monitoring individual luminaires and for mixed operation with DALI BUS switch-off function in emergency mode.

Monitoring module for monitoring individual luminaires of 2-120 W. When an AC control module is used, maintained and non-maintained luminaires can be combined in one electric circuit. Individual circuits can be switched using the inputs of the IO module. The luminaire address can be set manually via an externally accessible rotary encoding switch. In emergency mode, a DALI BUS routed through the DALI contact is automatically interrupted. The EB is thus in a position to detect a local emergency mode even with AC voltage.



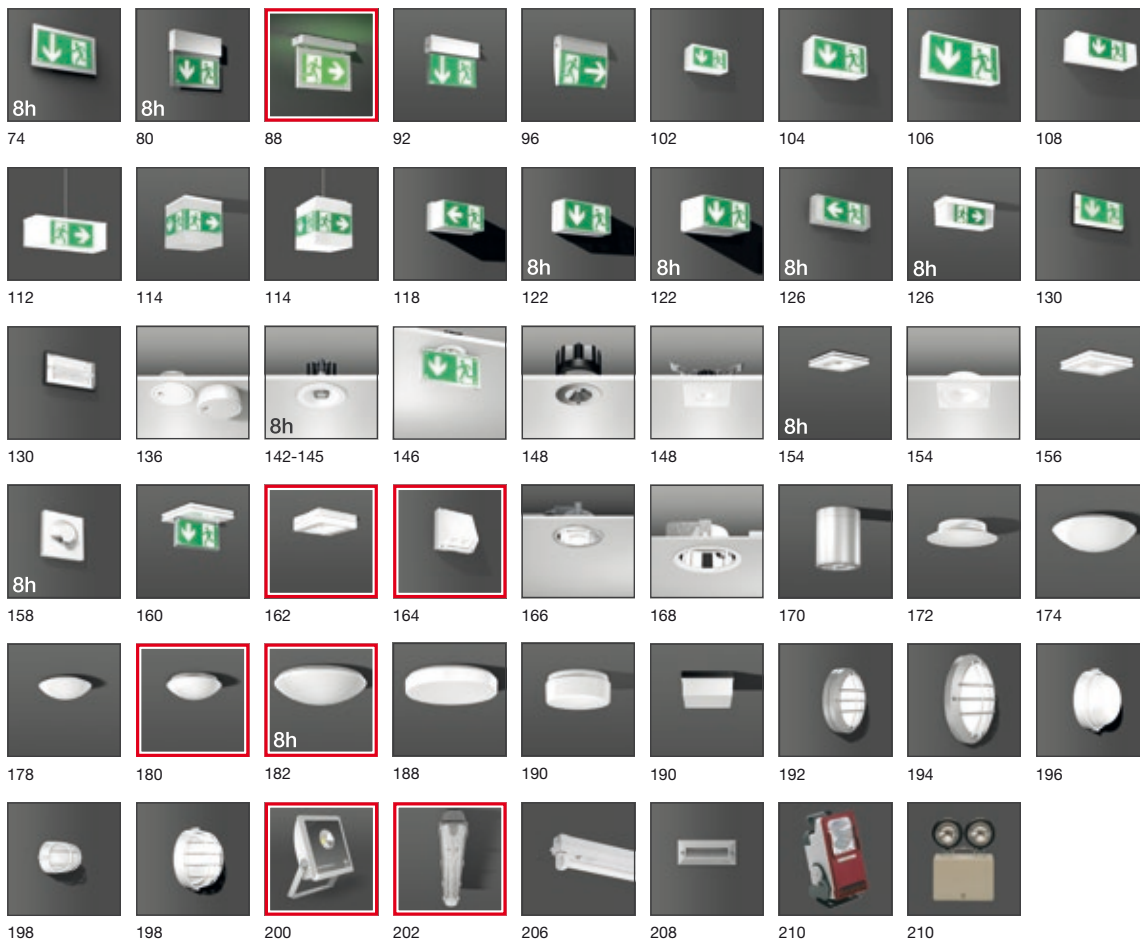
Dimensions: L 81 x B 33 x H 24
Input voltage: 230 V AC (+10% / -15%)
230 V DC (+20% / -20%)
Housing: Plastic, grey

AC-Control DALI for LUXIFAIR and LUXIFAIRlight

985526 L 81, B 33, H 24



Can be inconspicuously
integrated in architecture
and material.



Tenuo®	74	Mondana®-AS	172
LED Halyxx®	80	Flat Basic	174
GSUN® RS Universal RS	88	Flat Polymero® IP44	178
GSUN® S Universal S	92	Flat Polymero® Alu	180
GSUN® D Universal D	96	Flat Polymero®	182
Rechteck 250 360 485	100	Flat Polymero® Kreis	188
Multivariabel	108	Kreis	190
Luminaires for sports facilities	112	Quadrat	190
Signcube	114	Rounded® superflach	192
GSUN® 2 Universal 2	118	Rounded® Maxi	194
GSUN® 3 Universal 3	122	Alu-Rund	196
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Varioplast I	130	Alu Rund	198
Lucio	136	Lightstream® LED Mini Midi	200
Turia®	140	Planox	202
Edo	148	Weatherproof battens	206
Centryxx®	152	Recessed LED step luminaire	208
Energio® TC 175	166	Hand-held LED safety spotlight	210
Arelo®	168	Safety stand spotlight	210
Andho® TC TC IP 65	170		

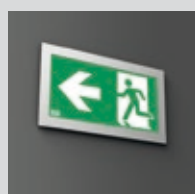
Tenuo®

- The ultra-flat exit sign luminaire with highly efficient LED technology
- One-piece aluminium frame made of quality brushed anodised aluminium
- Specially calculated thermal management
- Exceptionally high luminance of over 900 cd/m²
- Uniformly lit legend panel thanks to use of patented MicroLens technology

Legends for escape route identification - ISO 7010
Background colour: green
(Special legends on request)



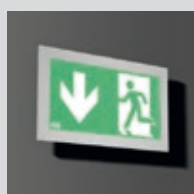
Wall (semi-recessed)



Wall extension



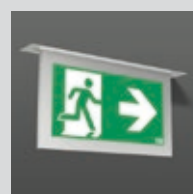
Wall (surface)



Ceiling (surface)



Ceiling (recessed)



Pendant tube |
Suspension cable/chain







Series: Tenuo®

Type of protection: **IP 40**
 Protection class: **I**
 Viewing Distance: 30 m
 Ceiling thickness: 5-35 mm

For escape route identification

Housing: anodised aluminium, silver. Display panel with patented MicroLens technology.

Automatic self test in all standard versions.

LED included.

Please indicate legend number when placing your order!

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colour: aluminium, anodised

.04 or .07 = Monitoring system (optional)

one side



30 m



reddot design award
winner 2011



German Design Award
2012
NOMINEE

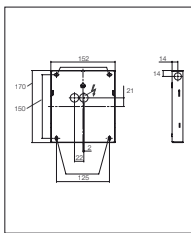
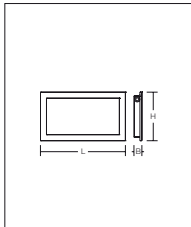
Ordering information

Placeholder Y = Monitoring system (optional)

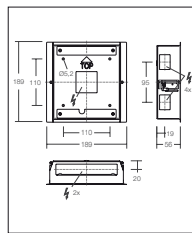
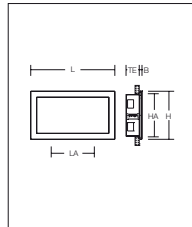
MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

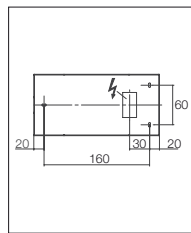
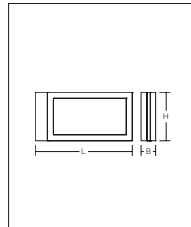
Wall (surface)



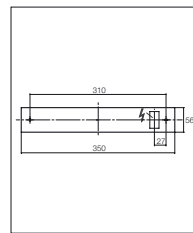
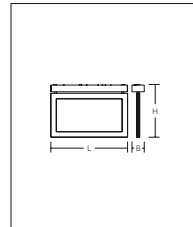
Wall (semi-recessed)



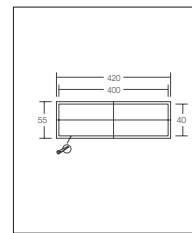
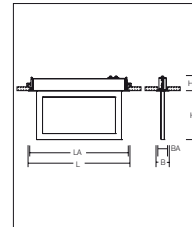
Wall extension



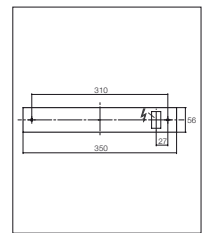
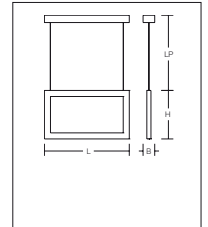
Ceiling (surface)



Ceiling (recessed)



Pendant tube |
Suspension cable/chain



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671944.004.Y	•	•	3 h	30 m	Wall (surface)	1 x LED 2,5 W	L 350, B 33, H 200
672005.004.Y	•	•	8 h	30 m	Wall (surface)	1 x LED 2,5 W	L 350, B 33, H 200
671943.004.Y	•	•	3 h	30 m	Wall (semi-recessed)	1 x LED 2,5 W	L 350, B 11, H 200 LA 175 x BA 175, HE 70
672004.004.Y	•	•	8 h	30 m	Wall (semi-recessed)	1 x LED 2,5 W	L 350, B 11, H 200 LA 175 x BA 175, HE 70
672040.004.Y	•	•	3 h	30 m	Wall extension	1 x LED 5 W	L 400, B 100, H 200
672041.004.Y	•	•	8 h	30 m	Wall extension	1 x LED 5 W	L 400, B 100, H 200
672033.004.Y	•	•	3 h	30 m	Ceiling (surface)	1 x LED 2,5 W	L 350, B 56, H 240
672042.004.Y	•	•	8 h	30 m	Ceiling (surface)	1 x LED 2,5 W	L 350, B 56, H 240
672034.004.Y	•	•	3 h	30 m	Ceiling (recessed)	1 x LED 2,5 W	L 420, B 55, H 262 LA 400 x BA 40, HE 60
672043.004.Y	•	•	8 h	30 m	Ceiling (recessed)	1 x LED 2,5 W	L 420, B 55, H 262 LA 400 x BA 40, HE 60
672035.004.Y	•	•	3 h	30 m	Pendant tube	1 x LED 2,5 W	L 350, B 56, H 200, LP 500
672044.004.Y	•	•	8 h	30 m	Pendant tube	1 x LED 2,5 W	L 350, B 56, H 200, LP 500
672036.004.Y	•	•	3 h	30 m	Cable suspension	1 x LED 2,5 W	L 350, B 56, H 200, LP 500
672045.004.Y	•	•	8 h	30 m	Cable suspension	1 x LED 2,5 W	L 350, B 56, H 200, LP 500

Series: Tenuo®

Type of protection: **IP 40**
 Protection class: I
 Viewing Distance: 30 m
 Ceiling thickness: 5-35 mm

For escape route identification

Housing: anodised aluminium, silver. Display panel with patented MicroLens technology.

Automatic self test in all standard versions.

LED included.

Please indicate legend number when placing your order!

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colour: aluminium, anodised

.04 or .07 = Monitoring system (optional)

both sides

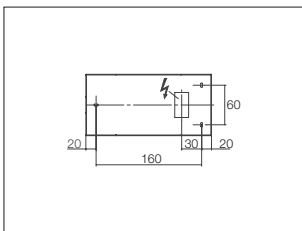
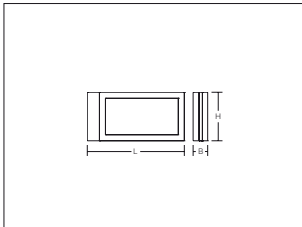


30 m

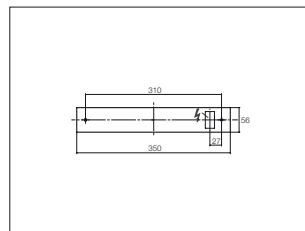
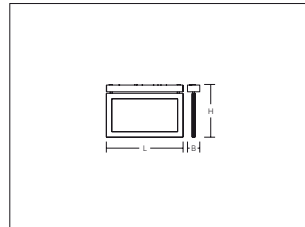
LED



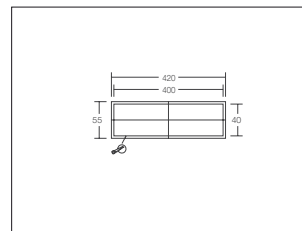
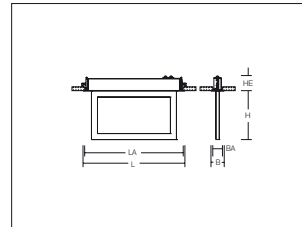
Wall extension



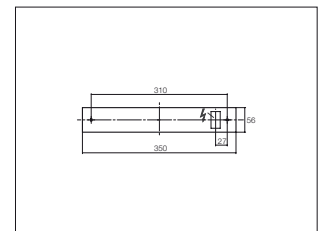
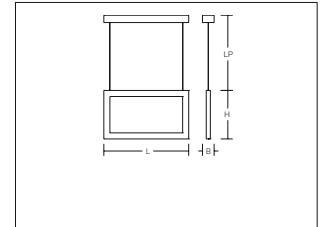
Ceiling (surface)



Ceiling (recessed)



Pendant tube |
Suspension cable/chain



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671945.004.Y	•	•	3 h	30 m	Wall extension	1 x LED 5 W	L 400, B 100, H 200
672006.004.Y	•	•	8 h	30 m	Wall extension	1 x LED 5 W	L 400, B 100, H 200
671946.004.Y	•	•	3 h	30 m	Ceiling (surface)	1 x LED 5 W	L 350, B 56, H 240
672007.004.Y	•	•	8 h	30 m	Ceiling (surface)	1 x LED 5 W	L 350, B 56, H 240
671947.004.Y	•	•	3 h	30 m	Ceiling (recessed)	1 x LED 5 W	L 420, B 55, H 262 LA 400 x BA 40, HE 60
672008.004.Y	•	•	8 h	30 m	Ceiling (recessed)	1 x LED 5 W	L 420, B 55, H 262 LA 400 x BA 40, HE 60
671948.004.Y	•	•	3 h	30 m	Pendant tube	1 x LED 5 W	L 350, B 56, H 200, LP 500
672009.004.Y	•	•	8 h	30 m	Pendant tube	1 x LED 5 W	L 350, B 56, H 200, LP 500
671949.004.Y	•	•	3 h	30 m	Cable suspension	1 x LED 5 W	L 350, B 56, H 200, LP 500
672010.004.Y	•	•	8 h	30 m	Cable suspension	1 x LED 5 W	L 350, B 56, H 200, LP 500

Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07



Series: Tenuo®

Type of protection: **IP 40**

Protection class: **I**

Voltage: **AC / DC**

Viewing Distance: **30 m**

Ceiling thickness: **5-35 mm**

For escape route identification

Housing: anodised aluminium, silver. Display panel with patented MicroLens technology.

LED included.

Please indicate legend number when placing your order!

Available colour: aluminium, anodised

.89 = Monitoring module (optional)

one side



30 m

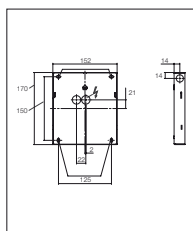
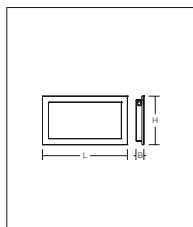


reddot design award
winner 2011

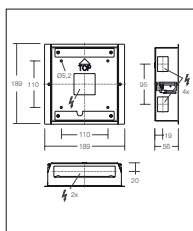
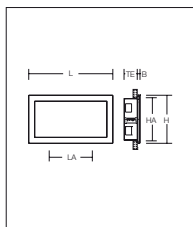


German
Design Award
2012
NOMINEE

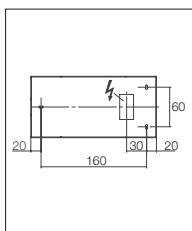
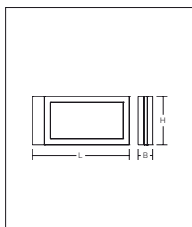
Wall (surface)



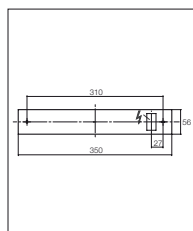
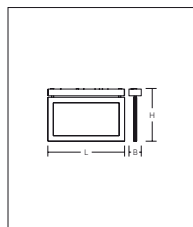
Wall (semi-recessed)



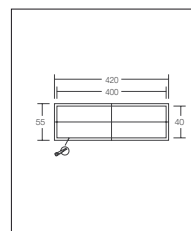
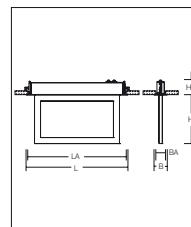
Wall extension



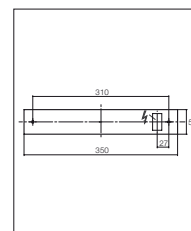
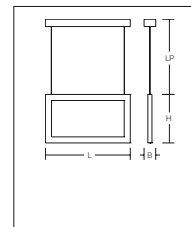
Ceiling (surface)



Ceiling (recessed)



Pendant tube |
Suspension cable/chain



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671923.004.Y	•	30 m	Wall (surface)	1 x LED 2,5 W	L 350, B 33, H 200
671922.004.Y	•	30 m	Wall (semi-recessed)	1 x LED 2,5 W	L 350, B 11, H 200 LA 175 x BA 175, HE 55
672039.004.Y	•	30 m	Wall extension	1 x LED 5 W	L 400, B 100, H 200
672029.004.Y	•	30 m	Ceiling (surface)	1 x LED 2,5 W	L 350, B 56, H 240
672030.004.Y	•	30 m	Ceiling (recessed)	1 x LED 2,5 W	L 420, B 55, H 262 LA 400 x BA 40, HE 90
672031.004.Y	•	30 m	Pendant tube	1 x LED 2,5 W	L 350, B 56, H 200, LP 500
672032.004.Y	•	30 m	Cable suspension	1 x LED 2,5 W	L 350, B 56, H 200, LP 500

Ordering information

Placeholder **Y** = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.89

Series: Tenuo®

Type of protection: **IP 40**

Protection class: I

Voltage: AC / DC

Viewing Distance: 30 m

Ceiling thickness: 5-35 mm

For escape route identification

Housing: anodised aluminium, silver. Display panel with patented MicroLens technology.

LED included.

Please indicate legend number when placing your order!

Available colour: aluminium, anodised

.89 = Monitoring module (optional)

both sides

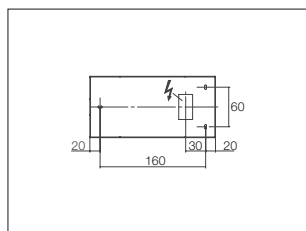
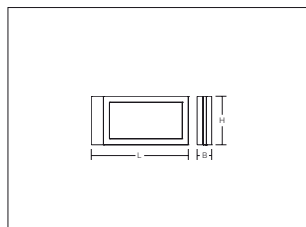


30 m

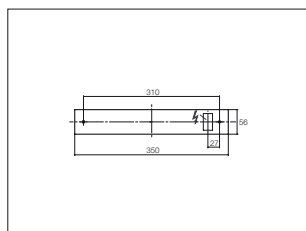
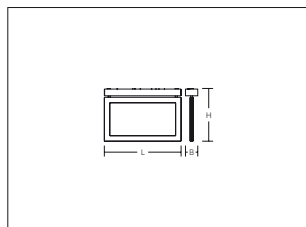
LED



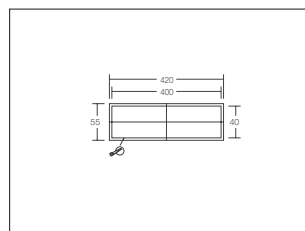
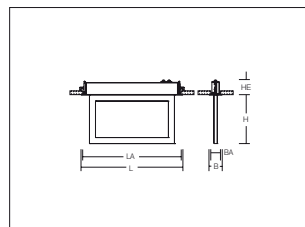
Wall extension



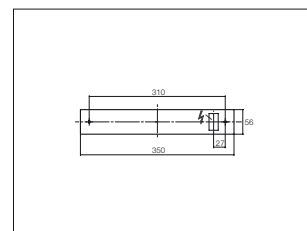
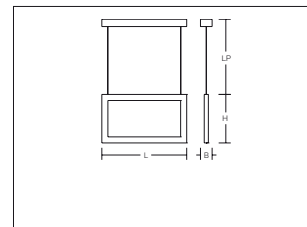
Ceiling (surface)



Ceiling (recessed)



Pendant tube |
Suspension cable/chain



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671938.004.Y	•	30 m	Wall extension	1 x LED 5 W	L 400, B 100, H 200
671939.004.Y	•	30 m	Ceiling (surface)	1 x LED 5 W	L 350, B 56, H 240
671940.004.Y	•	30 m	Ceiling (recessed)	1 x LED 5 W	L 420, B 55, H 262 LA 400 x BA 40, HE 90
671941.004.Y	•	30 m	Pendant tube	1 x LED 5 W	L 350, B 56, H 200, LP 500
671942.004.Y	•	30 m	Cable suspension	1 x LED 5 W	L 350, B 56, H 200, LP 500

Ordering information

Placeholder Y = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.**89**

LED Halyxx®

- Escape sign luminaire with highly efficient LED technology
- Housing made of top quality aluminium
- High quality and elegant design
- Specially calculated thermal management
- LED rated life 50,000 hours
- Wide range of applications thanks to various types of installation
- Moulded housing for concrete available
- Easy to install
- Available in the viewing distances of 14 m, 19 m and 30 m

Legends for escape route
identification - ISO 7010
Background colour: green
(Special legends on request)



3003



3004



3113



3115



3114



3116



3006



3005



Wall (surface)



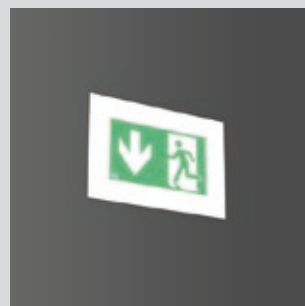
Ceiling (surface)



Ceiling (recessed)



Wall (recessed)







14 m



Series: LED Halyxx®

Type of protection: IP 40

Protection class: I

Viewing Distance: 14 m

Ceiling thickness: 5-35 mm

For escape route identification

Base: aluminium extrusion profile. Display panel: highly transparent panel with legend on one side/both sides.

Automatic self test in all standard versions.

LED included.

Please specify legend number when ordering!

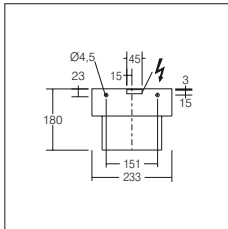
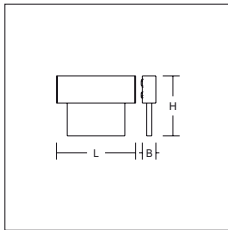
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

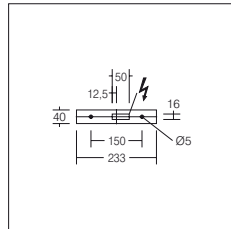
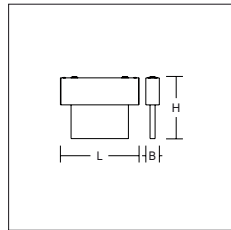
Available colours (X): 2 = white (only wall (recessed)) 4 = aluminium, anodised (all variants)

.04 or .07 = Monitoring system (optional)

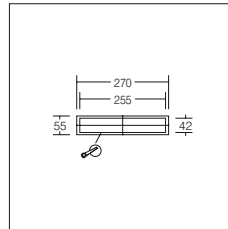
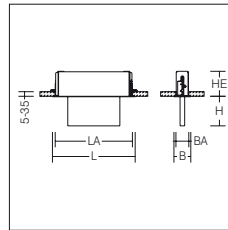
Wall (surface)



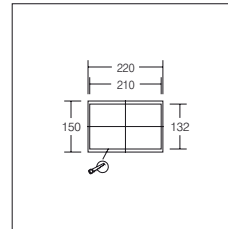
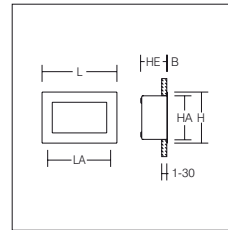
Ceiling (surface)



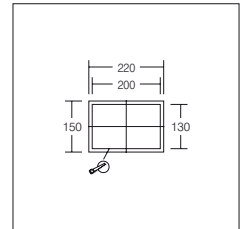
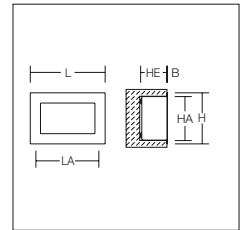
Ceiling (recessed)



Wall (recessed) (cavity wall)



Wall (recessed) (solid wall)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671501.004.Y	•	•	3 h	14 m	Wall (surface)	2 x LED 1 W	L 233, B 40, H 180
671546.12X.Y	•	•	3 h	14 m	Wall (recessed) (cavity wall)	1 x LED 4 W	L 220, B 2, H 150 LA 210 x BA 132, HE 90
671546.00X.Y	•	•	3 h	14 m	Wall (recessed) (solid wall)	1 x LED 4 W	L 220, B 2, H 150 LA 200 x BA 130, HE 80
671502.004.Y	•	•	3 h	14 m	Ceiling (surface)	2 x LED 1 W	L 233, B 40, H 180
671518.004.Y	•	•	3 h	14 m	Ceiling (recessed)	2 x LED 1 W	L 270, B 55, H 100 LA 255 x BA 42, HE 90

Wall extension

Viewing distance: 14 m

981581.004 L 258, B 38, H 104

Accessories | Pendant set for ceiling luminaires

Pendant length 500 mm (other lengths upon request), white plastic canopy, chrome suspension tube, length: 480 mm, can be shortened on site.

Pendant sets

Viewing distance: 14 m

981639.010 for standard version

981639.040 for MultiDigit (.04) / DALI (.07)

Mounting set for suspension cable/chain

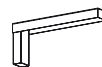
Viewing distance: 14 m

981701.004 L 213, B 33, H 77 for 671502.004.Y(.04/.07)

Moulded housing

Viewing distance: 14 m

981685.000 L 542, B 142, H 143 for 671518.004.Y(.04/.07)



Ordering information

Placeholder X = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: LED Halyxx®

Type of protection: IP 40

Protection class: I

Voltage: AC / DC

Viewing Distance: 14 m

Ceiling thickness: 5-35 mm

For escape route identification

Base: aluminium extrusion profile. Display panel: highly transparent panel with legend on one side/both sides.

LED included.

Please specify legend number when ordering!

Ballast: EB

Available colours (X): 2 = white (only wall (recessed)) 4 = aluminium, anodised (all variants)

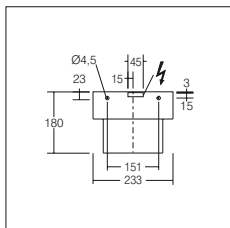
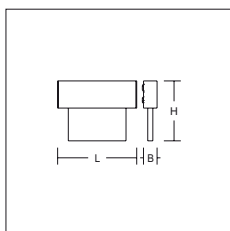
.89 = Monitoring module (optional)



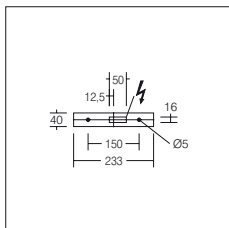
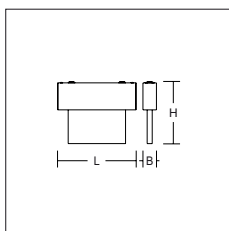
14 m

LED

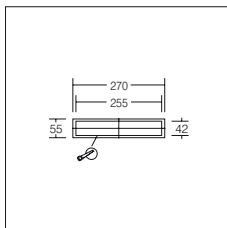
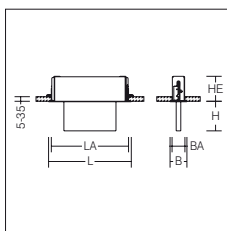
Wall (surface)



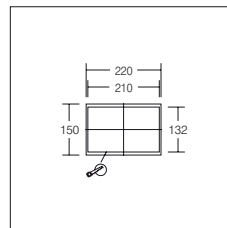
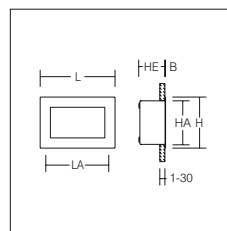
Ceiling (surface)



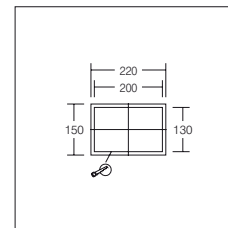
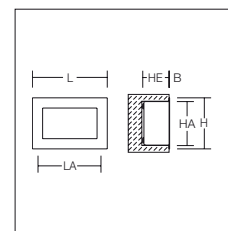
Ceiling (recessed)



Wall (recessed) (cavity wall)



Wall (recessed) (solid wall)



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671503.004.Y	•	14 m	Wall (surface)	2 x LED 1,1 W	L 233, B 40, H 180
671547.12X	-	14 m	Wall (recessed) (cavity wall)	1 x LED 3,5 W	L 220, B 150, H 90 LA 210 x BA 132, HE 90
671547.00X	-	14 m	Wall (recessed) (solid wall)	1 x LED 3,5 W	L 220, B 150, H 80 LA 200 x BA 130, HE 80
671504.004.Y	•	14 m	Ceiling (surface)	2 x LED 1,1 W	L 233, B 40, H 184
671519.004 .Y	•	14 m	Ceiling (recessed)	2 x LED 1,1 W	L 270, B 55, H 100 LA 255 x BA 42, HE 90

Wall extension

Viewing distance: 14 m

981581.004 L 258, B 38, H 104

Accessories | Pendant set for ceiling luminaires

Pendant length 500 mm (other lengths upon request), white plastic canopy, chrome suspension tube, length: 480 mm, can be shortened on site.

Pendant sets

Viewing distance: 14 m

981639.060 for standard version

981639.020 for .89

Mounting set for suspension cable/chain

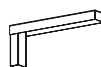
Viewing distance: 14 m

981701.004 L 213, B 33, H 77 for 671504.004.Y(.89)

Moulded housing

Viewing distance: 14 m

981685.000 L 542, B 142, H 143 for 671519.004.Y(.89)



Ordering information

Placeholder X = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder Y = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.89

Series: LED Halyxx®

Type of protection: **IP 40**
 Protection class: I
 Voltage: AC / DC
 Viewing Distance: 19 m
 Ceiling thickness: 5-35 mm

For escape route identification

Base: aluminium extrusion profile. Display panel: highly transparent panel with legend on one side/both sides.
 LED included.

Please specify legend number when ordering!

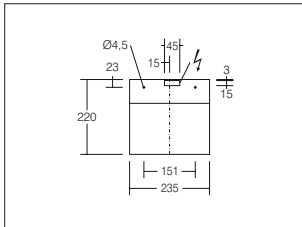
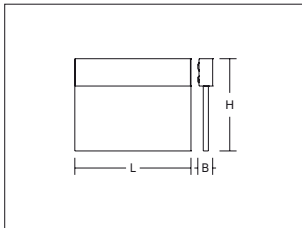
Ballast: EB
 Available colour: aluminium, anodised
 .89 = Monitoring module (optional)



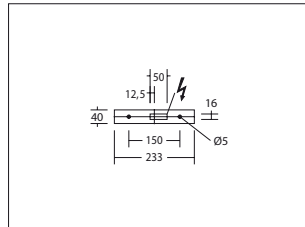
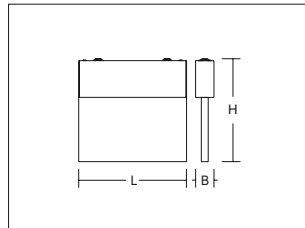
19 m



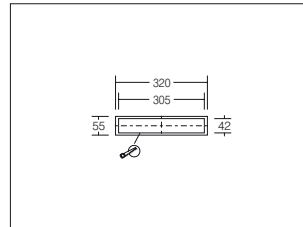
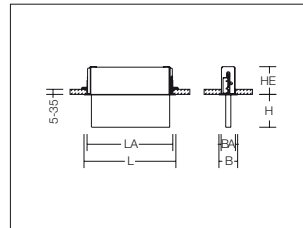
Wall (surface)



Ceiling (surface)



Ceiling (recessed)

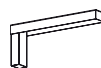


Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671738.004.Y	•	19 m	Wall (surface)	2 x LED 1,1 W	L 235, B 40, H 220
671736.004.Y	•	19 m	Ceiling (surface)	2 x LED 1,1 W	L 235, B 40, H 220
671739.004.Y	•	19 m	Ceiling (recessed)	2 x LED 1,1 W	L 320, B 55, H 140 LA 305 x BA 42, HE 90

Wall extension

Viewing distance: 19 m

981581.004 L 258, B 38, H 104



Accessories | Pendant set for ceiling luminaires

Pendant length 500 mm (other lengths upon request), white plastic canopy, chrome suspension tube, length: 480 mm, can be shortened on site.

Pendant sets

Viewing distance: 19 m

981639.060 for standard version
 981639.020 for .89



Mounting set for suspension cable/chain

Viewing distance: 19 m

981701.004 L 213, B 33, H 77 for 671736.004.Y(.89)



Moulded housing

Viewing distance: 19 m

981686.000 L 542, B 142, H 143 for 671739.004.Y(.89)



Ordering information

Placeholder Y = Monitoring module (optional)
 AC-Control reference no. e.g. 123456.004.89



30 m



Series: LED Halyxx®

Type of protection: IP 40

Protection class: I

Viewing Distance: 30 m

Ceiling thickness: 5-35 mm

For escape route identification

Base: aluminium extrusion profile. Display panel: highly transparent panel with legend on one side/both sides.

Automatic self test in all standard versions.

LED included.

Please specify legend number when ordering!

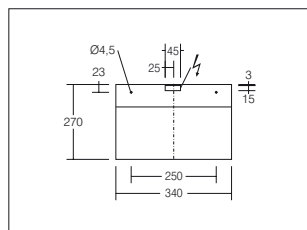
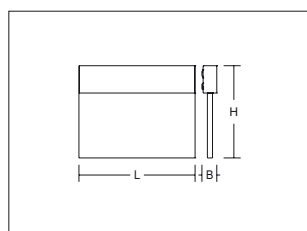
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

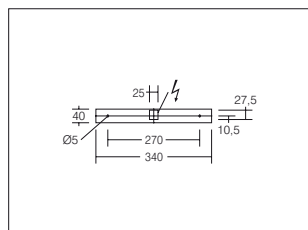
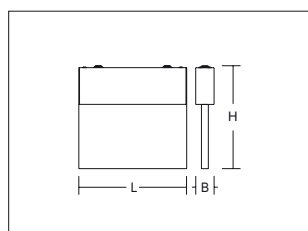
Available colour: aluminium, anodised

.04 or .07 = Monitoring system (optional)

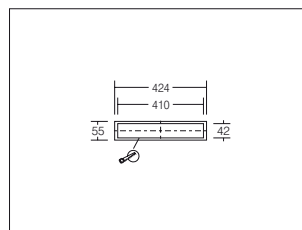
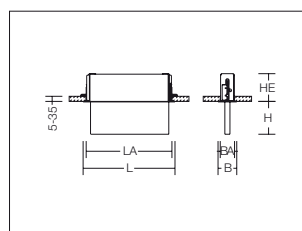
Wall (surface)



Ceiling (surface)



Ceiling (recessed)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671748.004.Y	•	•	3 h	30 m	Wall (surface)	4 x LED 1 W	L 340, B 40, H 270
671912.004.Y	•	•	8 h	30 m	Wall (surface)	4 x LED 1 W	L 340, B 40, H 270
671744.004.Y	•	•	3 h	30 m	Ceiling (surface)	4 x LED 1 W	L 340, B 40, H 270
671913.004.Y	•	•	8 h	30 m	Ceiling (surface)	4 x LED 1 W	L 340, B 40, H 270
671752.004.Y	•	•	3 h	30 m	Ceiling (recessed)	4 x LED 1 W	L 424, B 55, H 190 LA 410 x BA 42, HE 90
671914.004.Y	•	•	8 h	30 m	Ceiling (recessed)	4 x LED 1 W	L 424, B 55, H 190 LA 410 x BA 42, HE 90

Wall extension

Viewing distance: 30 m

981640.000 L 363, B 38, H 104

Accessories | Pendant set for ceiling luminaires

Pendant length 500 mm (other lengths upon request), white plastic canopy, chrome suspension tube, length: 480 mm, can be shortened on site.

Pendant sets

Viewing distance: 30 m

981647.010 for standard version

981647.040 for MultiDigit (.04) / DALI (.07)

Mounting set for suspension cable/chain

Viewing distance: 30 m

981702.004 L 318, B 33, H 57

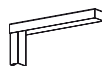
for 671744.004.Y(.04/.07)

Moulded housing

Viewing distance: 30 m

981687.000 L 542, B 142, H 143

for 671752.004.Y(.04/.07)



Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: LED Halyxx®

Type of protection: **IP 40**
Protection class: I
Voltage: AC / DC
Viewing Distance: 30 m
Ceiling thickness: 5-35 mm

For escape route identification

Base: aluminium extrusion profile. Display panel: highly transparent panel with legend on one side/both sides.
LED included.

Please specify legend number when ordering!

Ballast: EB

Available colour: aluminium, anodised

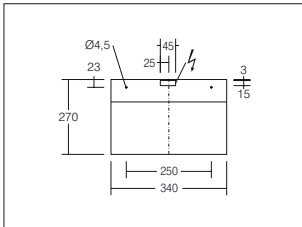
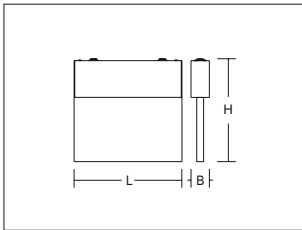
.89 = Monitoring module (optional)



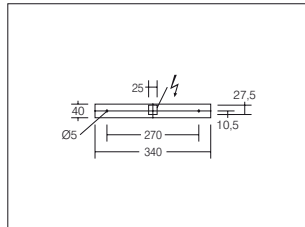
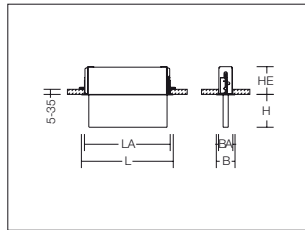
30 m

LED

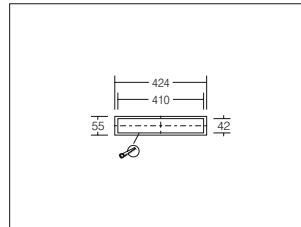
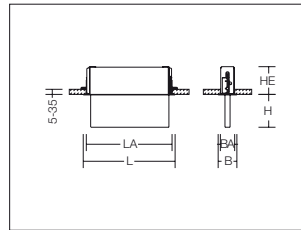
Wall (surface)



Ceiling (surface)



Ceiling (recessed)

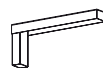


Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671722.004.Y	•	30 m	Wall (surface)	3 x LED 1,1 W	L 340, B 40, H 270
671737.004.Y	•	30 m	Ceiling (surface)	3 x LED 1,1 W	L 340, B 40, H 270
671740.004.Y	•	30 m	Ceiling (recessed)	3 x LED 1,1 W	L 424, B 55, H 190 LA 410 x BA 42, HE 90

Wall extension

Viewing distance: 30 m

981640.000 L 363, B 38, H 104



Accessories | Pendant set for ceiling luminaires

Pendant length 500 mm (other lengths upon request), white plastic canopy, chrome suspension tube, length: 480 mm, can be shortened on site.

Pendant sets

Viewing distance: 30 m

981647.000	for standard version
981647.020	for .89



Mounting set for suspension cable/chain

Viewing distance: 30 m

981702.004 L 318, B 33, H 57 for 671737.004.Y(.89)



Moulded housing

Viewing distance: 30 m

981687.000 L 542, B 142, H 143 for 671740.004.Y(.89)



Ordering information

Placeholder **Y** = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.89

GSUN® RS | Universal RS

- High quality and elegant design
- Standard automatic self-test
- Easy to install thanks to quick mount adaptor
- The ultra-flat exit sign luminaire with highly efficient LED technology
- LED rated life 50,000 hours
- Set of 4 legends included for easy attachment

Legends for escape route
identification - ISO 7010
Background colour: green
(Special legends on request)



3003



3004



3113



3115



3114



3116



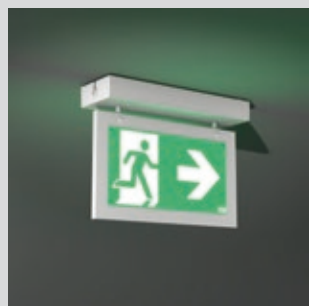
3006



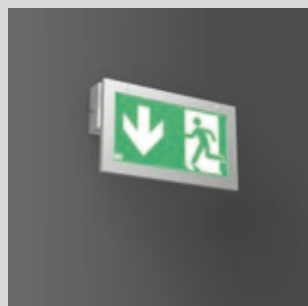
3005



Ceiling (surface)



Wall (surface)





Staircase
1st Floor
2nd Floor
3rd Floor
4th Floor
5th Floor
6th Floor
7th Floor
8th Floor
9th Floor
10th Floor
11th Floor
12th Floor
13th Floor
14th Floor
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92nd Floor
93rd Floor
94th Floor
95th Floor
96th Floor
97th Floor
98th Floor
99th Floor
100th Floor



Series: GSUN® RS

Type of protection: IP 20

Protection class: II

Viewing Distance: 24 m

For escape route identification

Housing: plastic (polycarbonate) with universal mounting kit for ceiling and wall mount.

4 legends and 1 white plug-in plastic sheet included.

Automatic self test in all standard versions.

LED included.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colour: grey

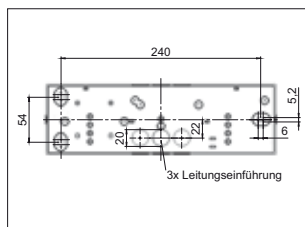
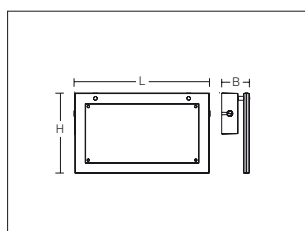
.04 or .07 = Monitoring system (optional)

24 m

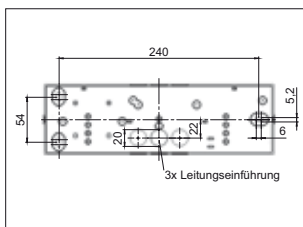
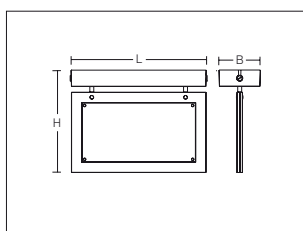


Available from 4th quarter 2015

Wall (surface)



Ceiling (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
672116.009.Y	•	•	3 h	24 m	Wall (surface), Ceiling (surface)	1 x LED 2,2 W	L 275, B 84/59, H 211/163

Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: Universal® RS

Type of protection: IP 20
Protection class: II
Voltage: AC / DC
Viewing Distance: 24 m

For escape route identification

Housing: plastic (polycarbonate) with universal mounting kit for ceiling and wall mount.
4 legends and 1 white plug-in plastic sheet included.

LED included.

Ballast: EB

Available colour: grey

.89 = Monitoring module (optional)

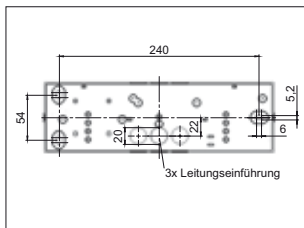
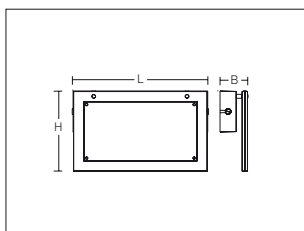


24 m

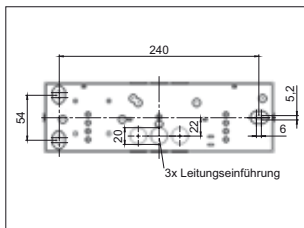
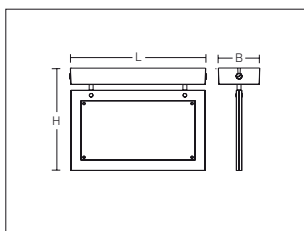
LED

Available from 4th quarter 2015

Wall (surface)



Ceiling (surface)



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
672117.009.Y	•	24 m	Wall (surface), Ceiling (surface)	1 x LED 2,2 W	L 275, B 84/59, H 211/163

Ordering information

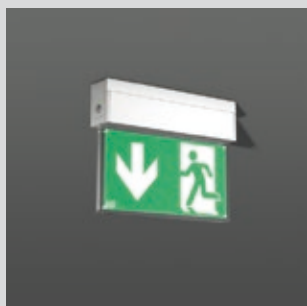
Placeholder Y = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.89

GSUN® S | Universal S

- All types of installation are possible - thus universally applicable
- Housing made of top quality aluminium
- The very latest LED technology keeps maintenance costs to a minimum
- Very long LED rated life thanks to excellent thermal management
- Standard automatic self-test
- Set of 4 legends included for easy attachment
- Available in the viewing distances of 24 m and 32 m



Ceiling (surface)



Wall (surface)



Ceiling (recessed) (with accessory)







24 | 32 m



Series: GSUN® S

Type of protection: IP 20

Protection class: I

Viewing Distance: 24 m, 32 m

For escape route identification

Housing: aluminium extrusion profile, powder-coated. Universal mounting kit for ceiling and wall surface mounting. 4 legends and 1 white plug-in plastic sheet included.

Automatic self test in all standard versions.

LED included.

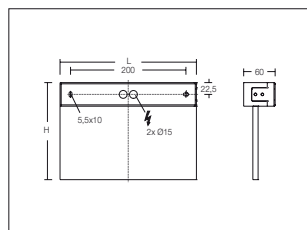
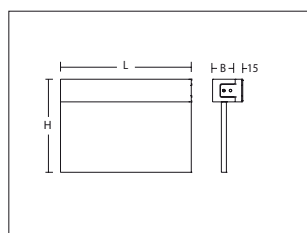
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

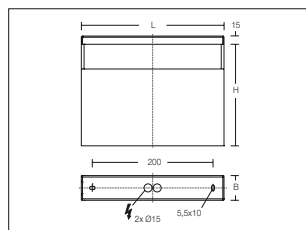
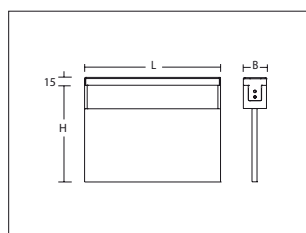
Available colour: silver coloured

.04 or .07 = Monitoring system (optional)

Wall (surface)



Ceiling (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671915.004.Y	•	•	3 h	24 m	Wall (surface), Ceiling (surface)	1 x LED 2,2 W	L 240, B 45, H 175
671986.004.Y	•	•	3 h	32 m	Wall (surface), Ceiling (surface)	1 x LED 3 W	L 320, B 45, H 215

Wall extension

981779.004	L 190, B 49, H 82	for 24 m
981797.004	L 190, B 49, H 82	for 32 m

Pendant tube

981777.014	Pendant length LP 500 mm	for standard version
981777.034	pendant length LP 500 mm	for .04 / .07

Mounting set for suspension cable/chain

981780.000	L 230, B 20, H 43	for 24 m / 32 m
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Mounting frame for recessed ceiling mounting

BA 52 mm x LA 300 mm		
981883.004	L 330, B 68, H 1, HE 75	for GSUN®S 24 m
BA 52 mm x LA 350 mm		
981884.004	L 410, B 68, H 2, HE 75	for GSUN®S 32 m



Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: Universal S

Type of protection: IP 20
Protection class: I
Voltage: AC / DC
Viewing Distance: 24 m, 32 m

For escape route identification

Housing: aluminium extrusion profile, powder-coated. Universal mounting kit for ceiling and wall surface mounting.
4 legends and 1 white plug-in plastic sheet included.

LED included.

Ballast: EB

Available colour: silver coloured

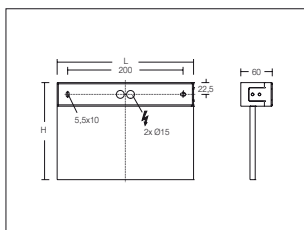
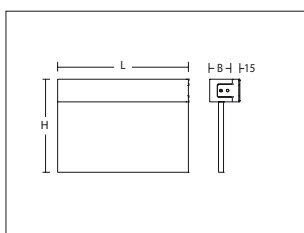
.89 = Monitoring module (optional)



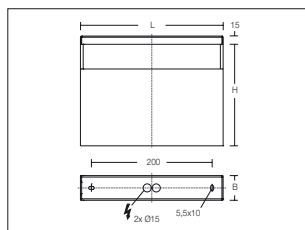
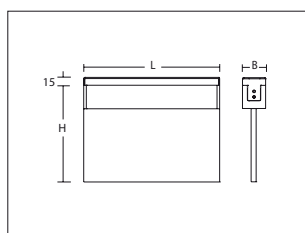
24 | 32 m

LED

Wall (surface)



Ceiling (surface)



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671983.004.Y	•	24 m	Wall (surface), Ceiling (surface)	1 x LED 2,2 W	L 240, B 45, H 175
671985.004.Y	•	32 m	Wall (surface), Ceiling (surface)	1 x LED 1,5 W	L 320, B 45, H 215

Wall extension

981779.004	L 190, B 49, H 82	for 24 m
981797.004	L 190, B 49, H 82	for 32 m

Pendant tube

981777.014	Pendant length LP 500 mm	for standard version
981777.034	Pendant length LP 500 mm	for .89

Mounting set for suspension cable/chain

981780.000	L 230, B 20, H 43	for 24 m / 32 m
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Mounting frame for recessed ceiling mounting

BA 52 mm x LA 300 mm		
981883.004	L 330, B 68, H 1, HE 75	for GSUN®S 24 m
BA 52 mm x LA 350 mm		
981884.004	L 410, B 68, H 2, HE 75	for GSUN®S 32 m



Ordering information

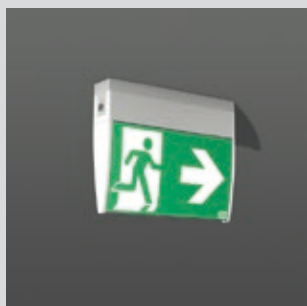
Placeholder Y = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.89

GSUN® D | Universal D

- Improved design
- The very latest LED technology keeps maintenance costs to a minimum
- Very long LED rated life thanks to excellent thermal management
- Standard automatic self-test
- 4 easy to lay in legends included
- Universal installation for wall and ceiling



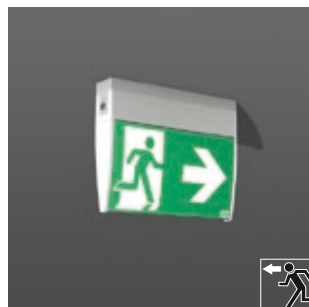
Ceiling (surface)



Wall (surface)







24 m

**Series: GSUN® D**

Type of protection: IP 20

Protection class: I

Viewing Distance: 24 m

For escape route identification

Housing: aluminium extrusion profile, powder-coated. Universal mounting kit for ceiling and wall surface mounting.
4 legends and 1 white lay in plastic sheet included.

Automatic self test in all standard versions.

LED included.

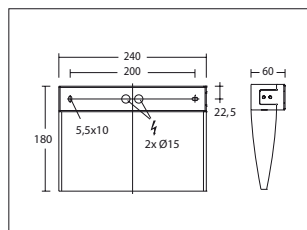
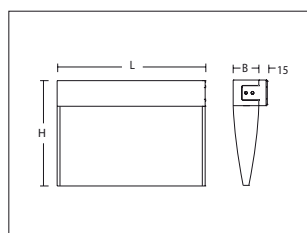
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

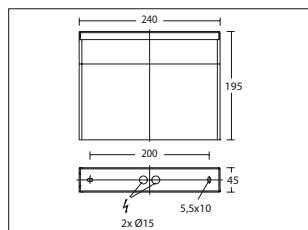
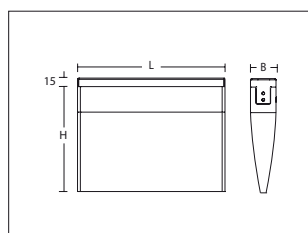
Available colour: silver coloured

.04 or .07 = Monitoring system (optional)

Wall (surface)



Ceiling (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671995.004.Y	•	•	3 h	24 m	Wall (surface), Ceiling (surface)	1 x LED 2,2 W	L 240, B 45, H 190

Mounting set for suspension cable/chain

981780.000 L 230, B 20, H 43 for 24 m

**Pendant tube**

981777.014 Pendant length LP 500 mm for standard version
981777.034 Pendant length LP 500 mm for .04 / .07

**Ordering information**

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: Universal D

Type of protection: IP 20
Protection class: I
Voltage: AC / DC
Viewing Distance: 24 m

For escape route identification

Housing: aluminium extrusion profile, powder-coated. Universal mounting kit for ceiling and wall surface mounting.
4 legends and 1 white lay in plastic sheet included.

LED included.

Ballast: EB

Available colour (X): 4 = silver coloured

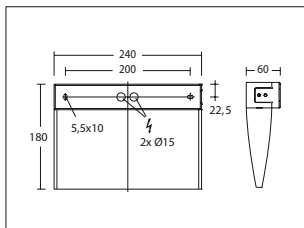
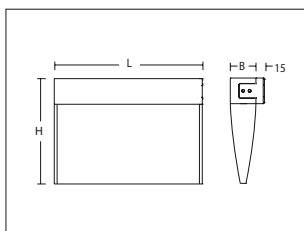
.89 = Monitoring module (optional)



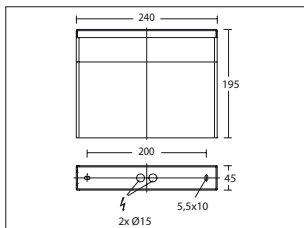
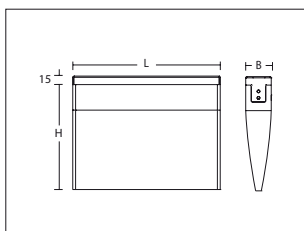
24 m

LED

Wall (surface)



Ceiling (surface)



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671996.004.Y	•	24 m	Wall (surface), Ceiling (surface)	1 x LED 2,2 W	L 240, B 45, H 190

Mounting set for suspension cable/chain

981780.000 L 230, B 20, H 43 for 24 m



Pendant tube

981777.014 Pendant length LP 500 mm for standard version
981777.034 Pendant length LP 500 mm for .89



Ordering information

Placeholder Y = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.89

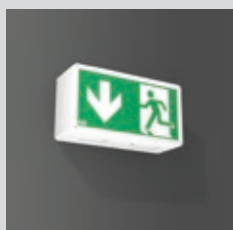
Rechteck 250 | 360 | 485

- High quality aluminium profile housing
- Installation-friendly construction facilitates easy lamp replacement
- Wide range of applications thanks to various types of installation
- Quick and easy to install thanks to the use of a quick-action locking mechanism for the lamp and ballast support
- Available also with exceptionally long rated life and energy efficient LED technology
- LED conversion sets are available for existing luminaires

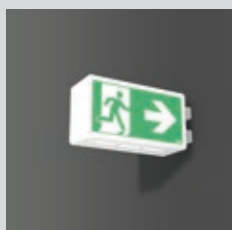
Legends for escape route
identification - ISO 7010
Background colour: green
(Special legends on request)



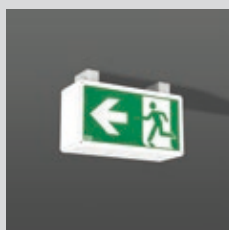
Wall (surface)



Wall extension



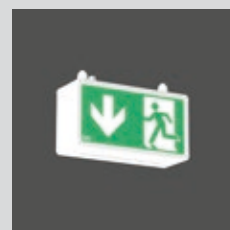
Ceiling (surface)



Pendant tube



Suspension cable/chain







Series: Recteck 250

Type of protection: **IP 44**

Protection class: I

Viewing Distance: 21 m

For escape route identification

Housing: aluminium, with plastic corner connectors. Display panels: plastic, opal, with legend on one side/on both sides.
LED included.

Please specify legend number when ordering!

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

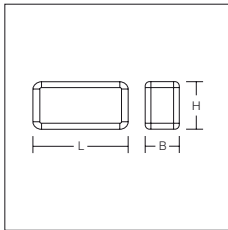
Available colours (X): 2 = white, 4 = aluminium, anodised

.04 or .07 = Monitoring system (optional)

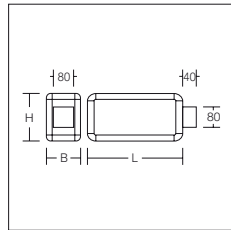
21 m



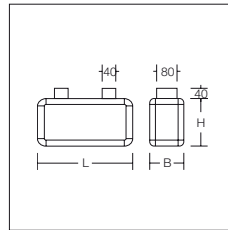
Wall (surface)



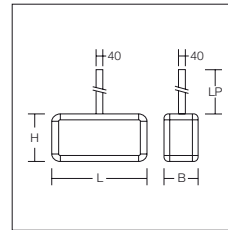
Wall extension



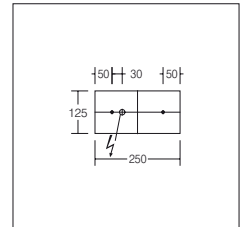
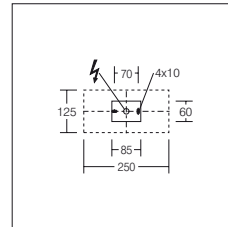
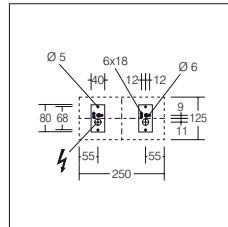
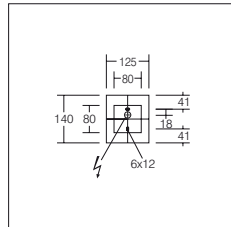
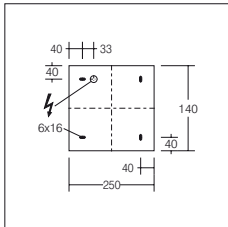
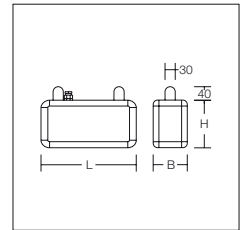
Ceiling (surface)



Pendant tube



Suspension cable/chain



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671045.00X.Y	•	-	3 h	21 m	Wall (surface)	4 x LED 1 W	L 250, B 125, H 140
671049.00X.Y	•	-	3 h	21 m	Wall extension	4 x LED 1 W	L 250, B 125, H 140
671053.00X.Y	•	-	3 h	21 m	Ceiling (surface)	4 x LED 1 W	L 250, B 125, H 140
671057.00X.Y	•	-	3 h	21 m	Pendant tube	4 x LED 1 W	L 250, B 125, H 140, LP 500
671343.00X.Y	•	-	3 h	21 m	Suspension cable/chain	4 x LED 1 W	L 250, B 125, H 140

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981167.002 L 380, B 295, H 185

Sets for converting luminaires of series „Recteck 250“ for LED lamps

981724.002 single sided/double sided 4 x LED 1 W/3h
981724.002.04 single sided/double sided 4 x LED 1 W/3h



Ordering information

Placeholder **X** = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: Rechteck 250

Type of protection: IP 44

Protection class: I

Voltage: AC / DC

Viewing Distance: 21 m

For escape route identification

Housing: aluminium, with plastic corner connectors. Display panels: plastic, opal, with legend on one side/on both sides.

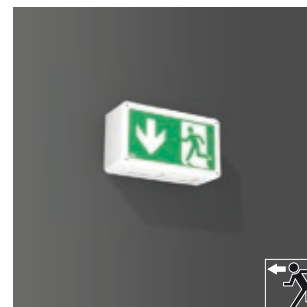
LED included.

Please specify legend number when ordering!

Ballast: EB

Available colours (X): 2 = white, 4 = aluminium, anodised

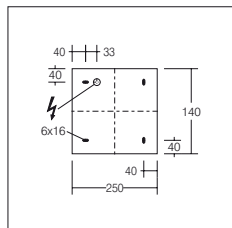
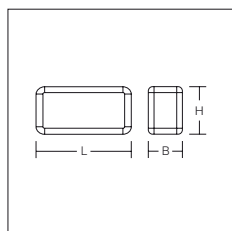
.89 = Monitoring module (optional)



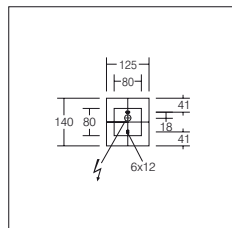
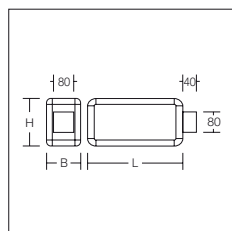
21 m

LED

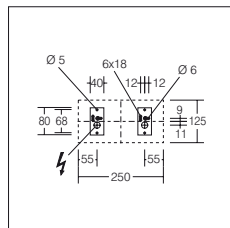
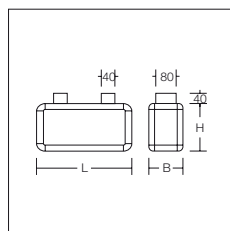
Wall (surface)



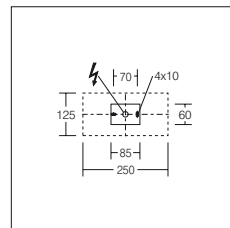
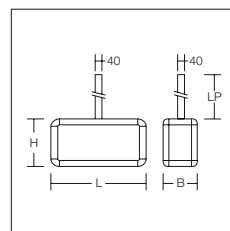
Wall extension



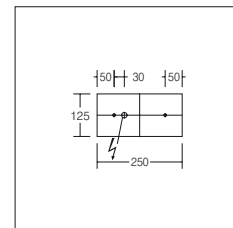
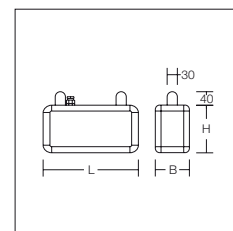
Ceiling (surface)



Pendant tube



Suspension cable/chain



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671207.00X.Y	•	21 m	Wall (surface)	2 x LED 1,1 W	L 250, B 90, H 140
671209.00X.Y	•	21 m	Wall extension	4 x LED 1,1 W	L 250, B 125, H 140
671211.00X.Y	•	21 m	Ceiling (surface)	4 x LED 1,1 W	L 250, B 125, H 140
671213.00X.Y	•	21 m	Pendant tube	4 x LED 1,1 W	L 250, B 125, H 140, LP 500
671359.00X.Y	•	21 m	Suspension cable/chain	4 x LED 1,1 W	L 250, B 125, H 140

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981167.002 L 380, B 295, H 185

Sets for converting luminaires of series „Rechteck 250“ for LED lamps

981722.002	single sided	2 x LED 1,1 W
981722.002.89	single sided	2 x LED 1,1 W
981723.002	double sided	4 x LED 1,1 W
981723.002.89	double sided	4 x LED 1,1 W



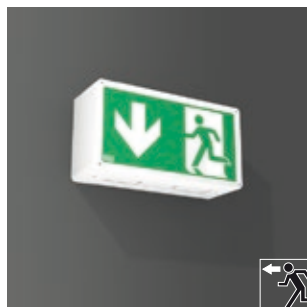
Ordering information

Placeholder X = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder Y = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.89



Series: Recteck 360

Type of protection: **IP 44**

Protection class: I

Viewing Distance: 32 m

For escape route identification

Housing: aluminium, with plastic corner connectors. Display panels: plastic, opal, with legend on one side/on both sides. LED included.

Please specify legend number when ordering!

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

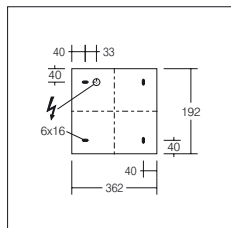
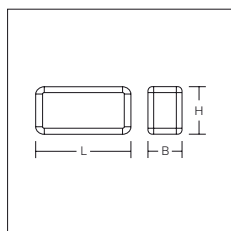
Available colours (X): 2 = white, 4 = aluminium, anodised

.04 or .07 = Monitoring system (optional)

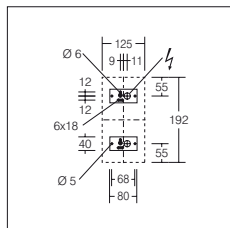
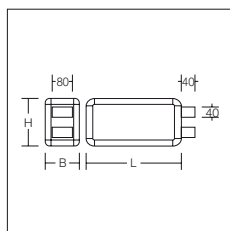
32 m



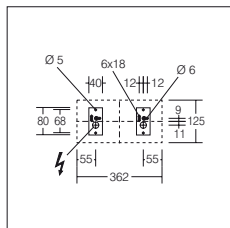
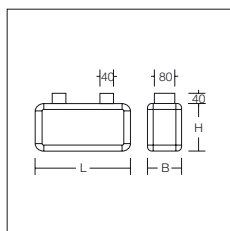
Wall (surface)



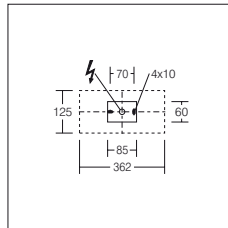
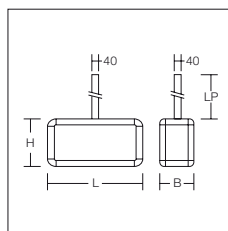
Wall extension



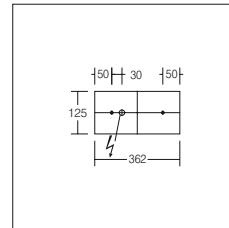
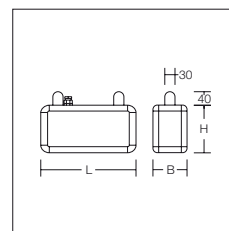
Ceiling (surface)



Pendant tube



Suspension cable/chain



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671061.00X.Y	•	-	3 h	32 m	Wall (surface)	4 x LED 1 W	L 362, B 125, H 192
671065.00X.Y	•	-	3 h	32 m	Wall extension	6 x LED 1 W	L 362, B 125, H 192
671069.00X.Y	•	-	3 h	32 m	Ceiling (surface)	6 x LED 1 W	L 362, B 125, H 192
671073.00X.Y	•	-	3 h	32 m	Pendant tube	6 x LED 1 W	L 362, B 125, H 192, LP 500
671347.00X.Y	•	-	3 h	32 m	Suspension cable/chain	6 x LED 1 W	L 362, B 125, H 192

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981168.002 L 540, B 375, H 185

Sets for converting luminaires of series „Recteck 360“ for LED lamps

981726.002	single sided	4 x LED 1 W/3h
981726.002.04	single sided	4 x LED 1 W/3h
981728.002	double sided	6 x LED 1 W/3h
981728.002.04	double sided	6 x LED 1 W/3h



Ordering information

Placeholder **X** = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: Rechteck 360

Type of protection: IP 44

Protection class: I

Voltage: AC / DC

Viewing Distance: 32 m

For escape route identification

Housing: aluminium, with plastic corner connectors. Display panels: plastic, opal, with legend on one side/on both sides.

LED included.

Please specify legend number when ordering!

Ballast: EB

Available colours (X): 2 = white, 4 = aluminium, anodised

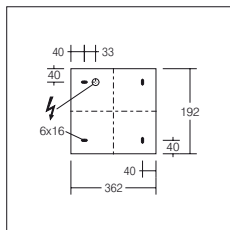
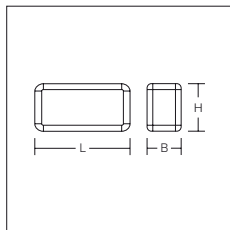
.89 = Monitoring module (optional)



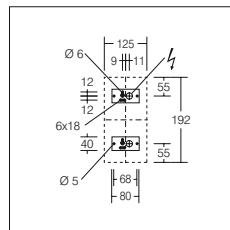
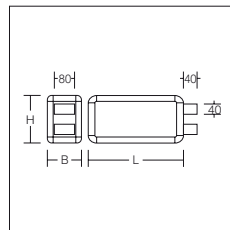
32 m

LED

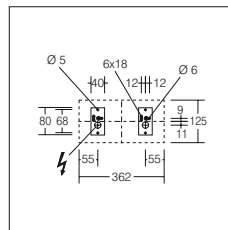
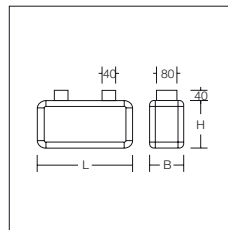
Wall (surface)



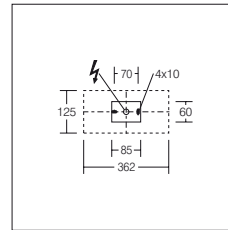
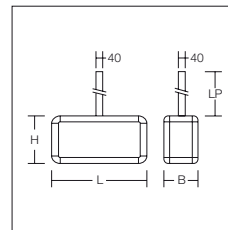
Wall extension



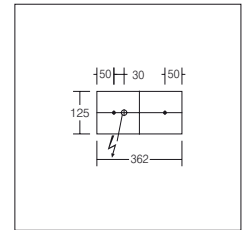
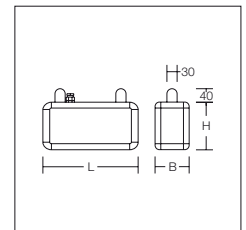
Ceiling (surface)



Pendant tube



Suspension cable/chain



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671215.00X.Y	•	32 m	Wall (surface)	3 x LED 1,1 W	L 362, B 90, H 192
671217.00X.Y	•	32 m	Wall extension	6 x LED 1,1 W	L 362, B 125, H 192
671223.00X.Y	•	32 m	Ceiling (surface)	6 x LED 1,1 W	L 362, B 125, H 192
671227.00X.Y	•	32 m	Pendant tube	6 x LED 1,1 W	L 362, B 125, H 192, LP 500
671363.00X.Y	•	32 m	Suspension cable/chain	6 x LED 1,1 W	L 362, B 125, H 192

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981168.002 L 540, B 375, H 185

Sets for converting luminaires of series „Rechteck 360“ for LED lamps

981725.002	single sided	3 x LED 1,1 W
981725.002.89	single sided	3 x LED 1,1 W
981727.002	double sided	6 x LED 1,1 W
981727.002.89	double sided	6 x LED 1,1 W



Ordering information

Placeholder X = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder Y = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.89



Series: Recteck 485

Type of protection: **IP 44**

Protection class: I

Viewing Distance: 43 m

For escape route identification

Housing: aluminium, with plastic corner connectors. Display panels: plastic, opal, with legend on one side/on both sides. LED included.

Please specify legend number when ordering!

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

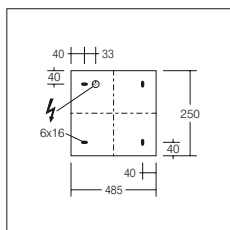
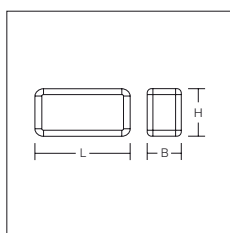
Available colours (X): 2 = white, 4 = aluminium, anodised

.04 or .07 = Monitoring system (optional)

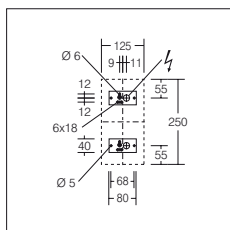
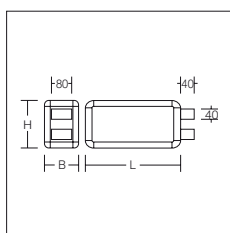
43 m



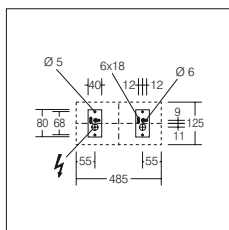
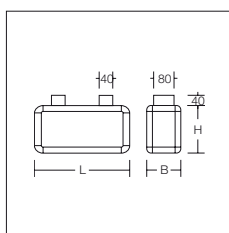
Wall (surface)



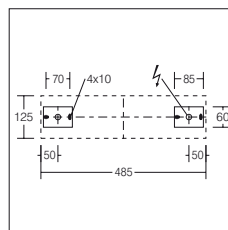
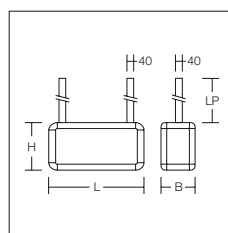
Wall extension



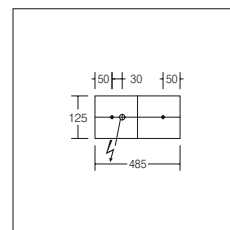
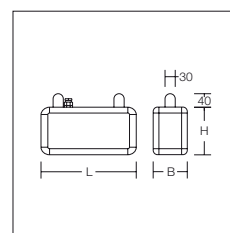
Ceiling (surface)



Pendant tube



Suspension cable/chain



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671077.00X.Y	•	-	3 h	43 m	Wall (surface)	4 x LED 1 W	L 485, B 125, H 250
671081.00X.Y	•	-	3 h	43 m	Wall extension	6 x LED 1,4 W	L 485, B 125, H 250
671085.00X.Y	•	-	3 h	43 m	Ceiling (surface)	6 x LED 1,4 W	L 485, B 125, H 250
671089.00X.Y	•	-	3 h	43 m	Pendant tube	6 x LED 1,4 W	L 485, B 125, H 250, LP 500
671351.00X.Y	•	-	3 h	43 m	Suspension cable/chain	6 x LED 1,4 W	L 485, B 125, H 250

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981168.002 L 540, B 375, H 185

Sets for converting luminaires of series „Recteck 485“ for LED lamps

981773.002	single sided	4 x LED 1 W/3h
981773.002.04	single sided	4 x LED 1 W/3h
981774.002	double sided	6 x LED 1,4 W/3h
981774.002.04	double sided	6 x LED 1,4 W/3h



Ordering information

Placeholder **X** = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: Rechteck 485

Type of protection: **IP 44**

Protection class: I

Voltage: AC / DC

Viewing Distance: 43 m

For escape route identification

Housing: aluminium, with plastic corner connectors. Display panels: plastic, opal, with legend on one side/on both sides.

LED included.

Please specify legend number when ordering!

Ballast: EB

Available colours (X): 2 = white, 4 = aluminium, anodised

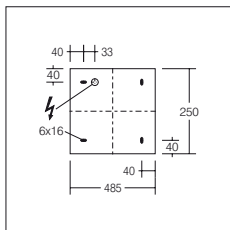
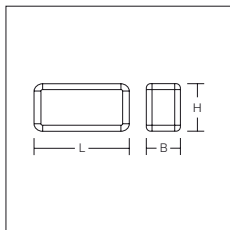
.89 = Monitoring module (optional)



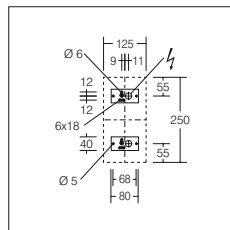
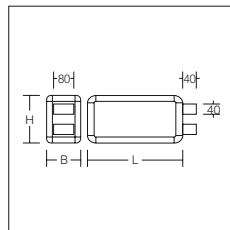
43 m

LED

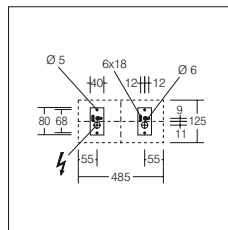
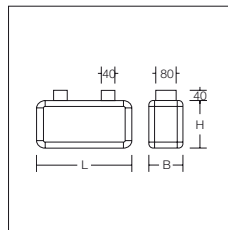
Wall (surface)



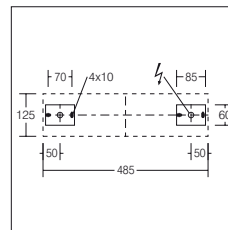
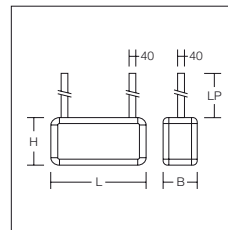
Wall extension



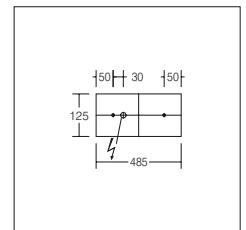
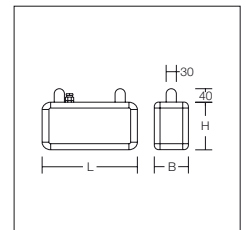
Ceiling (surface)



Pendant tube



Suspension cable/chain



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671229.00X.Y	•	43 m	Wall (surface)	4 x LED 1,1 W	L 485, B 90, H 250
671231.00X.Y	•	43 m	Wall extension	8 x LED 1,1 W	L 485, B 125, H 250
671233.00X.Y	•	43 m	Ceiling (surface)	8 x LED 1,1 W	L 485, B 125, H 250
671235.00X.Y	•	43 m	Pendant tube	8 x LED 1,1 W	L 485, B 125, H 250, LP 500
671367.00X.Y	•	43 m	Suspension cable/chain	8 x LED 1,1 W	L 485, B 125, H 250

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981168.002 L 540, B 375, H 185

Sets for converting luminaires of series „Rechteck 485“ for LED lamps

981759.002	single sided	4 x LED	1,1 W
981759.002.89	single sided	4 x LED	1,1 W
981760.002	double sided	8 x LED	1,1 W
981760.002.89	double sided	8 x LED	1,1 W



Ordering information

Placeholder **X** = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder **Y** = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.**89**

Multivariabel

- IP 54 Type of protection - dustproof and protected against water spray
- Quick and easy to install thanks to the use of a quick-action locking mechanism for the lamp and ballast support
- Lamp replacement without tools
- Easy to install
- 4 legends for escape route identification included



Ceiling (surface), Wall (surface)



Ceiling (surface), Wall (surface)



Pendant tube







21 m

Series: Multivariabel

Type of protection: **IP 54** for indoor use
Protection class: I
Viewing Distance: 21 m

For escape route identification or escape route illumination

Base: aluminium, powder-coated. Diffuser: plastic, opal. 4 legends for escape route identification included (not 671467.752.Y).

Automatic self test in all standard versions.

Lamp (fluorescent lamp) included.

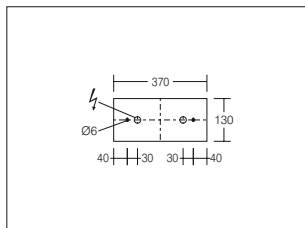
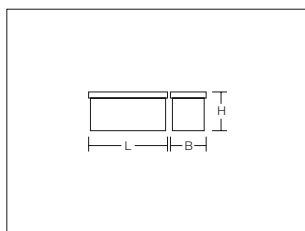
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

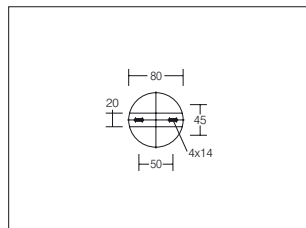
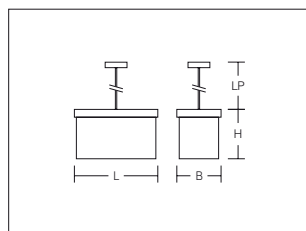
Available colour: white

.04 or .07 = Monitoring system (optional)

Ceiling (surface), Wall (surface)



Pendant tube



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671467.752.Y	•	-	3 h	-	32 %	Ceiling (surface), Wall (surface)	1 x T16 (T5) 8 W	L 370, B 130, H 130
671368.752.Y	•	-	3 h	21 m	32 %	Ceiling (surface), Wall (surface)	1 x T16 (T5) 8 W	L 370, B 130, H 130
671370.752.Y	•	-	3 h	21 m	32 %	Pendant tube	1 x T16 (T5) 8 W	L 370, B 130, H 130, LP 500

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981168.002 L 540, B 375, H 185

Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

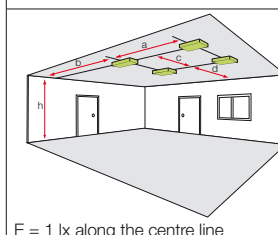
DALI reference no. e.g. 123456.004.07

Spacing table 671467.752.Y

Luminaire flux
Emergency: 80 lm
The following values are indicated in m

h	a	b	c	d
2,5	4,8	1,5	6,2	2,0
3,0	4,6	1,1	6,0	1,7
3,5	-	-	-	-
4,0	-	-	-	-

Planning guide: Escape route illumination in accordance with EN 1838



Series: Multivariabel

Type of protection: **IP 54**

Protection class: I

Voltage: AC / DC

Viewing Distance: 21 m

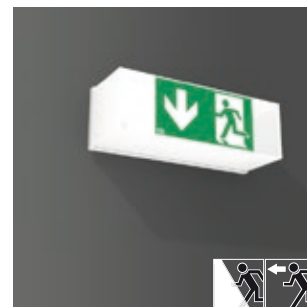
For escape route identification or escape route illumination

Base: aluminium, powder-coated. Diffuser: plastic, opal. Canopy: plastic, white. Pendant tube: chrome. 4 legends for escape route identification included.

Ballast: EB

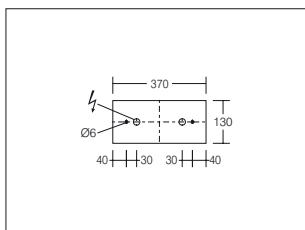
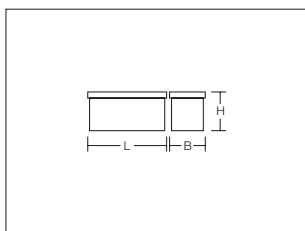
Available colour: white

.89 = Monitoring module (optional)

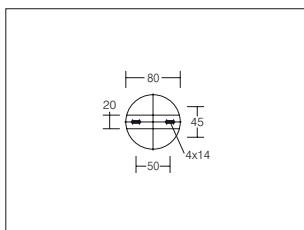
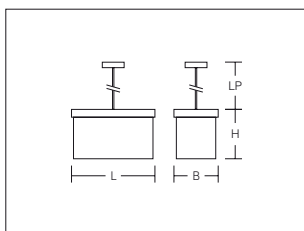


21 m

Ceiling (surface), Wall (surface)



Pendant tube



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671376.752.Y	•	21 m	Ceiling (surface), Wall (surface)	1 x T16 (T5) 8 W	L 370, B 130, H 130
671382.752.Y	•	21 m	Pendant tube	1 x T16 (T5) 8 W	L 370, B 130, H 130, LP 500

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

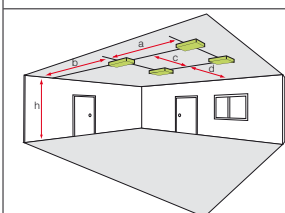
Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981168.002 L 540, B 375, H 185

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table 671376.75X.Y | 671382.752.Y

Luminaire flux
Emergency: 250 lm
The following values are indicated in m

h	a	b	c	d
2,5	7,8	3,0	10,3	3,9
3,0	8,2	3,0	10,7	3,9
3,5	8,5	3,0	11,0	3,9
4,0	8,6	2,9	11,2	3,8

Ordering information

Placeholder Y = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.89

Luminaires for sports facilities

- Compact design
- Available also as ball impact proof version
- Different types of installation for one single luminaire
- Installation-friendly construction
- Industrial design
- Easy lamp replacement
- 4 legends for escape route identification included



Wall (recessed)



Ceiling (surface), Wall (surface)



Ceiling (surface), Wall (surface)



Pendant tube



Series: Luminaires for sports facilities

Type of protection: IP 30
Protection class: I
Voltage: AC / DC
Viewing Distance: 14 m

For escape route identification or escape route illumination

Base: galvanised sheet steel. Diffuser: plastic, opal. 4 legends for escape route identification included.

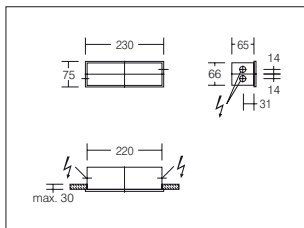
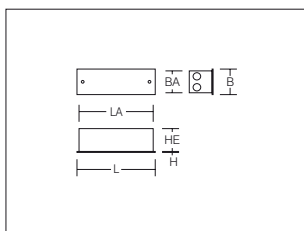
Ballast: EB

Available colour: white

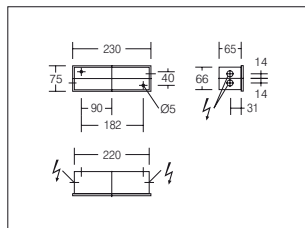
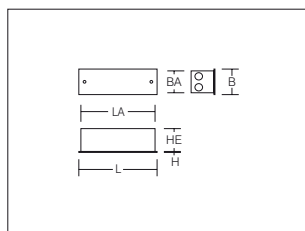


14 m

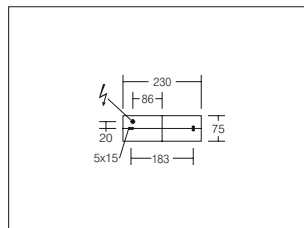
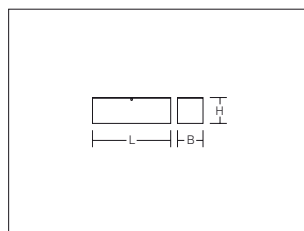
Wall (recessed) (cavity wall)



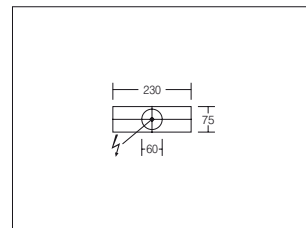
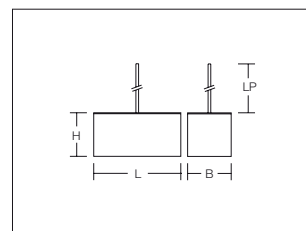
Wall (recessed) (solid wall)



Ceiling (surface), Wall (surface)

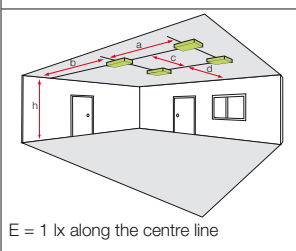


Pendant tube



Reference number	AC-Control (Y = .89)	Viewing distance	ball impact proof	Type of installation	Lamp/Wattage	Dimensions
671309.912	-	14 m	-	Wall (recessed) (cavity wall)	1 x TC-SEL 9 W	L 230, B 75, H 5 LA 220 x BA 66, HE 65
671287.912	-	14 m	-	Wall (recessed) (solid wall)	1 x TC-SEL 9 W	L 230, B 75, H 5 LA 220 x BA 66, HE 65
671289.912	-	14 m	•	Wall (recessed) (solid wall)	1 x TC-SEL 9 W	L 230, B 75, H 5 LA 220 x BA 66, HE 65
671236.912	-	14 m	-	Ceiling (surface), Wall (surface)	1 x TC-SEL 9 W	L 230, B 75, H 76
671237.912	-	14 m	•	Ceiling (surface), Wall (surface)	1 x TC-SEL 9 W	L 230, B 75, H 76
671238.912	-	14 m	-	Pendant tube	1 x TC-SEL 9 W	L 230, B 75, H 76, LP 500

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table to all luminaires

Luminaire flux
Emergency: 348 lm
The following values are indicated in m

h	a	b	c	d
2,5	8,3	3,3	11,2	4,3
3,0	8,8	3,4	11,8	4,4
3,5	9,3	3,4	12,2	4,5
4,0	9,6	3,4	12,5	4,4

Signcube

- Motifs on four sides
- Plastic cube (PMMA)
- Wide range of applications thanks to various types of installation
- Optimum light distribution
- Suspension can be shortened on site
- Easy to install
- 4 legends for escape route identification included



Legend foils in accordance with ISO 7010

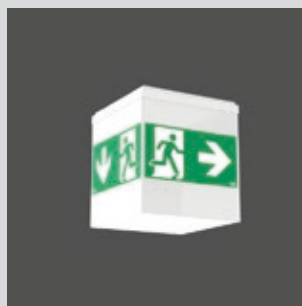
Ceiling (surface), Wall (surface)



Pendant tube



Suspension cable/chain







24 m



Series: Signcube

Type of protection: **IP 40**

Protection class: I

Viewing Distance: 24 m

For escape route identification

Base: metal, powder-coated. Canopy: plastic, white. Pendant tube: chrome. Diffuser: plastic (PMMA), opal.

4 legends for escape route identification included (according to ISO 7010).

Automatic self test in all standard versions.

LED included.

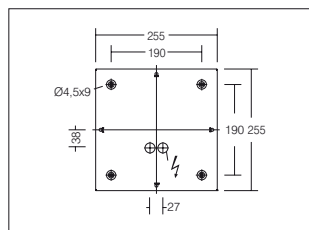
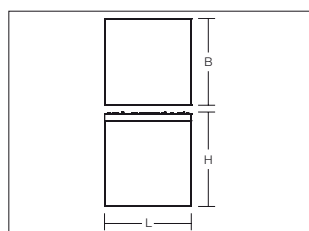
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

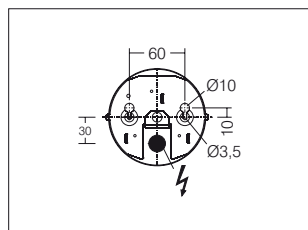
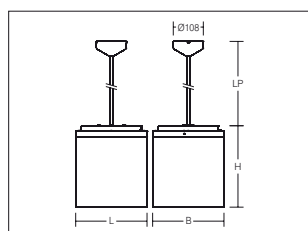
Available colour: white

.04 or .07 = Monitoring system (optional)

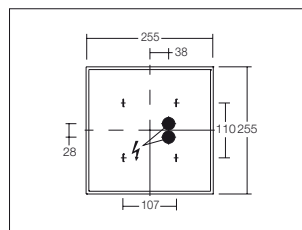
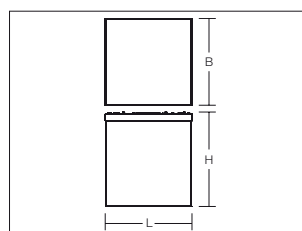
Ceiling (surface), Wall (surface)



Pendant tube



Suspension cable/chain



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
672131.002.Y	•	•	3 h	24 m	Ceiling (surface), Wall (surface)	4 x LED 1,8 W	L 255, B 255, H 276
672132.002.Y	•	•	3 h	24 m	Pendant tube	4 x LED 1,8 W	L 255, B 255, H 291, LP 515
672130.002.Y	•	•	3 h	24 m	Suspension cable/chain	4 x LED 1,8 W	L 255, B 255, H 303

Accessories | Legend foils in accordance with ISO 7010

Viewing distance 48 m

Replacement foils

991137	Legend foil 240 x 240	Legend 3003
991138	Legend foil 240 x 240	Legend 3004
991139	Legend foil 240 x 240	Legend 3005
991159	Legend foil 240 x 240	Legend 3006



3003



3004



3005



3006

Ordering information

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.**07**

Series: Signcube

Type of protection: **IP 40**

Protection class: I

Voltage: AC / DC

Viewing Distance: 24 m

For escape route identification

Base: metal, powder-coated. Diffuser: plastic (PMMA), opal.

4 legends for escape route identification included (according to ISO 7010).

Ballast: FB

Available colour: white

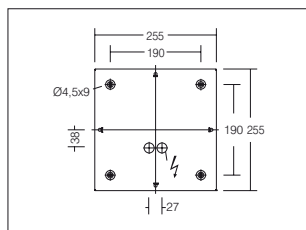
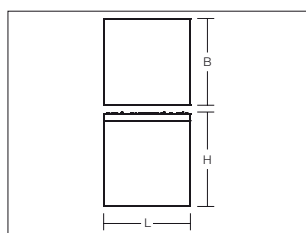
.89 = Monitoring module (optional)



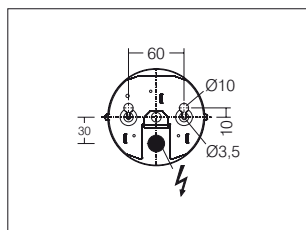
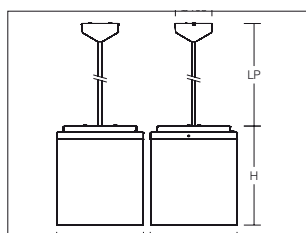
24 m

LED

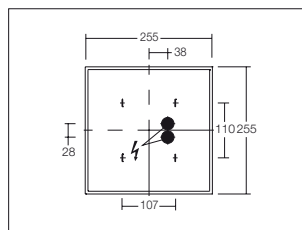
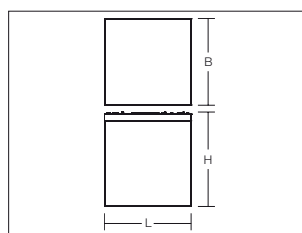
Ceiling (surface), Wall (surface)



Pendant tube



Suspension cable/chain



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671601.002.Y	•	24 m	Ceiling (surface), Wall (surface)	4 x LED 1,8 W	L 255, B 255, H 276
671826.002.Y	•	24 m	Pendant tube	4 x LED 1,8 W	L 255, B 255, H 291, LP 515
671822.002.Y	•	24 m	Suspension cable/chain	4 x LED 1,8 W	L 255, B 255, H 300

Accessories | Legend foils in accordance with ISO 7010

Viewing distance 48 m

Replacement foils

991137	Legend foil 240 x 240	Legend 3003
991138	Legend foil 240 x 240	Legend 3004
991139	Legend foil 240 x 240	Legend 3005
991159	Legend foil 240 x 240	Legend 3006



3003



3004



3005



3006

Ordering information

Placeholder **Y** = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.**89**

GSUN® 2 | Universal 2

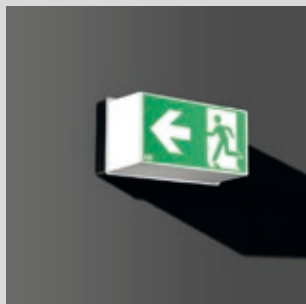
- Easy to install
- 4 legend foils for escape route identification included
- Reliable and long life LED technology
- Energy efficient
- Very low current consumption



Wall (surface) - GSUN® 2



Wall (surface) - Universal 2



3 →

OG

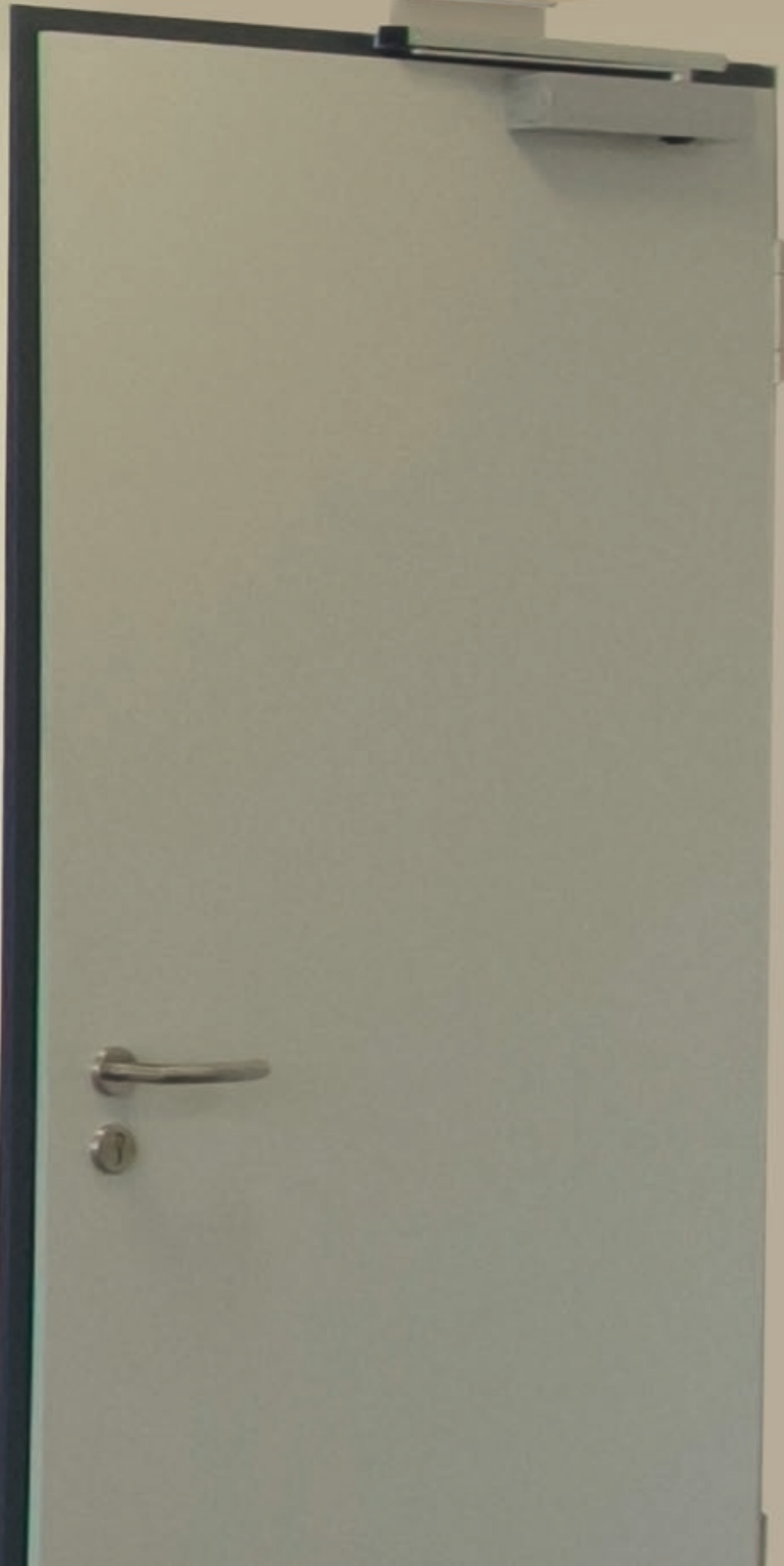
OG

EG

EG

4 ←

E OG



**Series: GSUN® 2 LED**Type of protection: **IP 40**

Protection class: II

Viewing Distance: 19 m

For escape route identification

Base: plastic, grey. Diffuser: plastic, opal. 4 legend foils for escape route identification included.

LED included.

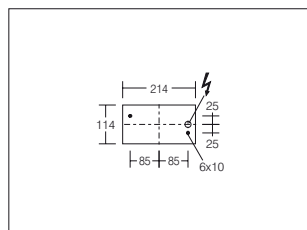
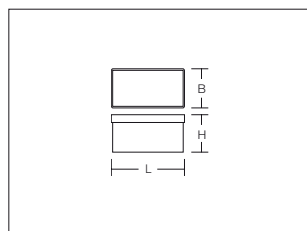
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colour: grey

19 m

Wall (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671817.009	-	-	3 h	19 m	Wall (surface)	1 x LED 0,2 W	L 215, B 115, H 110
671817.009.14*	-	-	3 h	19 m	Wall (surface)	1 x LED 0,2 W	L 215, B 115, H 110

* .14 = Test button

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.

**Wire guard for wall luminaires**

981167.002 L 380, B 295, H 185

Series: Universal 2

Type of protection: **IP 44**

Protection class: II

Voltage: AC / DC

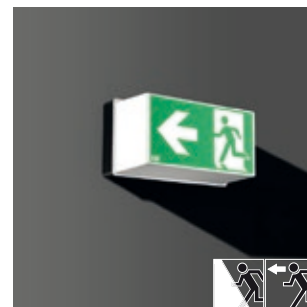
Viewing Distance: 19 m

For escape route identification or escape route illumination

Base: plastic. Diffuser: plastic, opal. 4 legend foils for escape route identification included.

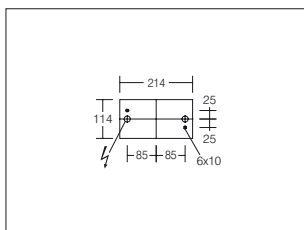
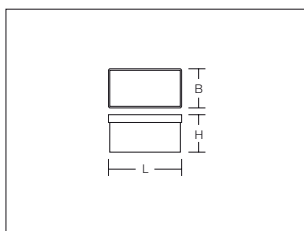
Ballast: EB (where necessary).

Available colour (**X**): 2 = white, 3 = black



19 m

Wall (surface)



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
671254.91X	-	19 m	Wall (surface)	1 x TC-SEL 7 W	L 215, B 115, H 110

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981167.002 L 380, B 295, H 185

Ordering information

Placeholder **X** = Housing colour (see text above)

Reference no. e.g. 123456.004

GSUN® 3 | Universal 3

- IP 54 Type of protection - dustproof and protected against water spray
- All-plastic luminaire, shockproof
- Can be used for all types of installation (with accessories)
- 4 legend foils for escape route identification included
- Low current consumption
- Low-cost installation
- Reliable and long life LED technology
- 3 h and 8 h version



Wall (surface)



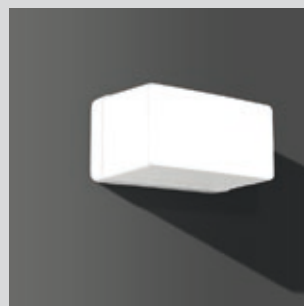
Wall (surface)



Ceiling (surface), Wall (surface)



Ceiling (surface), Wall (surface)







21 m



Series: GSUN® 3

Type of protection: **IP 54** for indoor use

Protection class: II (I for .04)

Viewing Distance: 21 m

For escape route identification or escape route illumination

Base: plastic. Diffuser: plastic, opal. 4 legends for escape route identification included.

Automatic self test in all standard versions.

Lamp (LED and fluorescent lamp) included.

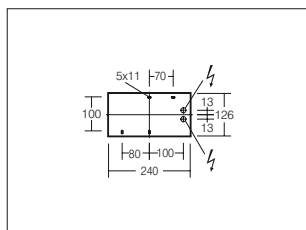
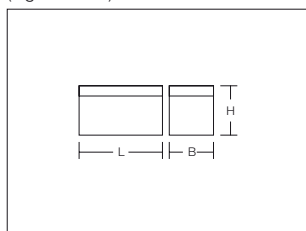
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

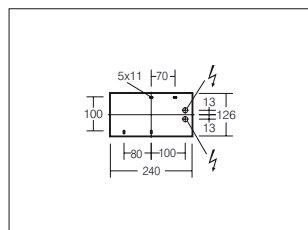
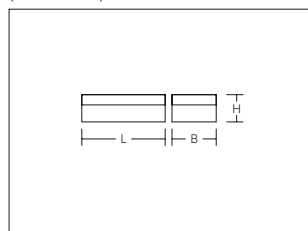
Available colour: white

.04 or .07 = Monitoring system (optional)

Ceiling (surface), Wall (surface)
(high diffuser)



Wall (surface)
(flat diffuser)



Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671707.002.Y	•	-	3 h	21 m		Wall (surface)	1 x LED 2,1 W	L 240, B 126, H 78
671908.002.Y	•	-	8 h	21 m		Wall (surface)	1 x LED 2,1 W	L 240, B 126, H 78
671574.752.Y	•	-	3 h	21 m	33 %	Wall (surface)	1 x T16 (T5) 6 W	L 240, B 126, H 78
671780.002.Y	•	-	3 h	21 m		Ceiling (surface), Wall (surface)	1 x LED 2,1 W	L 240, B 126, H 145
671909.002.Y	•	-	8 h	21 m		Ceiling (surface), Wall (surface)	1 x LED 2,1 W	L 240, B 126, H 145
671321.752.Y	•	-	3 h	21 m	33 %	Ceiling (surface), Wall (surface)	1 x T16 (T5) 6 W	L 240, B 126, H 145

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981167.002 L 380, B 295, H 185

Wall extension

981144.002 L 251, B 131, H 60



Accessories | Pendant tube

Suspension tube Ø 10 mm, chrome, with canopy: white, powder-coated and mounting material, with cable hanger, power supply cable for luminaire integrated in the tube.



Pendant tube

90-4164.002 LP 500 mm

Sets for converting luminaires for LED lamps

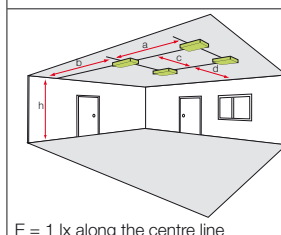
981781.000	1 x LED 2,1 W/3h	incl. technology, battery and LED
981781.000.04	1 x LED 2,1 W/3h	incl. technology, battery and LED for system MultiDigit

Spacing table 671321.752.Y

Luminaire flux
Emergency: 43 lm
The following values are indicated in m

h	a	b	c	d
2,5	3,3	1,1	4,3	0,7
3,0	-	-	-	-
3,5	-	-	-	-
4,0	-	-	-	-

Planning guide: Escape route illumination in accordance with EN 1838



Series: Universal 3 LED

Type of protection: **IP 54**

Protection class: II

Voltage: AC / DC

Viewing Distance: 21 m

For escape route identification or escape route illumination

Base: plastic. Diffuser: plastic, opal. 4 legends for escape route identification included.

LED included.

Available colour: white

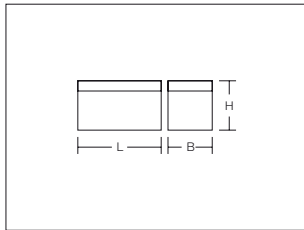
.89 = Monitoring module (optional)



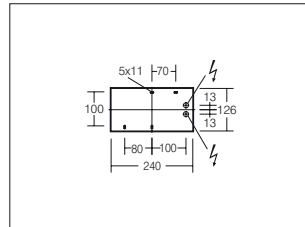
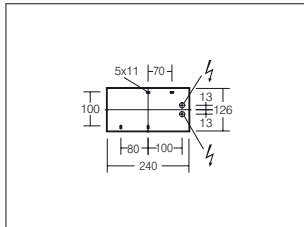
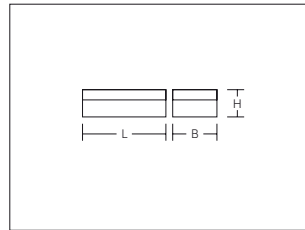
21 m

LED

Ceiling (surface), Wall (surface)
(high diffuser)



Wall (surface)
(flat diffuser)



Ordering information

Placeholder **Y** = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.**89**

Reference number	AC-Control (Y = .89)	Viewing distance	Type	Type of installation	Lamp/Wattage	Dimensions
671775.002.Y	•	21 m	flat diffuser	Wall (surface)	1 x LED 2,1 W	L 240, B 126, H 78
671782.002.Y	•	21 m	high diffuser	Ceiling (surface), Wall (surface)	1 x LED 2,1 W	L 240, B 126, H 145

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981167.002 L 380, B 295, H 185

Accessories | Wall extension

Steel, white powder-coated



Wall extension

981144.002 L 251, B 131, H 60

Accessories | Pendant tube

Suspension tube Ø 10 mm, chrome, with canopy: white, powder-coated and mounting material, with cable hanger, power supply cable for luminaire integrated in the tube.

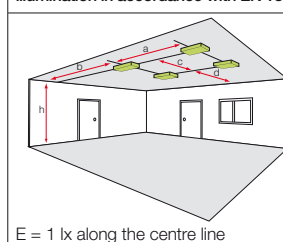


Pendant tube

90-4164.002 LP 500 mm

Spacing table 671386.912.Y					
Luminaire flux Emergency: 196 lm Nachfolgende Werte in m					
h	a	b	c	d	
2,5	6,9	2,5	9,0	3,3	
3,0	7,1	2,5	9,3	3,2	
3,5	7,3	2,4	9,3	3,1	
4,0	7,3	2,2	9,3	2,9	

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671387.922.Y					
Luminaire flux Emergency: 294 lm The following values are indicated in m					
h	a	b	c	d	
2,5	8,0	3,0	10,5	3,9	
3,0	8,3	3,1	11,0	4,0	
3,5	8,7	3,1	11,2	4,0	
4,0	8,8	3,0	11,4	3,9	

GSUN® 4 | Universal 4

- IP 54 Type of protection - dustproof and protected against water spray
- All-plastic luminaire, shockproof
- Can be used for all types of installation (with accessories)
- 4 legend foils for escape route identification included
- Low current consumption
- Low-cost installation
- Energy efficient
- Reliable and long life LED technology
- 3h and 8h version



Ceiling (surface), Wall (surface)



Wall (surface)







Series: GSUN® 4

Type of protection: **IP 54** for indoor use
Protection class: II (I for .04)
Viewing Distance: 21m, 25 m

For escape route identification or escape route illumination

Base: plastic (polycarbonate); diffuser: plastic (polycarbonate), opal, or refractor: transparent plastic (polycarbonate), prismatic.
4 legends for escape route identification included.

Automatic self test in all standard versions.

Lamp (LED and fluorescent lamp) included.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

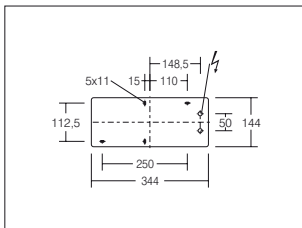
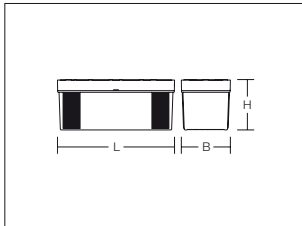
Ballast mains/emergency: EB

Available colour: white

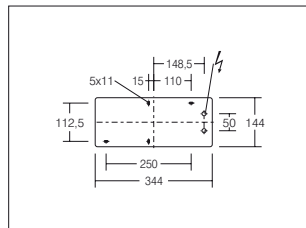
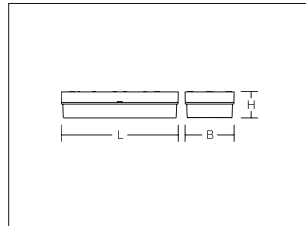
.04 or .07 = Monitoring system (optional)

21 | 25 m **LED**

Ceiling (surface), Wall (surface)
(high diffuser) opal



Ceiling (surface), Wall (surface)
(flat diffuser) transparent, prismatic



Ordering information

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.**04**

DALI reference no. e.g. 123456.004.**07**

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671792.002.Y	•	-	3 h	25 m		Wall (surface)	1 x LED 4,5 W	L 344, B 144, H 78
671906.002.Y	•	-	8 h	25 m		Wall (surface)	1 x LED 4,5 W	L 344, B 144, H 78
671819.002.Y	•	-	3 h	21 m		Wall (surface), Ceiling (surface)	1 x LED 4,5 W	L 344, B 144, H 148
671907.002.Y	•	-	8 h	21 m		Wall (surface), Ceiling (surface)	1 x LED 4,5 W	L 344, B 144, H 148
671515.752.Y	•	-	3 h	25 m	32 %	Ceiling (surface), Wall (surface)	1 x T16 (T5) 8 W	L 344, B 144, H 78
671517.752.Y	•	-	3 h	21 m	32 %	Ceiling (surface), Wall (surface)	1 x T16 (T5) 8 W	L 344, B 144, H 148

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981168.002 L 540, B 375, H 185

Wall extension

981485.002 L 374, B 147, H 75



Accessories | Pendant tube

Suspension tube Ø 10 mm, chrome, with canopy: white, powder-coated and mounting material, with cable hanger, power supply cable for luminaire integrated in the tube.



Pendant tube

90-4164.002 LP 500 mm

Mounting set for suspension cable/chain

981583.002

Sets for converting luminaires for LED lamps

981771.000 1 x LED 4,5 W/3h incl. technology, battery and LED
981771.000.04 1 x LED 4,5 W/3h incl. technology, battery and LED for system MultiDigit

Spacing table 671792.002.Y

Luminaire flux
Emergency: 77 lm
The following values are indicated in m

h	a	b	c	d
2,5	2,3	1,0	6,2	1,1
3,0	-	-	-	-
3,5	-	-	-	-
4,0	-	-	-	-

Spacing table 671515.752.Y

Luminaire flux
Emergency: 110 lm
The following values are indicated in m

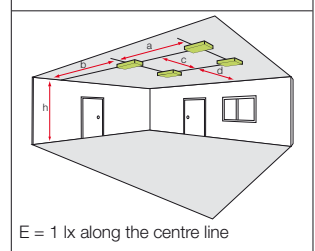
h	a	b	c	d
2,5	5,7	2,3	7,2	2,6
3,0	6,3	2,3	7,4	2,6
3,5	5,7	2,3	7,0	2,5
4,0	6,5	2,1	7,1	2,1

Spacing table 671517.752.Y

Luminaire flux
Emergency: 110 lm
The following values are indicated in m

h	a	b	c	d
2,5	5,5	1,9	6,9	2,5
3,0	4,9	1,6	6,1	2,3
3,5	4,4	1,1	6,4	1,8
4,0	-	-	-	-

Planning guide: Escape route illumination in accordance with EN 1838



Series: Universal 4

Type of protection: **IP 54**
 Protection class: II
 Voltage: AC / DC
 Viewing Distance: 21 m, 25 m

For escape route identification (only in case of wall installation) or escape route illumination

Base: plastic (polycarbonate). Diffuser: plastic (polycarbonate), opal, or refractor, plastic (polycarbonate) transparent, prismatic. 4 legends for escape route identification included.

LED included.

Ballast: EB

Available colour (X): 2 = white

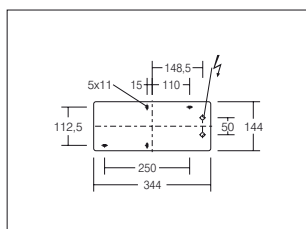
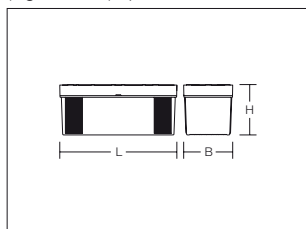
.89 = Monitoring module (optional)



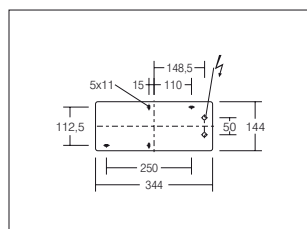
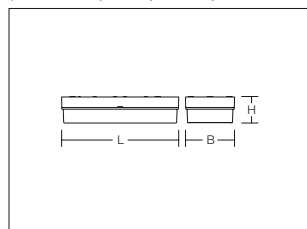
21 | 25 m

LED

Ceiling (surface), Wall (surface)
 (high diffuser) opal



Ceiling (surface), Wall (surface)
 (flat diffuser) transparent, prismatic



Ordering information

Placeholder Y = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.89

Reference number	AC-Control (Y = .89)	Viewing distance	Type	Type of installation	Lamp/Wattage	Dimensions
671793.002.Y	•	25 m	flat diffuser	Ceiling (surface), Wall (surface)	1 x LED 4,5 W	L 344, B 144, H 78
671820.002.Y	•	21 m	high diffuser	Ceiling (surface), Wall (surface)	1 x LED 4,5 W	L 344, B 144, H 148
671629.752.Y	•	25 m	flat diffuser	Ceiling (surface), Wall (surface)	1 x T16 (T5) 8 W	L 344, B 144, H 78
671630.752.Y	•	21 m	high diffuser	Ceiling (surface), Wall (surface)	1 x T16 (T5) 8 W	L 344, B 144, H 148

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981168.002 L 540, B 375, H 185

Accessories | Pendant tube

Suspension tube Ø 10 mm, chrome, with canopy: white, powder-coated and mounting material, with cable hanger, power supply cable for luminaire integrated in the tube.



Pendant tube

90-4164.002 LP 500 mm

Mounting set for suspension cable/chain

981583.002

Replacement foils

991057 Replacement foil (combination) for 25 m

Spacing table 671793.002.Y

Luminaire flux
 Emergency: 163 lm
 The following values are indicated in m

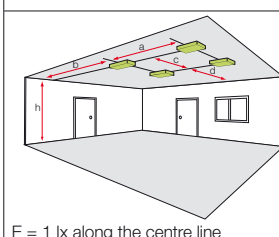
h	a	b	c	d
2,5	6,3	1,4	9,5	3,5
3,0	6,4	1,3	10,1	3,9
3,5	3,9	1,5	10,0	3,3
4,0	3,9	1,5	10,8	1,9

Spacing table 671629.752.Y

Luminaire flux
 Emergency: 352 lm
 The following values are indicated in m

h	a	b	c	d
2,5	8,6	3,5	11,5	4,6
3,0	9,3	3,8	12,4	5,0
3,5	10,0	4,0	13,2	5,2
4,0	10,6	4,1	13,9	5,4

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671630.752.Y

Luminaire flux
 Emergency: 352 lm
 The following values are indicated in m

h	a	b	c	d
2,5	9,1	3,6	10,7	4,1
3,0	9,7	3,8	11,2	4,1
3,5	10,4	3,8	11,7	4,1
4,0	10,8	3,8	11,9	4,3

Varioplast I

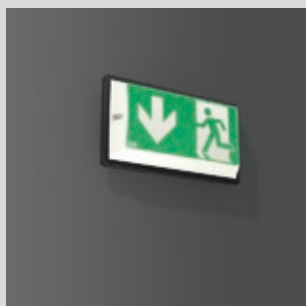
- IP 54 Type of protection - dustproof and protected against water spray
- Installation-friendly construction: removeable mounting plate with lampholder and ballast
- 4 legend foils for escape route identification included
- Compact design
- Multi-purpose applications



Ceiling (surface), Wall (surface)



Wall (surface)







24 m



Series: Varioplast I

Type of protection: **IP 54** for indoor use

Protection class: I

Viewing Distance: 24 m

For escape route identification (only in case of wall installation) or escape route illumination

Base: plastic (polycarbonate). Refractor: plastic (polycarbonate). 4 legends for escape route identification included.

Automatic self test in all standard versions.

Lamp (LED and fluorescent lamp) included.

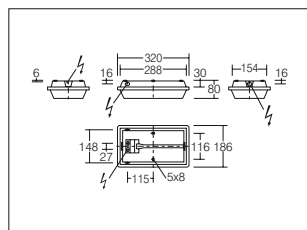
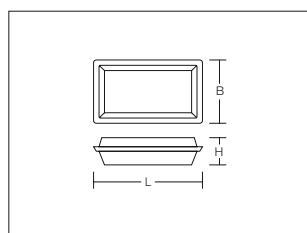
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

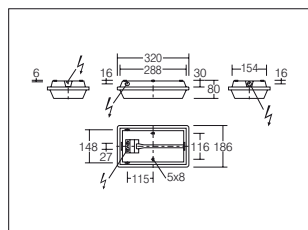
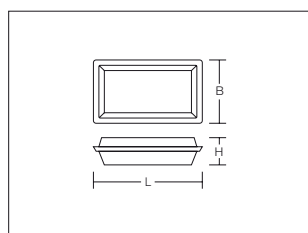
Available colours (X): 2 = white, 3 = black

.04 or .07 = Monitoring system (optional)

Ceiling (surface)



Wall (surface)



Ordering information

Placeholder **X** = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
672126.00X.Y	•	•	3 h	24 m		Wall (surface)	3 x LED 1 W	L 320, B 186, H 80
671113.75X.Y	•	-	3 h	24 m	33 %	Wall (surface)	1 x T16 (T5) 6 W	L 320, B 186, H 80
672127.00X.Y	•	•	3 h	-		Ceiling (surface), Wall (surface)	3 x LED 1 W	L 320, B 186, H 80
671111.75X.Y	•	-	3 h	-	33 %	Ceiling (surface), Wall (surface)	1 x T16 (T5) 6 W	L 320, B 186, H 80

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.

Wire guard for wall luminaires

981167.002 L 380, B 295, H 185

Accessories | Set of screws with special anti-theft key

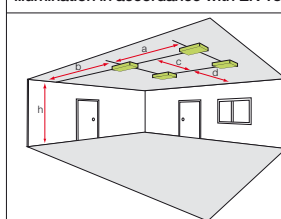
90-4013.002 white
90-4013.003 black

Accessories | Wire guard, varnished

22125.002 L 314, B 180, H 49 white
22125.003 L 314, B 180, H 49 black



Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table 672126.00X.Y

Luminaire flux
Emergency: 68 lm
The following values are indicated in m

h	a	b	c	d
2,5	10,4	4,1	11,1	4,4
3,0	11,2	4,4	11,8	4,6
3,5	11,8	4,6	12,4	4,6
4,0	12,3	4,6	12,9	4,8

Spacing table 671111.75X.Y

Luminaire flux
Emergency: 68 lm
The following values are indicated in m

h	a	b	c	d
2,5	5,2	1,8	5,8	2,0
3,0	5,3	1,7	5,9	1,8
3,5	5,3	1,4	5,8	1,5
4,0	5,0	1,0	5,4	1,0

Series: Varioplast I

Type of protection: **IP 54**
 Protection class: I
 Voltage: AC / DC
 Viewing Distance: 24 m

For escape route identification (only in case of wall installation) or escape route illumination

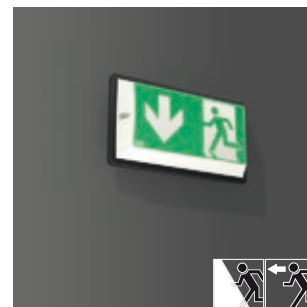
Base: plastic (polycarbonate). Refractor: plastic (polycarbonate). 4 legends for escape route identification included.

LED included.

Ballast: EB

Available colours (X): 2 = white, 3 = black

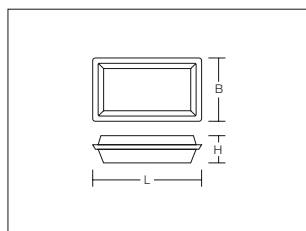
.89 = Monitoring module (optional)



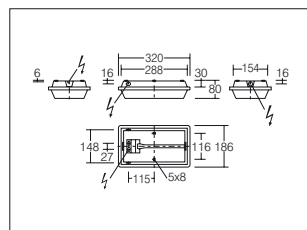
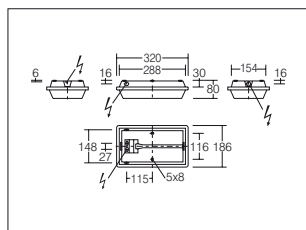
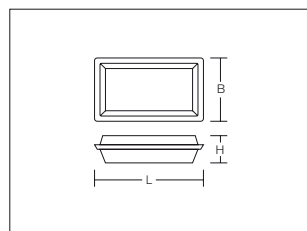
24 m

LED

Ceiling (surface)



Wall (surface)



Ordering information

Placeholder X = Housing colour (see text above)
 Reference no. e.g. 123456.004

Placeholder Y = Monitoring module (optional)
 AC-Control reference no. e.g. 123456.004.89

Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
672128.00X.Y	•	24 m	Wall (surface)	3 x LED 1 W	L 320, B 186, H 80
671248.91X.Y	•	24 m	Wall (surface)	1 x TC-SEL 11 W	L 320, B 186, H 80
671291.75X.Y	•	24 m	Wall (surface)	1 x T16 (T5) 6 W	L 320, B 186, H 80
672129.00X.Y	•	-	Ceiling (surface), Wall (surface)	3 x LED 1 W	L 320, B 186, H 80
671247.91X.Y	•	-	Ceiling (surface), Wall (surface)	1 x TC-SEL 11 W	L 320, B 186, H 80
671290.75X.Y	•	-	Ceiling (surface), Wall (surface)	1 x T16 (T5) 6 W	L 320, B 186, H 80

Accessories | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13

Wire guard and bracket: steel, white, powder-coated.
 Wire guard mounted with screws, can be opened for luminaire maintenance.



Wire guard for wall luminaires

981167.002 L 380, B 295, H 185

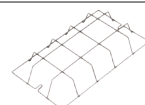
Accessories | Set of screws with special anti-theft key

90-4013.002 white
 90-4013.003 black



Accessories | Wire guard, varnished

22125.002 L 314, B 180, H 49 white
 22125.003 L 314, B 180, H 49 black



Spacing table 672129.00X.Y

Luminaire flux
 Emergency: 345 lm
 The following values are indicated in m

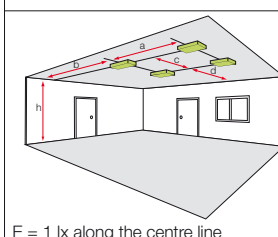
h	a	b	c	d
2,5	10,4	4,1	11,1	4,4
3,0	11,2	4,4	11,8	4,6
3,5	11,8	4,6	12,4	4,6
4,0	12,3	4,6	12,9	4,8

Spacing table 671248.91X.Y | 671247.91X.Y

Luminaire flux
 Emergency: 684 lm
 The following values are indicated in m

h	a	b	c	d
2,5	11,7	4,6	13,8	5,5
3,0	12,5	5,0	14,7	5,8
3,5	13,3	5,2	15,5	6,1
4,0	13,9	5,4	16,2	6,3

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671291.75X.Y | 671290.75X.Y

Luminaire flux
 Emergency: 205 lm
 The following values are indicated in m

h	a	b	c	d
2,5	7,9	3,1	9,2	3,5
3,0	8,3	3,2	9,7	3,6
3,5	8,7	3,3	10,0	3,6
4,0	9,0	3,3	10,2	3,6

Escape route illumination

This way ...

9,5 W system rating



...or this way?

3 W system rating



Lucio

- Wide luminaire spacing for escape routes thanks to special lenses
- Top quality LED technology
- Very low maintenance costs
- Compact design
- Easy to install
- Wide range of applications thanks to either surface or recessed ceiling installation



Ceiling (surface), Ceiling (recessed)



with lens







Series: Lucio

Type of protection: **IP 40**

Protection class: II

Ceiling thickness: 5-25 mm

For escape route illumination

Housing: plastic. Accessories for recessed and surface mounting on the ceiling are included within the scope of supply.

Automatic self test in all standard versions.

LED included.

Operating mode: non-maintained power mode (BS)

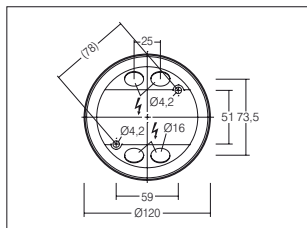
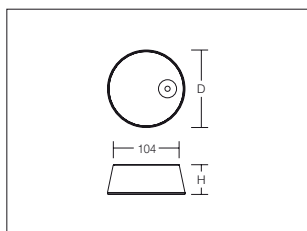
Ballast emergency: EB

2 lenses included in article number 671918.00X.Y.

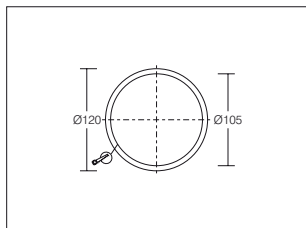
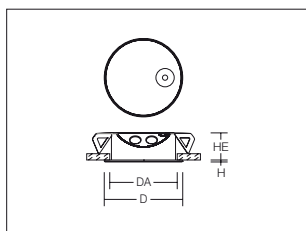
Available colour: white

.04 or .07 = Monitoring system (optional)

Ceiling (surface)



Ceiling (recessed)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671917.002.Y	-	•	3 h	without lenses	100 %	Ceiling (surface), Ceiling (recessed)	1 x LED 1 W	Surface installation: D 120, H 45
671918.002.Y	-	•	3 h	with lenses	100 %	Ceiling (surface), Ceiling (recessed)	1 x LED 3 W	Recessed installation: D 120, H 3, DA 105, HE 42

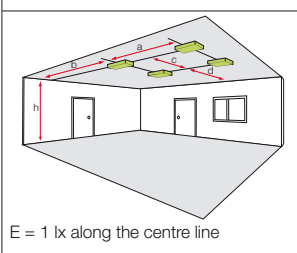
Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671917.002.Y

Luminaire flux
Emergency: 56 lm
The following values are indicated in m

h	a	b	c	d
2,5	5,3	2,3	5,3	2,3
3,0	6,1	2,5	6,1	2,5
3,5	6,7	2,4	6,7	2,4
4,0	7,0	2,1	7,0	2,1

Spacing table 671918.002.Y

Luminaire flux
Emergency: 80 lm
The following values are indicated in m

h	a	b	c	d
2,5	7,4	2,8	3,8	1,6
3,0	7,6	3,2	4,2	1,8
3,5	7,9	3,5	4,6	1,8
4,0	8,6	3,8	4,9	1,9

Series: Lucio

Type of protection: **IP 40**

Protection class: II

Voltage: AC / DC

Ceiling thickness: 5-25 mm

For escape route illumination

Housing: plastic. Accessories for recessed and surface mounting on the ceiling are included within the scope of supply.

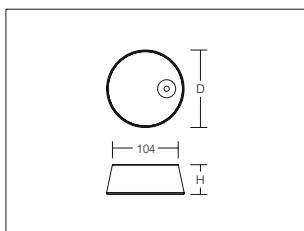
LED included.

Ballast: EB

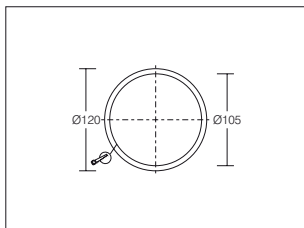
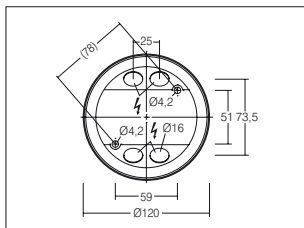
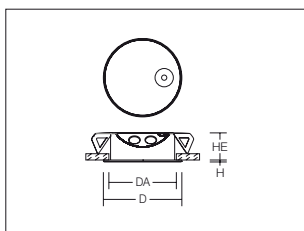
Available colour: white


LED

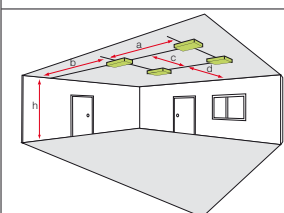
Ceiling (surface)



Ceiling (recessed)



Reference number	AC-Control (Y = .89)	Type of installation	Lamp/Wattage	Dimensions
671916.002	-	Ceiling (recessed), Ceiling (surface)	1 x LED 1 W	Surface installation: D 120, H 45 Recessed installation: D 120, H 3, DA 105, HE 42

**Planning guide: Escape route
illumination in accordance with EN 1838**


E = 1 lx along the centre line

**Spacing table
671916.002.Y**

Luminaire flux

Emergency: 60 lm

The following values are indicated in m

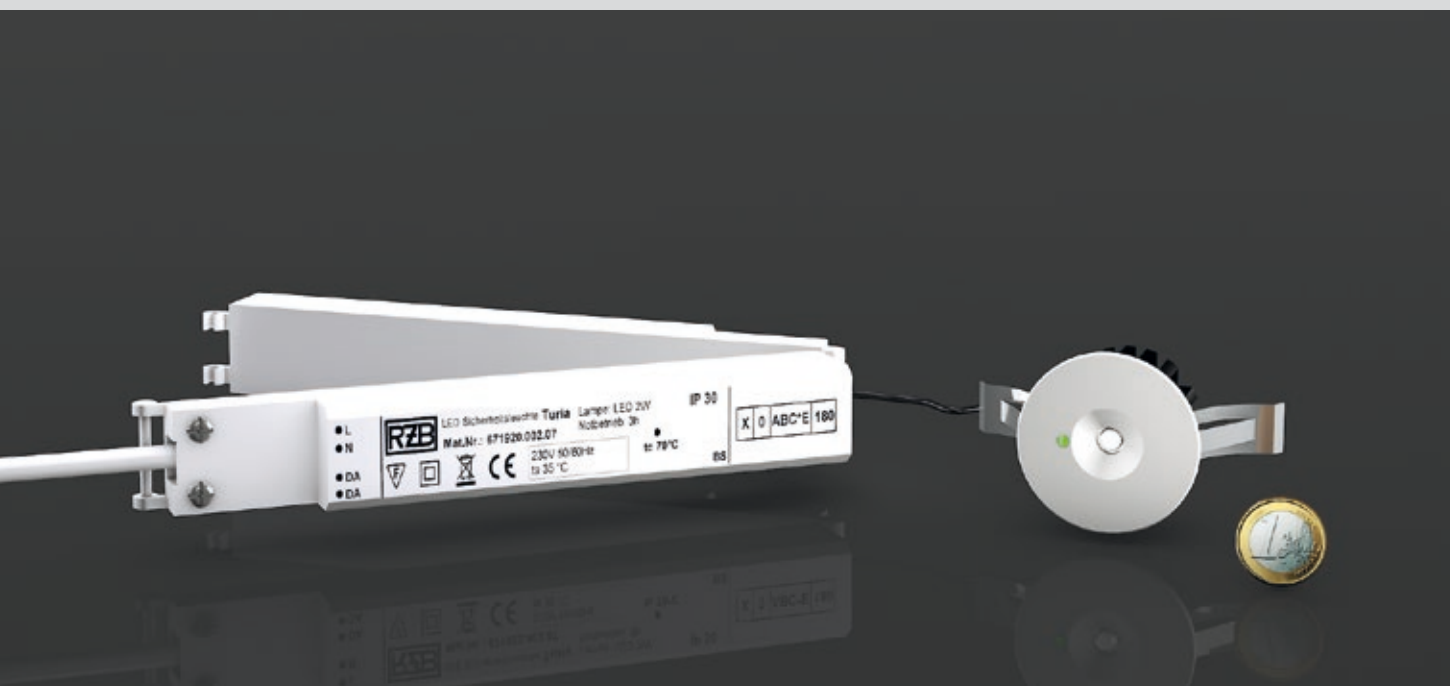
h	a	b	c	d
2,5	5,3	2,3	5,3	2,3
3,0	6,1	2,5	6,1	2,5
3,5	6,7	2,4	6,7	2,4
4,0	7,0	2,0	7,0	2,0

Turia®

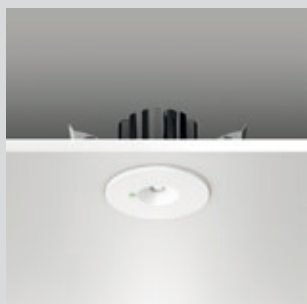
- Wide luminaire spacing for escape routes thanks to special lenses
- Extremely inconspicuous when installed in the ceiling
- Very long LED rated life thanks to large cooling element
- Easy to install
- The single-battery module and storage battery can be inserted and removed through the ceiling opening

Turia® RZ

- Design matches modern architectural styles
- Very inconspicuous through small diffuser
- 4 legend foils for escape route identification included



Ceiling (recessed) - Turia®

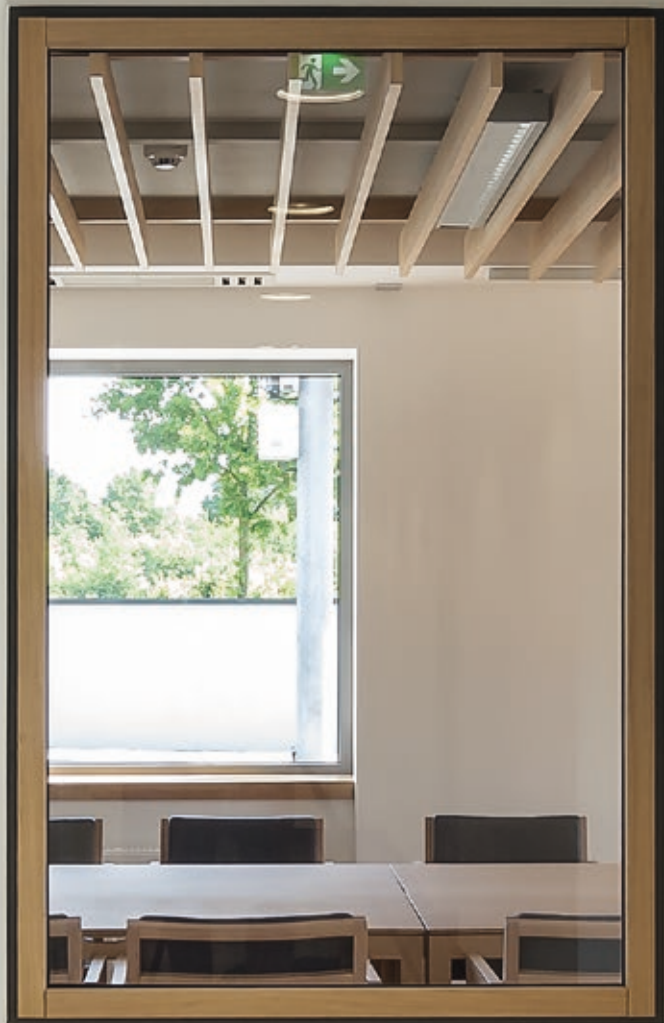


Ceiling (recessed) - Turia® L



Ceiling (recessed) - Turia® RZ





Eichenzimmer



Series: Turia®

Type of protection: IP 30
Protection class: II
Ceiling thickness: 15-35 mm

For escape route illumination

Housing: die-cast aluminium. Bezel ring: plastic. Module and battery in separate ballast box with connecting cable.

Automatic self test in all standard versions.

LED included.

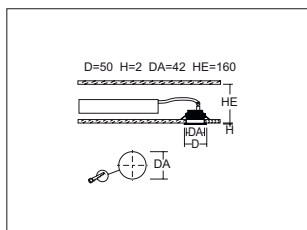
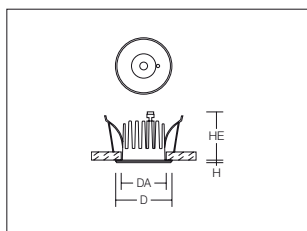
Operating mode: either non-maintained (BS) or switched maintained (GDS).

Ballast mains/emergency: EB

Available colours (X): 2 = white, 3 = black

.04 or .07 = Monitoring system (optional)

Ceiling (recessed)



Ordering information

Placeholder X = Housing colour (see text above)
Reference no. e.g. 123456.004

Placeholder Y = Monitoring system (optional)
MultiDigit reference no. e.g. 123456.004.04
DALI reference no. e.g. 123456.004.07

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Operating mode BS/DS	Luminous flux factor	Type of installation	Lamp/Wattage/Wattage	Dimensions
671920.00X.Y	-	•	3 h	BS	100 %	Ceiling (recessed)	1 x LED 2 W	D 50, H 2, DA 42, HE 160
671921.00X.Y	-	•	3 h	BS / DS	100 %	Ceiling (recessed)	1 x LED 2 W	D 50, H 2, DA 42, HE 160
671982.002.07	-	•	8 h	BS / DS	100 %	Ceiling (recessed)	1 x LED 2 W	D 50, H 2, DA 42, HE 160

Spacing table 671920.00X.Y | 671921.00X.Y

Luminaire flux
Emergency: 144 lm
The following values are indicated in m

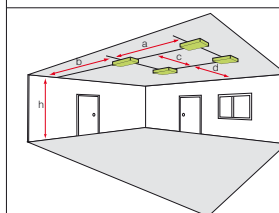
h	a	b	c	d
2,5	7,3	3,1	7,3	3,1
3,0	7,9	3,4	7,9	3,4
3,5	8,9	3,7	8,9	3,7
4,0	9,5	3,8	9,5	3,8

Spacing table 671982.002.07

Luminaire flux
Emergency: 108 lm
The following values are indicated in m

h	a	b	c	d
2,5	6,9	2,9	6,9	2,9
3,0	7,7	3,1	7,7	3,1
3,5	8,3	3,3	8,3	3,3
4,0	8,7	3,3	8,7	3,3

Planning guide: Escape route illumination in accordance with EN 1838



Series: Turia® Z

Type of protection: IP 30
Protection class: II, I (for .89)
Voltage: AC / DC
Ceiling thickness: 15-35 mm

For escape route illumination

Housing: die-cast aluminium. Bezel ring: plastic. EB in separate ballast box with connecting cable.

LED included.

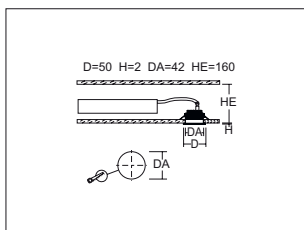
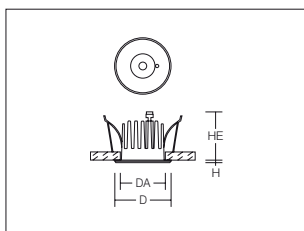
Available colours (X): 2 = white, 3 = black

.89 = Monitoring module (optional)



LED

Ceiling (recessed)



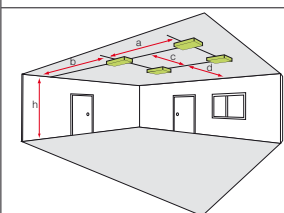
Ordering information

Placeholder X = Housing colour (see text above)
Reference no. e.g. 123456.004

Placeholder Y = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.89

Reference number	AC-Control (Y = .89)	Type of installation	Lamp/Wattage	Dimensions
671919.00X.Y	•	Ceiling (recessed)	1 x LED 2 W	D 50, H 2, DA 42, HE 160

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table 671919.00X.Y

Luminaire flux
Emergency: 143 lm
The following values are indicated in m

h	a	b	c	d
2,5	7,3	3,1	7,3	3,1
3,0	7,9	3,4	7,9	3,4
3,5	8,9	3,7	8,9	3,7
4,0	9,5	3,8	9,5	3,8





Series: Turia® L

Type of protection: IP 20
Protection class: II
Ceiling thickness: 1-35 mm

For escape route illumination

Housing: die-cast aluminium. Bezel ring: plastic, white. Module and battery in separate ballast box with connecting cable.

Automatic self test in all standard versions.

LED included.

Operating mode: either non-maintained (BS) or switched maintained (GDS).

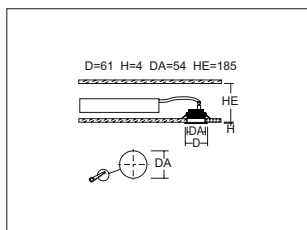
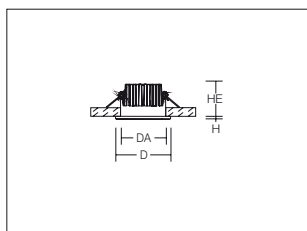
Ballast mains/emergency: EB

Available colour: white

.04 or .07 = Monitoring system (optional)



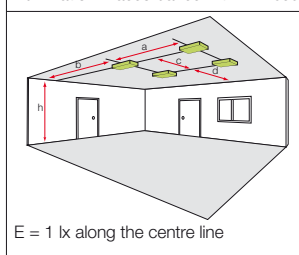
Ceiling (recessed)



Ordering information

Placeholder Y = Monitoring system (optional)
MultiDigit reference no. e.g. 123456.004.04
DALI reference no. e.g. 123456.004.07

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
672016.002.Y	•	•	3 h	Lens for wide-area lighting	100 %	Ceiling (recessed)	1 x LED 2,5 W	D 61, H 7, DA 54, HE 185
672017.002.07	-	•	8 h	Lens for wide-area lighting	100 %	Ceiling (recessed)	1 x LED 2,5 W	D 61, H 7, DA 54, HE 185
672002.002.Y	•	•	3 h	Lens for escape route	100 %	Ceiling (recessed)	1 x LED 2,5 W	D 61, H 7, DA 54, HE 185
672003.002.07	-	•	8 h	Lens for escape route	100 %	Ceiling (recessed)	1 x LED 2,5 W	D 61, H 7, DA 54, HE 185

Spacing table 672016.002.Y					
Luminaire flux					
Emergency: 140 lm					
The following values are indicated in m					
h	a	b	c	d	
2,5	8,4	3,6	8,4	3,6	
3,0	9,4	4,0	9,4	4,0	
3,5	10,2	4,4	10,2	4,4	
4,0	11,0	4,5	11,0	4,5	

Spacing table 672017.002.Y					
Luminaire flux					
Emergency: 105 lm					
The following values are indicated in m					
h	a	b	c	d	
2,5	7,9	3,4	7,9	3,4	
3,0	8,8	3,8	8,8	3,8	
3,5	9,6	3,9	9,6	3,9	
4,0	-	-	-	-	

Spacing table 672002.002.Y					
Luminaire flux					
Emergency: 140 lm					
The following values are indicated in m					
h	a	b	c	d	
2,5	2,7	0,6	15,2	6,5	
3,0	2,0	0,5	17,0	6,9	
3,5	1,6	0,5	18,4	7,5	
4,0	1,4	0,5	19,4	8,0	

Spacing table 672003.002.Y					
Luminaire flux					
Emergency: 105 lm					
The following values are indicated in m					
h	a	b	c	d	
2,5	1,9	0,5	14,4	5,9	
3,0	1,4	0,5	15,8	6,4	
3,5	1,2	0,5	16,7	7,0	
4,0	1,2	0,5	17,7	7,6	



Series: Turia® L Z

Type of protection: IP 20
Protection class: II
Voltage: AC / DC
Ceiling thickness: 15-35 mm

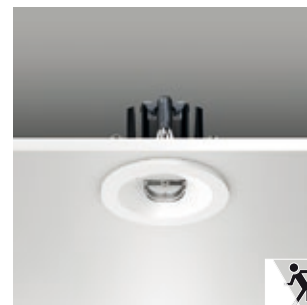
For escape route illumination

Housing: die-cast aluminium. Bezel ring: plastic, white. EB in separate ballast box with connecting cable.

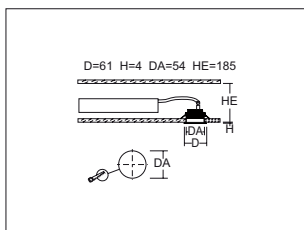
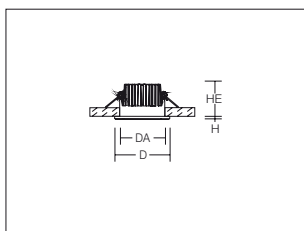
LED included.

Available colour: white

.89 = Monitoring module (optional)



Ceiling (recessed)

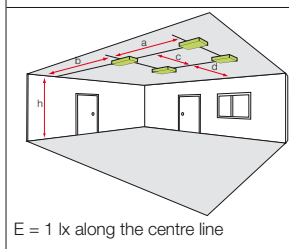


Ordering information

Placeholder **Y** = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.**89**

Reference number	AC-Control (Y = .89)	Type	Type of installation	Lamp/Wattage	Dimensions
672014.002.Y	•	Lens for wide-area lighting	Ceiling (recessed)	1 x LED 2,5 W	D 61, H 7, DA 54, HE 185
672000.002.Y	•	Lens for escape route	Ceiling (recessed)	1 x LED 2,5 W	D 61, H 7, DA 54, HE 185

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 672014.002.Y

Luminaire flux
Emergency: 170 lm
The following values are indicated in m

h	a	b	c	d
2,5	8,9	3,8	8,9	3,8
3,0	9,7	4,2	9,7	4,2
3,5	10,7	4,5	10,7	4,5
4,0	11,5	4,9	11,5	4,9

Spacing table 672000.002.Y

Luminaire flux
Emergency: 170 lm
The following values are indicated in m

h	a	b	c	d
2,5	3,2	0,7	15,7	6,8
3,0	2,7	0,5	17,7	7,5
3,5	2,0	0,5	19,2	7,8
4,0	1,7	0,5	20,5	8,4





14 m



Series: Turia® RZ

Type of protection: IP 20
Protection class: II
Viewing Distance: 14 m
Ceiling thickness: 1-35 mm

For escape route identification

Housing: die-cast aluminium. Display panel: highly transparent panel with 4 legends for one side/both sides. Bezel ring: plastic, white. Module and battery in separate ballast box with connecting cable.

Automatic self test in all standard versions.

LED included.

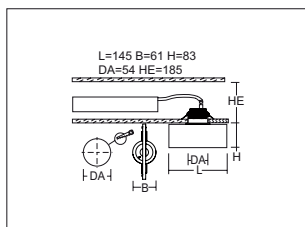
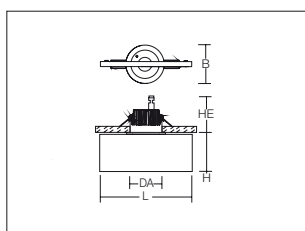
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colour: white

.04 or .07 = Monitoring system (optional)

Ceiling (recessed)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
672053.002.Y	•	•	3 h	14 m	-	Ceiling (recessed)	1 x LED 2,5 W	L 145, B 61, H 83 DA 54, HE 185
672104.002.07	-	•	8 h	14 m	-	Ceiling (recessed)	1 x LED 2,5 W	L 145, B 61, H 83 DA 54, HE 185

Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07



Series: Turia® RZ Z

Type of protection: IP 20
Protection class: II
Voltage: AC / DC
Ceiling thickness: 15-35 mm
Viewing Distance: 14 m

For escape route identification

Housing: die-cast aluminium. Bezel ring: plastic, white. Display panel: highly transparent plastic, with 4 legends for both sides. EB in separate ballast box with connecting cable.

LED included.

Available colour: white

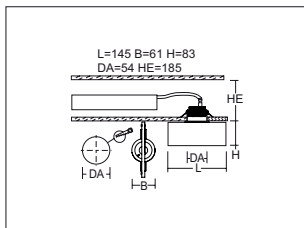
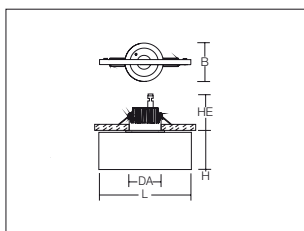
.89 = Monitoring module (optional)



14 m

LED

Ceiling (recessed)



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
672055.002.Y	•	14 m	Ceiling (recessed)	1 x LED 2,5 W	L 145, B 61, H 83 DA 54, HE 185

Ordering information

Placeholder Y = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.89



Edo

- Wide luminaire spacing for escape route illumination
- Top quality LED technology
- Specially calculated thermal management
- Very low maintenance costs thanks to high-quality components and automatic self-test
- Easy to install
- Variants available for retrofitting in luminaires for general lighting



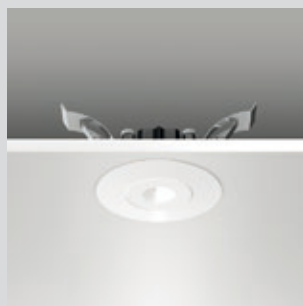
Edo 1



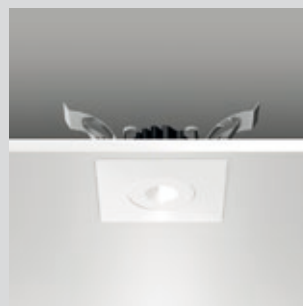
Edo 2



Edo 4



Edo 5





Can be inconspicuously integrated in architecture and material.



Series: Edo

Type of protection: IP 30
Protection class: II

For escape route illumination

Housing: die-cast aluminium, bezel ring: plastic, white, (only Edo 4 + 5), ballast in separate box with connection cable.

Automatic self test in all standard versions.

Operating mode: either non-maintained (BS) or switched maintained (GDS).

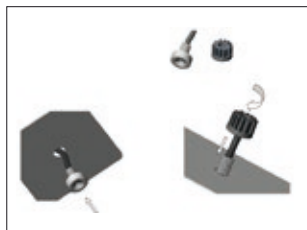
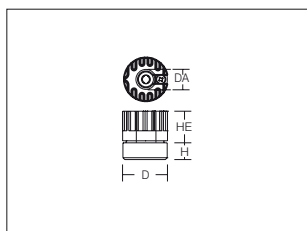
Ballast mains/emergency: EB

Luminous flux factor 100%

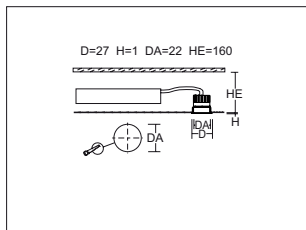
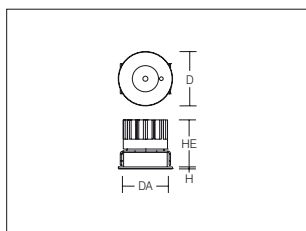
Available colours: white (Edo 4 and Edo 5), aluminium (Edo 1 and Edo 2)

.04 or .07 = Monitoring system (optional)

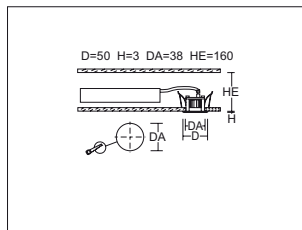
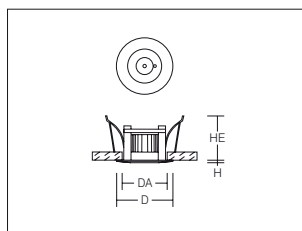
Edo 1



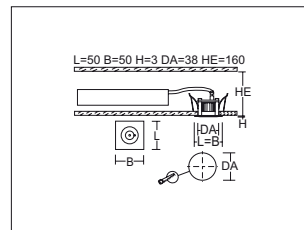
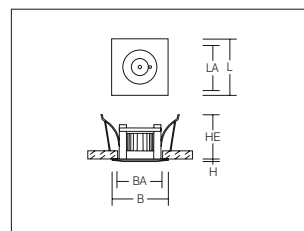
Edo 2



Edo 4



Edo 5



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Operating mode BS/DS	Type	Type of installation	Lamp/Wattage	Dimensions
671931.004.Y	-	•	3 h	BS	Edo 1	Retrofitting kit	1 x LED 2 W	D 22, H 8
671932.004.Y	-	•	3 h	BS / DS	Edo 1	Retrofitting kit	1 x LED 2 W	D 22, H 8
671933.004.Y	-	•	3 h	BS	Edo 2	Installation in metal ceilings	1 x LED 2 W	D 27, H 1, DA 22, HE 160
671934.004.Y	-	•	3 h	BS / DS	Edo 2	Installation in metal ceilings	1 x LED 2 W	D 27, H 1, DA 22, HE 160
671927.002.Y	-	•	3 h	BS	Edo 4	Ceiling (recessed)	1 x LED 2 W	D 50, H 3, DA 38, HE 160
671928.002.Y	-	•	3 h	BS / DS	Edo 4	Ceiling (recessed)	1 x LED 2 W	D 50, H 3, DA 38, HE 160
671929.002.Y	-	•	3 h	BS	Edo 5	Ceiling (recessed)	1 x LED 2 W	L 50, B 50, H 3, DA 38, HE 160
671930.002.Y	-	•	3 h	BS / DS	Edo 5	Ceiling (recessed)	1 x LED 2 W	L 50, B 50, H 3, DA 38, HE 160

Accessories | Fixing bracket for Edo 1

Bracket for fixing Edo 1 into recessed luminaires such as downlights or louver luminaires.

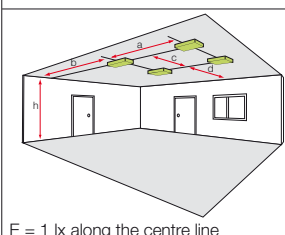
Bracket is to be installed in existing reflector or louver.

Fixing bracket for Edo 1

981778.000 L 25, B 19, H 22



Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table Edo 1 to Edo 5

Luminaire flux
Emergency: 109 lm
The following values are indicated in m

h	a	b	c	d
2,5	5,9	3,1	5,9	3,1
3,0	6,9	3,2	6,9	3,2
3,5	7,9	3,2	7,9	3,2
4,0	8,9	3,2	8,9	3,2

Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: Edo 1

Type of protection: IP 30
Protection class: II, I (for .89)
Voltage: AC / DC
Ceiling thickness: 1-8 mm

For escape route illumination

Housing: die-cast aluminium. Cover ring: plastic (only Edo 4 + 5). Control gear in separate box with connecting cable.

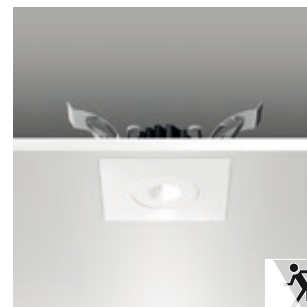
Automatic self test in all standard versions.

LED included.

Ballast: EB

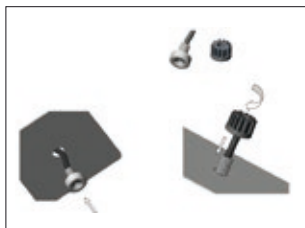
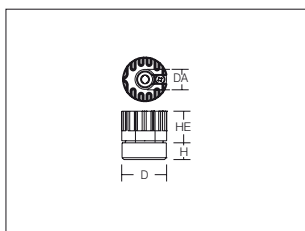
Available colours: white (Edo 4 and Edo 5), aluminium (Edo 1 and Edo 2)

.89 = Monitoring module (optional)

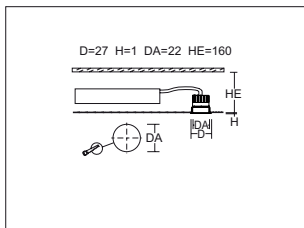
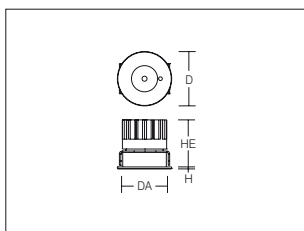


LED

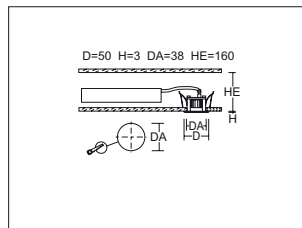
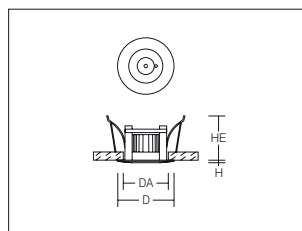
Edo 1



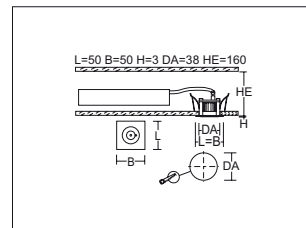
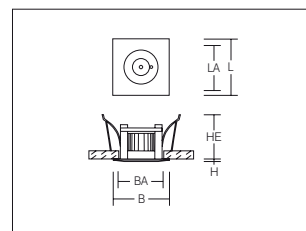
Edo 2



Edo 4



Edo 5



Reference number	AC-Control (Y = .89)	Type	Type of installation	Lamp/Wattage	Dimensions
671950.004.Y	•	Edo 1	Retrofitting kit	1 x LED 2 W	D 22, H 8
671951.004.Y	•	Edo 2	Installation in metal ceilings	1 x LED 2 W	D 27, H 1, DA 22, HE 160
671936.002.Y	•	Edo 4	Ceiling (recessed)	1 x LED 2 W	D 50, H 3, DA 38, HE 160
671937.002.Y	•	Edo 5	Ceiling (recessed)	1 x LED 2 W	L 50, B 50, H 3, DA 38, HE 160

Accessories | Fixing bracket for Edo 1

Bracket for fixing Edo 1 into recessed luminaires such as downlights or louvre luminaires.

Bracket is to be installed in existing reflector or louvre.

Fixing bracket for Edo 1

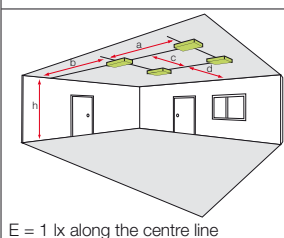
981778.000 L 19, B 22, H 25



Ordering information

Placeholder Y = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.89

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table Edo 1 to Edo 5

Luminaire flux
Emergency: 109 lm
The following values are indicated in m

h	a	b	c	d
2,5	5,9	3,1	5,9	3,1
3,0	6,9	3,2	6,9	3,2
3,5	7,9	3,2	7,9	3,2
4,0	8,9	3,2	8,9	3,2



Centryxx®

- Wide luminaire spacing for escape routes thanks to special lenses
- High-quality LED technology for high levels of energy efficiency
- Very low maintenance costs thanks to automatic self-test
- Top thermal management thanks to luminaire housing made of die-cast aluminium

Centryxx® 2-LED

- Ideally suited for high ceilings

Centryxx® W

- Exceedingly flat design to match modern architecture

Centryxx® RZ

- Inconspicuous through small diffuser
- 4 legend foils for escape route identification included

Centryxx® TS IP 65

- Ideally suited for high ceilings
- IP 65 Type of protection - dustproof and protected against water jets from all directions



Centryxx®



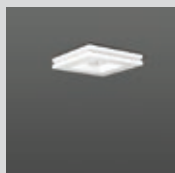
Centryxx®



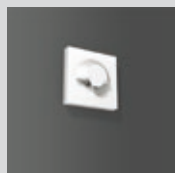
Centryxx®



Centryxx® 2-LED



Centryxx® W



Centryxx® TS IP 65



Centryxx® W IP 65







Series: Centryxx®

Type of protection: IP 20 (surface ceiling installation), IP 40 (recessed ceiling installation)
Protection class: I

For escape route illumination

Housing: die-cast aluminium, powder-coated. Plastic diffuser for ideal light distribution on escape route.

Automatic self test in all standard versions.

LED included.

Operating mode: non-maintained power mode (BS)

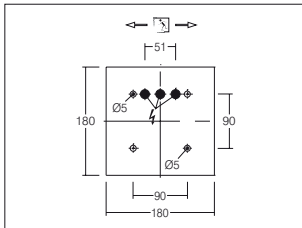
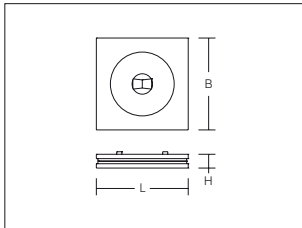
Ballast mains/emergency: EB

Available colour: white

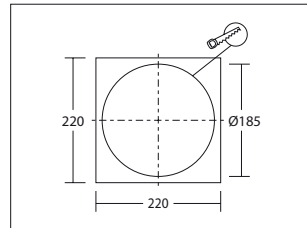
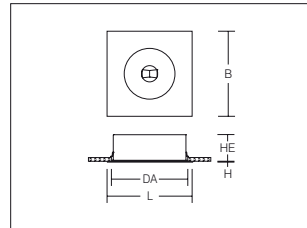
.04 or .07 = Monitoring system (optional)



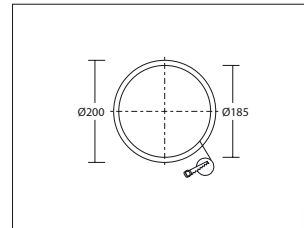
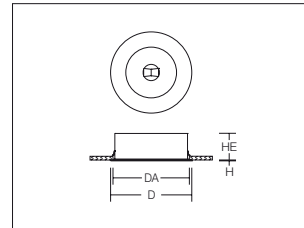
Ceiling (surface)



Ceiling (recessed) square



Ceiling (recessed) round



Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Reference number	MultiDigit (Y = .04)	DALI (.07)	Rated operating time	Type	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671840.002.Y	•	•	3 h	Lens for escape route	100 %	Ceiling (surface)	1 x LED 3 W	L 180, B 180, H 27
671840.002.1.Y	•	•	3 h	Lens for wide-area lighting	100 %	Ceiling (surface)	1 x LED 3 W	L 180, B 180, H 27
671997.002.07	-	•	8 h	Lens for escape route	100 %	Ceiling (surface)	1 x LED 3 W	L 180, B 180, H 27
671997.002.1.07	-	•	8 h	Lens for wide-area lighting	100 %	Ceiling (surface)	1 x LED 3 W	L 180, B 180, H 27
671838.002.Y	•	-	3 h	Lens for escape route	100 %	Ceiling (recessed)	1 x LED 3 W	L 200, B 200, H 3 DA 185, HE 73
671836.002.Y	•	-	3 h	Lens for escape route	100 %	Ceiling (recessed)	1 x LED 3 W	D 200, H 3 DA 185, HE 73

Accessories | Rear-mounted box for Centryxx LED luminaire

Flat rear-mounted box made of white coated sheet steel with lateral cable inlets for Centryxx safety luminaire (without luminaire).

Rear-mounted box

981921.002 L 122, B 122, H 32



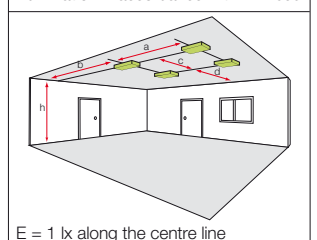
Accessories | Mounting set for chains/cable suspensions

Mounting plate with installation set and strain relief for on-site cable or chain suspension.

Mounting set for suspension cable/chain

981963.002 L 122, B 120, H 13

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table

671840.002.Y | 671838.002.Y | 671836.002.Y

Luminaire flux
Emergency: 140 lm
The following values are indicated in m

h	a	b	c	d
2,5	2,7	0,6	15,1	6,5
3,0	2,0	0,5	16,9	6,9
3,5	1,6	0,5	18,2	7,5
4,0	1,4	0,5	19,1	8,0

Spacing table

671840.002.1.Y
Luminaire flux
Emergency: 140 lm
The following values are indicated in m

h	a	b	c	d
2,5	8,4	3,6	8,4	3,6
3,0	9,4	4,0	9,4	4,0
3,5	10,2	4,4	10,2	4,4
4,0	11,0	4,5	11,0	4,5

Spacing table

671997.002.Y
Luminaire flux
Emergency: 112 lm
The following values are indicated in m

h	a	b	c	d
2,5	2,1	0,4	14,5	6,1
3,0	1,5	0,4	16,1	6,5
3,5	1,3	0,4	17,1	7,1
4,0	1,3	0,4	18,0	7,6

Spacing table

671997.002.1.Y
Luminaire flux
Emergency: 112 lm
The following values are indicated in m

h	a	b	c	d
2,5	8,0	3,4	8,0	3,4
3,0	8,8	3,8	8,8	3,8
3,5	9,7	4,0	9,7	4,0
4,0	-	-	-	-

Series: Centryxx®

Type of protection: IP 20 (surface ceiling installation), IP 40 (recessed ceiling installation)

Protection class: I

Voltage: AC / DC

For escape route illumination

Housing: die-cast aluminium, powder-coated. Plastic diffuser for ideal light distribution on escape route.

LED included.

Ballast: EB

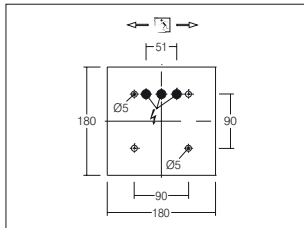
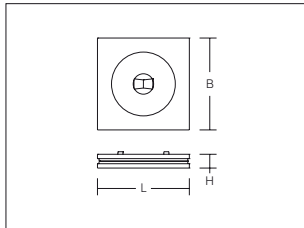
Available colour: white

.89 = Monitoring module (optional)

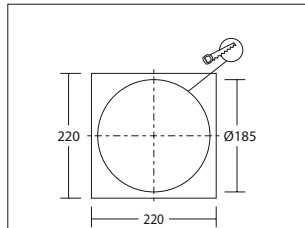
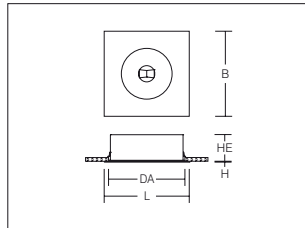


LED

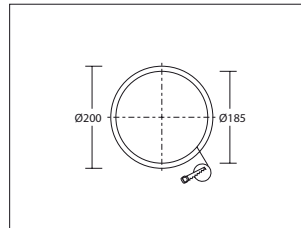
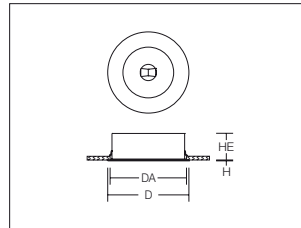
Ceiling (surface)



Ceiling (recessed) square



Ceiling (recessed) round



Reference number	AC-Control (Y = .89)	Type	Type of installation	Lamp/Wattage	Dimensions
671841.002.1.Y	•	Lens for wide-area lighting	Ceiling (surface)	1 x LED 3 W	L 180, B 180, H 27
671841.002.Y	•	Lens for escape route	Ceiling (surface)	1 x LED 3 W	L 180, B 180, H 27
671839.002.Y	•	Lens for escape route	Ceiling (recessed)	1 x LED 3 W	L 220, B 220, H 3, DA 185, HE 73
671837.002.Y	•	Lens for escape route	Ceiling (recessed)	1 x LED 3 W	D 200, H 3, DA 185, HE 73

Accessories | Rear-mounted box for Centryxx LED luminaire

Flat rear-mounted box made of white coated sheet steel with lateral cable inlets for Centryxx safety luminaire (without luminaire).

Rear-mounted box

981921.002 L 122, B 122, H 32



Ordering information

Placeholder Y = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.89

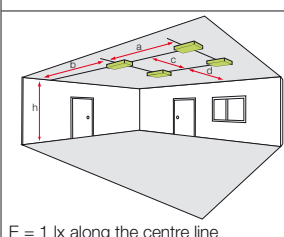
Accessories | Mounting set for chains/cable suspensions

Mounting plate with installation set and strain relief for on-site cable or chain suspension.

Mounting set for suspension cable/chain

981963.002 L 122, B 120, H 13

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671841.002.Y

Luminaire flux
Emergency: 170 lm
The following values are indicated in m

h	a	b	c	d
2,5	3,7	0,9	16,1	7,1
3,0	3,3	0,7	18,3	7,9
3,5	2,7	0,6	20,2	8,5
4,0	2,2	0,6	21,7	8,8

Spacing table 671841.002.1.Y

Luminaire flux
Emergency: 170 lm
The following values are indicated in m

h	a	b	c	d
2,5	8,7	3,7	8,7	3,7
3,0	9,7	4,1	9,7	4,1
3,5	10,6	4,5	10,6	4,5
4,0	11,5	4,9	11,5	4,9

**Series: Centryxx® 2-LED**

Type of protection: IP 20 (surface ceiling installation), **IP 40** (recessed ceiling installation)
Protection class: I

For escape route illumination

Housing: die-cast aluminium, powder-coated. Plastic diffuser for ideal light distribution on escape route.

Automatic self test in all standard versions.

LED included.

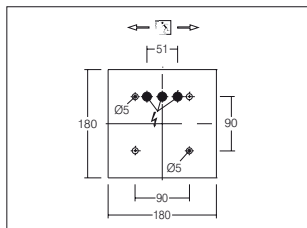
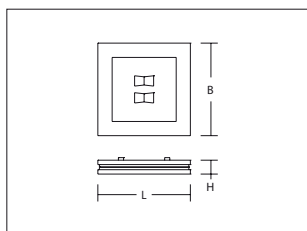
Operating mode: non-maintained power mode (BS)

Ballast mains/emergency: EB

Available colour: white

.04 or .07 = Monitoring system (optional)

Ceiling (surface)

**Ordering information**

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.**04**

DALI reference no. e.g. 123456.004.**07**

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
672023.002.Y	•	•	3 h	Lens for wide-area lighting	100 %	Ceiling (surface)	2 x LED 3 W	L 180, B 180, H 27
672022.002.Y	•	•	3 h	Lens for escape route	100 %	Ceiling (surface)	2 x LED 3 W	L 180, B 180, H 27

Accessories | Rear-mounted box for Centryxx LED luminaire

Flat rear-mounted box made of white coated sheet steel with lateral cable inlets for Centryxx safety luminaire (without luminaire).

Rear-mounted box

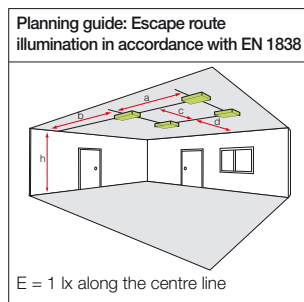
981921.002 L 122, B 122, H 32

**Accessories | Mounting set for chains/cable suspensions**

Mounting plate with installation set and strain relief for on-site cable or chain suspension.

Mounting set for suspension cable/chain

981963.002 L 122, B 120, H 13



Spacing table 672023.002.Y					
Luminaire flux Emergency: 280 lm The following values are indicated in m					
h	a	b	c	d	
2,5	9,6	4,1	9,6	4,1	
3,0	10,6	4,6	10,6	4,6	
3,5	11,6	5,0	11,6	5,0	
4,0	12,6	5,4	12,6	5,4	
5,0	14,5	6,2	14,5	6,2	
6,0	15,6	1,0	15,6	1,0	
7,0	-	-	-	-	
8,0	-	-	-	-	
9,0	-	-	-	-	
10,0	-	-	-	-	

Spacing table 672022.002.Y					
Luminaire flux Emergency: 280 lm The following values are indicated in m					
h	a	b	c	d	
2,5	5,5	1,4	17,2	7,8	
3,0	4,6	1,2	19,5	8,7	
3,5	4,1	0,9	21,7	9,3	
4,0	3,7	0,7	23,8	10,1	
5,0	2,8	0,8	27,6	11,2	
6,0	2,3	0,8	29,9	12,3	
7,0	2,3	0,7	31,8	13,4	
8,0	2,3	0,7	33,9	14,5	
9,0	2,3	0,6	36,0	15,3	
10,0	2,2	0,5	38,3	15,9	

Series: Centryxx® 2-LED

Type of protection: IP 20 (surface ceiling installation), IP 40 (recessed ceiling installation)

Protection class: I

Voltage: AC / DC

For escape route illumination

Housing: die-cast aluminium, powder-coated. Plastic diffuser for ideal light distribution on escape route.

LED included.

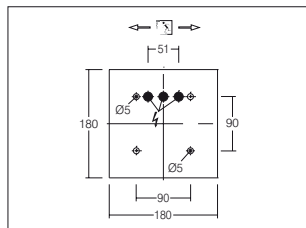
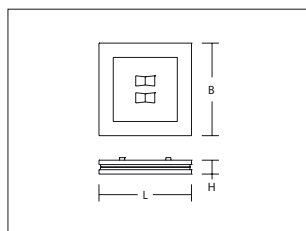
Ballast: EB

Available colour: white

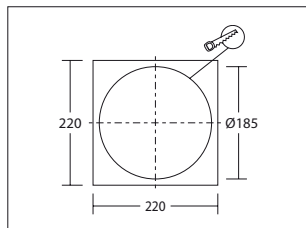
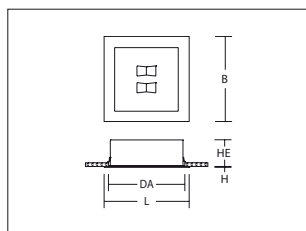
.89 = Monitoring module (optional)



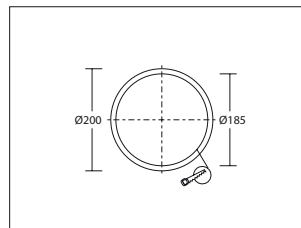
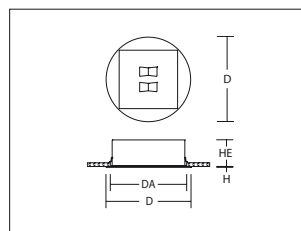
Ceiling (surface)



Ceiling (recessed) square



Ceiling (recessed) round



Reference number	AC-Control (Y = .89)	Type	Type of installation	Lamp/Wattage	Dimensions
672011.002.Y	•	Lens for wide-area lighting	Ceiling (surface)	2 x LED 3 W	L 180, B 180, H 27
671999.002.Y	•	Lens for escape route	Ceiling (surface)	2 x LED 3 W	L 180, B 180, H 27
672013.002.Y	•	Lens for escape route	Ceiling (recessed)	2 x LED 3 W	L 220, B 220, H 3, DA 185, HE 73
672012.002.Y	•	Lens for escape route	Ceiling (recessed)	2 x LED 3 W	D 200, H 3, DA 185, HE 73

Accessories | Rear-mounted box for Centryxx LED luminaire

Flat rear-mounted box made of white coated sheet steel with lateral cable inlets for Centryxx safety luminaire (without luminaire).

Rear-mounted box

981921.002 L 122, B 122, H 32



Ordering information

Placeholder Y = Monitoring module (optional)

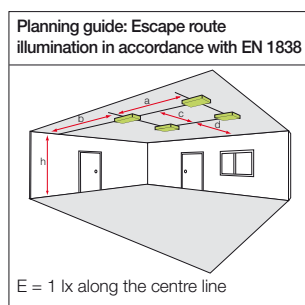
AC-Control reference no. e.g. 123456.004.89

Accessories | Mounting set for chains/cable suspensions

Mounting plate with installation set and strain relief for on-site cable or chain suspension.

Mounting set for suspension cable/chain

981963.002 L 122, B 120, H 13



Spacing table 672011.002.Y

Luminaire flux
Emergency: 340 lm
The following values are indicated in m

h	a	b	c	d
2,5	9,9	4,3	9,9	4,3
3,0	11,3	4,8	11,3	4,8
3,5	12,3	5,3	12,3	5,3
4,0	13,3	5,7	13,3	5,7
5,0	15,2	6,4	15,2	6,4
6,0	16,8	7,0	16,8	7,0
7,0	-	-	-	-
8,0	-	-	-	-
9,0	-	-	-	-
10,0	-	-	-	-

Spacing table 671999.002.Y

Luminaire flux
Emergency: 340 lm
The following values are indicated in m

h	a	b	c	d
2,5	6,6	1,8	18,3	8,0
3,0	5,7	1,6	20,6	9,2
3,5	5,3	1,3	22,7	10,1
4,0	4,9	1,1	25,0	10,9
5,0	3,8	0,8	28,8	11,8
6,0	2,5	0,8	31,8	12,9
7,0	2,5	0,7	33,5	14,0
8,0	2,6	0,7	35,5	15,3
9,0	2,6	0,6	37,8	16,2
10,0	2,5	0,5	39,9	16,9



LED

Series: Centryxx® W

Type of protection: IP 20

Protection class: I

For escape route illumination

Housing: die-cast aluminium, powder-coated. Plastic diffuser for ideal light distribution on escape route.

Automatic self test in all standard versions.

LED included.

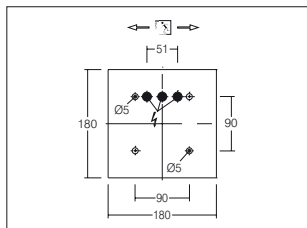
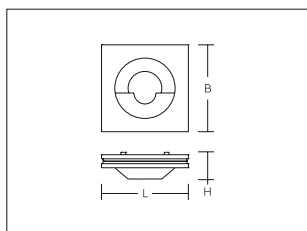
Operating mode: non-maintained power mode (BS)

Ballast mains/emergency: EB

Available colour (X): white

.04 or .07 = Monitoring system (optional)

Wall (surface)

**Ordering information**

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
672020.002.Y	•	•	3 h	Lens for escape route	100 %	Wall (surface)	1 x LED 3 W	L 180, B 180, H 52
672021.002.07	-	•	8 h	Lens for escape route	100 %	Wall (surface)	1 x LED 3 W	L 180, B 180, H 52

Accessories | Rear-mounted box for Centryxx LED luminaire

Flat rear-mounted box made of white coated sheet steel with lateral cable inlets for Centryxx safety luminaire (without luminaire).

Rear-mounted box

981921.002 L 122, B 122, H 32

**Spacing table
672020.002.Y**

Luminaire flux

Emergency: 140 lm

The following values are indicated in m

h	a	b	c	d
2,0	-	-	11,7	5,0
2,5	-	-	13,2	5,7
3,0	-	-	14,1	6,0
3,5	-	-	-	-

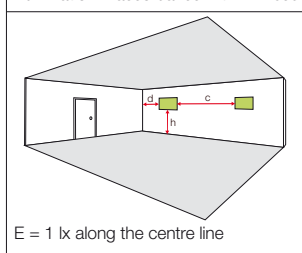
**Spacing table
672021.002.Y**

Luminaire flux

Emergency: 112 lm

The following values are indicated in m

h	a	b	c	d
2,0	-	-	11,0	4,6
2,5	-	-	12,5	5,4
3,0	-	-	-	-
3,5	-	-	-	-

Planning guide: Escape route illumination in accordance with EN 1838

Series: Centryxx® W

Type of protection: IP 20

Protection class: I

Voltage: AC / DC

For escape route illumination

Housing: die-cast aluminium, powder-coated. Plastic diffuser for ideal light distribution on escape route.

LED included.

Ballast: EB

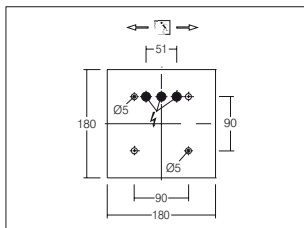
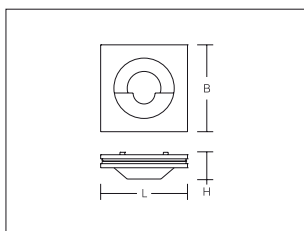
Available colour: white

.89 = Monitoring module (optional)



LED

Wall (surface)



Reference number	AC-Control (Y = .89)	Type of installation	Lamp/Wattage	Dimensions
672019.002.Y	•	Wall (surface)	1 x LED 3 W	L 180, B 180, H 27

Accessories | Rear-mounted box for Centryxx LED luminaire

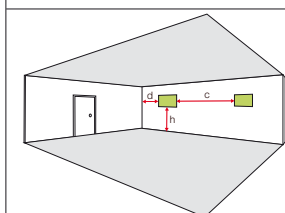
Flat rear-mounted box made of white coated sheet steel with lateral cable inlets for Centryxx safety luminaire (without luminaire).

Rear-mounted box

981921.002 L 122, B 122, H 32



Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table 672019.002.Y

Luminaire flux
Emergency: 170 lm
The following values are indicated in m

h	a	b	c	d
2,0	-	-	12,3	5,2
2,5	-	-	13,9	6,0
3,0	-	-	15,3	6,6
3,5	-	-	-	-

Ordering information

Placeholder Y = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.89

**Series: Centryxx® RZ**

Type of protection: IP 20

Protection class: I

Viewing Distance: 17 m

For escape route identification

Housing: die-cast aluminium, powder-coated. Display panel: highly transparent panel with legend on one side/both sides. 4 legends and 1 white plug-in plastic sheet included.

Automatic self test in all standard versions.

LED included.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

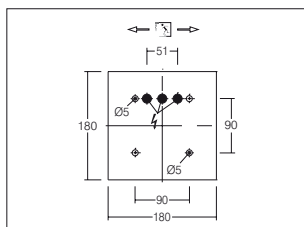
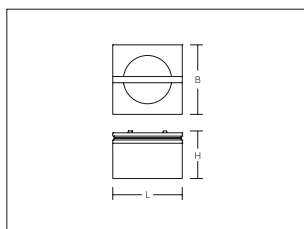
Ballast mains/emergency: EB

Available colour: white

.04 or .07 = Monitoring system (optional)

17 m

Ceiling (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
672038.002.Y	•	•	3 h	17 m	100 %	Wall (surface)	1 x LED 3 W	L 180, B 180, H 127

Accessories | Rear-mounted box for Centryxx LED luminaire

Flat rear-mounted box made of white coated sheet steel with lateral cable inlets for Centryxx safety luminaire (without luminaire).

Rear-mounted box

981921.002 L 122, B 122, H 32

**Accessories | Mounting set for chains/cable suspensions**

Mounting plate with installation set and strain relief for on-site cable or chain suspension.

Mounting set for suspension cable/chain

981963.002 L 122, B 120, H 13

Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Series: Centryxx® RZ Z

Type of protection: IP 20
Protection class: I
Voltage: AC / DC
Viewing Distance: 17 m

For escape route identification

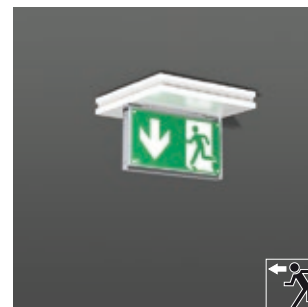
Housing: die-cast aluminium, powder-coated. Display panel: highly transparent panel with legend on one side/both sides.
4 legends and 1 white plug-in plastic sheet included.

LED included.

Ballast: EB

Available colour: 2 = white

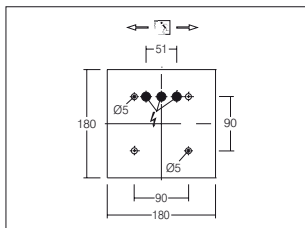
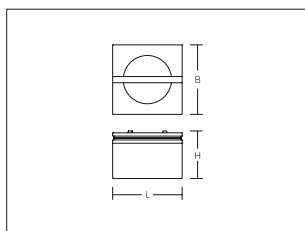
.89 = Monitoring module (optional)



17 m

LED

Ceiling (surface)



Reference number	AC-Control (Y = .89)	Viewing distance	Type of installation	Lamp/Wattage	Dimensions
672037.002.Y	•	17 m	Ceiling (surface)	1 x LED 3 W	L 180, B 180, H 127

Accessories | Rear-mounted box for Centryxx LED luminaire

Flat rear-mounted box made of white coated sheet steel with lateral cable inlets for Centryxx safety luminaire (without luminaire).

Rear-mounted box

981921.002 L 122, B 122, H 32



Accessories | Mounting set for chains/cable suspensions

Mounting plate with installation set and strain relief for on-site cable or chain suspension.

Mounting set for suspension cable/chain

981963.002 L 122, B 120, H 13

Ordering information

Placeholder Y = Monitoring module (optional)
AC-Control reference no. e.g. 123456.004.89



Series: Centryxx® TS IP65

Type of protection: **IP 65**

Protection class: **I**

For escape route illumination

Housing: die-cast aluminium, powder-coated. Safety glass transparent. Plastic diffuser for ideal light distribution on escape route.

Standard Gore™ Protective Vents diaphragm valve for reduction of condensation.

Automatic self test in all standard versions.

LED included.

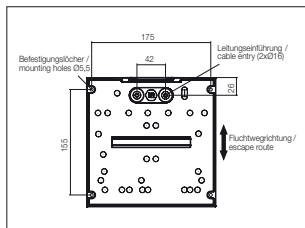
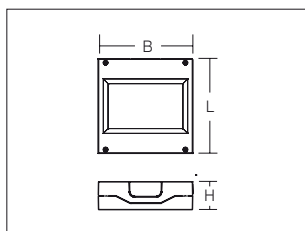
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: **EB**

Available colour: white

.04 or **.07** = Monitoring system (optional)

Ceiling (surface)



Ordering information

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.**04**

DALI reference no. e.g. 123456.004.**07**

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
672118.002.Y	•	•	3 h	Lens for downlight	100 %	Ceiling (surface)	2 x LED 3 W	L 190, B 190, H 56
672135.002.Y	•	•	3 h	Lens for wide-area lighting	100 %	Ceiling (surface)	2 x LED 3 W	L 190, B 190, H 56
672137.002.Y	•	•	3 h	Lens for escape route	100 %	Ceiling (surface)	2 x LED 3 W	L 190, B 190, H 56

Spacing table 672118.002.Y

Luminaire flux
Emergency: 380 lm
The following values are indicated in m

h	a	b	c	d
8,0	9,0	3,9	9,0	3,9
10,0	10,5	4,4	10,5	4,4
12,0	11,3	4,8	11,3	4,8
14,0	12,3	4,9	12,3	4,9
16,0	13,2	5,0	13,2	5,0
18,0	13,8	4,7	13,8	4,7
20,0	14,0	3,8	14,0	3,8
22,0	14,1	2,6	14,1	2,6
24,0	14,2	1,2	14,2	1,2

Spacing table 672135.002.Y

Luminaire flux
Emergency: 380 lm
The following values are indicated in m

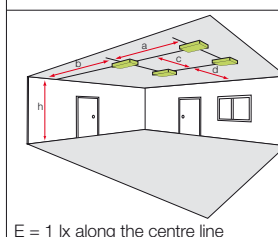
h	a	b	c	d
2,5	9,1	4,2	9,1	4,2
3,0	10,5	4,6	10,5	4,6
3,5	11,7	4,9	11,7	4,9
4,0	12,7	5,2	12,7	5,2
4,5	13,5	5,3	13,5	5,3
5,0	14,0	5,2	14,0	5,2
5,5	14,5	4,7	14,5	4,7
6,0	14,9	3,8	14,9	3,8
6,5	14,7	0,5	14,7	0,5

Spacing table 672137.002.Y

Luminaire flux
Emergency: 380 lm
The following values are indicated in m

h	a	b	c	d
2,5	-	-	12,5	5,8
3,0	-	-	14,4	6,8
3,5	-	-	16,4	7,6
4,0	-	-	18,3	8,4
5,0	-	-	21,7	10,0
6,0	-	-	24,9	11,4
7,0	-	-	28,2	12,4
8,0	-	-	31,1	13,1
9,0	-	-	33,4	13,6

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Series: Centryxx® TS IP65

Type of protection: **IP 65**

Protection class: I

Voltage: AC / DC

For escape route illumination

Housing: die-cast aluminium, powder-coated. Safety glass transparent. Plastic diffuser for ideal light distribution on escape route.

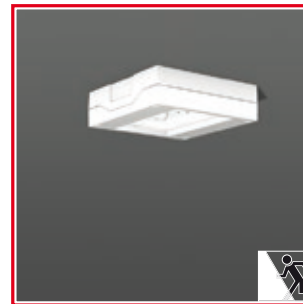
Standard Gore™ Protective Vents diaphragm valve for reduction of condensation.

LED included.

Ballast: EB

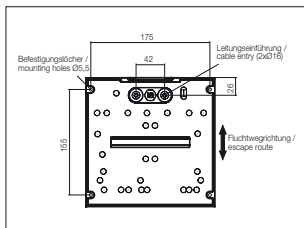
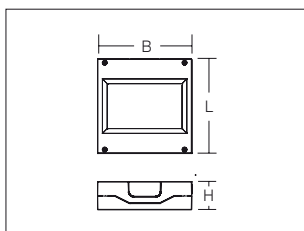
Available colour: white

.89 = Monitoring module (optional)



LED

Ceiling (surface)



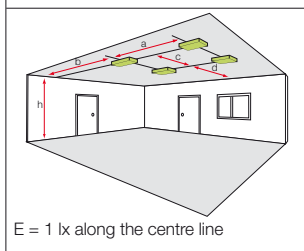
Ordering information

Placeholder **Y** = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.**89**

Reference number	AC-Control (Y = .89)	Type	Type of installation	Lamp/Wattage	Dimensions
672119.002.Y	•	Lens for downlight	Ceiling (surface)	2 x LED 3 W	L 190, B 190, H 56
672136.002.Y	•	Lens for wide-area lighting	Ceiling (surface)	2 x LED 3 W	L 190, B 190, H 56
672138.002.Y	•	Lens for escape route	Ceiling (surface)	2 x LED 3 W	L 190, B 190, H 56

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 672119.002.Y					
Luminaire flux Emergency: 380 lm The following values are indicated in m					
h	a	b	c	d	
8,0	9,0	3,9	9,0	3,9	
10,0	10,5	4,4	10,5	4,4	
12,0	11,3	4,8	11,3	4,8	
14,0	12,3	4,9	12,3	4,9	
16,0	13,2	5,0	13,2	5,0	
18,0	13,8	4,7	13,8	4,7	
20,0	14,0	3,8	14,0	3,8	
22,0	14,1	2,6	14,1	2,6	
24,0	14,2	1,2	14,2	1,2	

Spacing table 672136.002.Y					
Luminaire flux Emergency: 380 lm The following values are indicated in m					
h	a	b	c	d	
2,5	9,1	4,2	9,1	4,2	
3,0	10,5	4,6	10,5	4,6	
3,5	11,7	4,9	11,7	4,9	
4,0	12,7	5,2	12,7	5,2	
4,5	13,5	5,3	13,5	5,3	
5,0	14,0	5,2	14,0	5,2	
5,5	14,5	4,7	14,5	4,7	
6,0	14,9	3,8	14,9	3,8	
6,5	14,7	0,5	14,7	0,5	

Spacing table 672138.002.Y					
Luminaire flux Emergency: 380 lm The following values are indicated in m					
h	a	b	c	d	
2,5	-	-	12,5	5,8	
3,0	-	-	14,4	6,8	
3,5	-	-	16,4	7,6	
4,0	-	-	18,3	8,4	
5,0	-	-	21,7	10,0	
6,0	-	-	24,9	11,4	
7,0	-	-	28,2	12,4	
8,0	-	-	31,1	13,1	
9,0	-	-	33,4	13,6	



LED

Series: Centryxx® W IP 65

Type of protection: IP 65

Protection class: I

For escape route illumination

Housing: die-cast aluminium, powder-coated. Safety glass transparent. Plastic diffuser for ideal light distribution on escape route.

Standard Gore™ Protective Vents diaphragm valve for reduction of condensation.

Automatic self test in all standard versions.

LED included.

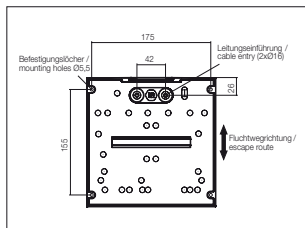
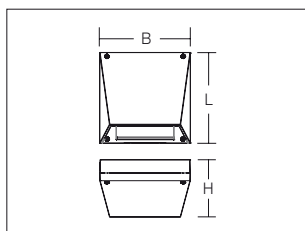
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colour: white

.04 or .07 = Monitoring system (optional)

Wall (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
672139.002.Y	•	•	3 h	Lens for wide-area lighting	100 %	Wall (surface)	2 x LED 3 W	L 190, B 190, H 115
672141.002.Y	•	•	3 h	Lens for escape route	100 %	Wall (surface)	2 x LED 3 W	L 190, B 190, H 115

Ordering information

Placeholder **Y** = Monitoring system (optional)

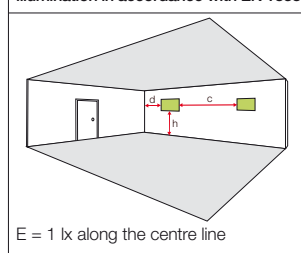
MultiDigit reference no. e.g. 123456.004.**04**

DALI reference no. e.g. 123456.004.**07**

Spacing table 672139.002.Y					
Luminaire flux Emergency: 380 lm The following values are indicated in m					
h	a	b	c	d	
2,0	-	-	8,7	3,7	
2,5	-	-	9,6	4,1	
3,0	-	-	10,5	4,4	
3,5	-	-	11,2	4,6	
4,0	-	-	11,8	4,8	

Spacing table 672141.002.Y					
Luminaire flux Emergency: 380 lm The following values are indicated in m					
h	a	b	c	d	
1,9	-	-	11,8	5,1	
2,1	-	-	12,4	5,3	
2,3	-	-	13,0	5,3	
2,5	-	-	13,8	5,2	
2,7	-	-	14,2	5,2	
2,9	-	-	14,6	5,2	
3,1	-	-	14,6	5,2	
3,3	-	-	14,6	5,0	
3,5	-	-	14,6	4,7	

Planning guide: Escape route illumination in accordance with EN 1838



Series: Centryxx® W IP 65

Type of protection: **IP 65**

Protection class: I

Voltage: AC / DC

For escape route illumination

Housing: die-cast aluminium, powder-coated. Safety glass transparent. Plastic diffuser for ideal light distribution on escape route.

Standard Gore™ Protective Vents diaphragm valve for reduction of condensation.

LED included.

Ballast: EB

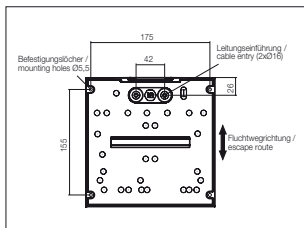
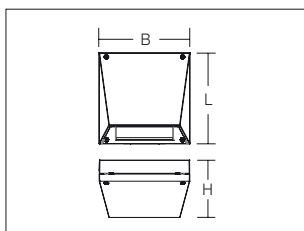
Available colour: white

.89 = Monitoring module (optional)



LED

Wall (surface)



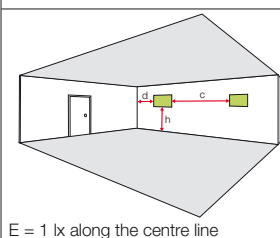
Reference number	AC-Control (Y = .89)	Type	Type of installation	Lamp/Wattage	Dimensions
672140.002.Y	•	Lens for wide-area lighting	Wall (surface)	2 x LED 3 W	L 190, B 190, H 117
672142.002.Y	•	Lens for escape route	Wall (surface)	2 x LED 3 W	L 190, B 190, H 117

Ordering information

Placeholder **Y** = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.**89**

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 672140.002.Y

Luminaire flux
Emergency: 380 lm
The following values are indicated in m

h	a	b	c	d
2,0	-	-	8,7	3,7
2,5	-	-	9,6	4,1
3,0	-	-	10,5	4,4
3,5	-	-	11,2	4,6
4,0	-	-	11,8	4,8

Spacing table 672142.002.Y

Luminaire flux
Emergency: 380 lm
The following values are indicated in m

h	a	b	c	d
1,9	-	-	11,8	5,1
2,1	-	-	12,4	5,3
2,3	-	-	13,0	5,3
2,5	-	-	13,8	5,2
2,7	-	-	14,2	5,2
2,9	-	-	14,6	5,2
3,1	-	-	14,6	5,2
3,3	-	-	14,6	5,0
3,5	-	-	14,6	4,7

Energo® TC 175

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems. As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Housing made of top quality die-cast aluminium
- Wide luminaire spacing for escape route illumination
- Modern design
- Bezel ring made of die-cast aluminium
- Infinitely adjustable spring fastening system
- EBs in separate ballast box
- Modular recessed luminaire with small recessed depth
- Easy to install
- For Ceiling thicknesses of 1-40 mm



Ceiling (recessed)



Series: Energo® TC 175

Type of protection: IP 23

Protection class: I

Ceiling thickness: 1-20 mm

For escape route illumination

Modular design: A bezel ring must always be ordered for each basic luminaire!

Recessed and bezel ring: die-cast aluminium, bezel ring with bayonet fixing. Bracket: galvanised sheet steel. Reflector: aluminium, highly polished anodised finish. Installation in ceiling with spring system. EB in separate ballast box with connection cable (L 400 mm) in flexible hose. 5-pole double terminal for through-wiring.

Automatic self test in all standard versions.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

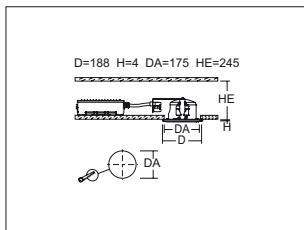
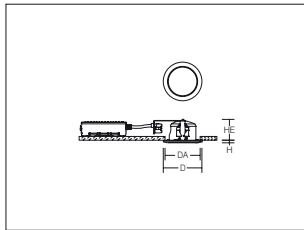
Ballast mains/emergency: EB

Available colour: silver metallic

.04 or .07 = Monitoring system (optional)



Ceiling (recessed)

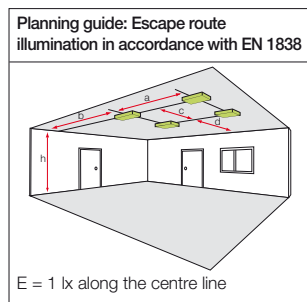


Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Lamps Mains/ Emergency	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671873.924.Y	•	-	3 h	1 / 1	18 %	Ceiling (recessed)	1 x TC-DEL 13 W	D 188, H 4, DA 175, HE 245
671875.924.Y	•	-	3 h	2 / 1	18 %	Ceiling (recessed)	2 x TC-DEL 13 W	D 188, H 4, DA 175, HE 245
671874.964.Y	•	-	3 h	1 / 1	15 %	Ceiling (recessed)	1 x TC-DEL 18 W	D 188, H 4, DA 175, HE 245
671876.964.Y	•	-	3 h	2 / 1	15 %	Ceiling (recessed)	2 x TC-DEL 18 W	D 188, H 4, DA 175, HE 245

Bezel rings without safety glass, D 194 mm, H 9 mm

981653.102

981653.104



Spacing table 671873.924.Y 671875.924.Y					
Luminaire flux Emergency: 104 lm The following values are indicated in m					
h	a	b	c	d	
2,5	7,7	3,1	7,7	3,1	
3,0	8,5	3,1	8,5	3,1	
3,5	8,8	3,0	8,8	3,0	
4,0	8,8	2,9	8,8	2,9	

Spacing table 671874.964.Y 671876.964.Y					
Luminaire flux Emergency: 115 lm The following values are indicated in m					
h	a	b	c	d	
2,5	7,9	3,1	7,9	3,1	
3,0	8,5	3,1	8,5	3,1	
3,5	8,8	3,0	8,8	3,0	
4,0	8,8	2,9	8,8	2,9	

Arelo®

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Recessed ring made of die-cast aluminium
- Top quality reflector made of aluminium, highly polished anodised finish
- Wide beam light distribution
- All versions with EB in separate ballast box
- Simple spring system for installation without tools



Ceiling (recessed)



Series: Arelo®

Type of protection: IP 20

Protection class: I

Ceiling thickness: 1-25 mm

For escape route illumination

Recessed ring: die-cast aluminium, powder-coated. Bracket: galvanised sheet steel. Reflector: aluminium, highly polished anodised finish. Driver in separate ballast box. Length of cable between luminaire and ballast box: 400 mm. Suitable for through-wiring.

Automatic self test in all standard versions.

Operating mode: Can be ordered either for non-maintained (BS) or maintained (DS).

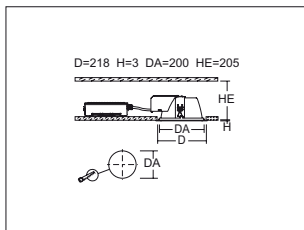
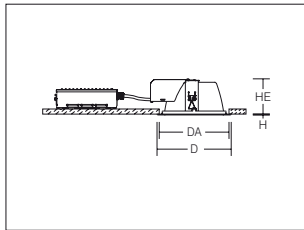
Ballast mains/emergency: EB

Available colour: white

.04 or .07 = Monitoring system (optional)



Ceiling (recessed)



Ordering information

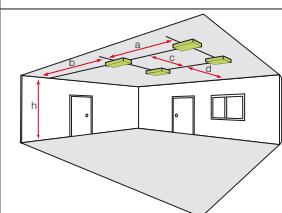
Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.**04**

DALI reference no. e.g. 123456.004.**07**

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Lamps Mains/ Emergency	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671857.962.Y	•	-	3 h	1 / 1	15 %	Ceiling (recessed)	1 x TC-DEL 18 W	D 218, H 3, DA 200, HE 205
671859.962.Y	•	-	3 h	2 / 1	15 %	Ceiling (recessed)	2 x TC-DEL 18 W	D 218, H 3, DA 200, HE 205
671858.952.Y	•	-	3 h	1 / 1	12 %	Ceiling (recessed)	1 x TC-DEL 26 W	D 218, H 3, DA 200, HE 205
671860.952.Y	•	-	3 h	2 / 1	12 %	Ceiling (recessed)	2 x TC-DEL 26 W	D 218, H 3, DA 200, HE 205

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table 671857.962.Y | 671859.962.Y

Luminaire flux
Emergency: 85 lm
The following values are indicated in m

h	a	b	c	d
2,5	6,9	3,0	6,9	3,0
3,0	7,9	3,0	7,9	3,0
3,5	8,4	2,5	8,4	2,5
4,0	8,5	2,4	8,5	2,4

Spacing table 671858.952.Y | 671860.952.Y

Luminaire flux
Emergency: 102 lm
The following values are indicated in m

h	a	b	c	d
2,5	3,0	6,9	3,0	6,9
3,0	3,0	8,0	3,0	8,0
3,5	2,9	8,5	2,9	8,5
4,0	2,8	8,5	2,8	8,5

Andho® TC | TC IP 65

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Design matches modern architectural styles
- Housing made of top quality die-cast aluminium
- Top quality reflector made of aluminium, highly polished anodised finish



Ceiling (surface)

Andho® TC



Ceiling (surface)

Andho® TC IP 65



Series: Andho® TC

Type of protection: **IP 23**

Protection class: I

For escape route illumination

Housing: aluminium extrusion profile, powder-coated. Bezel ring and ceiling base: die-cast aluminium, powder-coated, with bayonet fixing. Reflector: aluminium, highly polished anodised finish. Electronic ballast included. 5 pole double terminal for through-wiring.

Automatic self test in all standard versions.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colours (X): 2 = white, 4 = silver metallic

.04 or .07 = Monitoring system (optional)


LED version available from 3rd quarter 2015

Series: Andho® TC IP 65

Type of protection: **IP 65** for indoor use

Protection class: I

For escape route illumination

Housing: aluminium extrusion profile, powder-coated. Ceiling base: die-cast aluminium, powder-coated, with bayonet fixing. Bezel ring: powder-coated die-cast aluminium, screwed on the luminaire. Safety glass, transparent. Reflector: aluminium, highly polished anodised finish. Electronic ballast included. 5 pole double terminal for through-wiring.

Automatic self test in all standard versions.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

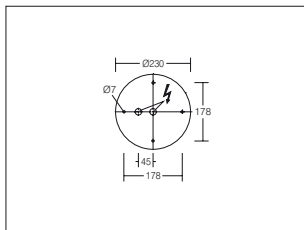
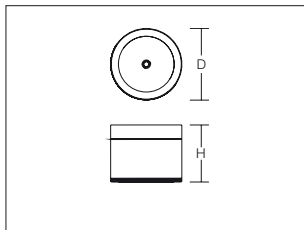
Ballast mains/emergency: EB

Available colours (X): 2 = white, 4 = silver metallic

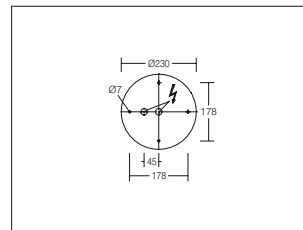
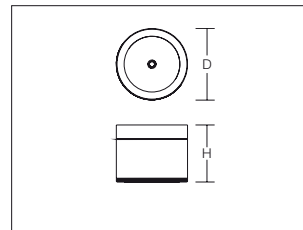
.04 or .07 = Monitoring system (optional)


LED version available from 3rd quarter 2015

Ceiling (surface)



Ceiling (surface)

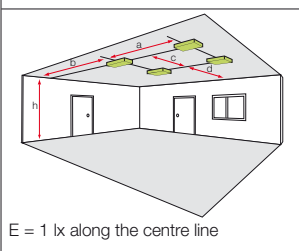


Andho® TC

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Lamps Mains/Emergency	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671891.84X.Y	•	-	3 h	1 / 1	14 %	Ceiling (surface)	1 x TC-TEL 18 W	D 230, H 278
671892.84X.Y	•	-	3 h	2 / 1	14 %	Ceiling (surface)	2 x TC-TEL 18 W	D 230, H 278

Andho® TC IP 65

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Lamps Mains/Emergency	Luminous flux factor	Lamp/Wattage	Type of installation	Dimensions
671893.84X.Y	•	-	3 h	1 / 1	14 %	1 x TC-TEL 18 W	Ceiling (surface)	D 230, H 290
671894.84X.Y	•	-	3 h	2 / 1	14 %	2 x TC-TEL 18 W	Ceiling (surface)	D 230, H 290

Planning guide: Escape route illumination in accordance with EN 1838

Spacing table 671891.84X.Y | 671892.84X.Y

Luminaire flux
Emergency: 114 lm
The following values are indicated in m

h	a	b	c	d
2,5	5,9	3,0	5,9	3,0
3,0	6,9	3,2	6,9	3,2
3,5	7,9	3,3	7,9	3,3
4,0	8,9	3,4	8,9	3,4

Spacing table 671893.84X.Y | 671894.84X.Y

Luminaire flux
Emergency: 106 lm
The following values are indicated in m

h	a	b	c	d
2,5	5,9	3,0	5,9	3,0
3,0	6,9	3,2	6,9	3,2
3,5	7,9	3,3	7,9	3,3
4,0	8,9	3,4	8,9	3,4

Ordering information

Placeholder **X** = Housing colour (see text above)
Reference no. e.g. 123456.004

Placeholder **Y** = Monitoring system (optional)
MultiDigit reference no. e.g. 123456.004.04
DALI reference no. e.g. 123456.004.07

Mondana®-AS

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Design matches modern architectural styles
- Diffuser: glass or PE sintered glass (polyethylene), shockproof
- IP 65 provides safe protection against humidity - dust and insects cannot penetrate the luminaire
- Gore™ diaphragm valve for pressure equalisation and prevention of condensation
- Easy to install
- Wide range of applications thanks to various types of installation
- Lamp replacement without tools



Ceiling (surface), Wall (surface)



Series: Mondana®-AS

Type of protection: **IP 65** for indoor use

Protection class: I

For escape route illumination

Base: plastic (polycarbonate), microstructure coating. Diffuser: plastic (polyethylene) or mouth-blown opal glass, satin finish. Diffuser fastening: screwneck.

Standard Gore™ Protective Vents diaphragm valve for reduction of condensation.

Automatic self test in all standard versions.

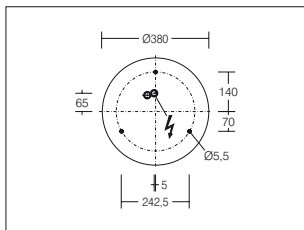
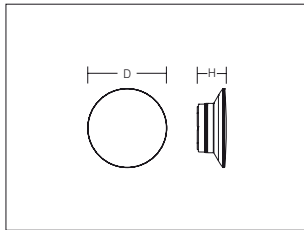
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colour: white

.04 or **.07** = Monitoring system (optional)


Ceiling (surface), Wall (surface)

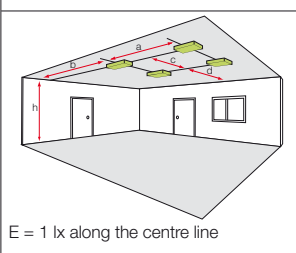


Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671777.862.Y	•	-	3 h	Glass	14 %	Ceiling (surface), Wall (surface)	1 x TC-F 36 W	D 500, H 132
671778.862.Y	•	-	3 h	PE	14 %	Ceiling (surface), Wall (surface)	1 x TC-F 36 W	D 550, H 132

Ordering information

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.**04**

DALI reference no. e.g. 123456.004.**07**
Planning guide: Escape route illumination in accordance with EN 1838

Spacing table 671777.862.Y

Luminaire flux
Emergency: 226 lm
The following values are indicated in m

h	a	b	c	d
2,5	7,4	2,8	7,4	2,8
3,0	7,8	2,8	7,8	2,8
3,5	8,0	2,8	8,0	2,8
4,0	8,1	2,7	8,1	2,7

Spacing table 671778.862.Y

Luminaire flux
Emergency: 274 lm
The following values are indicated in m

h	a	b	c	d
2,5	8,1	3,1	8,1	3,1
3,0	8,6	3,2	8,6	3,2
3,5	8,9	3,3	8,9	3,3
4,0	9,2	3,3	9,2	3,3

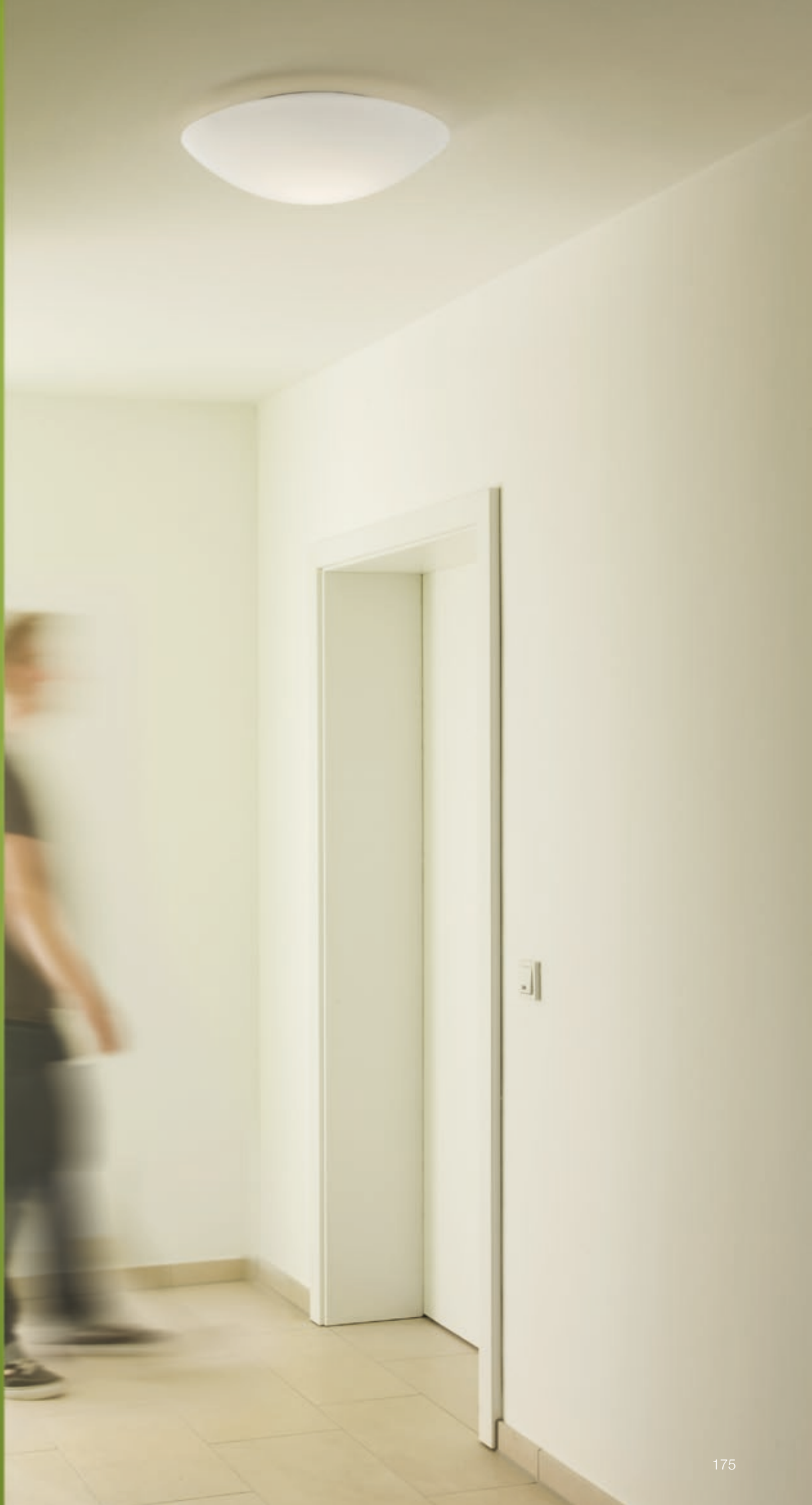
Flat Basic

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Hand-blown three layer (triplex) opal glass available in satin finish (Basic)
- Triplex glass provides particularly even, soft and glare-free lighting
- Compact design
- Easy to install
- With spring system or bayonet fixing - for opening the luminaire without tools - for gently detaching and positioning the diffuser



Wall (surface), Ceiling (surface)







Series: Flat Basic

Type of protection: **IP 43** ceiling mounting, **IP 44** wall mounting
Protection class: I

For escape route illumination

Base: die-cast aluminium, powder-coated white. Diffuser: mouth-blown opal glass, satin finish.
Diffuser fastening: spring system.

Automatic self test in all standard versions.

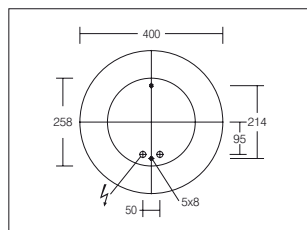
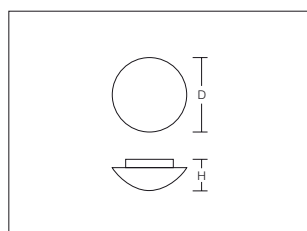
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB / LLB

Available colour: white

.04 or .07 = Monitoring system (optional)

Ceiling (surface), Wall (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Lamps Mains/ Emergency	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671423.912.Y	•	-	3 h	2 / 1	30 %	Ceiling (surface), Wall (surface)	2 x TC-SEL 9 W	D 420, H 124

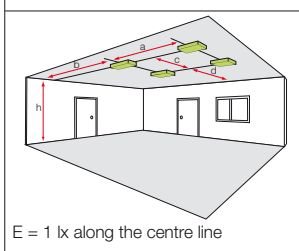
Ordering information

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.**04**

DALI reference no. e.g. 123456.004.**07**

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671423.912.Y

Luminaire flux
Emergency: 101 lm
The following values are indicated in m

h	a	b	c	d
2,5	6,4	2,3	6,4	2,3
3,0	6,6	2,3	6,6	2,3
3,5	6,7	2,1	6,7	2,1
4,0	6,6	1,8	6,6	1,8

Series: Flat Basic

Type of protection: **IP 43** ceiling mounting, **IP 44** wall mounting

Protection class: I

Voltage: AC / DC

For escape route illumination

Base: plastic, white. Diffuser: mouth-blown opal glass, satin finish. Diffuser fastening: spring system or bayonet fixing.

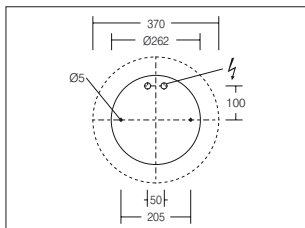
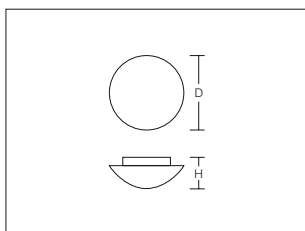
Ballast: EB / LLB

Available colour: white

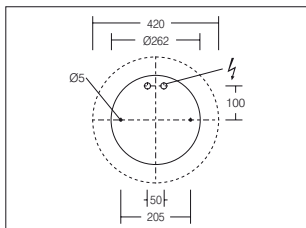
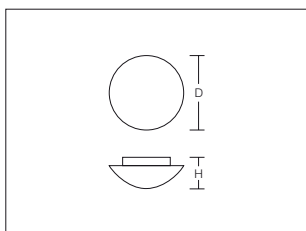
.89 = Monitoring module (optional)



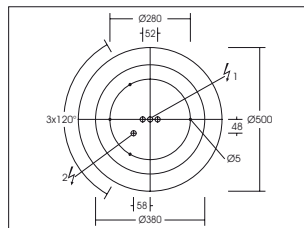
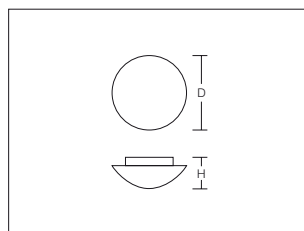
Ceiling (surface), Wall (surface) D 370



Ceiling (surface), Wall (surface) D 420



Ceiling (surface), Wall (surface) D 500



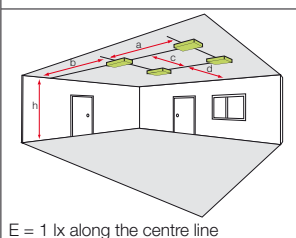
Reference number	AC-Control (Y = .89)	Type of installation	Lamp/Wattage	Dimensions
671955.952.Y	•	Wall (surface), Ceiling (surface)	1 x TC-DEL 26 W	D 370, H 118
671956.952.Y	•	Wall (surface), Ceiling (surface)	1 x TC-DEL 26 W	D 420, H 124
671957.002.Y	•	Wall (surface), Ceiling (surface)	1 x T16-R 55 W	D 500, H 150

Ordering information

Placeholder Y = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.89

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table 671955.952.Y

Luminaire flux
Emergency: 828 lm
The following values are indicated in m

h	a	b	c	d
2,5	13,2	5,3	13,2	5,3
3,0	14,2	5,7	14,2	5,7
3,5	15,0	6,0	15,0	6,0
4,0	15,8	6,2	15,8	6,2

Spacing table 671956.952.Y

Luminaire flux
Emergency: 1008 lm
The following values are indicated in m

h	a	b	c	d
2,5	13,9	5,6	13,9	5,6
3,0	14,9	6,0	14,9	6,0
3,5	15,8	6,3	15,8	6,3
4,0	16,6	6,6	16,6	6,6

Spacing table 671957.002.Y

Luminaire flux
Emergency: 1974 lm
The following values are indicated in m

h	a	b	c	d
2,5	17,2	6,9	17,2	6,9
3,0	18,5	7,5	18,5	7,5
3,5	19,7	7,9	19,7	7,9
4,0	20,8	8,3	20,8	8,3

Flat Polymero® IP44

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Architecturally attractive design
- Compact design
- Easy to install
- With spring system - for opening the luminaire without tools - for gently detaching and positioning the diffuser



Wall (surface), Ceiling (surface)



Series: Flat Polymero® IP 44

Type of protection: **IP 43** ceiling mounting, **IP 44** wall mounting

Protection class: I

Voltage: AC / DC

For escape route illumination

Base: plastic. Diffuser: plastic (PMMA), opal, or plastic (polycarbonate), opal and shockproof. Diffuser fastening: spring system.

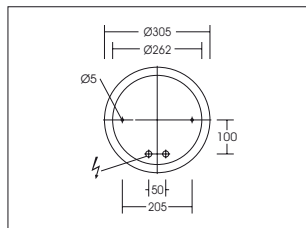
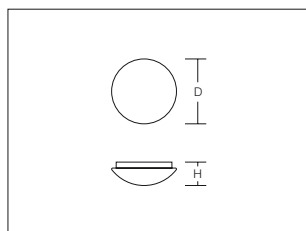
Ballast: EB

Available colour: white

.89 = Monitoring module (optional)



Wall (surface), Ceiling (surface)



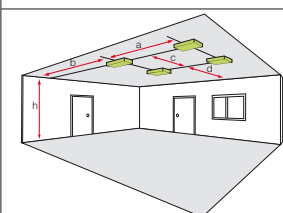
Reference number	AC-Control (Y = .89)	Type	Type of installation	Lamp/Wattage	Dimensions
671958.962.1.Y	•	PMMA	Wall (surface), Ceiling (surface)	1 x TC-DEL 18 W	D 305, H 115
671958.962.2.Y	•	PC	Wall (surface), Ceiling (surface)	1 x TC-DEL 18 W	D 305, H 115
671959.952.1.Y	•	PMMA	Wall (surface), Ceiling (surface)	1 x TC-DEL 26 W	D 305, H 115
671959.952.2.Y	•	PC	Wall (surface), Ceiling (surface)	1 x TC-DEL 26 W	D 305, H 115

Ordering information

Placeholder **Y** = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.**89**

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671958.962.1.Y | 671958.962.2.Y

Luminaire flux
The following values are indicated in m

h	a	b	c	d
2,5	11,6	4,6	11,6	4,6
3,0	12,4	4,9	12,4	4,9
3,5	13,0	5,1	13,0	5,1
4,0	13,6	5,2	13,6	5,2

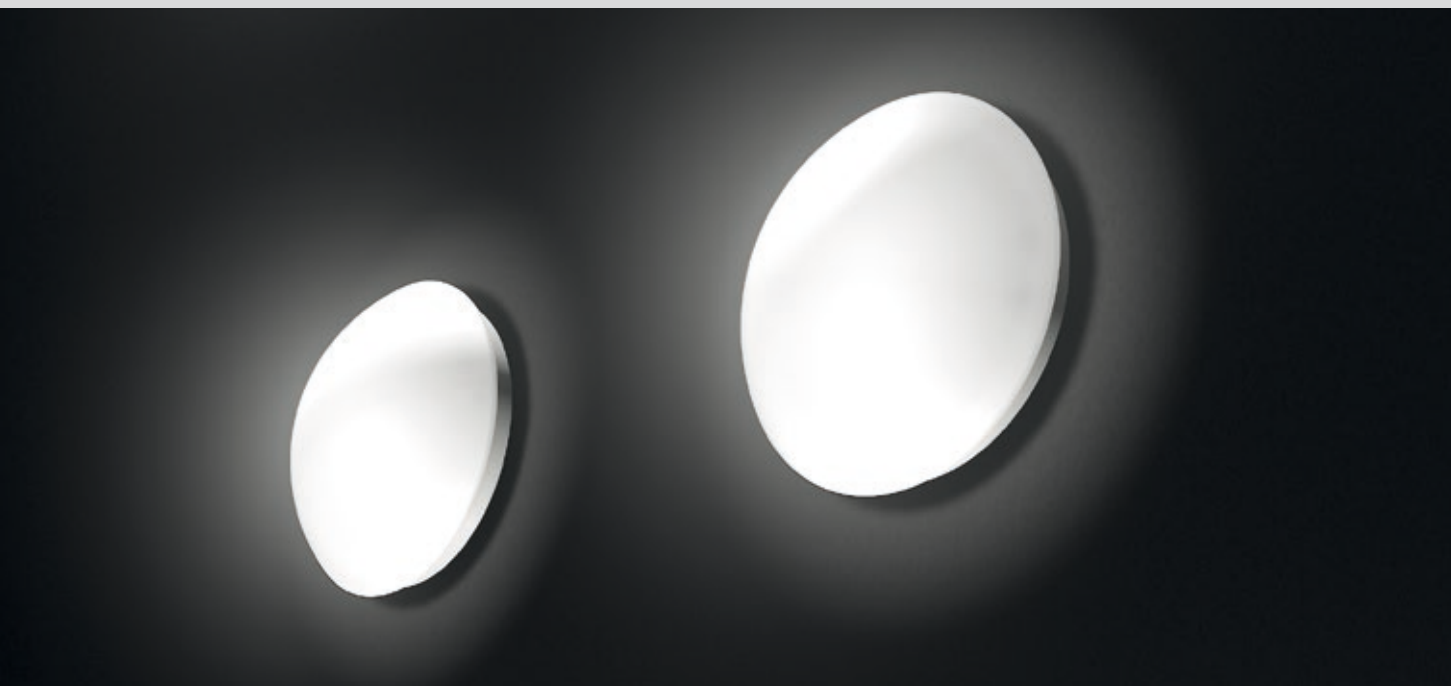
Spacing table 671959.952.1.Y | 671959.952.2.Y

Luminaire flux
The following values are indicated in m

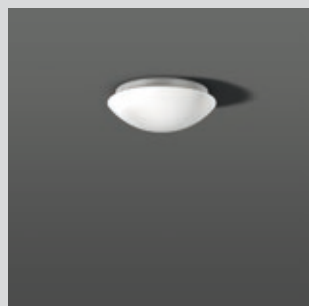
h	a	b	c	d
2,5	13,1	5,2	13,1	5,2
3,0	14,1	5,6	14,1	5,6
3,5	14,9	5,9	14,9	5,9
4,0	15,6	6,1	15,6	6,1

Flat Polymero® Alu

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Low maintenance costs
- Compact design
- Easy to install
- With spring system - for opening the luminaire without tools - for gently detaching and positioning the diffuser



Ceiling (surface), Wall (surface)



Series: Flat Polymero® Alu

Type of protection: **IP 43** ceiling mounting, **IP 44** wall mounting

Protection class: I

For escape route illumination

Base: die-cast aluminium, powder-coated. Diffuser: plastic (PMMA), opal. Diffuser fastening: bayonet system.

Automatic self test in all standard versions.

LED included.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

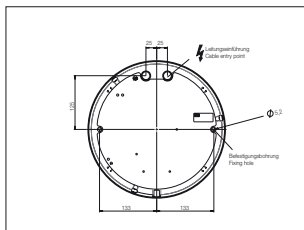
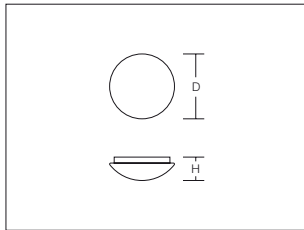
Available colour: white

.04 or .07 = Monitoring system (optional)



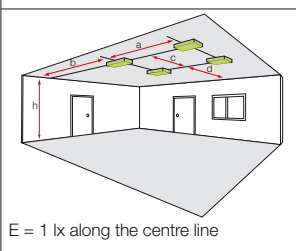
LED

Ceiling (surface), Wall (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Lamps Mains/ Emergency	Lamp/Wattage	Type of installation	Dimensions
672091.002.5.Y	•	•	3 h	6 / 1	6 x LED 2,2 W 4000 K + 1 x LED 1 W	Ceiling (surface), Wall (surface)	D 350, H 130
672091.002.7.Y	•	•	3 h	6 / 1	6 x LED 2,2 W 3000 K + 1 x LED 1 W	Ceiling (surface), Wall (surface)	D 350, H 130

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 672091.002.5.Y

Luminaire flux
Emergency: 101 lm
The following values are indicated in m

h	a	b	c	d
2,5	6,4	2,3	6,4	2,3
3,0	6,6	2,3	6,6	2,3
3,5	6,7	2,1	6,7	2,1
4,0	6,6	1,8	6,6	1,8

Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Flat Polymero®

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems. As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Design matches modern architectural styles
- Compact design
- Easy to install
- Low maintenance costs
- With patented closure system for opening the luminaire without the use of tools

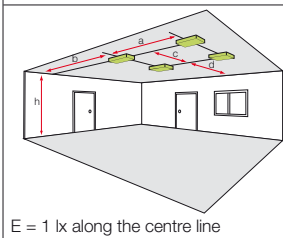


Ceiling (surface), Wall (surface)





Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671700.342.1.Y

Luminaire flux Emergency: 131 lm The following values are indicated in m					
h	a	b	c	d	
2,5	7,6	2,9	7,6	2,9	
3,0	8,0	3,0	8,0	3,0	
3,5	8,3	2,9	8,3	2,9	
4,0	8,3	2,8	8,3	2,8	

Spacing table 671531.952.1.Y

Luminaire flux Emergency: 177 lm The following values are indicated in m					
h	a	b	c	d	
2,5	8,1	3,1	8,1	3,1	
3,0	8,6	3,2	8,6	3,1	
3,5	8,8	3,2	8,8	3,2	
4,0	9,1	3,2	9,1	3,2	

Spacing table 671585.862.1.Y

Luminaire flux Emergency: 215 lm The following values are indicated in m					
h	a	b	c	d	
2,5	7,2	2,7	7,2	2,7	
3,0	7,6	2,8	7,6	2,8	
3,5	7,8	2,7	7,8	2,7	
4,0	7,9	2,6	7,9	2,6	

Spacing table 671587.962.1.Y

Luminaire flux Emergency: 131 lm The following values are indicated in m					
h	a	b	c	d	
2,5	5,8	2,1	5,8	2,1	
3,0	6,0	1,9	6,0	1,9	
3,5	5,9	1,7	5,9	1,7	
4,0	5,7	1,2	5,7	1,2	

Spacing table 671911.952.1.Y

Luminaire flux Emergency: 342 lm The following values are indicated in m					
h	a	b	c	d	
2,5	9,1	3,5	9,1	3,5	
3,0	9,6	3,7	9,6	3,7	
3,5	10,1	3,8	10,1	3,8	
4,0	10,4	3,8	10,4	3,8	

Spacing table 672058.002.5.Y | 672134.002.5.Y

Luminaire flux Emergency: 100 lm The following values are indicated in m					
h	a	b	c	d	
2,5	7,6	2,9	7,6	2,9	
3,0	8,0	3,0	8,0	3,0	
3,5	8,3	3,0	8,3	3,0	
4,0	8,5	2,9	8,5	2,9	

Spacing table 672059.002.5.Y | 672133.002.5.Y

Luminaire flux Emergency: 100 lm The following values are indicated in m					
h	a	b	c	d	
2,5	7,1	2,7	7,1	2,7	
3,0	7,4	2,7	7,4	2,7	
3,5	7,7	2,7	7,7	2,7	
4,0	7,8	2,5	7,8	2,5	

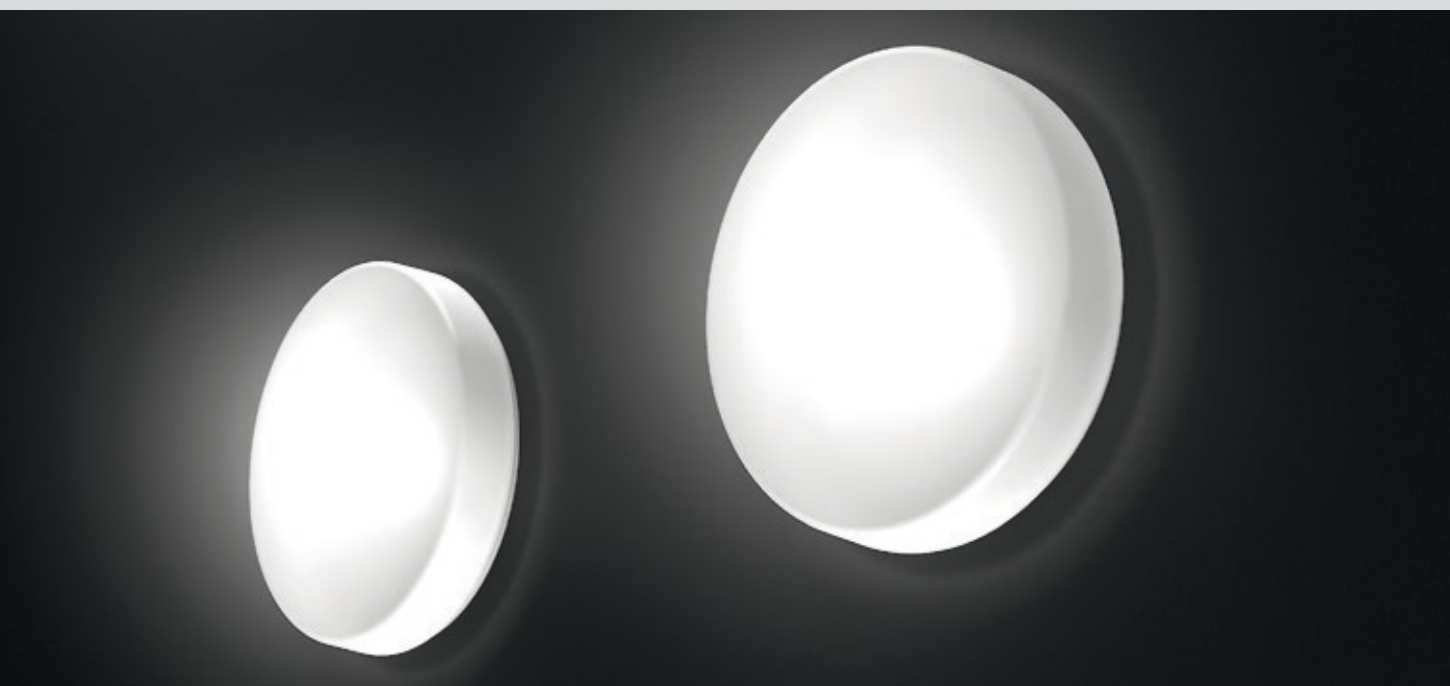
Ordering information

Placeholder **Y** = Monitoring system (optional)
MultiDigit reference no. e.g. 123456.004.**04**
DALI reference no. e.g. 123456.004.**07**



Flat Polymero® Kreis

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems. As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Compact design
- Easy to install
- With patented closure system for opening the luminaire without the use of tools



Ceiling (surface), Wall (surface)



Spacing table 672092.002.5.Y					
Luminaire flux Emergency: 80 lm The following values are indicated in m					
h	a	b	c	d	
2,5	7,0	2,7	7,0	2,7	
3,0	7,3	2,7	7,3	2,7	
3,5	7,6	2,7	7,6	2,7	
4,0	7,7	2,6	7,7	2,6	

Spacing table 672093.002.7.Y					
Luminaire flux Emergency: 120 lm The following values are indicated in m					
h	a	b	c	d	
2,5	6,8	2,5	6,8	2,5	
3,0	7,1	2,5	7,1	2,5	
3,5	7,2	2,4	7,2	2,4	
4,0	7,2	2,2	7,2	2,2	

Series: Flat Polymero® Kreis

Type of protection: IP 40

Protection class: I

For escape route illumination

Base: metal, powder-coated. Diffuser: plastic (PMMA), opal. Diffuser fastening: patented push system.

Automatic self test in all standard versions.

LED included.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

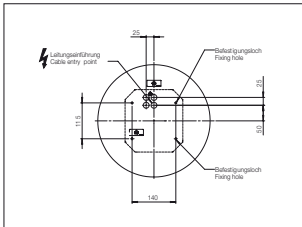
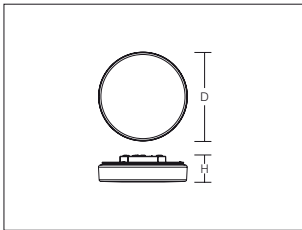
Ballast mains/emergency: EB

Available colour: white

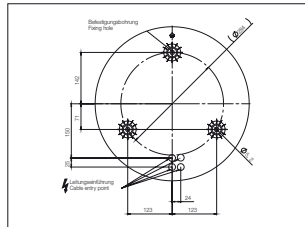
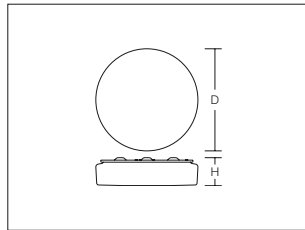
.04 or .07 = Monitoring system (optional)



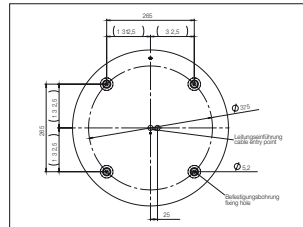
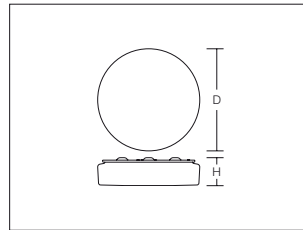
Ceiling (surface), Wall (surface) D 360



Ceiling (surface), Wall (surface) D 460



Ceiling (surface), Wall (surface) D 515



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Lamps Mains/ Emergency	Luminous flux factor	Lamp/Wattage	Type of installation	Dimensions
672092.002.5.Y	•	•	3 h	6 / 1		6 x LED 2,2 W 5000 K + 1 x LED 2 W	Ceiling (surface), Wall (surface)	D 360, H 109
672092.002.7.Y	•	•	3 h	6 / 1		6 x LED 2,2 W 3000 K + 1 x LED 2 W	Ceiling (surface), Wall (surface)	D 360, H 109
672093.002.5.Y	•	•	3 h	8 / 1		8 x LED 2,2 W 5000 K + 1 x LED 2 W	Ceiling (surface), Wall (surface)	D 460, H 95
672093.002.7.Y	•	•	3 h	8 / 1		8 x LED 2,2 W 3000 K + 1 x LED 2 W	Ceiling (surface), Wall (surface)	D 460, H 95
672094.962.1.Y	•	-	3 h	2 / 1	15 %	2 x TC-DEL 18 W	Ceiling (surface), Wall (surface)	D 460, H 93
672095.342.1.Y	•	-	3 h	1 / 1	15 %	1 x TC-TEL 18 W + 2 x TC-TSE 18 W	Ceiling (surface), Wall (surface)	D 460, H 93
672096.952.1.Y	•	-	3 h	2 / 1	17 %	2 x TC-DEL 26 W	Ceiling (surface), Wall (surface)	D 515, H 98

Accessories | Surface mounting accessories

Height adjustment box for general lighting luminaires (required only for D 360 mm).

Height adjustment box

981961.002 L 200, B 200, H 30

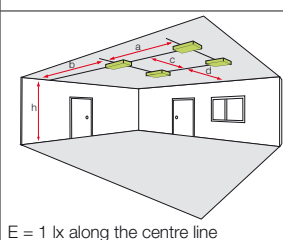
Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table 672094.962.1.Y

Luminaire flux
Emergency: 95 lm
The following values are indicated in m

h	a	b	c	d
2,5	6,5	2,4	6,5	2,4
3,0	6,7	2,3	6,7	2,3
3,5	6,8	2,2	6,8	2,2
4,0	6,7	1,9	6,7	1,9

Spacing table 672095.342.1.Y

Luminaire flux
Emergency: 148 lm
The following values are indicated in m

h	a	b	c	d
2,5	8,1	3,1	9,1	3,1
3,0	8,5	3,2	8,5	3,2
3,5	8,8	3,2	8,8	3,2
4,0	9,0	3,2	9,0	3,2

Spacing table 672096.952.1.Y

Luminaire flux
Emergency: 75 lm
The following values are indicated in m

h	a	b	c	d
2,5	5,9	2,0	5,9	2,0
3,0	6,0	2,0	6,0	2,0
3,5	6,0	1,8	6,0	1,8
4,0	5,8	1,3	5,8	1,3

Kreis Quadrat

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Low maintenance costs
- Compact design
- Easy to install



Ceiling (surface), Wall (surface)



Ceiling (surface), Wall (surface)



Series: Kreis

Type of protection: **IP 43** ceiling mounting, **IP 44** wall mounting
Protection class: I

For escape route illumination

Base: die-cast aluminium, powder-coated. Diffuser: mouth-blown opal glass, satin finish. Diffuser fastening: spring system.

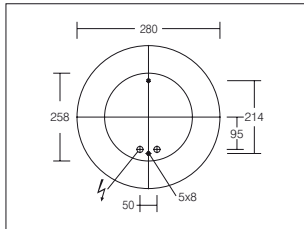
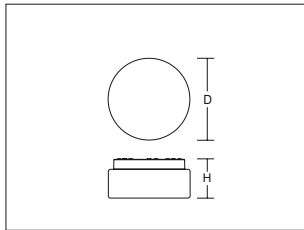
Automatic self test in all standard versions.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Available colour: white

.04 or **.07** = Monitoring system (optional)

Ceiling (surface), Wall (surface)



Series: Quadrat

Type of protection: **IP 43** ceiling mounting, **IP 44** wall mounting
Protection class: I

For escape route illumination

Base: plastic. Diffuser: plastic, opal, satin finish.

Automatic self test in all standard versions.

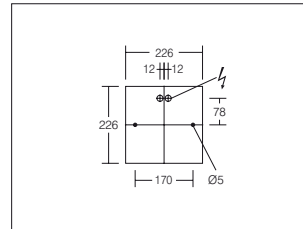
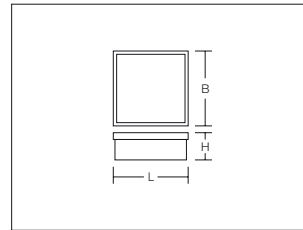
Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colours (**X**): 2 = white, 3 = black

.04 or **.07** = Monitoring system (optional)

Ceiling (surface), Wall (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Lamps Mains/Emergency	Luminous flux factor	Lamp/Wattage	Type of installation	Dimensions
671425.912.Y	•	-	3 h	Kreis	2 / 1	30 %	2 x TC-SEL 9 W	Ceiling (surface), Wall (surface)	D 280, H 120
671126.91X.Y	•	-	3 h	Quadrat	1 / 1	37 %	1 x TC-SEL 9 W	Ceiling (surface), Wall (surface)	L 226, B 226, H 110

Accessories for series: Quadrat | Wire guard

Ball impact proof in accordance with DIN 18032, Part 3 and DIN VDE 0710, Part 13
Wire guard and bracket: steel, white, powder-coated. Wire guard mounted with screws, can be opened for luminaire maintenance.

Wire guard for wall luminaires Quadrat

981167.002 L 380, B 295, H 185

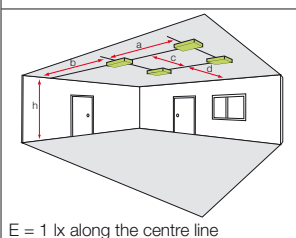


Ordering information

Placeholder **X** = Housing colour (see text above)
Reference no. e.g. 123456.004

Placeholder **Y** = Monitoring system (optional)
MultiDigit reference no. e.g. 123456.004.**04**
DALI reference no. e.g. 123456.004.**07**

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table 671425.912.Y

Luminaire flux
Emergency: 70 lm
The following values are indicated in m

h	a	b	c	d
2,5	5,6	1,9	5,6	1,9
3,0	5,6	1,7	5,6	1,7
3,5	5,4	1,2	5,4	1,2
4,0	-	-	-	-

Spacing table 671126.91X.Y

Luminaire flux
Emergency: 120 lm
The following values are indicated in m

h	a	b	c	d
2,5	6,3	2,2	6,3	2,2
3,0	6,4	2,0	6,4	2,0
3,5	6,3	1,7	6,3	1,7
4,0	6,0	0,9	6,0	0,9

Rounded® superflach

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- IP 66 rated
- Housing made of non-corrosive, powder-coated die-cast aluminium, robust design, stainless steel screws
- Easy to install:
 - tolerance compensation for drill holes that have slipped
 - large cable storage space
 - ceiling screws permanently attached to the fixture to prevent them from going astray



Wall (surface), Ceiling (surface)



Series: Rounded® superflach

Type of protection: **IP 66**

Protection class: I

Voltage: AC / DC

For escape route illumination

Base and housing made of non-corrosive die-cast aluminium (powder-coated). Diffuser: spherical cap made of hand-blown opal glass (satin finish) or opal plastic (polycarbonate); with diffuser fixing. Drill hole deviations can be compensated. With second cable entry for loop through.

LED included.

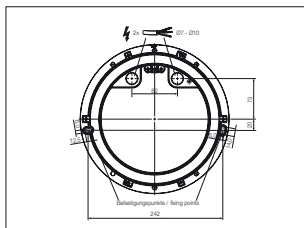
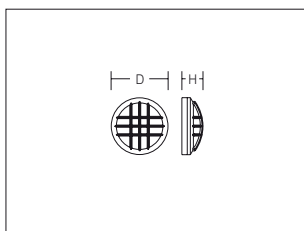
Ballast: EB

Available colours (X): 2 = white, 31 = anthracite metallic, 4 = silver metallic



LED

Wall (surface), Ceiling (surface)



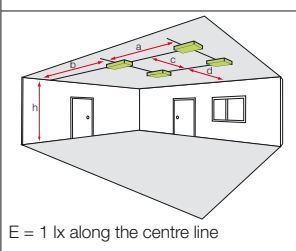
Reference number	AC-Control (Y = .89)	Type	Lamp/Wattage	Type of installation	Dimensions
672123.00X	-	PC	1 x LED 5 W 4000 K	Wall (surface), Ceiling (surface)	D 268, H 100
671968.96X	-	Glass	1 x TC-DEL 18 W	Wall (surface), Ceiling (surface)	D 268, H 100
671970.96X	-	PC	1 x TC-DEL 18 W	Wall (surface), Ceiling (surface)	D 268, H 100
671969.95X	-	Glass	1 x TC-DEL 26 W	Wall (surface), Ceiling (surface)	D 268, H 100
671971.95X	-	PC	1 x TC-DEL 26 W	Wall (surface), Ceiling (surface)	D 268, H 100

Ordering information

Placeholder **X** = Housing colour (see text above)

Reference no. e.g. 123456.004

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671968.96X | 671970.96X

Luminaire flux
Emergency: 432 lm
The following values are indicated in m

h	a	b	c	d
2,5	11,4	4,6	11,4	4,6
3,0	12,2	4,9	12,2	4,9
3,5	12,9	5,1	12,9	5,1
4,0	13,6	5,3	13,6	5,3

Spacing table 671969.95X | 671971.95X

Leuchtenlichtstrom
Emergency: 648 lm
The following values are indicated in m

h	a	b	c	d
2,5	12,9	5,2	12,9	5,2
3,0	13,9	5,6	13,9	5,6
3,5	14,7	5,9	14,7	5,9
4,0	15,5	6,1	15,5	6,1

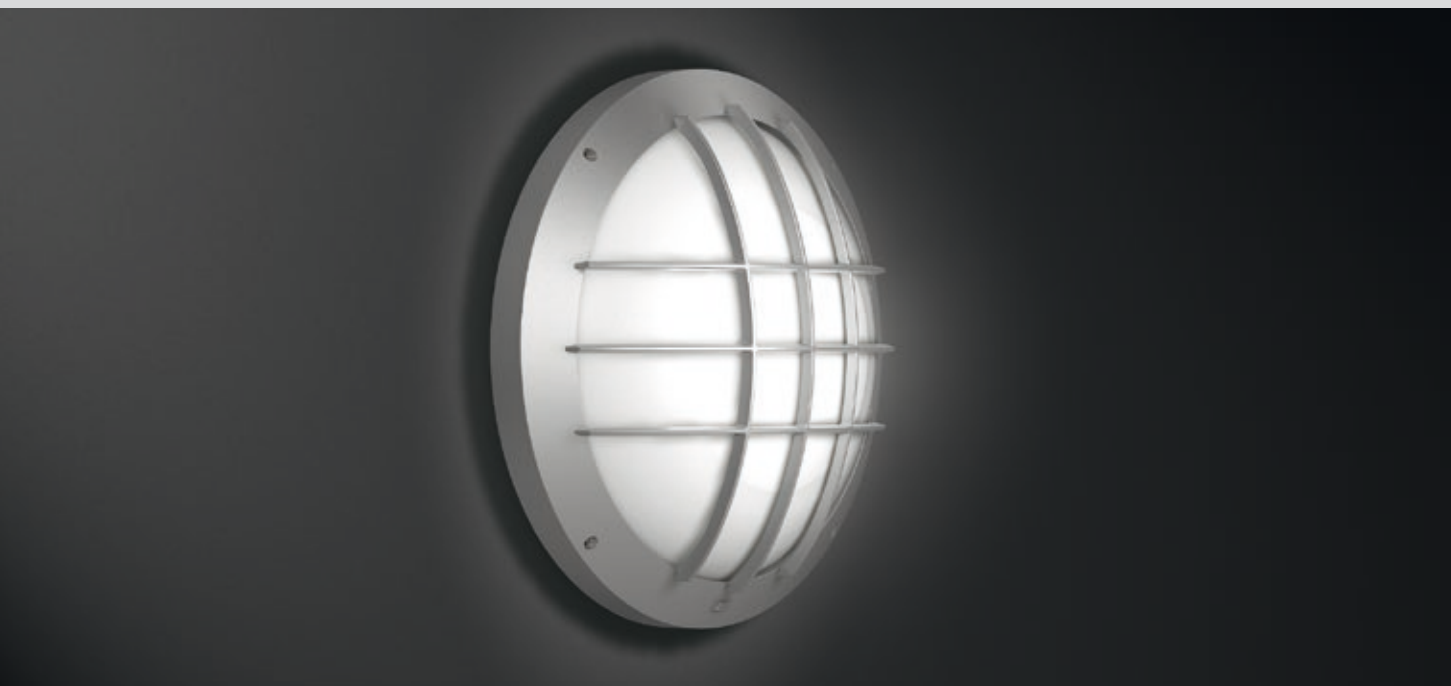
Spacing table 672123.00X

Leuchtenlichtstrom
Emergency: 648 lm
The following values are indicated in m

h	a	b	c	d
2,5	7,0	2,7	7,0	2,7
3,0	7,3	2,7	7,3	2,7
3,5	7,6	2,7	7,6	2,7
4,0	7,7	2,6	7,7	2,6

Rounded® Maxi

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Design matches modern architectural styles
- Housing made of top quality die-cast aluminium
- Low maintenance costs
- Compact design
- Easy to install
- IP 55 Type of protection - dustproof and protected against water jets



Wall (surface)



Wall (surface)



Series: Rounded® Maxi

Type of protection: **IP 55** for indoor use
Protection class: I

For escape route illumination

Base: die-cast aluminium, powder-coated. Diffuser: mouth-blown opal glass, satin finish.

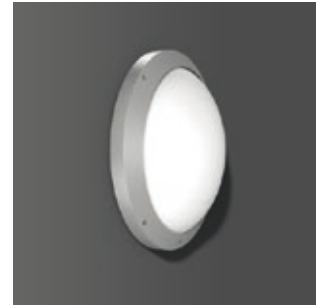
Automatic self test in all standard versions.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

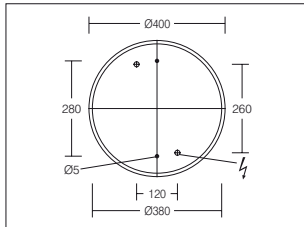
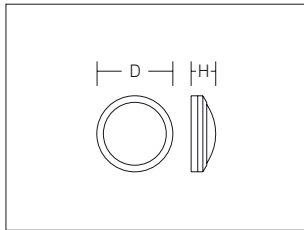
Ballast mains/emergency: EB

Available colours (X): 2 = white, 31 = anthracite metallic, 4 = silver metallic

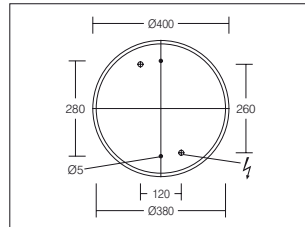
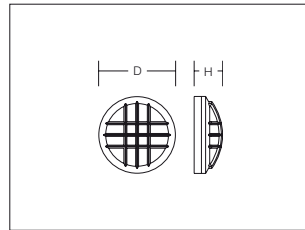
.04 or .07 = Monitoring system (optional)



Wall (surface)

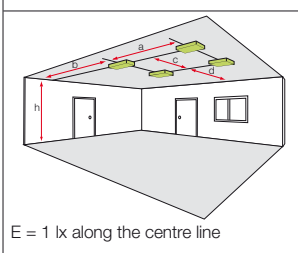


Wall (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Luminous flux factor	Lamp/Wattage	Type of installation	Dimensions
672079.92X.Y	•	-	3 h	without grill	14 %	2 x TC-DEL 13 W	Wall (surface)	D 400, H 130
671735.92X.Y	•	-	3 h	with grill	14 %	2 x TC-DEL 13 W	Wall (surface)	D 400, H 130

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671735.92X.Y

Luminaire flux
Emergency: 126 lm
The following values are indicated in m

h	a	b	c	d
2,5	6,2	2,3	6,2	2,3
3,0	6,4	2,2	6,4	2,2
3,5	6,5	2,0	6,5	2,0
4,0	6,4	1,6	6,4	1,6

Ordering information

Placeholder X = Housing colour (see text above)
Reference no. e.g. 123456.004

Placeholder Y = Monitoring system (optional)
MultiDigit reference no. e.g. 123456.004.04
DALI reference no. e.g. 123456.004.07

Alu-Rund

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Housing made of sturdy die-cast aluminium
- Low maintenance costs
- Compact design
- Easy to install
- With glass cover



Ceiling (surface), Wall (surface)



Ceiling (surface), Wall (surface)



Series: Alu-Rund

Type of protection: **IP 54** for indoor use

Protection class: I

For escape route illumination

Base: die-cast aluminium, powder-coated. Glass, frosted inside. Grill made of die-cast aluminium, powder-coated.

Automatic self test in all standard versions.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

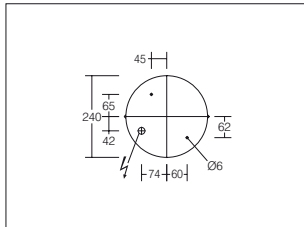
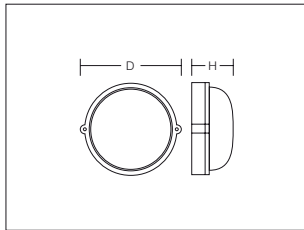
Ballast mains/emergency: EB

Available colours (X): 2 = white, 3 = black

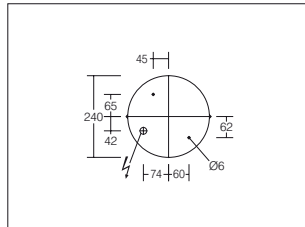
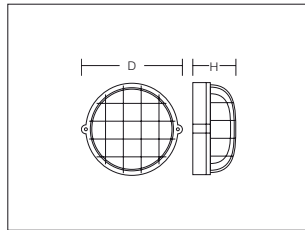
.04 or .07 = Monitoring system (optional)



Ceiling (surface), Wall (surface)

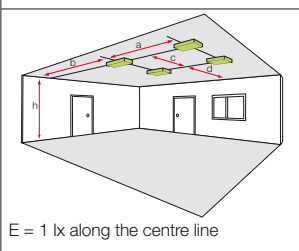


Ceiling (surface), Wall (surface)



Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Type	Luminous flux factor	Lamp/Wattage	Type of installation	Dimensions
671107.91X.Y	•	-	3 h	without grill	30 %	1 x TC-SEL 9 W	Ceiling (surface), Wall (surface)	D 240, H 130
671109.91X.Y	•	-	3 h	with grill	30 %	1 x TC-SEL 9 W	Ceiling (surface), Wall (surface)	D 240, H 130

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 671107.912.Y | 671109.912.Y

Luminaire flux
Emergency: 108 lm
The following values are indicated in m

h	a	b	c	d
2,5	7,3	2,5	7,3	2,5
3,0	7,4	2,3	7,4	2,3
3,5	7,3	2,0	7,3	2,0
4,0	6,9	1,5	6,9	1,5

Ordering information

Placeholder Y = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.04

DALI reference no. e.g. 123456.004.07

Alu-Lux oval

Alu-Rund

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems.
As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Modern design
- Housing made of sturdy die-cast aluminium
- Low maintenance costs
- Compact design
- Easy to install
- With glass cover



Wall (surface), Ceiling (surface)



Wall (surface), Ceiling (surface)



Series: Alu-Lux oval

Type of protection: **IP 54**

Protection class: I

Voltage: AC / DC

For escape route illumination

Base: die-cast aluminium, powder-coated. Glass, frosted inside.

Available colours (X):

2 = white, 3 = black

.89 = Monitoring module (optional)

Series: Alu-Rund

Type of protection: **IP 54**

Protection class: I

Voltage: AC / DC

For escape route illumination

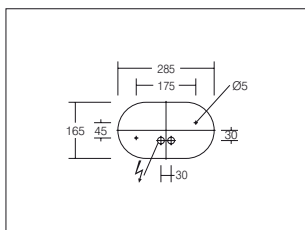
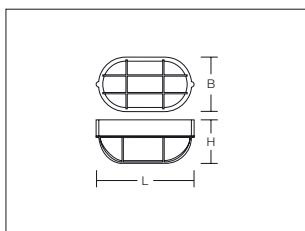
Base: die-cast aluminium, powder-coated. Glass, frosted inside.

Available colours (X):

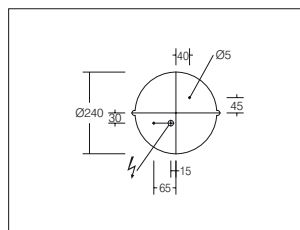
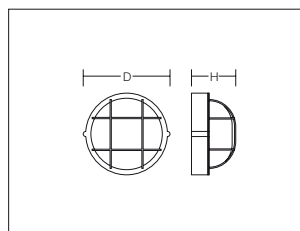
2 = white, 3 = black



Wall (surface), Ceiling (surface)



Wall (surface), Ceiling (surface)



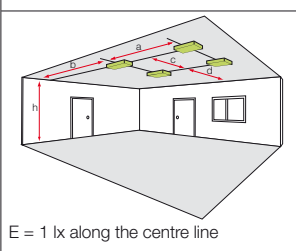
Reference number	AC-Control (Y = .89)	Type	Lamp/Wattage	Type of installation	Dimensions
671963.96X.Y	•	Alu-Lux oval	1 x TC-DEL 18 W	Wall (surface), Ceiling (surface)	L 280, B 160, H 140
671972.92X	-	Alu-Rund	1 x TC-DEL 13 W	Wall (surface), Ceiling (surface)	D 240, H 130
671973.96X	-	Alu-Rund	1 x TC-DEL 18 W	Wall (surface), Ceiling (surface)	D 240, H 130

Ordering information

Placeholder **X** = Housing colour (see text above)

Reference no. e.g. 123456.004

Placeholder **Y** = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.**89**
Planning guide: Escape route illumination in accordance with EN 1838

**Spacing table
671963.96X.Y**

Luminaire flux
Emergency: 636 lm
The following values are indicated in m

h	a	b	c	d
2,5	13,4	5,6	14,4	5,6
3,0	14,4	5,9	15,2	5,9
3,5	15,2	6,2	15,9	6,1
4,0	15,8	6,4	16,5	6,2

**Spacing table
671972.92X**

Luminaire flux
Emergency: 540 lm
The following values are indicated in m

h	a	b	c	d
2,5	13,2	5,2	13,2	5,2
3,0	14,1	5,5	14,1	5,5
3,5	14,8	5,7	14,8	5,7
4,0	15,4	5,8	14,4	5,8

**Spacing table
671973.96X**

Luminaire flux
Emergency: 720 lm
The following values are indicated in m

h	a	b	c	d
2,5	14,5	5,7	14,5	5,7
3,0	15,5	6,1	15,5	6,1
3,5	16,3	6,4	16,3	6,4
4,0	17,0	6,6	17,0	6,6

Lightstream® LED

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems. As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Made in Germany
- Marine grade quality available as an option
- Second cable entry useable for loop-through
- LED service life time 50,000 h (L80, B10)
- Mounting accessories available for pole and wall mounting



Surface installation

Mini



Surface installation

Midi



Series: Lightstream® LED Mini | Midi

Type of protection: **IP 65**

Protection class: I

Voltage: AC / DC

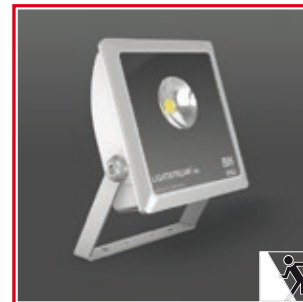
For escape route illumination

Housing made of non-corrosive die-cast aluminium, for exterior application. Bracket: aluminium, powder-coated. Ceramic coated toughened glass. COB LED with socket for easy replacement. Reflector made of pure aluminium, glossy brightened and anodised. Standard Gore™ Protective Vents diaphragm valve for reduction of condensation. Plano key terminal 3x2.5 mm², for max. cable Ø 13 mm Second cable gland for loop-through available as accessory

LED included.

Ballast: EB

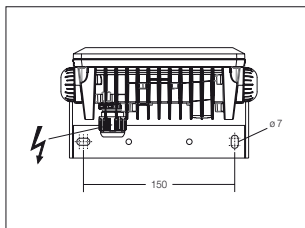
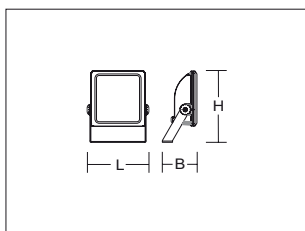
Available colours (X): 31 = anthracite metallic, 4 = silver metallic



LED

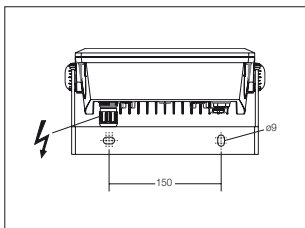
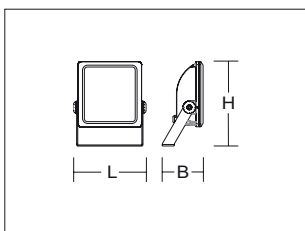
Surface installation

Mini



Surface installation

Midi



Reference number	AC-Control (Y = .89)	Type	Lamp/Wattage	Type of installation	Dimensions
672088.11X	-	Mini	1 x LED 28 W 3000 K	Surface installation	L 194, B 109, H 226
672088.11X.1	-	Mini	1 x LED 28 W 4000 K	Surface installation	L 194, B 109, H 226
672089.11X	-	Midi	1 x LED 56 W 3000 K	Surface installation	L 267, B 142, H 336
672089.11X.1	-	Midi	1 x LED 56 W 4000 K	Surface installation	L 267, B 142, H 336

Ordering information

Placeholder X = Housing colour (see text above)

Reference no. e.g. 123456.004

Lighting calculation

ELD. data for lighting calculation may be downloaded using the following link

<http://www.rzb.de/en/article/672088.1131/>
or

<http://www.rzb.de/en/article/672089.1131/>

Planox

- Easy to install
- IP 65 Type of protection - dustproof and protected against water jets from all directions
- Suitable for higher rooms through high luminous flux in emergency mode
- Lamp replacement without tools

LED version

- 1:1 replacement for fluorescent lamps
- LED service life time 50,000 h (L80, B10)
- High Type of protection IP 66 - Dustproof and protected against rough sea or strong jets of water
- Mounting of diffusers with stainless steel clips (standard)
- LED board can be individually replaced



Product picture: Planox LED

Ceiling (surface), Wall (surface)



Ceiling (surface), Wall (surface)



Series: Planox

Type of protection: **IP 65**

Protection class: I

Base: plastic (fiberglass reinforced polyester). White painted interior fastening element made of steel plate.

Refractor: plastic (PC), transparent, prismatic inside. Refractor fastening: plastic retention clips.

Stainless steel clips can be ordered separately.

Automatic self test in all standard versions.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

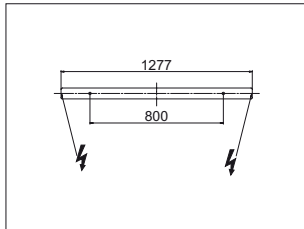
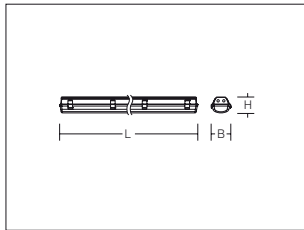
Available colour: grey

.04 or .07 = Monitoring system (optional)

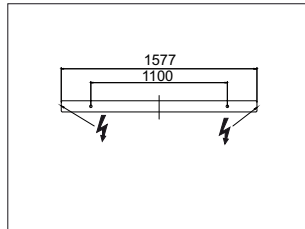
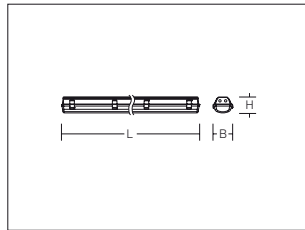


LED version will be available 3rd quarter 2015

Ceiling (surface), Wall (surface) L 1277



Ceiling (surface), Wall (surface) L 1577



Ordering information

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.**04**

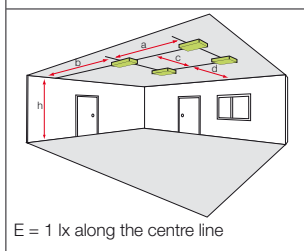
DALI reference no. e.g. 123456.004.**07**

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Lamps Mains/Emergency	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
672049.759.1.Y	•	•	3 h	-	-	Ceiling (surface), Wall (surface)	1 x T26 (T8) 36 W	L 1277, B 90, H 95
672048.759.1.Y	-	-	3 h	-	-	Ceiling (surface), Wall (surface)	2 x T26 (T8) 36 W	L 1277, B 90, H 95
672050.759.1.Y	•	-	3 h	-	-	Ceiling (surface), Wall (surface)	1 x T26 (T8) 58 W	L 1577, B 90, H 95

Stainless steel clips

981768.000	8 pieces for L 1277
981769.000	10 pieces for L 1577

Planning guide: Escape route illumination in accordance with EN 1838



Spacing table 672049.759.1.Y 672048.759.1.Y					
Luminaire flux Emergency: 201 lm The following values are indicated in m					
h	a	b	c	d	
2,5	7,2	2,8	10,3	3,8	
3,0	7,7	2,9	10,7	3,9	
3,5	8,1	2,9	11,0	3,9	
4,0	8,3	2,9	11,1	3,7	
4,5	7,3	2,1	9,5	2,4	
5,0	7,1	1,7	9,2	1,8	
5,5	-	-	-	-	
6,0	-	-	-	-	

Spacing table 672050.759.1.Y					
Luminaire flux Emergency: 255 lm The following values are indicated in m					
h	a	b	c	d	
2,5	7,9	3,2	11,3	4,3	
3,0	8,6	3,4	11,8	4,4	
3,5	9,0	3,4	12,2	4,4	
4,0	9,3	3,4	12,4	4,4	
4,5	8,2	2,6	10,4	3,3	
5,0	8,2	2,4	10,3	2,8	
5,5	8,1	2,0	10,1	2,2	
6,0	7,8	1,2	9,7	1,4	



Series: Planox

Type of protection: **IP 65 / IP 66** (LED luminaires)

Protection class: I

Voltage: AC / DC

T16 | T26 version:

Base: plastic (fiberglass reinforced polyester). White painted interior fastening element made of steel plate.

Refractor: plastic (PC), transparent, prismatic inside. Refractor fastening: plastic retention clips.

Stainless steel clips can be ordered separately.

LED version:

Base: plastic (polycarbonate). White painted interior fastening element made of steel plate. Refractor: plastic (PC), transparent, prismatic inside. Attachment of the refractor with retaining clips made of stainless steel.

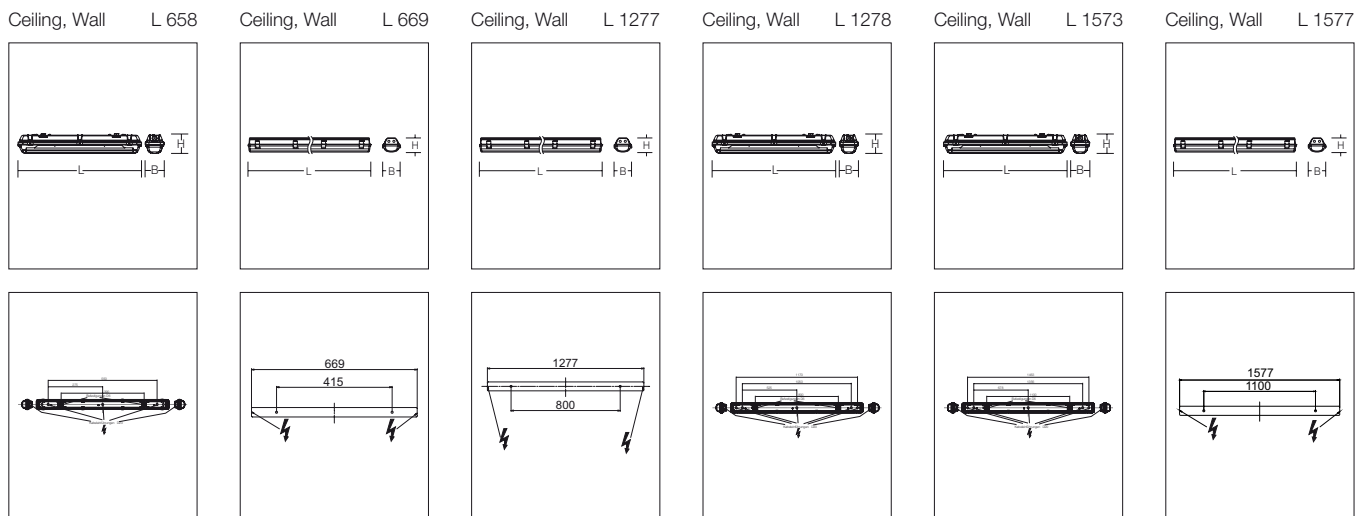
 Luminaires with limited surface temperature, suitable for premises where dust or fibres can create a fire risk.

LED included.

Ballast: EB

Available colour: grey

.89 = Monitoring module (optional)



Reference number	AC-Control (Y = .89)	Lamp/Wattage	Type of installation	Dimensions
672143.009.3.Y	•	1 x LED 26 W 5000 K	Wall (surface), Ceiling (surface)	L 658, B 96, H 100
672144.009.3.Y	•	1 x LED 25 W 5000 K	Wall (surface), Ceiling (surface)	L 1278, B 96, H 100
672145.009.3.Y	•	1 x LED 33 W 5000 K	Wall (surface), Ceiling (surface)	L 1573, B 96, H 100
672146.759.1.Y	•	1 x T16 (T5) 28/54 W	Wall (surface), Ceiling (surface)	L 1277, B 90, H 95
672147.759.1.Y	•	2 x T16 (T5) 28/54 W	Wall (surface), Ceiling (surface)	L 1277, B 116, H 99
672148.759.1.Y	•	1 x T16 (T5) 35/49/80 W	Wall (surface), Ceiling (surface)	L 1577, B 90, H 95
672149.759.1.Y	•	2 x T16 (T5) 35/49 W	Wall (surface), Ceiling (surface)	L 1577, B 116, H 99
672150.759.1.Y	•	1 x T26 (T8) 18 W	Wall (surface), Ceiling (surface)	L 669, B 90, H 95
672151.759.1.Y	•	2 x T26 (T8) 18 W	Wall (surface), Ceiling (surface)	L 669, B 116, H 99
672152.759.1.Y	•	1 x T26 (T8) 36 W	Wall (surface), Ceiling (surface)	L 1277, B 90, H 95
672153.759.1.Y	•	2 x T26 (T8) 36 W	Wall (surface), Ceiling (surface)	L 1277, B 116, H 99
672154.759.1.Y	•	1 x T26 (T8) 58 W	Wall (surface), Ceiling (surface)	L 1577, B 90, H 95
672155.759.1.Y	•	2 x T26 (T8) 58 W	Wall (surface), Ceiling (surface)	L 1577, B 116, H 99

Stainless steel clips for T16 and T26 version

981767.000	6 pieces for L 669
981768.000	8 pieces for L 1277
981769.000	10 pieces for L 1577

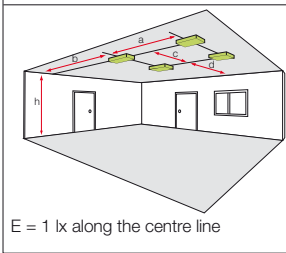
Ordering information

Placeholder Y = Monitoring module (optional)

AC-Control reference no. e.g. 123456.004.89



Abb. T16 | T26 Version

Planning guide: Escape route illumination in accordance with EN 1838

Spacing table for Planox LED 26 W

Luminaire flux Emergency: 2800 lm The following values are indicated in m					
h	a	b	c	d	
2,5	15,0	6,0	21,0	8,0	
3,0	17,0	7,0	23,0	9,0	
3,5	18,0	7,0	25,0	10,0	
4,0	19,0	8,0	26,0	10,0	
5,0	21,0	9,0	28,0	11,0	
6,0	23,0	9,0	30,0	12,0	
7,0	25,0	10,0	32,0	13,0	
8,0	26,0	10,0	34,0	13,0	

Spacing table for Planox LED 25 W

Luminaire flux Emergency: 3050 lm The following values are indicated in m					
h	a	b	c	d	
2,5	15,0	6,0	22,0	9,0	
3,0	17,0	7,0	24,0	9,0	
3,5	18,0	7,0	25,0	10,0	
4,0	19,0	8,0	27,0	11,0	
5,0	22,0	9,0	29,0	12,0	
6,0	24,0	9,0	32,0	12,0	
7,0	25,0	10,0	33,0	13,0	
8,0	27,0	11,0	35,0	14,0	

Spacing table for Planox LED 33 W

Luminaire flux Emergency: 4050 lm The following values are indicated in m					
h	a	b	c	d	
2,5	16,0	7,0	24,0	9,0	
3,0	18,0	7,0	26,0	10,0	
3,5	19,0	8,0	27,0	11,0	
4,0	21,0	8,0	29,0	12,0	
5,0	23,0	9,0	32,0	13,0	
6,0	25,0	10,0	34,0	13,0	
7,0	27,0	11,0	36,0	14,0	
8,0	29,0	12,0	38,0	15,0	

Spacing table for Planox 18 W

Luminaire flux Emergency: 1250 lm The following values are indicated in m					
h	a	b	c	d	
2,5	10,8	4,5	18,1	7,1	
3,0	11,9	5,0	19,3	7,5	
3,5	12,8	5,3	20,2	7,8	
4,0	13,8	5,7	21,0	8,1	
5,0	15,2	6,1	22,3	8,5	
6,0	16,5	6,4	23,3	8,7	
7,0	17,3	6,5	24,0	8,7	
8,0	18,0	6,5	24,6	8,7	

Spacing table for Planox 28 W

Luminaire flux Emergency: 2650 lm The following values are indicated in m					
h	a	b	c	d	
2,5	13,5	5,7	23,8	9,3	
3,0	14,9	6,3	25,3	10,0	
3,5	16,2	6,8	26,7	10,7	
4,0	17,4	7,3	27,9	11,2	
5,0	18,9	7,9	31,0	12,0	
6,0	20,7	8,5	32,7	12,5	
7,0	22,2	9,0	33,9	13,1	
8,0	23,5	9,5	34,9	13,4	

Spacing table for Planox 35 W / 36 W

Luminaire flux Emergency: 3300 / 3050 lm The following values are indicated in m					
h	a	b	c	d	
2,5	13,7	5,8	25,2	9,9	
3,0	15,1	6,4	26,8	10,4	
3,5	16,3	6,9	28,1	11,0	
4,0	17,6	7,4	29,2	11,5	
5,0	19,7	8,3	31,3	12,2	
6,0	21,7	8,9	33,1	12,8	
7,0	23,4	9,5	34,4	13,3	
8,0	24,6	9,8	35,7	13,5	

Spacing table for Planox 58 W

Luminaire flux Emergency: 3650 lm The following values are indicated in m					
h	a	b	c	d	
2,5	14,7	6,4	28,1	11,1	
3,0	16,6	7,0	30,0	11,8	
3,5	18,2	7,7	31,5	12,5	
4,0	19,4	8,3	33,0	13,0	
5,0	22,0	9,0	35,0	13,0	
6,0	24,0	10,0	37,0	14,0	
7,0	26,0	10,0	39,0	15,0	
8,0	28,0	11,0	41,0	15,0	

Spacing table for Planox 49 W / 54 W

Luminaire flux Emergency: 4450 / 4500 lm The following values are indicated in m					
h	a	b	c	d	
2,5	15,2	6,5	28,3	11,2	
3,0	16,9	7,1	30,1	11,9	
3,5	18,4	7,8	31,8	12,6	
4,0	19,7	8,3	33,2	13,2	
5,0	21,5	8,9	37,1	14,5	
6,0	23,6	9,6	39,5	15,2	
7,0	25,6	10,4	41,3	15,6	
8,0	27,3	11,0	42,9	16,3	

Spacing table for Planox 80 W

Luminaire flux Emergency: 6300 lm The following values are indicated in m					
h	a	b	c	d	
2,5	16,5	7,0	31,9	12,6	
3,0	18,2	7,8	34,0	13,5	
3,5	20,0	8,8	35,8	14,2	
4,0	21,5	9,1	37,5	14,9	
5,0	23,6	9,9	41,5	16,6	
6,0	25,9	10,9	44,4	17,5	
7,0	28,0	11,7	46,8	18,2	
8,0	30,0	12,4	48,7	18,7	

Spacing table for Planox 2 x 18 W

Luminaire flux Emergency: 2500 lm The following values are indicated in m					
h	a	b	c	d	
2,5	13,0	5,0	20,0	8,0	
3,0	14,0	6,0	22,0	8,0	
3,5	16,0	6,0	23,0	9,0	
4,0	17,0	7,0	24,0	9,0	
5,0	19,0	8,0	26,0	10,0	
6,0	21,0	8,0	28,0	10,0	
7,0	22,0	9,0	29,0	11,0	
8,0	24,0	9,0	30,0	11,0	

Spacing table for Planox 2 x 28 W / 36 W

Luminaire flux Emergency: 5300 / 6100 lm The following values are indicated in m					
h	a	b	c	d	
2,5	16,0	7,0	28,0	11,0	
3,0	18,0	8,0	30,0	12,0	
3,5	20,0	8,0	31,0	12,0	
4,0	22,0	9,0	33,0	13,0	
5,0	24,0	10,0	36,0	14,0	
6,0	27,0	11,0	28,0	15,0	
7,0	29,0	12,0	41,0	16,0	
8,0	31,0	13,0	42,0	16,0	

Spacing table for Planox 2 x 54 W / 58 W

Luminaire flux Emergency: 9000 / 7300 lm The following values are indicated in m					
h	a	b	c	d	
2,5	19,0	8,0	34,0	13,0	
3,0	21,0	9,0	37,0	14,0	
3,5	23,0	10,0	39,0	15,0	
4,0	25,0	10,0	41,0	16,0	
5,0	29,0	12,0	45,0	18,0	
6,0	32,0	13,0	48,0	19,0	
7,0	34,0	14,0	51,0	20,0	
8,0	37,0	15,0	53,0	21,0	

Weatherproof battens

- IP 65 Type of protection - dustproof and protected against water jets from all directions
- Suitable for higher rooms through high luminaire flux in emergency mode
- Industrial design
- Lamp replacement without tools



Ceiling (surface), Wall (surface)



Series: Weatherproof battens

Type of protection: **IP 65** for indoor use
Protection class: I

For escape route illumination

Base: plastic, grey. Lamp: open beam

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

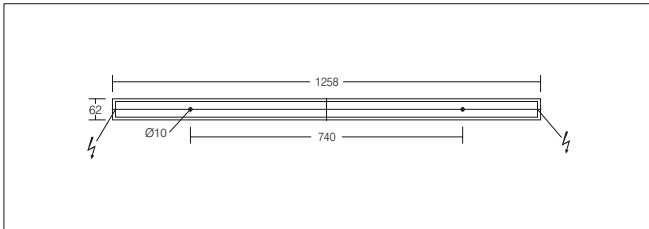
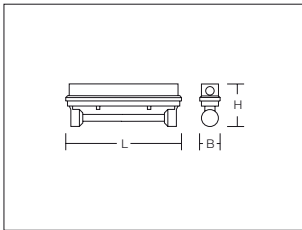
Ballast mains/emergency: EB

Available colour: grey

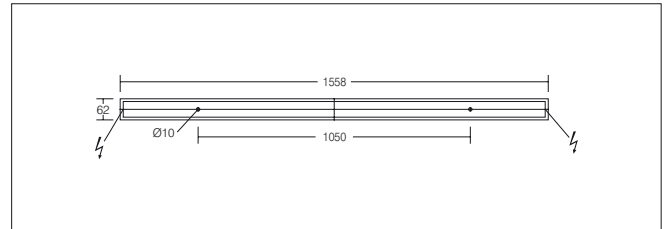
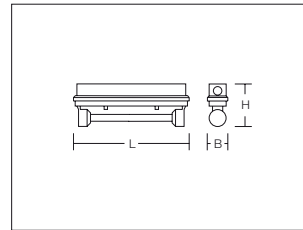
.04 or **.07** = Monitoring system (optional)



Ceiling (surface), Wall (surface) 36 W



Ceiling (surface), Wall (surface) 58 W



Reference number	MultiDigit (Y = .04)	DALI (.07)	Rated operating time	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671093.759.Y	•	-	3 h	13 %	Ceiling (surface), Wall (surface)	1 x T26 (T8) 36 W	L 1258, B 62, H 122
671446.759.Y	•	-	3 h	8 %	Ceiling (surface), Wall (surface)	1 x T26 (T8) 58 W	L 1558, B 62, H 122

Replacement diffuser, plastic

transparent

981441.000	L 1170, D 38	for T26 36 W
981442.000	L 1470, D 38	for T26 58 W



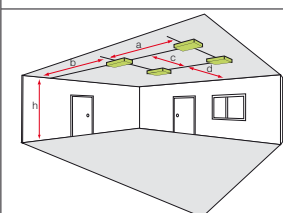
Ordering information

Placeholder **Y** = Monitoring system (optional)

MultiDigit reference no. e.g. 123456.004.**04**

DALI reference no. e.g. 123456.004.**07**

Planning guide: Escape route illumination in accordance with EN 1838



E = 1 lx along the centre line

Spacing table 671093.759.Y					
Luminaire flux Emergency: 418 lm The following values are indicated in m					
h	a	b	c	d	
2,5	8,1	3,2	11,5	4,4	
3,0	8,6	3,3	12,1	4,5	
3,5	9,0	3,4	12,5	4,6	
4,0	9,3	3,4	12,8	4,6	
5,0	9,8	3,2	13,3	4,4	
6,0	9,8	2,7	13,2	3,7	
7,0	9,3	1,5	12,6	2,1	

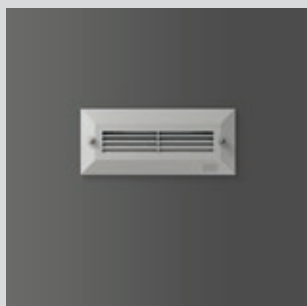
Spacing table 671446.759.Y					
Luminaire flux Emergency: 399 lm The following values are indicated in m					
h	a	b	c	d	
2,5	8,1	3,2	11,7	4,4	
3,0	8,7	3,4	12,2	4,6	
3,5	9,2	3,4	12,7	4,6	
4,0	9,5	3,4	12,9	4,6	
5,0	9,6	3,1	13,0	4,3	
6,0	9,6	2,5	12,9	3,5	
7,0	8,9	1,1	12,2	1,4	

Recessed LED step luminaire for installation in concrete steps

- Design continuity to the general lighting product range.
We offer an extensive range of emergency lighting and general lighting systems. As such, we can provide our customers with integrated solutions for all areas of application, depending on their construction projects.
- Modern design
- Housing made of top quality die-cast aluminium
- Low maintenance costs
- Compact design
- Easy to install



Wall (recessed) (solid wall)



Series: Recessed LED step luminaire for installation in concrete steps

Type of protection: **IP 66**

Protection class: I with EB, III without EB

Voltage: AC / DC

For escape route illumination

Housing: galvanised sheet steel. Cover: polycarbonate, transparent. Lamellar cover: die-cast zinc, powder-coated. The luminaire housing is used as the moulded housing. During installation, the LED module must be removed from the luminaire housing. Two cable inlets with sleeves for M32 armoured cable (outer sleeve Ø: 24.5 mm, inner Ø: 21 mm).

LED module with electronic ballast (connected load: 10 W). The max. connected load of the EB must not be exceeded!

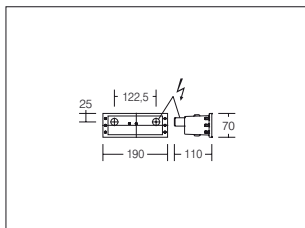
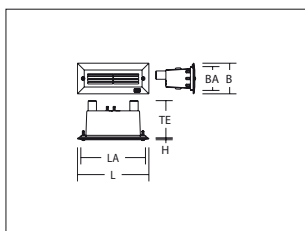
Prepared for through-wiring.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



LED

Wall (recessed) (solid wall)



Reference number	AC-Control (Y = .89)	Lamp/Wattage	Type of installation	Dimensions
671977.00X	-	1 x LED 1,92 W	Wall (recessed) (solid wall)	L 210, B 90, H 5, LA 190 x BA 70, HE 110

Ordering information

Placeholder X = Housing colour (see text above)

Reference no. e.g. 123456.004

Hand-held LED safety spotlight

- LED technology
- Charging level display
- Shockproof plastic housing
- Universal mounting adaptor included

Safety stand spotlight

- IP 54 Type of protection - dustproof and protected against water spray
- Functional design
- Robust materials
- For high rooms



Hand-held LED safety spotlight



Safety stand spotlight



**Series: Hand-held
LED safety spotlight**

Type of protection: **IP 54**
Protection class: II in charging mode;
Protection class: III in battery mode

Luminaire housing: plastic, grey.
Ergonomically designed one-hand handle, black. Front frame: plastic, red. Cover: polycarbonate, transparent, with four-coloured light scatter disk attachment. Universal mounting adaptor: metal, painted. Integrated charger: 230 V at 50/60 Hz. Automatic changeover from quick to trickle charging. Preselection between static and flashing light mode possible. Operation of the LED lamp at 100% or 10% performance. Maintenance-free NiCd rechargeable battery 6 V / 4.0 Ah, charge status indicator.

Charge in dry rooms only!

Operating time in static mode:
LED lamp 100% > 4 h, LED lamp
10% > 13.5h

Available colour: 9 = grey


LED
Series: Safety stand spotlight

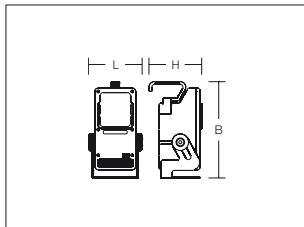
Type of protection: **IP 54**
Protection class: I

Luminaire housing: metal, grey, powder-coated. Luminaire tops: swivelling. Safety glass: transparent. Lamps included.

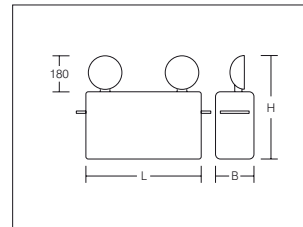
Operating mode: Non-maintained (BS), maintenance-free Pb storage batteries.



Hand-held LED safety spotlight



Safety stand spotlight



Hand-held LED safety spotlight

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
671824.009	-	-	4 h	-	-	-	1 x LED 3,35 W	L 160, B 155, H 285

Safety stand spotlight

Reference number	MultiDigit (Y = .04)	DALI (Y = .07)	Rated operating time	Viewing distance	Luminous flux factor	Type of installation	Lamp/Wattage	Dimensions
65940	-	-	1 h	-	100 %	-	2 x QT-H3 55 W	L 500, B 165, H 500
65942	-	-	3 h	-	100 %	-	2 x QT-H3 55 W	L 500, B 165, H 500
65936	-	-	1 h	-	100 %	-	2 x QT9 (axial) 20 W	L 318, B 160, H 410
65938	-	-	3 h	-	100 %	-	2 x QT9 (axial) 20 W	L 500, B 165, H 500



European and international regulations

EN 1838	Emergency lighting	214
EN 50172	Emergency escape lighting systems	216
EN 50171	Central power supply systems	217
EN 50272-2	Stationary batteries	217
EN 60598-2-22	Particular requirements Luminaires for emergency lighting ISO	218

German regulations

VDE 0108 Teil 100	Emergency lighting	218
DIN 4844 -1	Safety signs Viewing distances	234
DIN 4844 -2	Safety signs Sign design	234
VDE 0100 Teil 560	Systems with nominal voltages of up to 1,000 V	235
(M)LAR	(Model) Wiring systems directive	236
Special building directives		236
ASR	Workplace directives	237
BGV	Safe working practices regulations	234
Planning		240

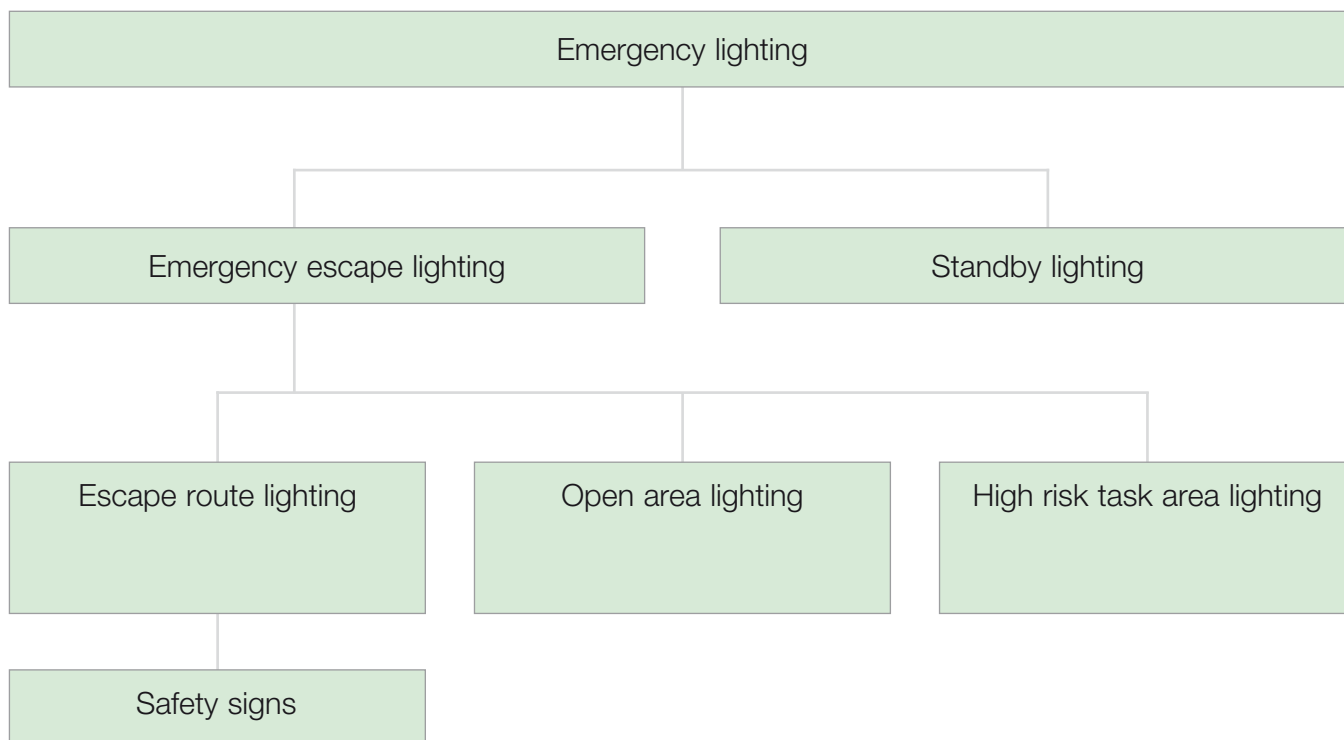
Exclusion of liability

RZB shall not be liable for any loss or damage attributable to any application of, or failure to apply, any information supplied herein. Excerpts from the aforementioned standards and regulations are provided for information purposes only. Other local building regulations may apply.

Inasmuch as the applicable requirements, standards and regulations are subject to change, the relevant original versions of such standards and regulations must be applied in each case.

EN 1838 – Emergency lighting

Definition of “emergency lighting”



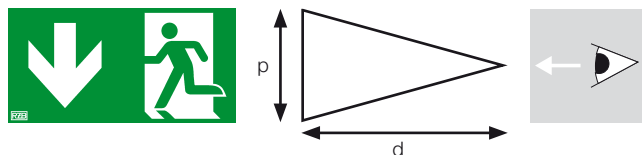
Viewing distances

Safety signs for escape routes must comply with the following requirements:

- Viewing distance (d): formula: $d = s \times p$

p = sign height

s = distance factor 100 (externally illuminated signs) and distance factor 200 (internally lit signs)



Example:

Calculation of an internally lit sign's height for a required viewing distance of 30 m ($d = 30$)

Applicable equation:

$$d = s \times p \quad \longrightarrow \quad p = d / s$$

$$p = 30 / 200 = 0.15 \text{ m (sign height)}$$

Legend

Safety signs for escape routes must comply with the following requirements:

Safety colour

Contrast colour



Luminance:

The minimum luminance of any green area (safety colour) on the sign must be greater than 2 cd/square meters.

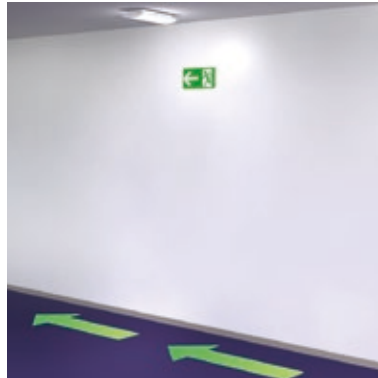
The ratio of maximum to minimum luminance shall be less than 10:1 for each colour.

The ratio of white colour to green colour luminance must be between 5:1 and 15:1.

Specific locations where a luminaire must be provided



at each mandatory exit door



near* each mandatory safety sign



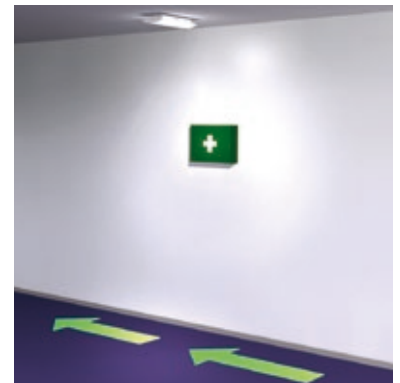
outside and near* each final exit



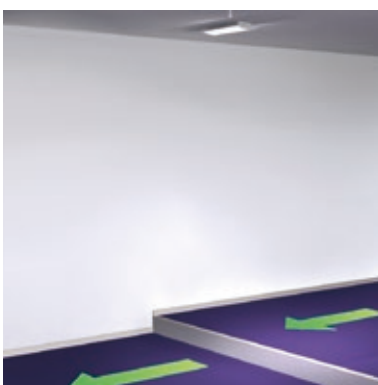
near* stairs so that each staircase step receives direct light



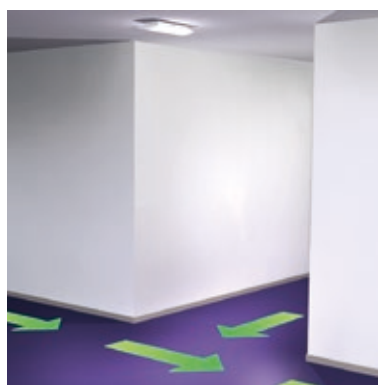
at each change of direction



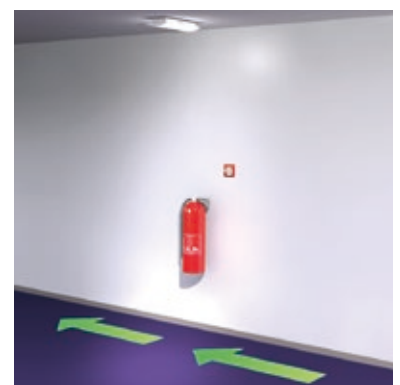
near* each first aid post



near* any other change of floor level



at each intersection of corridors



near* each piece of fire fighting equipment and call point

near* means a distance of not more than 2 m so that 5lx vertical illuminance can be achieved at the first-aid post, at fire alarm and fire fighting equipment and at the displays of the fire alarm system.

EN 50172 – Emergency escape lighting systems

General

The purpose of emergency escape lighting is to ensure that lighting is provided promptly, automatically and for a suitable time in a specific area during a power failure.

The installation is to be realized in such a way that emergency escape lighting accomplishes the following (among other things):

- Illuminates escape route signs;
- Illuminates escape routes leading to emergency exits;
- Ensures that fire alarm call points and fire fighting equipment provided along escape routes can be readily located and used (if required);
- Etc.

Emergency lighting is to be activated not only on complete failure of the supply to the general lighting but also in the event of a final-circuit failure.

Emergency lighting is not designed to enable normal work to be continued on the premises in the event of failure of normal or standby lighting.

For details concerning illuminance levels and measurement, see EN 1838.

Visibility

In locations where building occupants do not have a clear and unobstructed view of an exit sign and/or may have doubts as to the location of an emergency exit, a directional sign (or series of signs) is to be provided in such a way that a person moving toward such sign will be directed to an emergency exit.

An exit or directional sign is to be clearly visible at all points along the escape route.

All signs marking exits and/or escape routes are to be uniform in colour and format, and their luminance is to comply with EN 1838.

Maintained exit signs must be installed for applications where occupants may be unfamiliar with the building.

Anti-panic lighting (Open area lighting)

The purpose of open area (anti-panic) lighting is to reduce the likelihood of panic and to enable safe movement of occupants toward escape routes.

Such lighting is used in areas with undefined escape routes. Such areas may include halls or premises exceeding 60 square meters in size, or smaller areas if there is an additional hazard such as use by a large number of people.

Log book

A log book is to be kept on the premises in the care of a responsible person appointed by the occupant/owner and is to be readily available for examination by any duly authorized person.

The log book is to be used to record the following information:

- Date of commissioning of the system including any certificate relating to changes;
- Date of each periodic inspection and test;
- Dates and brief details of any maintenance, inspection and test;
- Dates and brief details of any defects and of remedial action taken;
- Date and brief details of any change in the emergency lighting installation;
- If any automatic testing device is employed, the main characteristics and mode of operation of that device are to be described.

Maintenance and testing

Daily:

Indicators of the central power supply are to be visually inspected for correct operation.

Monthly:

If automatic testing devices are used, the results of the function tests are to be recorded.

Monthly tests are to be carried out as follows:

- Switch on in the emergency mode each luminaire and each internally illuminated exit sign via its battery by simulation of a failure of the supply to the general lighting for a period sufficient to ensure that each lamp is illuminated.
- During this period, all luminaires and signs are to be checked to ensure that they are present, clean and functioning correctly.
- At the end of this test period, the power supply to the general lighting is to be restored and any indicator lamp or device is to be checked to ensure that it shows that the normal supply has been restored.

For central battery systems, the correct operation of system monitors is to be checked additionally.

Annually:

If automatic testing devices are used, the results of the full rated duration test are to be recorded.

A monthly inspection is to be carried out for all other systems, whereby the following additional tests are to be carried out:

- Each luminaire and internally illuminated sign is to be tested for its full rated duration in accordance with the manufacturer's recommendations;
- The power supply for general lighting is to be restored and any indicator lamp or device is to be checked to ensure that it is showing that normal supply has been restored. The charging arrangements should be checked for proper functioning;
- The date of the test and its results are to be recorded in the system log book.

EN 50171 – Central power supply systems

Battery chargers must be capable of automatically charging the associated battery that has been discharged so that it can perform at least 80% of the specified duration at the rated load within 12 h.

Central Power Supply (CPS)

Central power supply without any restriction in respect to rated output power.

Low Power Supply (LPS)

Central power supply with a limited rated output power:

- 3 h = 500 W
- 1 h = 1,500 W

EN 50272 – Stationary batteries

Ventilation

Batteries are to be installed in well ventilated rooms and cabinets. The minimum cross section of the ventilation opening is to correspond to battery capacity.

Such openings need to be adequately positioned to allow for optimum air exchange (e.g. in opposite walls).

Batteries are to be located at least 2 m from wall openings.

Exhaust air must be discharged outside the building.

Location

Batteries are to be installed in protected rooms, if required, electrical or closed electrical operating rooms are to be provided.

The batteries may be kept:

- In special rooms on the premises
- In specific separate areas on the premises
- In enclosures or cabinets on or off the premises
- In battery compartments that are integrated into devices (twin housing)

Specific requirements for battery rooms

The floor must be rated for the battery weight, and allowance is to be made for the possibility that additional batteries (and hence weight) will be installed down the line.

If only authorized personnel are allowed to access to battery rooms, the doors are to be equipped with anti-panic locks.

The floors used for sealed batteries are to be electrolyte resistant. If this is not the case, the batteries are to be placed in acid drip pans.

The floor area for a person standing within arm's reach of the battery is to be electrostatic dissipative in order to prevent electrostatic charge generation.

Ventilation must comply with EN 50272 and the exhaust air must be discharged outside the building.

Information and warning signs

Appropriate information and warning signs (pursuant to EN 50272 section 12.1) need to be posted in battery rooms.

Documentation

Documentation containing the following information must be available near the battery:

- Name of manufacturer or supplier
- Name of installer
- Date of commissioning
- Manufacturer's or supplier's type designation
- Nominated voltage of battery
- Nominal capacity with indication of discharge time
- Safety recommendations
- Recommendations for operating and maintenance
- Information regarding disposal and recycling

Such documentation must be at all maintenance and operating personnel's disposal.

Inspections

Batteries and their operation conditions have to be checked at regular intervals for correct operation and safety.

During such inspections and controls it must be verified whether the following items conform with the manufacturer's specifications:

- Voltage set for the battery charger
- Voltage of battery cells/blocks
- Electrolyte density and level (if applicable)
- Cleanliness
- Tightness
- Battery connector position (if required)
- Ventilation
- Plugs and valves
- Battery temperature

EN 60598-2-22 – Particular requirements / luminaires for emergency lighting

Fluorescent lamps in emergency luminaires used to provide emergency lighting are to come on without the aid of glow starters. Such starters are not to be in circuit during emergency mode operation. Emergency lighting shall not be provided by means of fluorescent lamps with built-in glow starters.

Self-contained luminaires must be recharged within 24 hours following discharge.

The ambient temperature of the battery cells should be at least 5°C; however, an occasional temperature drop to 0°C is tolerable (to be respected for outdoor use).

VDE 0108, Part 100 – Emergency lighting

Daily test

Indicators for the central power supply are to be visually inspected for correct operation.

Tests are to be carried out by simulating a general lighting power supply failure.

Weekly test

Function of emergency lighting is to be checked at least once a week. Connection of the power source for safety purposes is required for battery-powered systems.

Yearly test

If automatic testing devices are used, the results of the function tests are to be recorded.

Yearly test of emergency lighting to be carried out for the complete rated duration.

Monthly test

If automatic testing devices are used, the results of the function tests are to be recorded.

Test at 3 year interval

Every three years (at the latest) emergency lighting illuminance is to be measured as provided in DIN EN 1838.

	Illuminance	Switching time	Rated duration of power source for safety purposes	Illumination of escape route luminaires, maintained	Central battery system	Group battery system	Self-contained luminaires (as of 08/2010)	Power generation unit (without interruption)	Power generation unit (switching time < 0.5 s)	Power generation unit (switching time 15 s)	Particularly safe network
Places of assembly (temporary buildings excluded), theatres, cinemas	1 lx	1 s	3 h	•	•	•	•	•	•	–	–
Temporary buildings, used for exhibitions	1 lx	1 s	3 h	•	•	•	•	•	•	–	–
Exhibition halls	1 lx	1 s	3 h	•	•	•	•	•	•	–	–
Shops	1 lx	1 s	3 h	•	•	•	•	•	•	–	–
Restaurants	1 lx	1 s	3h	•	•	•	•	•	•	–	–
Accommodation facilities, nursing homes	1 lx	1 s - 15 s depending on risk level	8 h (3 h are sufficient, if buttons in accordance with VDE 0108, part 100, section 4.4.8, are available)	•	•	•	•	•	•	•	–
Schools	1 lx	1 s - 15 s depending on risk level	3 h	•	•	•	•	•	•	•	–
Car-parks, underground parking garages	1 lx	15 s	1 h	•	•	•	•	•	•	•	–
Airports, railway stations	1 lx	1 s	3 h (depending on the evacuation concept, for above-ground railway station areas 1 h may be admissible)	•	•	•	•	•	•	–	–
Multi-storey buildings	1 lx	1 s - 15 s depending on risk level	3 h (8 h for multi-storey residential buildings, if buttons in accordance with VDE 0108, part 100, section 4.4.8, are not available)	•	•	•	•	•	•	•	–
Escape routes at workplaces	1 lx	15 s	1 h	–*	•	•	•	•	•	•	•
High-risk workplaces	15 lx	0.5 s	Duration of risk for building occupants	•	•	•	•	•	•	–	•
Stages	3 lx	1 s	3 h	•	•	•	•	•	•	–	–

* in accordance with BGV A8

EN 60598-2-22 – Particular requirements / luminaires for emergency lighting

Places of assembly, theatres and cinemas
(excluding temporary buildings)

Model directive for places of assembly (as of 06/2005)

- Places of assembly with assembly rooms, used for the gathering of 200 or more persons
- Outdoor places of assembly (including performance areas) with capacity for 1,000 or more persons consisting of buildings partially or completely
- Sports stadiums with capacity exceeding 5,000 persons

Please note:

The number of persons is to be calculated as follows:

- For table seating: 1 person per square meter of room floorspace
- For seats arranged in rows and for standing room: 2 persons per square meter of room floorspace
- For standing room on bleachers: 2 persons per running meter
- For exhibition rooms: 1 person per square meter of room floorspace

Exceptions:

This regulations does not apply to the following:

- Rooms used for religious gatherings; school classrooms and exhibition rooms in museums.

Definition:

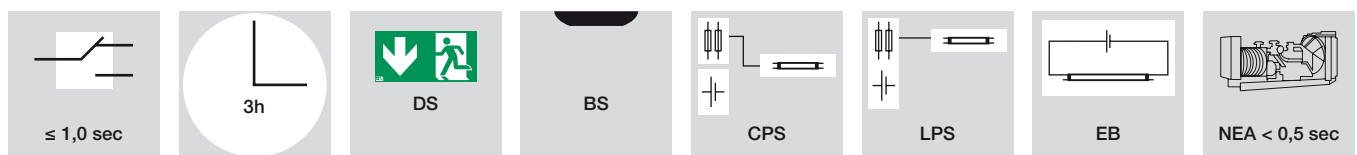
In places of assembly an emergency lighting system must be installed that allows for safe termination of operations on stages and in performance areas, and safe escape of members of the public and staff, even in case of total failure of general lighting.

Emergency escape lighting must be provided:

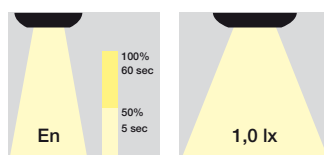
- For staircases, landings, exits and essential corridors
- In assembly rooms as well as in any rooms/areas that are used by visitors such as foyers, cloakrooms, and lavatories
- For stages and performance areas
- In staff rooms larger than 20 square meters of floorspace, office rooms excluded
- In rooms that accommodate electrical equipment or technical building systems, as well as in spotlight and projector rooms
- For outdoor places of assembly and sports stadiums that are used when it is dark
- For safety signs of exits and escape routes
- For illumination of steps

In assembly rooms that are darkened for operation, on stages and performance areas, non-maintained emergency lighting must be installed. Exits, corridors and stairs in these assembly rooms must be recognizable while these rooms are darkened, irrespective of the remaining emergency lighting. An illumination of stairs is not required for the corridors of assembly rooms containing mobile chairs, as well as for sports stadiums with emergency lighting.

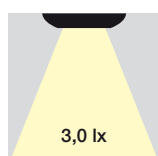
Places of assembly, VDE 0108, Part 100



EN 1838



Stages, VDE 0108, Part 100



Important note:

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend

VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Temporary buildings

Model directive concerning the construction, operation and maintenance of temporary buildings (M-FIBauR), 05/2007**Scope:**

This directive applies to temporary buildings pursuant to article 76, section 1 of the Model Building Code (MBO).

The provisions of this directive regarding rooms in tents apply also to rooms of similar size that are used for similar purposes in other temporary buildings with more than 200 square meters of floorspace.

Please note:

The number of persons is to be calculated as follows:

- For table seating:
1 person per square meter of room floorspace
- For seats arranged in rows and for standing room:
2 persons per square meter of room floorspace

Exceptions:

This directive does not apply to tents used for camping or medical services or for tents with less than 75 square meters of floorspace.

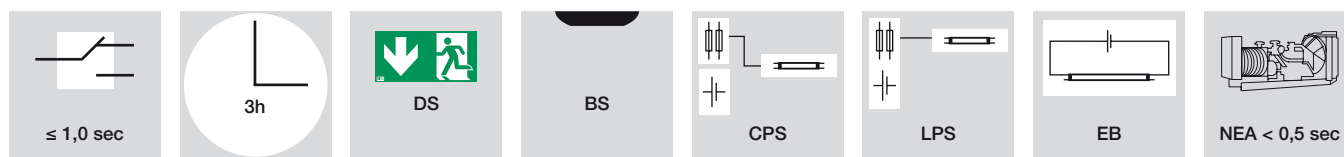
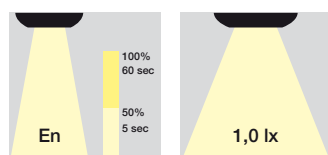
Definition:**Lighting**

Tents and similar rooms that are used when it is dark and have more than 200 square meters of floorspace are to be equipped with emergency lighting that conforms with the relevant technical regulations.

The emergency lighting for such rooms is to be switched on whenever the main lighting is switched on.

The lighting system is to be powered by the building grid; battery powered luminaires are acceptable only if securely installed.

In the event of a general power failure, battery powered luminaires are to be on hand.

Temporary buildings, VDE 0108, Part 100**EN 1838****Important note:**

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Pubs and restaurants

Model directive for places of assembly (MVStättV), 06/2005 version

MVStättV applies to the following: Restaurants whose dining area floorspace exceeds 200 square meters; and pubs and discotheques that have standing room and more than 100 square meters of floorspace.

Please note:

The number of persons is to be calculated as follows:

- For table seating:
1 person per square meter of room floorspace
- For seats arranged in rows and for standing room:
2 persons per square meter of room floorspaces

Exceptions:

None

Definition:

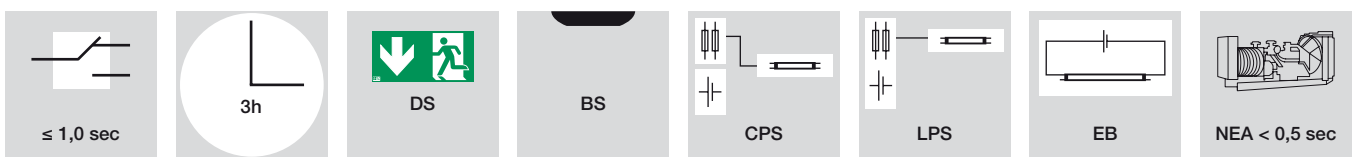
In places of assembly an emergency lighting system must be installed that allows for safe termination of operations on stages and in performance areas, and safe escape of members of the public and staff, even in case of total failure of general lighting.

Emergency lighting must be provided:

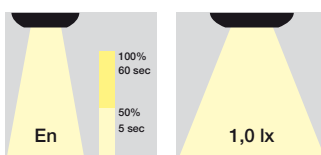
- For staircases, landings, exits and essential corridors
- In assembly rooms as well as in any rooms/areas that are used by visitors such as foyers, cloakrooms, and lavatories
- For stages and performance areas
- In staff rooms larger than 20 square meters of floorspace, office rooms excluded
- In rooms that accommodate electrical equipment or technical building systems, as well as in spotlight and projector rooms
- For outdoor places of assembly and sports stadiums that are used when it is dark
- For safety signs of exits and escape routes
- For illumination of steps

In assembly rooms that are darkened for operation, on stages and performance areas, non-maintained emergency lighting must be installed. Exits, corridors and stairs in these assembly rooms must be recognizable while these rooms are darkened, irrespective of the remaining emergency lighting. An illumination of stairs is not required for the corridors of assembly rooms containing mobile chairs, as well as for sports stadiums with emergency lighting.

Restaurants, VDE 0108, Part 100



EN 1838



Important note:

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Multi-storey buildings

Model directive concerning the construction, operation and maintenance of multi-storey buildings (M-HHR), 04/2008

Special requirements and variances pursuant to article 51, section 1 of the Model Building Code (MBO) for the construction and operation of multi-storey buildings (paragraph 2, section 4, no. 1 of MBO) are provided herein.

Multi-storey buildings are buildings whose height exceeds 22 meters.

Exceptions:

Emergency lighting time can be reduced to 3 hours if the lighting is timer-controlled and switched via master lighting switches.

Definition:

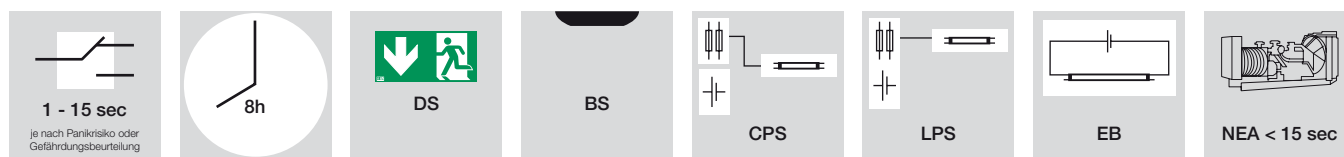
Emergency lighting

The emergency lighting system in multi-storey buildings must automatically turn on in the event of a general lighting failure.

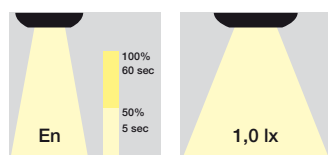
Emergency lighting must be provided:

- On escape routes
- In front of lifts
- For safety signs on escape routes

Multi-storey building, VDE 0108, Part 100



EN 1838



Important note:

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Accommodation facilities and nursing homes

Model directive regarding the construction, operation and maintenance of accommodation facilities (MBeVO).

The provisions of this directive apply to accommodation facilities with more than 12 guest beds.

Please note:

Emergency lighting time can be reduced to 3 hours if the lighting is timer-controlled and switched via master lighting switches.

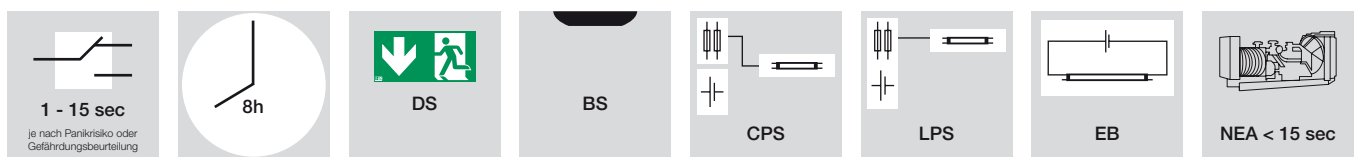
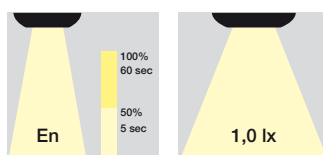
Exceptions:

This directive does not apply to holiday apartments.

Definition:

In accommodation facilities emergency lighting must be provided:

- In all essential corridors and staircases
- In rooms and landings between essential staircases and exits
- For safety exit signs
- For steps in essential corridors

Accommodation facilities, VDE 0108, Part 100**EN 1838****Important note:**

The above are model directives only.
Regional building regulations may also
apply in certain cases.

See page 232 for
symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Schools

Model directive regarding building regulations for schools (MSchulbauR), 04/2009

This directive applies to requirements pursuant to paragraph 51, section 1 of the Model Building Code (MBO) for general education and vocational schools that are not used solely for adult education classes.

Please note:

Insofar as not otherwise provided by the MSchulbauR directive, the provisions of the MBO building regulations shall apply. Any workplace safety regulations issued by insurers, trade associations and so on, as well as workplace regulations or regional laws that apply to schools are valid.

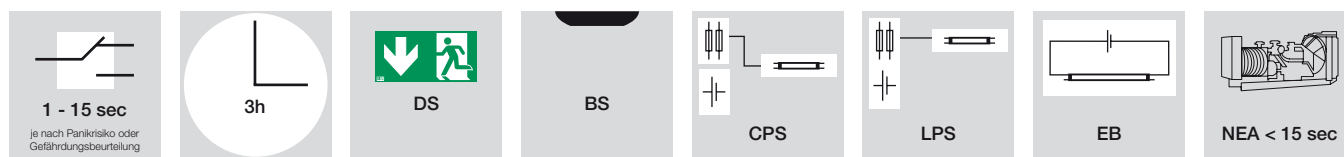
Exceptions:

This directive does not apply to colleges, universities, academies, adult education centres, music schools, dance schools, driving schools and the like.

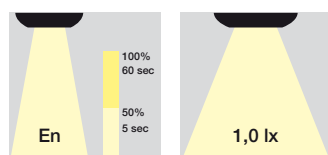
Definition:

Emergency lighting must be provided in halls that are intersected by escape routes, in essential corridors and staircases as well as in windowless common rooms.

Schools, VDE 0108, Part 100



EN 1838



Important note:

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Car-parks

Model directive regarding the construction, operation and maintenance of car-parks (M-GarVO), 05/1993 (as amended by the resolution of 30 May 2008)

An emergency lighting system for the illumination of escape routes must be installed in large enclosed car parks (excluding large single-level car parks with regular users).

Large car parks are car parks with net floorspace exceeding 1,000 square meters.

Exceptions:

None

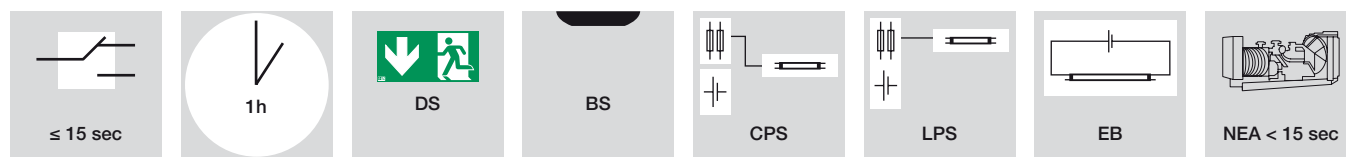
Definition:

Open car parks are car parks with non-closeable openings that lead directly outside and whose surface accounts for at least one third of the total surface of the facility's exterior walls; at least two of whose opposing enclosing walls containing such openings are not more than 70 meters apart; and with continuous cross ventilation.

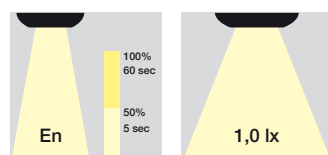
Small open car parks are small car parks with non-closeable openings that lead directly outside and whose surface accounts for at least one third of the total surface of the facility's exterior walls.

Closed car parks are car parks that do not meet the above criteria.

Car-parks, VDE 0108, Part 100



EN 1838



Important note:

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Exhibition places

Model directive for places of assembly (MVStättV), 06/2005

Places of assembly with assembly rooms, used for the gathering of 200 or more persons.

Please note:

The number of persons is to be calculated as follows:

- For table seating:
1 person per square meter of room floorspace
- For seats arranged in rows and for standing room:
2 persons per square meter of room floorspace

Exceptions:

Pursuant to number 3 of the MVStättV (places of assembly regulation), only exhibition rooms of museums are excluded from the scope of application.

The above directive applies, however, to museums with other rooms of assembly pursuant to article 2, no. 3 (i.g. foyer, discussion rooms, cafeteria or the like) which fall within the scope of article 1.

Definition:

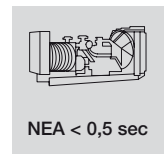
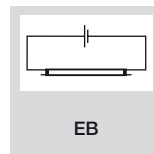
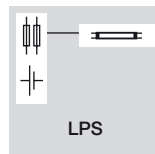
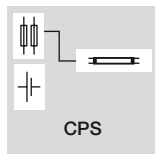
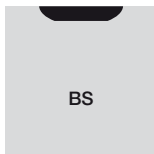
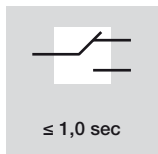
In places of assembly an emergency lighting system must be installed that allows for safe termination of operations on stages and in performance areas, and safe escape of members of the public and staff, even in case of total failure of general lighting.

Emergency lighting must be provided:

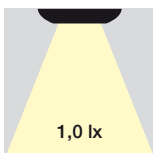
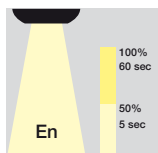
- for staircases, landings, exits and essential corridors
- In assembly rooms as well as in any rooms/areas that are used by visitors such as foyers, cloakrooms, and lavatories
- For stages and performance areas
- In staff rooms larger than 20 square meters of floorspace, office rooms excluded
- In rooms that accommodate electrical equipment or technical building systems, as well as in spotlight and projector rooms
- For outdoor places of assembly and sports stadiums that are used when it is dark
- For safety signs of exits and escape routes
- For illumination of steps

In assembly rooms that are darkened for operation, on stages and performance areas, non-maintained emergency lighting must be installed. Exits, corridors and stairs in these assembly rooms must be recognizable while these rooms are darkened, irrespective of the remaining emergency lighting. An illumination of stairs is not required for the corridors of assembly rooms containing mobile chairs, as well as for sports stadiums with emergency lighting.

Exhibition places, VDE 0108, Part 100



EN 1838



Important note:

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Stages

Model directive for places of assembly (MVStättV), 06/2005

Places of assembly with assembly rooms, used for the gathering of 200 or more persons.

Exceptions:

Performance spaces with less than 20 square meters of floorspace are not classified as performance areas.

Definition:

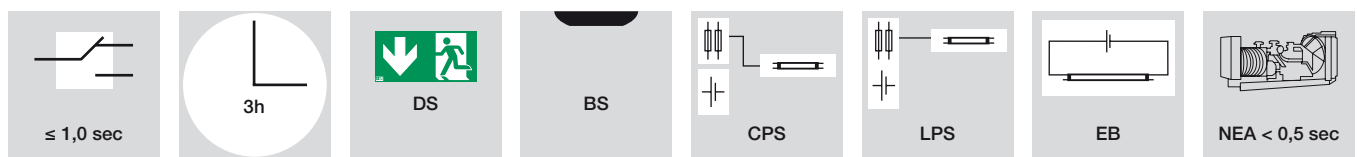
In places of assembly an emergency lighting system must be installed that allows for safe termination of operations on stages and in performance areas, and safe escape of members of the public and staff, even in case of total failure of general lighting.

Emergency lighting must be provided:

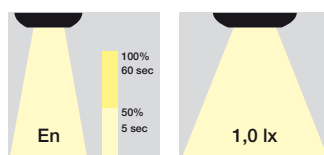
- For staircases, landings, exits and essential corridors
- In assembly rooms as well as in any rooms/areas that are used by visitors such as foyers, cloakrooms, and lavatories
- For stages and performance areas
- In staff rooms larger than 20 square meters of floorspace, office rooms excluded
- In rooms that accommodate electrical equipment or technical building systems, as well as in spotlight and projector rooms
- For outdoor places of assembly and sports stadiums that are used when it is dark
- For safety signs of exits and escape routes
- For illumination of steps

In assembly rooms that are darkened for operation, on stages and performance areas, non-maintained emergency lighting must be installed. Exits, corridors and stairs in these assembly rooms must be recognizable while these rooms are darkened, irrespective of the remaining emergency lighting. An illumination of stairs is not required for the corridors of assembly rooms containing mobile chairs, as well as for sports stadiums with emergency lighting.

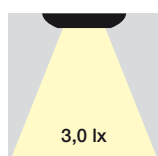
Stages, VDE 0108, Part 100



EN 1838



Bühnen VDE 0108 Teil 100



Important note:

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Points of sale

Model directive regarding the construction, operation and maintenance of retail outlets (MVKVO)

Shops and shopping malls with more than 2,000 square meters of floorspace

Exceptions:

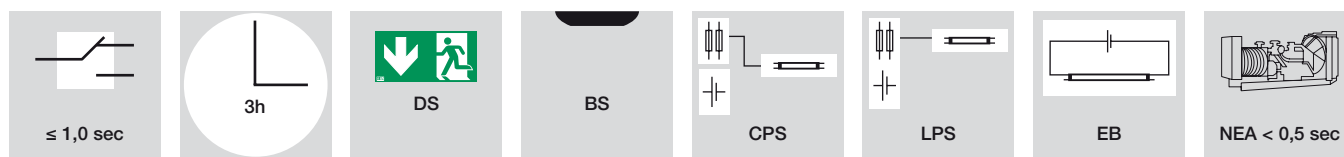
None

Definition:

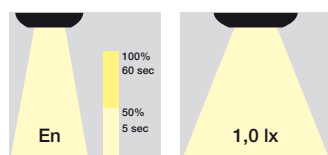
In retail outlets, emergency lighting must be provided:

- Inside shops
- In staircases, landings and shopping streets
- In corridors that are essential for customers
- In staff rooms
- In lavatories with more than 50 square meters of floorspace
- In rooms that accommodate electrical equipment or technical building systems
- For safety exit signs and illumination of steps.

Points of sale, VDE 0108, Part 100



EN 1838



Important note:

The above are model directives only.
Regional building regulations may also
apply in certain cases.

See page 232 for
symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Workplaces

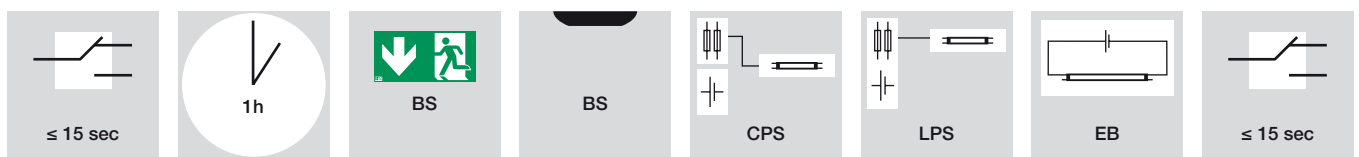
Workplace directive concerning emergency lighting (ASR 7/4)

- Escape routes in working areas and storage rooms with more than 2,000 square meters of floorspace
- Escape routes in working areas and staff rooms whose floors are more than 22 meters above the ground
- Escape routes located in the following types of areas with more than 100 square meters of floorspace: working areas without windows, skylight or the like; rooms that are kept dark for operational purposes
- Escape routes located in the following types of areas with more than 30 but less than 100 square meters of floorspace: in working areas without windows, skylight or the like; rooms that are kept dark for operational purposes. For such escape routes, luminaires that can be seen from any point are to be installed at all exits.
- Escape routes in potentially explosive or toxic workplaces, as well as in workplaces in which non-sealed radioactive materials are handled, with more than 100 square meters of floorspace
- Escape routes in potentially explosive or toxic working places, as well as in workplaces in which non-sealed radioactive materials are handled, with more than 30 and less than 100 square meters of floorspace. For such escape routes, luminaires that can be seen from any point are to be installed at all exits.
- For escape routes in laboratories with more than 600 square meters of floorspace and where workers are exposed to specific hazards
- For escape routes in laboratories with more than 30 and less than 600 square meters of floorspace and where workers are exposed to specific hazards. For such escape routes, luminaires that can be seen from any point are to be installed at all exits.

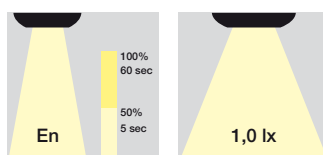
Exceptions:

None

Workplaces, VDE 0108, Part 100



EN 1838



Definition:

Escape route lighting

Escape route lighting must allow for safe evacuation by providing sufficient illumination for escape routes and signs.

Illuminance

Escape routes must be lit with a minimum of 1 lux. This is the value that is measured at the end of the luminaire's operating time on the horizontal plane located 0.02 meters above floor level or the stairs.

Minimum operating time: 1 hour.

Important note:

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

High risk work places

Workplace directive concerning emergency lighting (ASR 7/4)

Emergency lighting for high risk must be provided in places where staff or third parties are exposed to specific hazards, or where accidents are very likely to occur in the event of a general lighting failure.

Please note:

The emergency luminaires for particularly hazardous workplaces have to be installed in such a way that the required illuminance values are achieved within the entire area of hazardous risk.

Definition:

General

The technical specifications for emergency lighting for high risk work places are determined by the type of activity and room involved.

Illuminance

The illuminance values emergency lighting for high risk work places are determined by nominal illuminance (E_n) pursuant to workplace directive "ASR 7/3: Artificial lighting" for each type of activity and room.

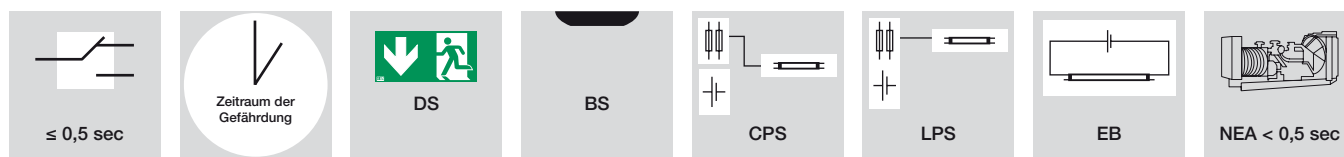
The illuminance of emergency lighting for high risk work places must be $E = 0.1 \times E_n$, however not less than 15 lux.

This illuminance must continue for the duration of the risk, subject to a one hour minimum.

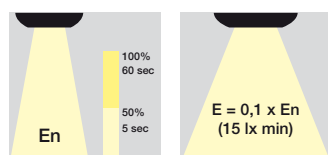
Delay on startup

The maximum delay on startup for emergency lighting for high risk work places is 0.5 seconds.

High-risk workplaces, VDE 0108, Part 100



EN 1838



Important note:

The above are model directives only. Regional building regulations may also apply in certain cases.

See page 232 for symbol legend



VDE 0108, Part 100 – Emergency lighting | Model directives / Building regulation

Airports / railway stations

Definition:

None

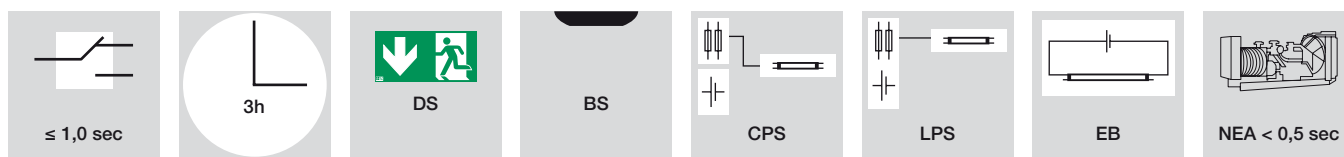
Please note:

For above-ground railway station areas a rated duration of 1 hour may be acceptable, depending on the evacuation plan.

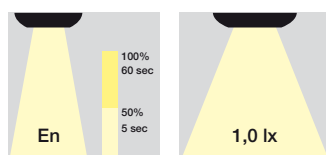
Exceptions:

None

Airports / railway stations, VDE 0108, Part 100



EN 1838












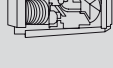





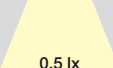

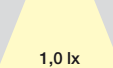

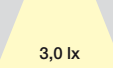



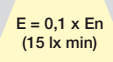
Important note:

The above are model directives only.
Regional building regulations may also
apply in certain cases.

See page 232 for
symbol legend



Symbol legend VDE 0108, Part 100

 ≤ 0,5 sec	Switching time ≤ 0.5 sec	 GDS	Switched maintained
 ≤ 1,0 sec	Switching time ≤ 1.0 sec	 CPS	Central battery systems
 ≤ 15 sec	Switching time ≤ 15 sec	 LPS	Group battery systems
 1 - 15 sec je nach Panikrisiko oder Gefährdungsbeurteilung	Switching time 1 - 15 sec (depending on panic risk or danger level)	 EB	Single battery systems
 1h	Rated duration: 1 hour	 NEA < 0,5 sec	Emergency power supply system < 0.5 sec
 3h	Rated duration: 3 hours	 NEA < 0 sec	Emergency power supply system < 0 sec
 8h	Rated duration: 8 hours	 NEA < 15 sec	Emergency power supply system < 15 sec
 Zeitraum der Gefährdung	Rated duration: (duration of the risk)	 0,5 lx	Nominal illuminance 0.5 lx
 BS	Escape route sign, non- maintained	 1,0 lx	Nominal illuminance 1.0 lx
 DS	Escape route sign, maintained	 3,0 lx	Nominal illuminance 3.0 lx
 BS	Emergency luminaire, non-maintained	 En	Nominal illuminance 50% Nominal illuminance 100%
 GBS	Switched non-maintained	 E = 0,1 x En (15 lx min)	> 10% of nominal illuminance min. E > 15 lx

EMERGENCY LIGHTING COSTS

Purchase costs

Luminaires
Battery/Batteries
Systems

Installation costs

Luminaire installation
Set-up
(CPS/LPS)

Operating costs

Power supply
Maintenance
Spare parts

COST SAVINGS OPTIONS

Purchase costs

During the planning phase, cost optimization procedures can be applied to system purchases.

Installation costs

Purchase of easy to install luminaires
Mixed operation technology minimizes the need for cabling.

Operating costs

State of the art LED technology reduces energy costs and battery capacities.
Use of lamps with a long service life reduces repair and spare parts costs.
Automatic testing systems reduce labour costs.

Costs for weekly tests

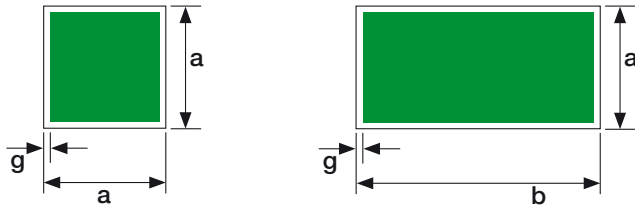
	Luminaires with a test button	Luminaires with an automatic self-test function	Luminaires with an automatic self-test function and testing system (DALI, MWEBplus, MultiDigit®)
Tasks	Employee must test all luminaires once a week, which requires a lot of time. Ceiling mounted luminaires can be tested only using a ladder.	Employee must only control all luminaires once a week.	Employee receives testing results at a central workstation or via e-mail.
Time required	7 minutes per luminaire	3 minutes per luminaire	Total of 5 minutes
Hourly labour costs	10.00 €	10.00 €	10.00 €
System with:	30 luminaires	30 luminaires	30 luminaires
Time required for weekly function test	210 min.	90 min.	5 min.
Costs for weekly function test	35.00 €	15.00 €	0.83 €
Annual costs	1,820.00 €	780.00 €	43.33 €

DIN 4844, PART 1 AND PART 2

BGV A 8

Design of escape route signs

square

rectangular $b = 2 \times a$ 

Luminance

Safety colour (green)

Contrast colour (white)



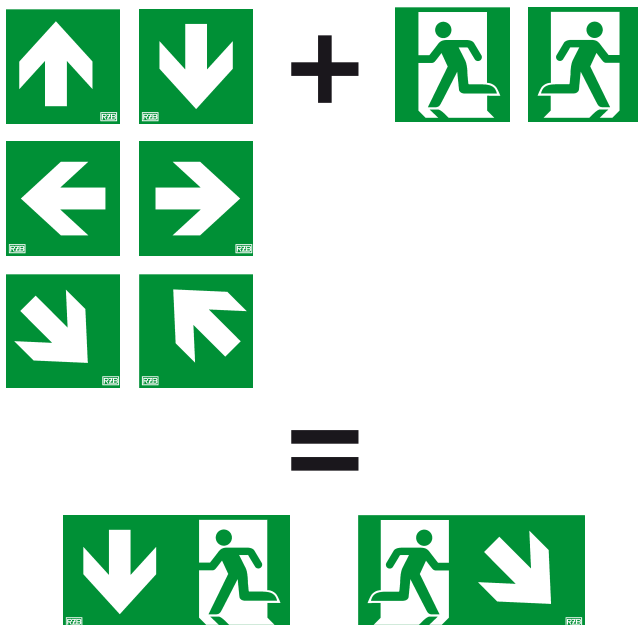
Luminance during mains power operation in accordance with DIN 4844-Part 1 (05/2005): average luminance of contrast colour: min. 500 cd/square meter

Design of escape route signs

Escape route signs are always to be composed of a directional arrow and the escape route/emergency exit symbol.

Directional arrow

Escape route / Emergency exit



Safety and health signs

1. Scope of application

These safety provisions apply to safety and health signs at work.

2. Definitions

Escape route sign

means a safety sign indicating an escape route, emergency exit, first-aid station, or the route to such facilities.

3. Escape routes

Escape routes are clearly marked routes that allow employees to evacuate a facility; and rescue and evacuation of injured employees or employees exposed to hazards.

4. Visibility

- Safety signs must be installed in such a way that they are clearly visible and securely attached at all times. They must be made of materials that are resistant to the environmental factors.
- If a safety sign is installed at a location with inadequate natural light, the sign's visibility is to be ensured via artificial lighting.

5. Maintenance

The employer is responsible for maintenance of health and safety signs at work.

6. Testing

- The employer is to ensure that all health and safety signs are inspected at least every two years.
- The employer is to ensure that all technical elements (such as luminaires) are tested at least once a year by an experienced technician.



Directional arrow

Escape route / Emergency exit

VDE 0100 Part 560 – Low-voltage electrical installations | Safety services

Electric circuits

Circuits for safety services must be routed independent of other electricity lines; if these circuits are flame-resistant, they may be routed through areas exposed to fire hazard, but never through areas exposed to explosion hazard.

You should always try to avoid areas exposed to fire hazard.

DC circuits require 2-pin overcurrent protection.

To supply power to the luminaires within the fire zone, either cables and wires with fire-protected housings must be used, or for fire zones with more than one emergency luminaire, these must be divided up alternately between at least two circuits.

Circuit diagrams

There must be detailed drawings of the electrical system for safety purposes; these must

- Show the exact designations and locations of all electrical equipment and distributors
- Show the safety equipment with final circuit designation and details of the purpose of the installation

Power sources

If only one power source is available for safety purposes, this may only be used for other purposes under certain conditions.

Display

The status of the device for safety purposes

- System ready
- Battery for operation mode
- System error

must be displayed during operating times by an alarm system.

Building code

REQUIREMENT

Building permit

Regional German building regulations/directives

Landesbauordnung (MBO)

- (Model) School building directive 07/1998
- (Model) Places of assembly regulation 06/2005
- (Model) Points of sale regulation 09/1995
- (Model) Directive for multi-storey buildings 04/2008
- (Model) Car parks regulation 07/1997
- (Model) Accommodation facilities regulation 12/2000
- (Model) Directive concerning temporary buildings 05/2007
- ...

Workplace health and safety regulations

Workplace regulation**Workplace directive****Trade and Industry Regulation**

Regulations for the prevention of accidents (BGV A8, BGR 216, BGR 131 etc)

Compliance with generally accepted standards is required

Wiring systems directive ((M) LAR) (11/2005)

1. Scope

This directive applies to

- Wiring systems in the following locations: essential stairwells; landings and spaces that connect essential stairwells and exits; essential corridors, excluding open corridors in front of external walls,
- Passing cables through walls, ceilings and the like,
- Fire protection for electrical wiring systems.

2. Definitions

Wiring systems are composed of electric cables and/or conduits and the relevant fittings, connections, monitoring and control systems, power supplies, distributors and insulating material for cables, including the attachment hardware and coatings used for the wires/conduits.

Fiberoptic cables and electric cables are classified as electric wires.

3. Fire resistance | Maintenance of performance

Fire-protected distributors for electrical wiring systems pursuant to section 5.3 of directive (M)LAR must:

- Be located in suitable spaces that are not used for other purposes and that are separated from other rooms by walls, ceilings or doors that are adequately fire-protected and – apart from the doors – made of incombustible materials
- Be kept in separate housings with a certified fire-resistance duration rating; or

- Be enclosed in components (including the enclosures) that exhibit adequate fire resistance duration and that are composed of incombustible materials (excluding the enclosures); operability of the distributor's electric components must be ensured in the event of fire for the entire fire resistance duration.

The fire resistance duration must be no less than 30 minutes for:

- Emergency lighting systems, to the exclusion of wiring systems that supply power to emergency lighting within only one fire zone of one storey or within one stairwell; maximum floorspace per fire zone: 1,600 square meters.

New „Technical rules for workplaces“

ASR A1.3 Safety and health signs (04/2007)

ASR A2.3 Escape routes, emergency exits, escape and rescue plan (08/2007)

ASR A3.4/3 Emergency lighting, optical safety guidance systems (05/2009)

The regulation titled *BGR 216: Optische Sicherheitsleitsysteme (einschließlich Sicherheitsbeleuchtung)* (optical safety guidance systems (including emergency lighting)), will remain in force until 31 August, 2010, along with the regulation titled ASR A3.4/3. In May 2009, the old workplace directive titled ASR 7/4: *Sicherheitsbeleuchtung* (emergency lighting) was superseded by the regulation titled ASR A3.4/3.

ASR A1.3

Contents

1. Objectives
2. Scope
3. Definitions
4. General
5. Signs
6. Escape and rescue plans
7. Labelling of containers and conduits containing dangerous substances
Annex(es)

Objectives

This directive ASR A1.3 lays down the requirements for safety and health signs at workplaces. Pursuant to article 3 of the workplace regulation titled *Arbeitsstättenverordnung* and section 1.3 of the appendix thereof, safety and health signs are to be used in order to avert workplace safety and health risks.

Scope

The workplace regulation *Arbeitsstättenverordnung* implements EU Directive 92/58/EEC on the minimum requirements for the provision of safety and/or health signs at work.

Escape route and rescue plan



Directional arrow



Escape route / Emergency exit



Workplace directives

ASR 2.3 Escape routes, emergency exits, escape route and rescue plan

Contents

1. Objectives
2. Scope
3. Definitions
4. General
5. Design, dimensions
6. Application
7. Signs
8. Emergency lighting
9. Escape route and rescue plan

Objectives

This workplace directive lays down the requirements (pursuant to article 4, paragraph 4, and item 2.3 of the appendix to the workplace regulation titled *Arbeitsstättenverordnung*) concerning the installation and maintenance of escape routes and emergency exits; and escape route and rescue plans, with a view to ensuring safe workplace evacuation in the event of danger.

Scope

This workplace directive applies to the installation and maintenance of escape routes and emergency exits in buildings and similar structures to which employees have access during work, as well as to the elaboration of escape route and rescue plans and related exercises. Such routes and plans are to be elaborated in a manner that allows for the possibility that outside parties may be present during an emergency.

This workplace rule does not apply

- To installation and maintenance of the following:
 - a) Outdoor workplaces that are not enclosed on all sides
 - b) Building construction sites
 - c) Areas in any structures that are occupied solely for maintenance and inspection purposes
 - d) Areas in any structure where handicapped people are employed
- To leaving work equipment behind in the event of danger within the meaning of article 2, paragraph 1, of the Industrial Safety and health regulation (*Betriebssicherheitsverordnung*).

In comparable situations, this directive may be applied to any excluded areas. If not, specific measures have to be taken to ensure for the employees safety in the event of danger.

Signs

Escape routes, emergency exit and door signs are to conform with the directive titled ASR A1.3.

Emergency lighting

Section 8 of the directive titled ASR A2.3 (concerning escape routes, emergency exits, escape route and rescue plans) defines the conditions under which emergency lighting is required for escape routes.

In the scenarios described in the said section 8, the primary and possibly also the secondary escape route are to be equipped with emergency lighting.

Escape routes are to be equipped with emergency lighting insofar as safe evacuation of the workplace in the event of a general lighting failure cannot be guaranteed.

Emergency lighting may be required for example in workplaces with the following characteristics (among others):

- Workplaces with a large number of employees or that are located in tall buildings; workplaces with high risk areas or unclear escape routes
- Workplaces used by persons who are not familiar with the place
- Workplaces where large spaces such as halls, open-plan offices or retail spaces must be traversed during an evacuation
- Workplaces with no natural light, such as basement rooms.

Escape route and rescue plan

The employer is to devise a suitable escape route and rescue plan for those areas of the workplace whose location, dimensions and/or type necessitate the use of such a plan.

Escape route and rescue plans must be up to date, easy to understand and read, and must be elaborated using standard safety colours and symbols.

For requirements concerning escape route and rescue plans, see the regulation titled ASR A1.3.

Escape route and rescue plans are to incorporate graphic elements indicating the following:

- Site plan or parts thereof
- Escape and rescue routes
- First-aid posts
- Fire fighting equipment
- Assembly point location
- Point of location of the user ("you are here" indication)

The escape route and rescue plans is to be displayed in sufficient number in suitable areas of the workplace.

Workplace directives

ASR 2.3 Escape routes, emergency exits, escape route and rescue plan

Section 8 of the directive titled ASR A2.3 defines the conditions under which emergency lighting is required for escape routes.

In the scenarios described in this section of the directive, the primary and possibly also the secondary escape route are to be equipped with emergency lighting.

ASR A3.4/3 Emergency lighting, optical safety guidance systems

Contents

1. Objectives
2. Scope
3. Definitions
4. Emergency escape lighting
5. Optical safety guidance systems
6. Operation, maintenance and testing
7. Supplementary requirements for building sites

Objectives

This workplace directive specifies the requirements concerning the installation and maintenance of emergency lighting and optical safety guidance systems pursuant to article 3, paragraph 1, and article 4, paragraphs 3 and 4, and notably item 2.3 paragraph 1 and item 3.4 paragraph 3 of the appendix to the workplace regulation titled *Arbeitsstättenverordnung*.

Scope

This workplace directive applies to the installation and maintenance of emergency lighting and optical safety guidance systems in workplaces; cites examples of types of workplaces which may require emergency lighting or optical safety guidance systems: and lays down technical specifications for emergency lighting and optical safety guidance systems and the use thereof.

Emergency lighting

4.1 Escape route lighting

Section 8 of the directive titled ASR A2.3 defines the conditions under which emergency lighting is required for escape routes.

In the scenarios described in this section of the directive, the primary and possibly also the secondary escape route are to be equipped with emergency lighting.

4.2 High risk work place lighting

In workplaces where accidents are likely to occur in the event of a general lighting failure, the required illuminance of the emergency lighting is to be reached within 0.5 seconds and must continue at least for the duration of the risk.

Escape routes are to be equipped with emergency lighting insofar as safe evacuation of the workplace in the event of a general lighting failure cannot be guaranteed.

(ASR A2.3 Paragraph. 8).

Workplaces where health and safety of the employees are at risk in the event of a general lighting failure and where emergency lighting is required include the following among others:

High-risk workplaces:

- Laboratories
- Rooms that are darkened for operation
- Rooms that accommodate electrical equipment or technical building systems
- Workplaces with a large number of employees
- Workplaces that are located in tall buildings
- Workplaces with high-risk areas
- Workplaces with unclear escape routes
- Rooms or areas used by persons who are not familiar with the place
- Workplaces where large spaces such as open-plan offices must be traversed during an evacuation
- Rooms with no natural light
- Working areas where long trailing equipment or machines are used
- Areas containing control units for systems that are subject to continuous monitoring (e.g. control rooms)
- Workplaces with immersion baths containing heated liquids, casting pits or acid baths
- Building construction sites

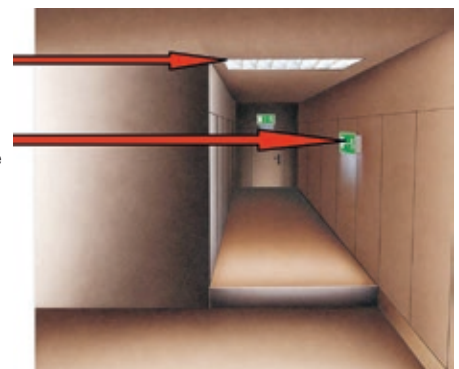
Directive ASR A3.4/3 applies in many cases to building construction sites because of the high risk for persons.

Emergency lighting is essential in cases where there is not sufficient natural light to light escape routes so as to allow for safe workplace evacuation.

Building construction sites used when it is dark

Escape route illumination

Identification of escape routes via the relevant signs



The illuminance of emergency lighting for escape routes must be at least 1 lux, with a uniformity of less than 40:1.

Planning

Important issues:

1. Is emergency lighting required?

Building permit, building directives and regulations, work safety laws, workplace regulations, etc.

2. Which type of self-contained or central battery system (CPS / LPS) is to be used?

See VDE 0108, Part 100, table A1 (page 246)

3. Which is the required nominal operating time?

See VDE 0108, Part 100, table A1 (page 246)

4. Escape and rescue routes plan

The escape route and rescue plan indicates all mandatory escape routes and emergency exits (in the absence of such a plan, escape routes and emergency exits are to be indicated by the planner or architect).

5. Luminaires

See EN 1838 for detailed information concerning the installation of safety signs. The number of emergency luminaires is to be determined using the spacing table (*Leuchtenabstandstabelle*) or a lighting calculation formula.

The above ALSO applies to the planning process for a single-battery system!

Power and circuits

6. Capacity of all luminaires = total capacity

The battery aging factor must be factored in. We recommend that a 25% aging factor be applied.

7. Total capacity, including the aging factor (loss in capacity) = battery capacity

Where ventilation cross sections are indicated as well (page 125).

8. Number of fire zones

Consult your planner or architect.

Fire zone dimensions in accordance with directive MLAR (exceptions are allowed in some regions).

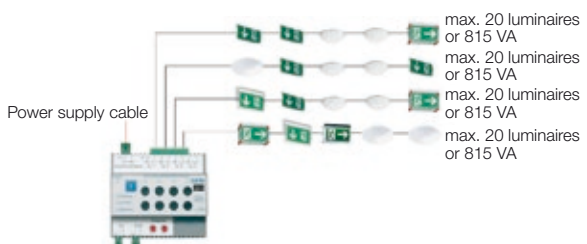
9. Number of circuits per fire zone

=> mixed operation => 2 circuits per fire zone at least

=> standard operation => 4 circuits per fire zone at least

Important note: Maximum no. of luminaires per circuit: 20, Maximum circuit load: 815 VA !

10. Number of circuits divided by 4 = number of circuit modules

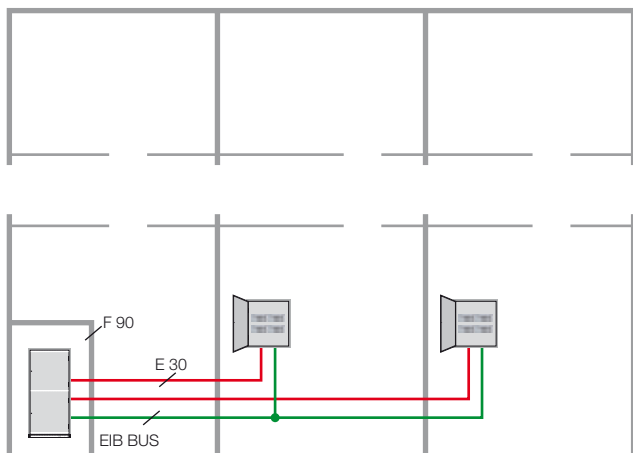


11. Sub-stations

For calculating the number of circuits and modules per sub-station, the same calculation system that is used for central battery systems circuits calculation is to be applied.

For sub-stations planning, please note:

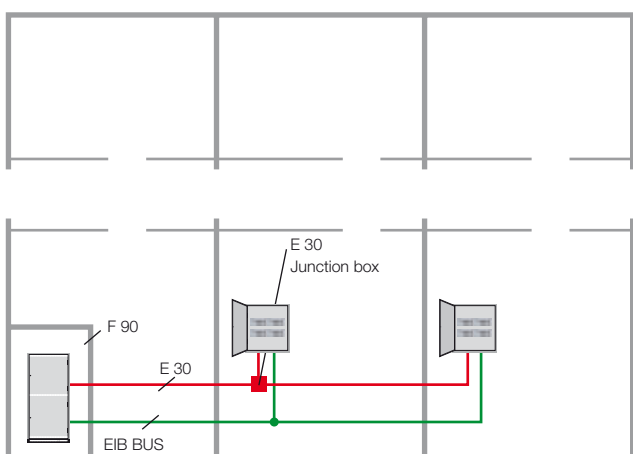
Fire zone 1 max. 1,600 square meters Fire zone 2 max. 1,600 square meters Fire zone 3 max. 1,600 square meters



Active star network

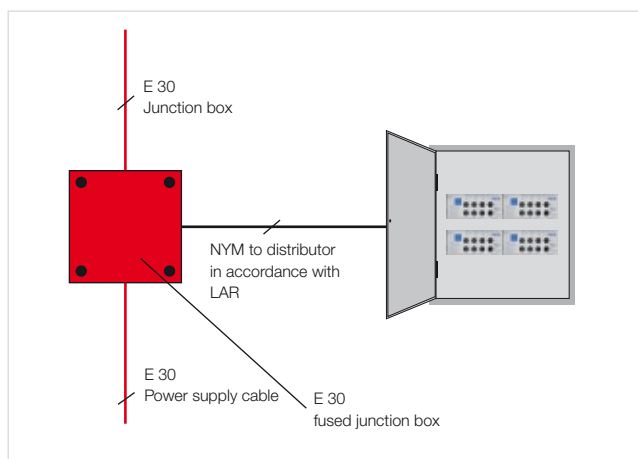
Please note that for this type of network an output in the CPU must be provided for each sub-station.

Fire zone 1 max. 1,600 square meters Fire zone 2 max. 1,600 square meters Fire zone 3 max. 1,600 square meters



Linear network

Please note that for this type of network E30 junction boxes are to be provided for each fire zone.



E 30 junction box

Installation example



Can be inconspicuously
integrated in architecture
and material.

Service	244
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Abbreviations

L	Length
B	Width
H	Height
D	Diameter
T	Depth
LP	Pendant length
AL	Extension
DA	Recess opening (width x length or Ø)
HE	Luminaire installation height
TE	Luminaire recessing dimensions
Le	Recessed length
Tg	Operating temperature in °C at the centre of the luminaire surface
K-Trafo	Conventional transformer
E-Trafo	Electronic transformer
EB	Electronic ballast
LM	Lamp
BS	Non-maintained
DS	Maintained
GDS	Switched maintained
TLS	Staircase light circuit
LPS	Low Power Supply
CPS	Central Power Supply
NEA	Emergency power supply system
SK	Electric circuit
IOM	In/Out module
LED	Stands for light emitting diode, an electronic semi-conductor component offering excellent energy efficiency and a long service life.
LED (1)	Mains voltage LED - no driver required

Ballast

Our luminaires are mainly fitted with low-loss ballast. They are designed for 230 V/50 Hz (equipment with other specifications is available on request).

Luminaires with electronic ballast are indicated by the code at the end of the catalogue number, e.g. .76, .79 or have their own separate order number with explanatory text.

Quality

Our quality management system is DIN EN ISO 9001:2008 compliant.

Electrotechnical safety

We guarantee that we have manufactured and tested all of the luminaires in this catalogue carefully in accordance with international standard EN 60598 (VDE 0711).

Special luminaires are manufactured in accordance with this standard.

Types of protection according to EN 60598/VDE 0711

1st digit: Protection against solid objects

IP 2X	Protection against penetration of solid objects > 12.5 mm
IP 3X	Protection against penetration of solid objects > 2.5 mm
IP 4X	Protection against penetration of solid objects > 1 mm



IP 5X Protection against dust penetration



IP 6X Dust-proof

2nd digit: Protection against water



IP X1 Protected against water drops (vertically falling drops of water)

IP X2 Protected against water drops (up to 15° from the vertical)



IP X3 Luminaires are protected against rain



IP X4 Luminaires are protected against water sprays



IP X5 Luminaires are protected against water jets

IP X6 Protected against rough sea or heavy jets of water



IP X7 Protection against temporary immersion



IP X8 Protection against continuous immersion

The type of protection indicated for surface mounted, recessed, pole or pendant luminaires only applies for the defined and/or permitted type of luminaire installation.

Protection classes

Protection class I



Luminaires for connection to a protective conductor provided on site. The protective conductor terminal is marked with the symbol. In case of malfunction: Protection through power supply switch-off by overcurrent protection device.

Protection class II



Base insulation protects against direct contact. In case of malfunction: Additional or reinforced insulation protects against indirect contact.

Many protection class I luminaires are also available with protection class II on request.

Protection class III



Luminaires for connection to safety extra-low voltage (SELV, max. 50 V AC), e.g. using safety transformers or other sources of voltage with comparable safety features. In case of malfunction: Protection through effectively harmless voltage. Mains connection via luminaire equipment with dual or reinforced insulation on the mains side.

Symbol explanations



Luminaires for escape route illumination



Luminaires for escape route identification



Luminaires made of shock-proof polycarbonate are marked with this symbol.

General information

Use of emergency lighting modules

The distances between EB and emergency lighting module must be observed as longer cable lengths might impair the function.

We recommend:

Distance EB <-> Emergency lighting module: 0.5 m

Distance LLB <-> Emergency lighting module: 2.0 m

Electrotechnical variants and additions

Codes are marked by a two-digit suffix separated by a point at the end of the catalogue number.

Code .04 **autom. self-test function and feedback to MultiDigit**
Version with automatic self-test function and feedback to MultiDigit

Code .07 **autom. self-test function and feedback to DALI**
Version with automatic self-test function and feedback to DALI unit

Code .14 **Test button**
Integrated test button

Code .19 **Movement sensor**
With movement sensor

Code .79 **EB**
Versions with electronic ballast

Code .89 **AC-Control for RZB-LUXIFAIR**
Integrated monitoring module with changeover switch for LUXIFAIR and LUXIFAIRlight

Electric circuit identification labels

VDE 0108 / DIN 56932

A sheet of circuit identification labels in accordance with DIN 56932; self-adhesive white plastic foils with red silk screen printing for application on plain surfaces. One sheet contains 12 circuit identification labels; circuit numbers 001 to 150 are available from stock. Please indicate circuit numbers when placing your order, e.g. 99350/017!

Reference number: 99350

VDE 0108/DIN 56932

Light plastic plate for application on roughcast or any other irregular surfaces to be used as support for circuit identification labels 99350.

Reference number: 99351

blank



A sheet of circuit identification labels in accordance with DIN 56932; self-adhesive white plastic foils with red silk screen printing for application on plain surfaces. One sheet contains 12 circuit identification labels for application of personalized lettering;

Reference number: 99350.1

Safety marks



The ENEC mark is a European test and certification mark for luminaires and electrical luminaire components.



Luminaires bearing this mark can be mounted directly onto normally inflammable surfaces (in accordance with EN 60598-1).



Luminaires bearing this mark have a limited surface temperature and are suitable for premises where dust or fibres can create a fire risk.



Luminaires bearing this mark are suitable for mounting on or in furniture made of materials with unknown properties; this applies, in particular to flammability.



Luminaires marked with the "ball impact protection" symbol are suitable for use in sports facilities. They are manufactured in accordance with the test conditions defined in DIN 18032.

ta

Luminaires marked "ta 15°C" are designed for ambient temperatures of 15°C and are also suitable for outdoor use.



The CE mark is not a safety mark. It indicates that the product complies with European Union directives.

Legends for escape route identification – BUILDING AND WORKPLACE LEGISLATION

Legends ISO 7010

Background colour: green



3003 Escape route to the right



3113 Escape route to the upper right



3114 Escape route to the lower right



3004 Escape route to the left



3115 Escape route to the upper left



3116 Escape route to the lower left



3005 Emergency exit, arrow pointing down



3006 Emergency exit, arrow pointing up



1051 Meeting point

Other legends possible on request.

Please quote the motif numbers when ordering safety luminaires with legends.

The size of the pictograph will be matched to the luminaire that you order with a ratio of 2:1. In the case of luminaires with different dimensions, the remaining illuminated surfaces will be filled with opal.

Notes for ordering legends and inscriptions

Please always indicate the motif number or text when ordering luminaire signs with legends or inscriptions. The size of the legend or inscription will be matched to the luminaire that you order.



Legends

Please indicate legend number, e.g. 1019



Motif combinations

Indicate the motif numbers from left to right, separated by a forward slash, e.g. 1019/1013

EXIT

Exit

EXIT

EXIT

Lettering

Irrespective of their syntax, letterings are set in upper case, font: Helvetica Regular, e.g. EXIT.

Please clearly order lower case if required, e.g. Lower case: Exit

Other standard fonts: Helvetica Medium and Helvetica Bold. Other fonts are available at extra cost.

e.g. Helvetica Medium: Exit, Helvetica Bold: Exit

CONGRESS
CENTER

Lettering comprising several lines

Please specify the number of lines, e.g. two lines: CONGRESS CENTER



Negative imaging of legends and lettering

Indicate the motif number (text or digits) and specify "inverse", e.g. 1019/inverse



Single coloured legends

All legends and lettering are mounted on a standard blue background. Other standard colours available at no extra cost: light blue, green, yellow, orange, red, grey

Cover colours: silver, black

Background colour: white/opal

Quote the motif number (text or digits) and required colour(s),

e.g. 1019/light blue / 1019/light blue/inverse

692

3

Numbers

Include the catalogue number 0001-0999

e.g. 0692 / 0003

Special colours and fonts

Multicoloured legends or lettering, customised legends and special colours or motif/text/number combinations are available at extra cost.

Please do not hesitate to forward your request to our sales team. Provide them with details or even a drawing of the sign. We require a template in either .TIFF or .EPS format (or a hand drawing) in order to manufacture custom legends.

Motif	No.	Description
-------	-----	-------------

Legends for numbers

Background colour: blue (standard)

999

0001-0999 Numbers

Legends for direction indicators

Background colour: blue (standard)



1013 Arrow pointing right



1014 Arrow pointing left



1015 Arrow pointing down



1016 Arrow pointing up



1175 Arrow pointing left and up



1176 Arrow pointing left and down



1177 Arrow pointing right and up



1178 Arrow pointing right and down



1163 Angled arrow pointing left and up



1164 Angled arrow pointing right and up

Legends for general signs

Background colour: blue (standard)



1017 Men's lavatory



1018 Ladies' lavatory



1019 Men's and Ladies' lavatory



1021 Disabled lavatory



1072 Restaurant



1073 Cafeteria



1085 Hotel



1030 Cloakroom



1037 Stairway, up



1038 Stairway, down

















1074 Lift



1033 Telephone












Motif	No.	Description
-------	-----	-------------

	1026	Information
	1086	Arrivals
	1087	Departures
	1088	Baggage drop
	1089	Baggage collection
	1090	Luggage lockers
	1091	Taxi
	1184	Railway station
	1185	Tickets / Reservations
	1186	Exchange/Bank/Cash dispenser
	1187	Customs / Baggage control
	1092	Car park
	1024	Meeting point
	1032	No smoking area

Other legends or customised designs are available on request. There may be an additional cost.

Legends for sport facilities

Background colour: blue (standard)







	1075	Football / Soccer
	1093	Handball
	1094	Volleyball
	1095	Bowling
	1079	Ice hockey
	1078	Golf course
	1077	Swimming
	1076	Artistic gymnastics
	1080	Athletics
	1096	Ballet
	1097	Riding

Motif	No.	Description
-------	-----	-------------

The aspect ratios of the symbols (fire protection and first aid, etc.) comply with the regulations specified in the European Directive (92/58/EEC) „Minimum requirements for the provision of safety and/or health signs at work“, i.e. square-shaped symbols 1:1 and rectangular symbols 2:1. In the case of luminaires with different dimensions, the left and right borders are filled in opal.

Legends for fire fighting facilities

Legends in accordance with DIN 4844 and EECR 92/58
Background colour: red

	1057	Fire hose
	1059	Fire extinguisher
	1060	Fire alarm
	1061	Direction indicator, right
	1062	Direction indicator, left
	1063	Direction indicator, straight ahead

Direction indicators only in combination with a symbol for a fire fighting facility. Other legends or customised designs are available on request. There may be an additional cost.

Legends for first aid facilities

Legends in accordance with DIN 4844 and EECR 92/58
Background colour: green




	1034	First aid station
	1052	Stretcher
	1053	Doctor
	1054	Emergency telephone
	1055	Eye-rinsing facility
	1084	Emergency shower
	1009	Direction indicator, right
	1010	Direction indicator, left
	1056	Direction indicator, straight ahead

Direction indicators only in combination with a symbol for a first aid facility. Other legends or customised designs are available on request. There may be an additional cost.

Motif	No.	Description
-------	-----	-------------

Legends for prohibition signs





Legends in accordance with DIN 4844 and EECR 92/58
Background colour: white; Symbol: black;
Prohibition colour: red

	1064	Smoking prohibited
	1065	Fire, open flames and smoking prohibited
	1179	Restricted entry

Other legends or customised designs are available on request. There may be an additional cost.




Legends for mandatory signs

Legends in accordance with DIN 4844 and EECR 92/58
Background colour: light blue

	1067	Eye protection mandatory
	1068	Helmet mandatory
	1069	Ear protection mandatory
	1070	Protective gloves mandatory

Other legends or customised designs are available on request. There may be an additional cost.

Legends in accordance with EECR 92/58, and/or DIN 40008 and DIN 25430. Background colour: yellow;
Symbol: black

	1162	Radioactive materials, ionising radiation
	1172	Laser beams
	1173	Explosive gases

Other legends or customised designs are available on request. There may be an additional cost.

Any escape sign luminaire for central emergency power supply can also be ordered as luminaire sign. Please see the section on luminaire signs of our current product selection guide.

Reference number	Page	Reference number	Page	Reference number	Page	Reference number	Page	Reference number	Page
09-6230.000	69	671061.002	104	671113.753	132	671233.002.89	107	671359.004	103
09-6284.000	35	671061.002.04	104	671113.753.04	132	671233.004	107	671359.004.89	103
09-6286.000	35	671061.004	104	671126.912	191	671233.004.89	107	671363.002	105
09-6287.000	35	671061.004.04	104	671126.912.04	191	671235.002	107	671363.002.89	105
09-6289.000	35	671065.002	104	671126.913	191	671235.002.89	107	671363.004	105
09-6290.000	35	671065.002.04	104	671126.913.04	191	671235.004	107	671363.004.89	105
09-6292.000	35	671065.004	104	671148.000	15	671235.004.89	107	671367.002	107
09-6293.000	35	671065.004.04	104	671207.002	103	671236.912	113	671367.002.89	107
09-6295.000	35	671069.002	104	671207.002.89	103	671237.912	113	671367.004	107
09-6302.0177	67	671069.002.04	104	671207.004	103	671238.912	113	671367.004.89	107
09-6453.010	35	671069.004	104	671207.004.89	103	671247.912	133	671368.752	110
09-6453.020	35	671069.004.04	104	671209.002	103	671247.912.89	133	671368.752.04	110
09-6554.040	33	671073.002	104	671209.002.89	103	671247.913	133	671370.752	110
09-6554.050	33	671073.002.04	104	671209.004	103	671247.913.89	133	671370.752.04	110
09-6554.060	34	671073.004	104	671209.004.89	103	671248.912	133	671376.752	111
09-6555.040	33	671073.004.04	104	671211.002	103	671248.912.89	133	671376.752.89	111
09-6555.050	33	671077.002	106	671211.002.89	103	671248.913	133	671382.752	111
09-6555.060	34	671077.002.04	106	671211.004	103	671248.913.89	133	671382.752.89	111
09-6556.040	33	671077.004	106	671211.004.89	103	671254.912	121	671423.912	176
65936	211	671077.004.04	106	671213.002	103	671254.913	121	671423.912.04	176
65938	211	671081.002	106	671213.002.89	103	671287.912	113	671425.912	191
65940	211	671081.002.04	106	671213.004	103	671289.912	113	671425.912.04	191
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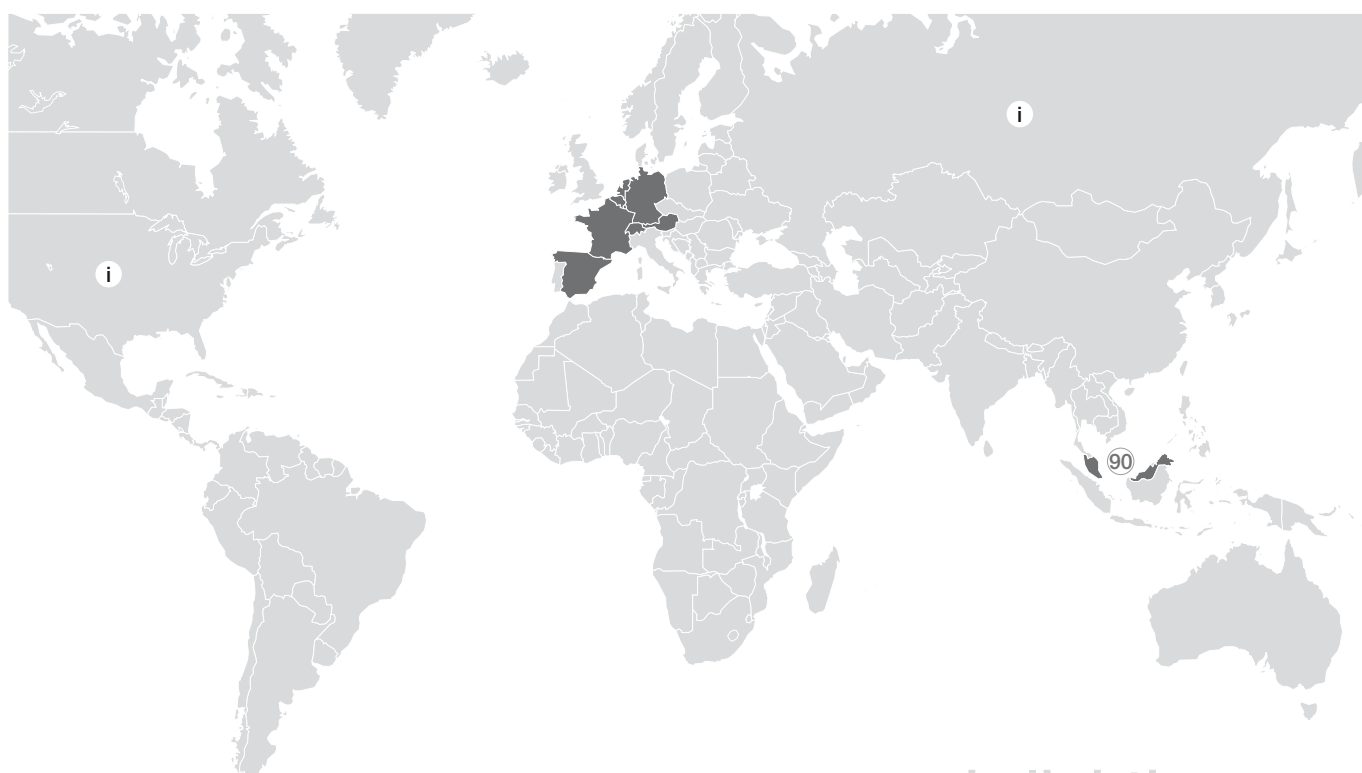
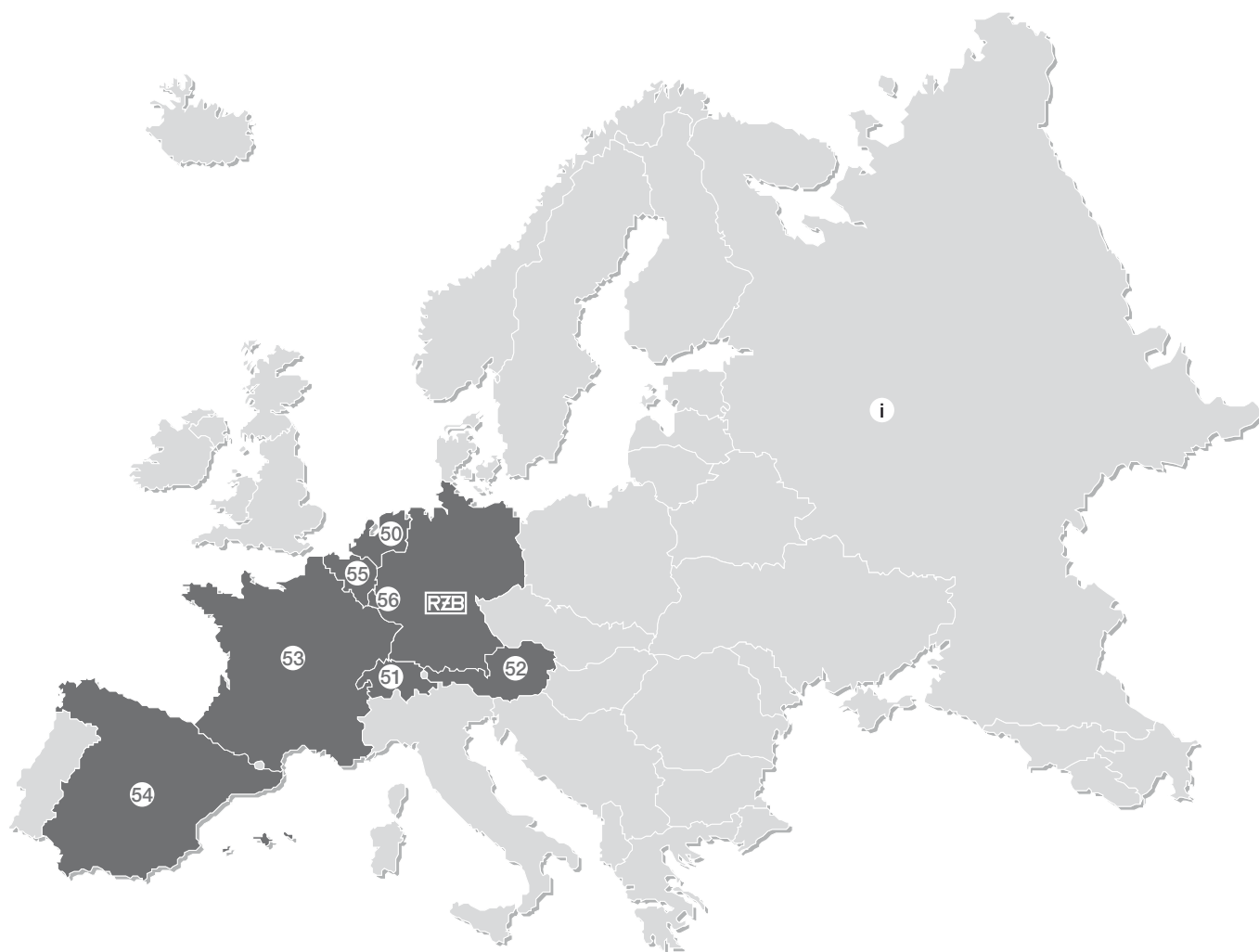
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