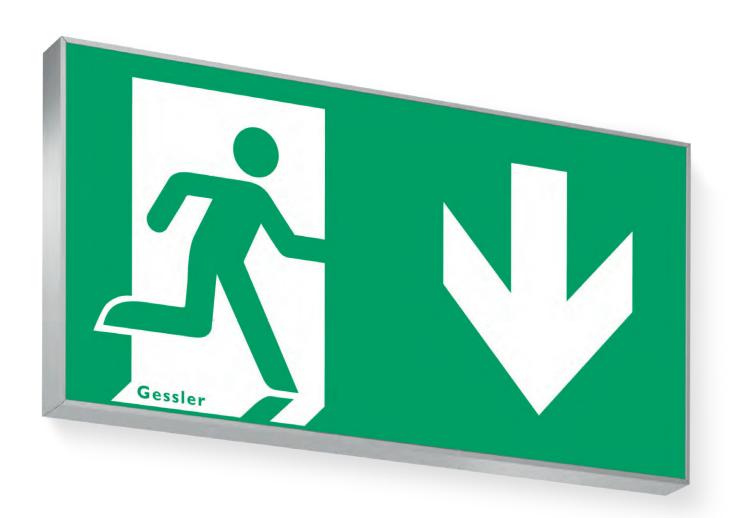
# CATALOGUE 2020



Gessler 4



### Experts for emergency lighting

since 1975

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ABOUT US



For the past 45 years, we have worked daily to extend our product range, to improve quality and to forge a real team of employees, now numbering 150. The Gessler team!

As the second generation of a family-run company, our employees are particularly close to our hearts. It is not self-evident for 14 different nationalities to pursue the same goal together and to do so daily with blood, sweat and tears.

We don't think in months or years, we think in generations. This corporate philosophy has allowed us to grow, even in difficult times. And we are proud of this.

We are specialists, service providers and problem solvers. But above all, we are the manufacturer of life-saving products. We are aware of this responsibility.

We are also a model for others to follow in a world which increasingly focuses on sustainability. We achieved our goal of "climate-neutral" production in 2018.

We say THANK YOU to all our customers, who like us, believe in Germany as a production location and by using "Made in Rodgau" products, help to ensure that it stays that way.

We are GESSLER.





"When it comes to safety, we make no compromises."

Marcus Gessler
Managing Shareholder, Gessler GmbH



### SUSTAINABLE PRODUCTS

### LEED CERTIFIED EXIT SIGN AND EMERGENCY LUMINAIRES



The topic of climate protection has long since shifted to the top of society's agenda. Climate change is possibly the greatest challenge of our time. Closely linked to this is the need to handle our resources more efficiently. This circumstance has brought about a particularly future-orientated area of the construction industry – ecological building.

For the clients and designers of a building, this voluntary stewardship task is a new challenge. Guidelines and measures are required, which make the sustainability of these "green" buildings measurable. To this end, the U.S. Green Building Council has developed an independent certification programme called "LEED".

#### U.S. Green Building Council - USGBC

The U.S. Green Building Council (USGBC), a not-for-profit organisation founded by leading representatives of the construction industry, has set itself the goal of promoting the construction of environmentally-compatible, profitable and user-friendly buildings.



To further develop the methods of "green building", the USGBC started the "LEED certification".

#### Leadership in Energy and Environmental Design - LEED

LEED is an independent certification programme, which is recognised internationally as a reference for the planning, design, construction and running of high-quality "green" buildings. Within the scope of the LEED requirements system, points are accumulated, which enable subsequent classification of a building's degree of sustainability achieved.

#### Deutsche Bank - Greentowers project

The Greentowers of the Deutsche Bankare a trailblazer of ecological building. With one of the largest building modernisation projects in Europe, Deutsche Bank wants to make an active contribution to climate protection as part of its voluntary commitment to sustainability. The planning basis is the LEED guidelines of the USGBC.

The energy-optimised and LEED certified emergency lighting made by Gessler is part of the integrated concept. The USGBC awarded the Gessler exit sign and safety luminaires the gold award.



### MADEINRODGAU

Each year, around 400,000 exit sign and emergency luminaires leave our production buildings in Rodgau.

Most of the products produced here have been awarded gold by the U.S. Green Building Council for "LEED - sustainable building"!

We have set ourselves the standard of only using materials that are 100 % recyclable. We achieved our objective of creating a sustainable and climate-neutral production facility in 2018. For us, the possibility of replacing the LED module of Gessler luminaires is just as much a given as your 10-year availability guarantee.





# STANDARDS AND REGULATIONS

To achieve correct emergency lighting that is compliance with the standards in Germany, you have to master standards and regulations with around 1000 pages present. The continuous revision of existing national standards and standards valid throughout Europe make it virtually impossible to know the current situation.

We have set ourselves the task of guiding you through this standards jungle. As active members of workgroups of the DIN and DKE, we are pleased to pass on our knowledge to you in a simple and comprehensible way in the form of our standards and regulations booklet.

To keep the Gessler standards and regulations booklet up to date, we publish a revised edition with each standard amendment.

This is naturally also available for you to download from our website.

Several times a year we also pass on our knowledge "face-to-face". Our Gessler seminardays are renowned throughout Germany.

If you are interested in participating in our seminar days or in the printed version of our standards and regulations booklet, please contact us or send us an email to: vorschriften@gessler.de.

Your Gessler team







### OUR REFERENCES





The "Doppelturm" (twin tower) in Frankfurt's Ostend district is already a new highlight in the city's skyline. The building designed by the Viennese architects Coop Himmelb(I)au provides space for 2900 employees. The building is quite literally a highlight: The two glass towers are 165 and 185 metres high. The total gross floor area is around 185,000 square metres.

Even before construction began, it was clear that the Central Bank was to become a building that made careful use of energy and drinking water resources. For example, one requirement was for the building to use 30% less energy than required under the German Energy Saving Ordinance ("Energieeinsparverordnung" – EnEV).

To achieve this target, among other things, a highly thermally insulated building envelope, efficient sun control, use of rainwater and highly efficient heat recovery were required.

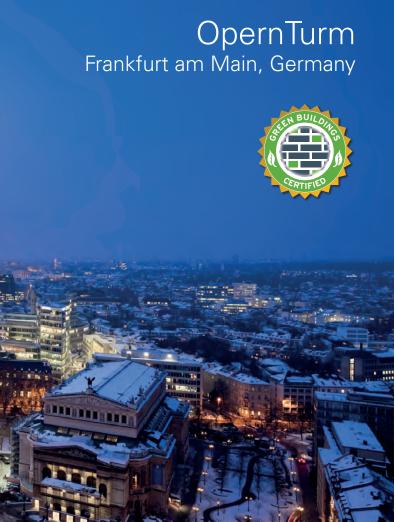
The complexity of this unusual building is also reflected in the emergency lighting standards. While the emergency lighting in the twisted twin office towers of the ECB is monitored by a Gessler ESPS system in DALI technology, in the so-called entrance structure (the former wholesale market hall) a Gessler DALI central battery system ensures safety.

The Viennese architects also had clear ideas for the design of the exit sign luminaires. Of the 1500 luminaires installed, more than 1000 are custom-made, and fit seamlessly in the award-winning interior design.





In the middle of the Tyrolean mountain world, on grand terrain lies the Grand SPA Resort A-ROSA Kitzbühel in front of a divine alpine backdrop. The view of the picturesque panorama with Hahnenkamm und Streif peaks takes your breath away. In addition to the "European Property Award" conferred in London in the "Best Hotel Construction & Design" category for architecture, the 3,000 m² spa area recently also received the "SPA Diamond Award". The standard of the architect and electrical designer to base the emergency lighting discreetly on the architecture was a challenge we were pleased to accept, and we mastered it extremely successfully. The operators trust a Gessler central battery system "Made in Germany".



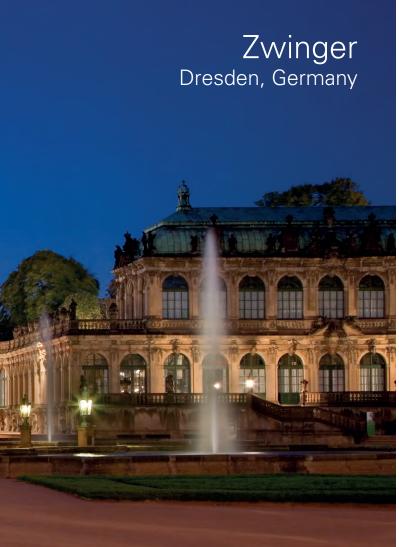
The OpernTurm symbolises the international image of the City of Frankfurt. Where business and culture meet, the landmark of the financial metropolis rises directly next to the old opera house. In an exclusive inner-city location, the "OpernTurm" (opera tower) offers its users office space at an international standard. It was one of the first new high-rise office buildings in Europe to be certified with the US LEED Gold environmental standard. On a site of approx. 10,300 m² and 42 storeys, 170 m high, the OpernTurm provides total of 66,000 m² space for high-end office and shop space. In total, 2 central units with 74 substations supply the approx. 4,000 monitored luminaires made by Gessler.

THE SQUAIRE is an architectural master stroke with connection to Frankfurt's airport and direct link to the largest motorway hub in Europe. The 660 metre long and nine storeys (45 metre) high building was built above the mainline railway station. In addition to 140,000 m² shopping space, the building also provides a 5-star hotel with 34,000 m² and a new home for an auditing firm on 30,000 m². In addition, 93,000 m² office space and a catering area with over 5,700 m² were created. Gessler central battery systems supply and monitor 30 substations and more than 300 emergency power distribution panels supplied from ESPSs. In total, 6,500 Gessler exit sign and emergency luminaires ensure the highest possible safety.









The Dresdner Zwinger is one of the most well-known Baroque buildings in Germany, and next to the Frauen-kirche Church, it is the most famous building heritage site in the Saxon state capital. The "Gesamtkunstwerk" (total work of art) erected under the management of the architect Matthäus Daniel Pöppelmann and the sculptor Balthasar Permoser comprises architecture, statuary art and painting and is one of the most significant structures of the Baroque period. The Zwinger is now home to the Old Masters painting gallery, the Mathematical-Physical Salon, the Porcelain Collection and the Armoury. The operators trust in emergency luminaires and a direct current power supply system made by Gessler.

### Nürburgring Nürburg, Germany

Europe's most traditional race course, opened in 1927, was in operation in its original form with the around 28 km long legendary "mountain, racing and test route" unit 1982. During the course of the "Nürburgring 2009" project, from 2007 the "World of Experience" building and the adjacent car park were demolished and the area surrounding the Nürburgring was modified and extended. Among other things, the Nürburgring is the venue for the famous "Rock am Ring" music festival, which attracts around 80,000 visitors annually. The new main stand provides space for 5,000 people. The VIP lounge with space for 600 persons is located in the top area. Gessler exit signs and emergency luminaires are supplied by 5 central battery systems and ensure an optimum safety standard at the Nürburgring.



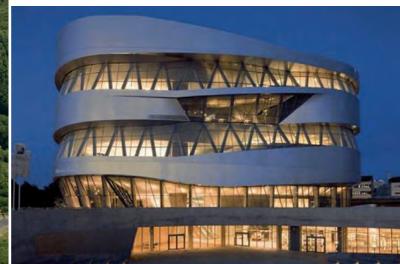
The Commerzbank Arena is located on the site of its fantastic predecessor – the legendary Frankfurter Wald Stadium. The stadium, opened in 1925 and modernised many times since then, was re-erected as a pure football stadium within three years for the World Cup 2006. With a capacity of 51,500 spectators, it is one of the ten largest football stadiums in Germany. Four central battery systems and 20 substations ensure maximum safety along all escape routes.







### Mercedes-Benz Museum Stuttgart, Germany

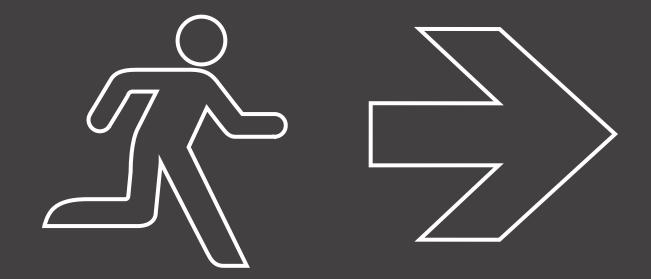




The building of the Mercedes-Benz Museum, winner of multiple awards, is home to the inheritance of the Mercedes-Benz brand. On nine levels with 16,500 m² present 160 breathtaking vehicles from more than 125 years of automotive history. This project was implemented with the engineering consultants Ingenieurbüro für Elektrotechnik Werner Schwarz GmbH, with particular imagination. At the request of the architects, the LED exit sign luminaires were installed recessed and flush with the wall surface (without all-round shadows). In the building's foyer, Gessler luminaires are installed with fine steel wires with a length of 4 m so that they "float".







# EXIT SIGN LUMINAIRES

### PRODUCT OVERVIEW



#### DISPLAY 3000/G1

12 m | IP20 System | Rechargeable battery p. 34



#### DISPLAY 9000

24 m | IP41 System | Rechargeable battery p. 48



#### DISPLAY 3000/G6 | /F6

24 m | IP20 System | Rechargeable battery p. 36



#### DISPLAY P9000

24 m | IP67 System | Rechargeable battery p. 50



#### DISPLAY 3000/G5

31 m | IP20 System | Rechargeable battery p. 38



#### DISPLAY 9100

31 m | IP41 System | Rechargeable battery p. 52



#### DISPLAY 2200

22 m | IP41 System | Rechargeable battery p. 40



#### LUMINA 2000/5 | /7

18 m | 27 m | IP40 System | Rechargeable battery p. 54



#### DISPLAY 2000/G4

24 m | IP41 System luminaire p. 42



#### LUMINA 2000/8 | /17

38 m | 56 m | IP40 System | Rechargeable battery p. 56 | p. 58



#### DISPLAY 2000/G3

24 m | IP41 Rechargeable battery luminaire p. 44



#### LUMINA 2000/12

30 m | IP41 System | Rechargeable battery p. 60



#### DISPLAY 2000/G7

31 m | IP41 System | Rechargeable battery p. 46



#### LUMINA 2000/24

30 m | IP54 System | Rechargeable battery p. 62



PRION 22 22 m | IP40 System luminaire p. 64



LUMINA 2000/26 38 m | IP54 | IK10 System luminaire p. 80



PRION 32 32 m | IP40 System luminaire p. 66



LUMINA 2000/27 38 m | IP40 | IK10 System | Rechargeable battery p. 82



FLATLIGHT FL1 30 m | IP41 System | Rechargeable battery p. 68



EXIT SIGN LUMINAIRE BR1 | BR2 38 m | IP54 | IK10 System | Rechargeable battery p. 84 | p. 86



LUMINA 2000/1 16 m | IP44 System | Rechargeable battery p. 70



EXIT SIGN CUBE B35 35 m | IP54 | IK08 System | Rechargeable battery p. 88



LUMINA 2000/16 26 m | 27 m | IP54 | IK08 System | Rechargeable battery p. 72



EXIT SIGN CUBE W25 25 m | IP40 | IP54 System | Rechargeable battery p. 91



DISPLAY VISION 24 m | IP41 System | Rechargeable battery p. 74



EXIT SIGN CUBE W35 35 m | IP40 | IP54 System | Rechargeable battery p. 92



PATHFINDER VISION1 24 m | IP41 System luminaire p. 76



EXIT SIGN CUBE W60 60 m | IP40 System luminaire p. 93



PATHFINDER VISION2 24 m | IP41 System luminaire p. 78

## OUICKFINDER VIEWING DISTANCES + IP CLASSES

	IP20	IP40	IP41	IP44	IP54	IP67
12 m	DISPLAY 3000/G1					
16 m				LUMINA 2000/1		
18 m		LUMINA 2000/5				
22 m		PRION 22	DISPLAY 2200			
24 m	DISPLAY 3000/G6 DISPLAY 3000/F6		DISPLAY 9000 DISPLAY VISION DISPLAY 2000/G3 DISPLAY 2000/G4 PATHFINDER V1 PATHFINDER V2			DISPLAY P9000
25 m		EXIT SIGN CUBE W25			EXIT SIGN CUBE W25	
26 m					LUMINA 2000/16	
27 m		LUMINA 2000/7			LUMINA 2000/16	
30 m			FLATLIGHT FL1 LUMINA 2000/12		LUMINA 2000/24	
31 m	DISPLAY 3000/G5		DISPLAY 9100 DISPLAY 2000/G7			
32 m		PRION 32				
35 m		EXIT SIGN CUBE W35			EXIT SIGN CUBE W35 EXIT SIGN CUBE B35	
38 m		LUMINA 2000/08 LUMINA 2000/27			EXIT SIGN LUMINAIRE BR1 EXIT SIGN LUMINAIRE BR2 LUMINA 2000/26	
56 m		LUMINA 2000/17				
60 m		EXIT SIGN CUBE W60				

# QUICKFINDER TYPES OF INSTALLATION

	WALL	RECESSED WALL INSTALLATION	CEILINGS	RECESSED CEILING INSTALLATION	PENDANT	SUS- PENDED	SUSPENDED, RECESSED BASE	EYELET	WALL BRACKET
DISPLAY 3000/G1				•					
DISPLAY 3000/G6				•					
DISPLAY 3000/F6				•					
DISPLAY 3000/G5				•					
DISPLAY 2200	•		•			•			
DISPLAY 2000/G4	•		•		•	•	•	•	•
DISPLAY 2000/G3	•		•		•	•	•	•	•
DISPLAY 2000/G7	•		•		•			•	•
DISPLAY 9000	•		•		•	•	•		
DISPLAY P9000	•		•						
DISPLAY 9100	•		•		•	•	•		
LUMINA 2000/5	•		•		•			•	•
LUMINA 2000/7	•		•		•			•	•
LUMINA 2000/8	•		•		•			•	•
LUMINA 2000/17	•		•		•			•	•
LUMINA 2000/12	•		•						
LUMINA 2000/24	•		•					•	•
PRION 22	•	•	•	•		•	•		
PRION 32	•	•	•	•		•	•		
FLATLIGHT FL1	•								
LUMINA 2000/1	•		•		•			•	•
LUMINA 2000/16	•		•					•	•
DISPLAY VISION	•		•	•	•	•		•	•
PATHFINDER V1	•		•	•					
PATHFINDER V2	•		•	•					
LUMINA 2000/26	•								
LUMINA 2000/27		•							
EXIT SIGN LUMINAIRE BR1	•		•						•
EXIT SIGN LUMINAIRE BR2			•						•
EXIT SIGN CUBE B35			•						•
EXIT SIGN CUBE W25			•		•	•		•	•
EXIT SIGN CUBE W35			•		•	•		•	•
EXIT SIGN CUBE W60			•			•		•	







## DISPLAY 3000/G1 12m IP20



#### DISPLAY 3000/G1

Our smallest exit sign luminaire must be seen to be believed. Despite the compact design, it has a viewing distance of 12 m. Designed for low ceilings and properties with high-end architecture.



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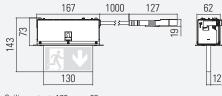
#### SPECIAL FEATURE

Fast and easy installation due to the Wieland push-fit gesis® system

#### OPTIONS / ACCESSORIES

- Fascia made of brushed stainless steel Other RAL colours on request

#### RECESSED CEILING INSTALLATION



Ceiling cutout: 170 mm x 63 mm Maximum ceiling thickness: 43 mm

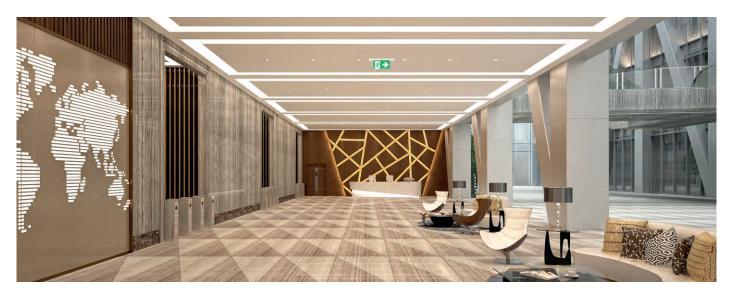
# DISPLAY 3000 G6 | F6 1P20





#### DISPLAY 3000/G6 | 3000/F6

Two who set the agenda. While the Display 3000/G6 was designed for standard ceiling heights, with the Display 3000/F6 we have developed a solution for small installation depths. When installed, the two are identical visually.



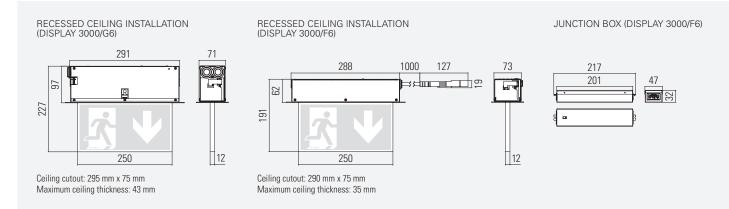
DISPLAY 3000/G6   3000/F6	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE (3000/G6 only)	
Viewing distance	24 m		
Degree of protection	IP20		
Class		I	
Enclosure material		Sheet steel	
Enclosure colour/surface	RA	L 9016 (white)	
Terminal block	3 x 2.5 <sup>-</sup>	for through wiring	
Light source		LED	
Ambient temperature	-20° C to +40° C	0° C to +40° C	
Connected load (AC/DC)	10.0 VA/5.5 W		
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz	
Rechargeable battery		3.6 V/2.5 Ah (NiCd)	
VERSIONS			
1 h with auto-check   with BUS check		•   •	
3 h with auto-check   with BUS check		•   •	
8 h with auto-check   with BUS check	h with auto-check   with BUS check		
without monitoring module	•		
with monitoring module	•		
with DALI monitoring	•		
Cinema version Luminous flux in normal mode 10 % (DG6 only)	•		

### SPECIAL FEATURE

- Display 3000/F6: for ceilings with small installation depth

### OPTIONS /ACCESSORIES

- Fascia made of brushed stainless steel
- Ball guard
- Concrete casting box (DG6\_BET)
   Other RAL colours on request



# DISPLAY 3000/G5 31 m iP20



### DISPLAY 3000/G5

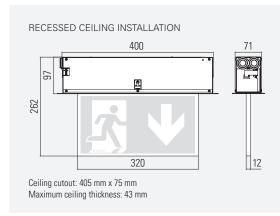
When the aim is to be seen, the Display 3000/G5 is the best choice. With a viewing distance of 31 m, our largest recessed ceiling luminaire is a real eyecatcher.



### OPTIONS / ACCESSORIES

Luminous flux in normal mode 10 %

- Fascia made of brushed stainless steel
- Ball guard
- Concrete casting box (DG\_BET)
- Other RAL colours on request



## DISPLAY 2200 22 m 1P41



## DISPLAY 2200

Discreetly in the background, but ready when it's needed. The surface-mounted enclosure can be pivoted continuously and is therefore not only suitable for mounting on the wall, but also on the ceiling. The free bright display panel is enclosed in a matt anodised enclosure made of aluminium.



### DISPLAY 2200 SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE Viewing distance 22 m IP41 Degree of protection Class Aluminium Enclosure material Enclosure colour/surface Silver anodised Terminal block $3 \times 2.5$ for through wiring Light source LED -20° C to +40° C Ambient temperature $0^{\circ}$ C to +40° C Connected load (AC/DC) $6.6\,\mathrm{VA}/3.7\,\mathrm{W}$ $230V \pm 10\%$ , Supply voltage $230V \pm 10 \%$ , 50/60 Hz50/60 Hz/176-275 V DC Rechargeable battery 4.8 V/0.8 Ah (NiMH)

### VERSIONS

VERSIONS	
1 h with auto-check   with BUS check	•
3 h with auto-check   with BUS check	• [
8 h with auto-check   with BUS check	
without monitoring module •	
with monitoring module	
with DALI monitoring	
Cinema version Luminous flux in normal mode 10 %	

### SPECIAL FEATURE

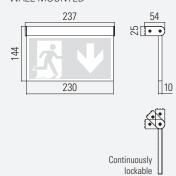
- Power supply via wire suspension Universal surface-mounting due to pivoted luminaire body

### OPTIONS /ACCESSORIES

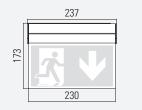
- Wire lengths up to 6 m Other RAL colours on request



### WALL MOUNTED

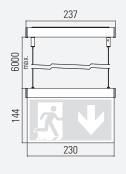


### CEILING MOUNTED





### SUSPENDED





## DISPLAY 2000/G4 24 m IP41



## DISPLAY 2000/G4

Show a clear edge. The Display 2000/G4 is a real all-rounder. Whether design or option variety, this exit sign luminaire that has been awarded gold for sustainable building is convincing.



DISPLAY 2000/G4 SYSTEM LUMINAIRE

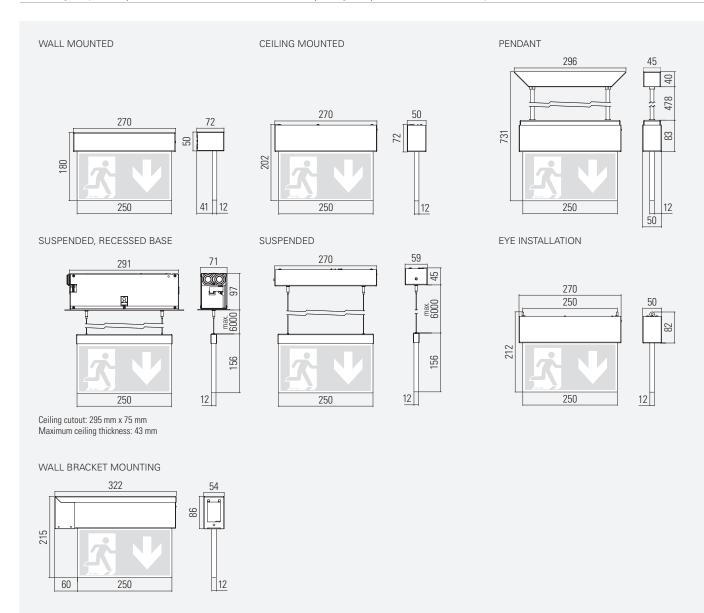
DISPLAY 2000/G4	SYSTEM LUMINAIRE		
Viewing distance	24 m		
Degree of protection	IP41		
Class	I		
Enclosure material	Sheet steel		
Enclosure colour/surface	RAL 9016 (white)		
Terminal block	$3 \times 2.5^{\square}$ for through wiring		
Light source	LED		
Ambient temperature	-20° C to +40° C		
Connected load (AC/DC)	10.0 VA/5.5 W Suspended surface mounted and suspended recessed installation with different connected load (AC/DC): 10.1 VA/6.0 W		
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC		
VERSIONS			
1 h with auto-check   with BUS check			
3 h with auto-check   with BUS check			
8 h with auto-check   with BUS check			
without monitoring module	•		
with monitoring module	•		
with DALI monitoring			
Cinema version Luminous flux in normal mode 10 %	•		
SPECIAL FEATURE			

### SPECIAL FEATURE

- Power supply via wire suspension

### OPTIONS /ACCESSORIES

-Wire lengths up to 6 m | - Enclosure made of brushed stainless steel | - Ball guard | - Other RAL colours on request

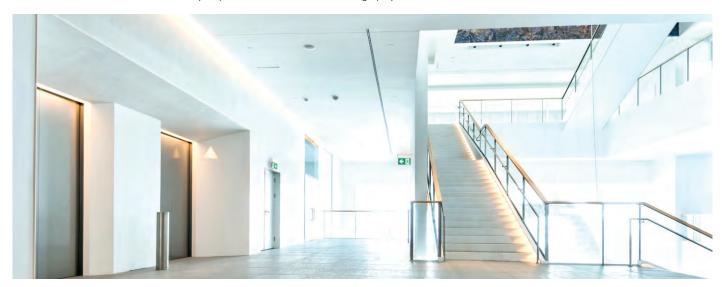


## DISPLAY 2000/G3 24 m IP41



## DISPLAY 2000/G3

The Display 2000/G3 has a convincing linear design. Only available as a rechargeable battery version, the exit sign luminaire has 7 types of installation to choose from and so it is therefore the ideal exit sign luminaire for any place of use. Whether 1h, 3h or 8h stored energy time, our Display 2000/G3 is THE self-contained luminaire for every requirement. At least where design plays a role.



### DISPLAY 2000/G3

### RECHARGEABLE BATTERY LUMINAIRE

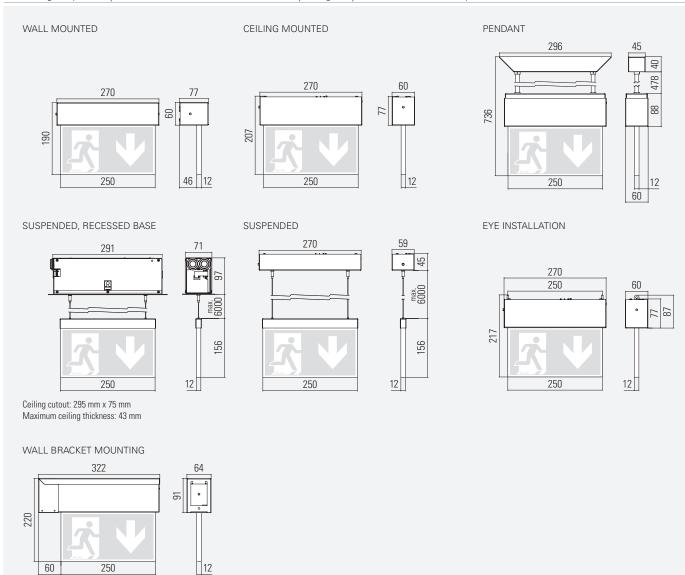
DISPLAY 2000/G3	RECHARGEABLE BATTERY LUMINAIRE	
Viewing distance	24 m	
Degree of protection	IP41	
Class	l	
Enclosure material	Sheet steel	
Enclosure colour/surface	RAL 9016 (white)	
Terminal block	$3 \times 2.5^{\square}$ for through wiring	
Light source	LED	
Ambient temperature	0° C to +40° C	
Connected load (AC)	7.6 VA Suspended surface mounted and suspended recessed installation with different connected load (AC/DC): 10.1 VA/6.0 W	
Supply voltage (AC)	230V ± 10 %, 50/60 Hz	
Rechargeable battery	3.6 V/2.5 Ah (NiCd)	
VERSIONS		
1 h with auto-check   with BUS check	• •	
3 h with auto-check   with BUS check	•   •	
8 h with auto-check   with BUS check	•   •	
without monitoring module		
with monitoring module		
with DALI monitoring		
Cinema version Luminous flux in normal mode 10 %		

### SPECIAL FEATURE

- Power supply via wire suspension

### OPTIONS /ACCESSORIES

-Wire lengths up to 6 m | - Enclosure made of brushed stainless steel | - Ball guard | - Other RAL colours on request



## DISPLAY 2000/G7 31 m IP41



## DISPLAY 2000/G7

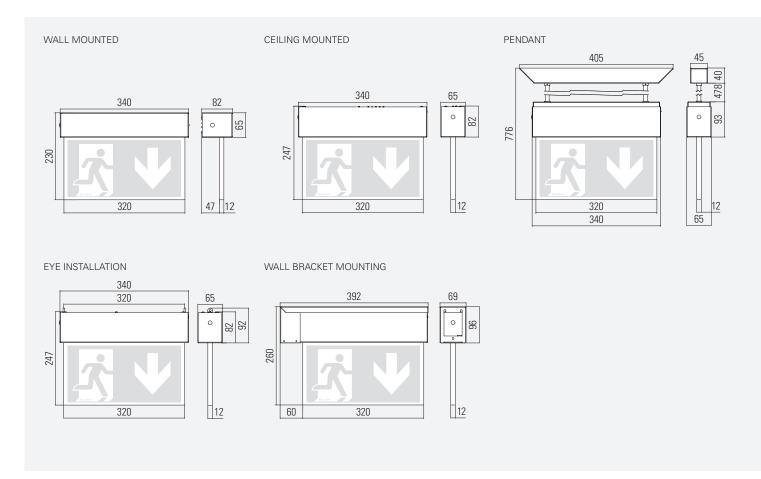
With a viewing distance of 31 m, the Display 2000/G7 is unmissable. Whether as a system or rechargeable battery version, this exit sign luminaire is game-changing. Particularly suitable for shopping centres, schools and airports.



	•   •
	•   •
	•   •
•	
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•	
•	
	•

### OPTIONS /ACCESSORIES

- Enclosure made of brushed stainless steel
- Ball guard
- Other RAL colours on request



## DISPLAY 9000 24 m IP41



## DISPLAY 9000

Beauty is debatable. But in the case of the Display 9000 we are agreed. The brushed stainless steel enclosure is a highlight, in the hotel foyer, in the executive suite and any other building with high standards.



### DISPLAY 9000 SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE 24 m Viewing distance IP41 Degree of protection Class Stainless steel Enclosure material Enclosure colour/surface brushed 3 x 2.5 □ for through wiring Terminal block Light source LED -20° C to +40° C Ambient temperature $0^{\circ}$ C to +40° C Connected load (AC/DC) 10.1 VA/6.0 W $230 V \pm 10 \%$ , 230V ± 10 %, 50/60 Hz Supply voltage 50/60 Hz/176-275 V DC 4.8 V/0.8 Ah (NiMH) W/C/R Rechargeable battery 3.6 V/2.5 Ah (NiCd) wire, recessed box

### **VERSIONS**

1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	
Cinema version Luminous flux in normal mode 10 %	•	

### SPECIAL FEATURE

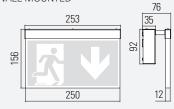
- Power supply via wire suspension

### OPTIONS /ACCESSORIES

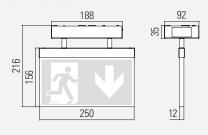
- -Wire lengths up to 6 m
- Concrete adapter for surface-mounted installation
- Concrete casting box (DG6\_BET)



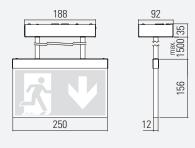
### WALL MOUNTED



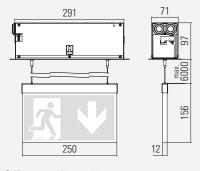
### **CEILING MOUNTED**



### PENDANT

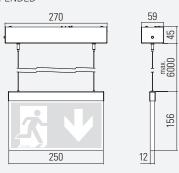


### SUSPENDED, RECESSED BASE



Ceiling cutout: 295 mm x 75 mm Maximum ceiling thickness: 43 mm

### SUSPENDED





## DISPLAY P9000 24 m 1P67

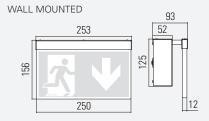


## DISPLAY P9000

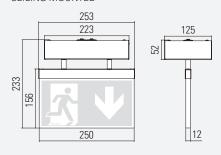
What we intended when we developed a design luminaire in IP67? Nothing! It was our customers who gave us the idea. We say thank you for the inspiration for the P9000.



DISPLAY P9000	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance	24 m	
Degree of protection		IP67
Class		1
Enclosure material		Stainless steel
Enclosure colour/surface		brushed
Terminal block	3 x :	2.5□ for through wiring
Light source		LED
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	10.1 VA/6.0 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	$230V \pm 10\%$ , $50/60Hz$
Rechargeable battery		4.8 V/0.8 Ah (NiMH)
VERSIONS		
1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	
Cinema version Luminous flux in normal mode 10 %	•	
SPECIAL FEATURE		
- Very high degree of protection (IP67)		



## CEILING MOUNTED



## DISPLAY 9100 31 m IP41



## DISPLAY 9100

The apple doesn't fall far from the tree. The large brother of the Display 9000 also has a stylish presence in an equally elegant stainless steel enclosure. The Display 9100 is available for 5 types of installation and also scores bonus points with its large viewing distance of 31 m.



DISPLAY 9100	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance	31 m	
Degree of protection		IP41
Class		I
Enclosure material		Stainless steel
Enclosure colour/surface		brushed
Terminal block	3 x	2.5 for through wiring
Light source		LED
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	10.1 VA/6.0 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery		4.8 V/0.8 Ah (NiMH)
VERSIONS		
1 h with auto-check   with BUS check		• •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		
without monitoring module •		
with monitoring module •		
with DALI monitoring •		
Cinema version Luminous flux in normal mode 10 %	•	

### SPECIAL FEATURE

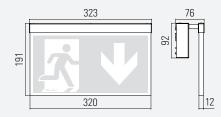
- Power supply via wire suspension

### OPTIONS /ACCESSORIES

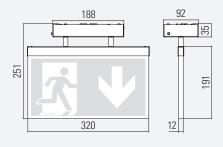
- Concrete adapter
- Concrete casting box



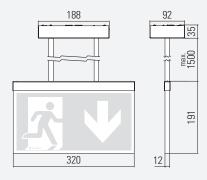
### WALL MOUNTED



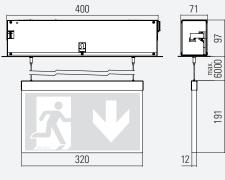
### CEILING MOUNTED



### PENDANT

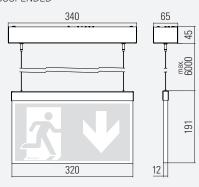


### SUSPENDED, RECESSED BASE



Ceiling cutout: 405 mm x 75 mm Maximum ceiling thickness: 43 mm

## SUSPENDED



# LUMINA 2000/5 | 7 18 m | 27 m IP40



### LUMINA 2000/5 | 2000/7

The design classic. The tried and tested Profile luminaire series is available with four viewing distances. We are also still producing this series with the tried and tested window for downward light emission.



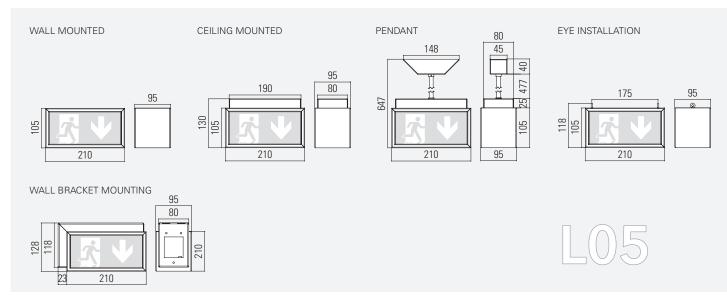
LUMINA 2000/5   2000/7	SYSTEM LUMINAIRE (2000/5)	SYSTEM LUMINAIRE (2000/7)	RECHARGEABLE BATTERY LUMINAIRE (2000/7)
Viewing distance	18 m		27 m
Degree of protection	IP40		IP40
Class	I		I
Enclosure material	Aluminium		Aluminium
Enclosure colour/surface	RAL 9016 (white)	R.	AL 9016 (white)
Terminal block	3 x 2.5 do for through wiring	3 x 2.5	for through wiring
Light source	LED		LED
Ambient temperature	-20° C to +40° C	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	10.0 VA/5.5 W	10.0 VA/5.5 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery			3.6 V/2.5 Ah (NiCd)
VERSIONS			
1 h with auto-check   with BUS check			•   •
3 h with auto-check   with BUS check			• •
8 h with auto-check   with BUS check			•   •
without monitoring module	•	•	

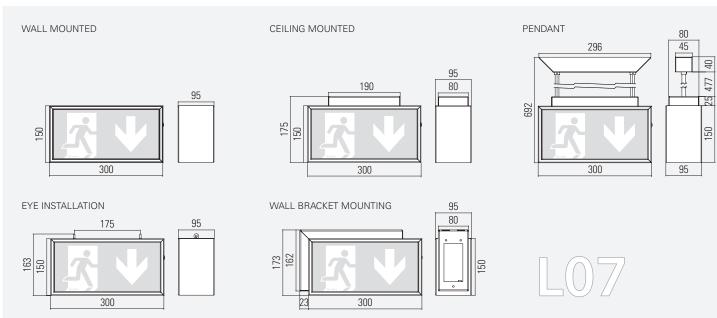
## Cinema version Luminous flux in normal mode 10 % SPECIAL FEATURE

with monitoring module with DALI monitoring

### OPTIONS / ACCESSORIES

- Ball guard | - Other RAL colours on request







<sup>-</sup> Pictogram set included | - Enclosure with additional window for downward light emission

## LUMINA 2000/8 38 m IP40



### **LUMINA 2000/8**

Clear edge. Our design classic has been successful for 20 years and is also still produced with the tried and tested light emission window.



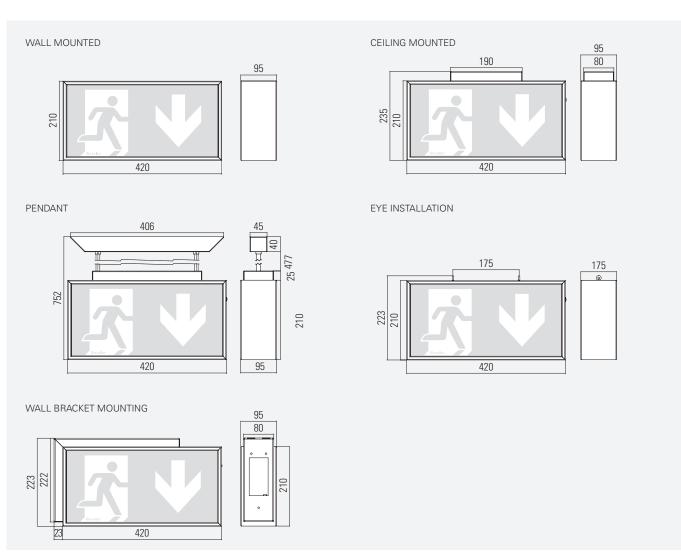
VEHOIONO		
1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		•   •
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	
Cinema version Luminous flux in normal mode 10 %	•	

### SPECIAL FEATURE

- Pictogram set included
- Enclosure with additional window for downward light emission

### OPTIONS / ACCESSORIES

- Ball guard
- Other RAL colours on request



## LUMINA 2000/17 56 m IP40



### LUMINA 2000/17

90/60/90 was yesteryear, 60/30/95 are the ideal dimensions of our 2000/17. With a viewing distance of 56 m, our largest exit sign luminaire is ideally suitable for shopping centres, railway stations and airports.



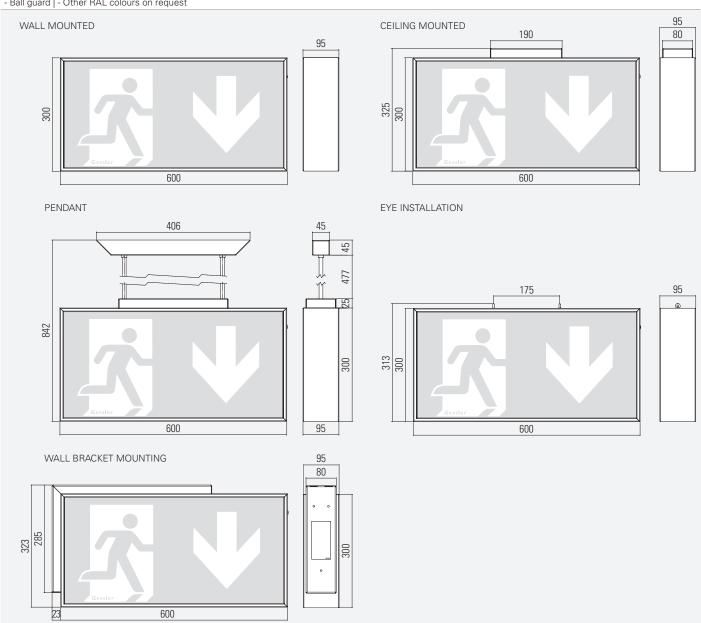
1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	
Cinema version Luminous flux in normal mode 10 %	•	

### SPECIAL FEATURE

- Enclosure with additional window for downward light emission

### OPTIONS / ACCESSORIES

- Ball guard | - Other RAL colours on request



## LUMINA 2000/12 30 m IP41



### LUMINA 2000/12

Square, practical, green. The CIE 93.2 is responsible for the latter. With the Lumina 2000/12, we have ensure that this green is still visible from a distance of 30 m.



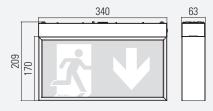
LUMINA 2000/12	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance	30 m	
Degree of protection		IP41
Class		1
Enclosure material		Aluminium
Enclosure colour/surface		RAL 9016 (white)
Terminal block	3 x :	2.5 <sup>□</sup> for through wiring
Light source		LED
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	10.3 VA/5.6 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery	-	3.6 V/2.5 Ah (1h/3h) (NiCd)
VERSIONS		
1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		
Cinema version Luminous flux in normal mode 10 %	•	
SPECIAL FEATURE		
- Pictogram set included		
OPTIONS /ACCESSORIES		

- Ball guard - Other RAL colours on request

### WALL MOUNTED



### CEILING MOUNTED



## LUMINA 2000/24 30 m IP54



### LUMINA 2000/24

It really clicks! Our Lumina 2000/24 can be opened (and closed again) without tools. Nonetheless, it has a high degree of protection. It doesn't matter if you mislay your screwdriver. That's real engineering performance "Made in Rodgau".



LUMINA 2000/24	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance	30 m	
Degree of protection		IP54
Class		1
Enclosure material	Aluminium	
Enclosure colour/surface	RAL 9016 (white)	
Terminal block	3 x 2.5 □ for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	10.0 VA/5.5 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery		3.6 V/2.5 Ah (NiCd)
VERSIONS		
1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		• •
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	
Cinema version Luminous flux in normal mode 10 %	•	

### SPECIAL FEATURE

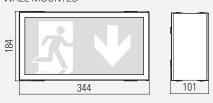
- Pictogram set included
- High degree of protection (IP65)
- Enclosure can be opened/closed without tools

### OPTIONS /ACCESSORIES

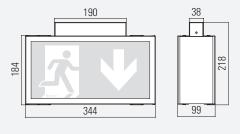
- Ball guard Other RAL colours on request



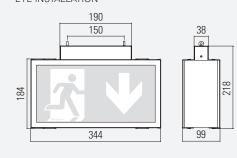
### WALL MOUNTED



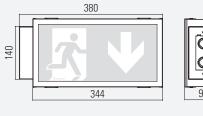
### CEILING MOUNTED



### EYE INSTALLATION

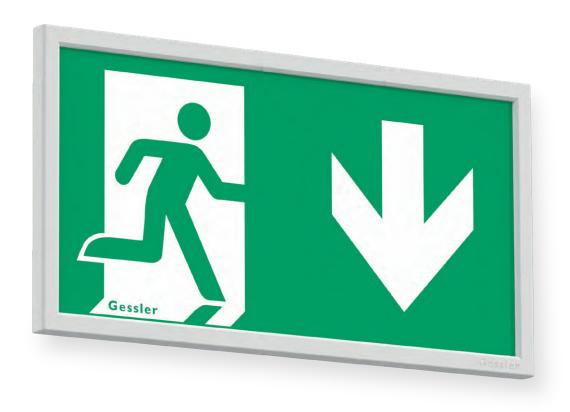


### WALL BRACKET MOUNTING





# PRION 22 22 m IP40



### PRION 22

Beauty is in the eye of the beholder. We say that from now on, beauty hangs on the wall. Despite the small enclosure dimensions, the PRION 22 has the optimum viewing distance of 22 m and is therefore particularly suitable for reception areas, corridors and event rooms.



PRION 22 SYSTEM LUMINAIRE

Viewing distance	22 m	
Degree of protection	IP40	
Class		
Enclosure material	Polycarbonate	
Enclosure colour/surface	white	
Terminal block	3 x 2.5 □ for through wiring	
Light source	LED	
Ambient temperature	0° C to +40° C	
Connected load (AC/DC)	4.5 VA / 4.0 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	

### **VERSIONS**

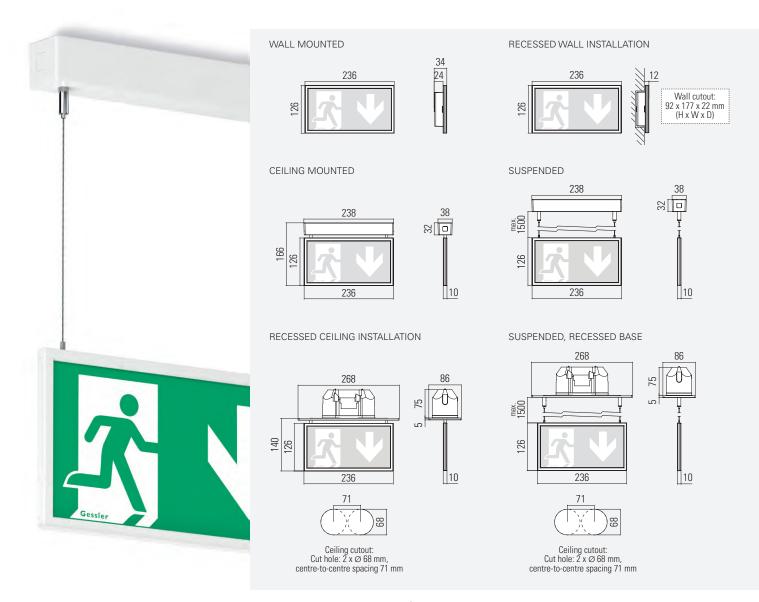
1 h with auto-check   with BUS check		
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		
Cinema version Luminous flux in normal mode 10 %		

### SPECIAL FEATURE

- Power supply via wire suspension

### OPTIONS / ACCESSORIES

- -Wire lengths up to 6 m
- Fire resistant box for installation in F30/90 fire resistant ceilings
- Concrete installation box for installation in concrete ceilings



## PRION 32 32 m IP40



## PRION 32

Green is not only healthy. In the case of the PRION 32, green can also save lives. The large brother of the PRION 22 can still show the escape route from 32 m distance. It is particularly suitable for use in long corridors and large event halls.



PRION 32 SYSTEM LUMINAIRE

Viewing distance	32 m	
Degree of protection	IP40	
Class		
Enclosure material	Polycarbonate	
Enclosure colour/surface	white	
Terminal block	3 x 2.5 □ for through wiring	
Light source	LED	
Ambient temperature	0° C to + 40° C	
Connected load (AC/DC)	7.5 VA / 7.0 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	

### **VERSIONS**

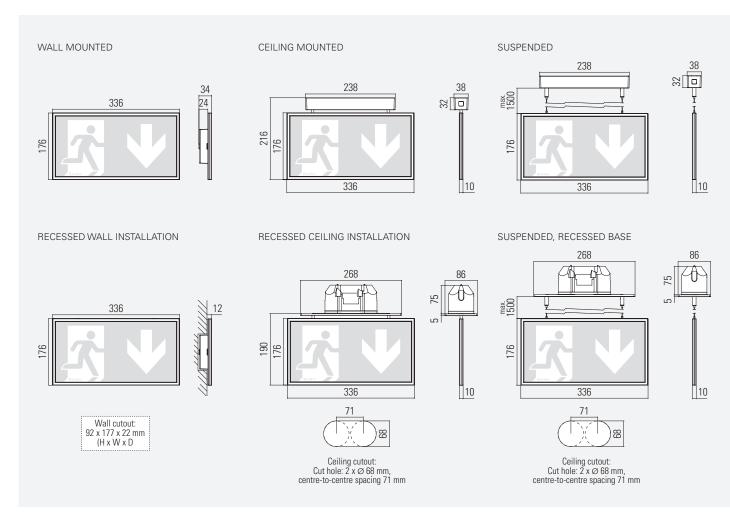
1 h with auto-check   with BUS check		
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		
Cinema version Luminous flux in normal mode 10 %		

### SPECIAL FEATURE

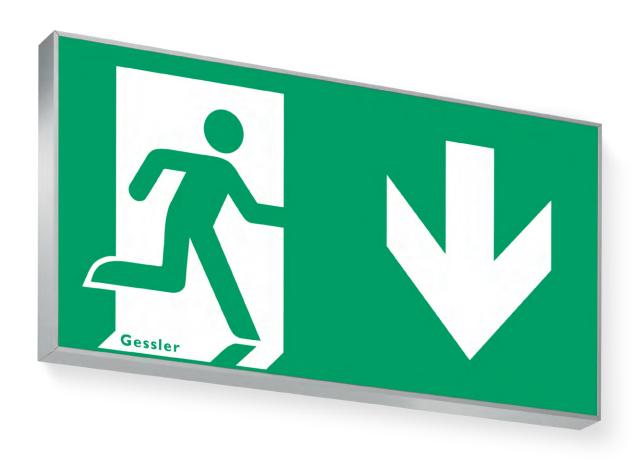
- Power supply via wire suspension

### OPTIONS / ACCESSORIES

- -Wire lengths up to 6 m
- Fire resistant box for installation in F30/90 fire resistant ceilings
- Concrete installation box for installation in concrete ceilings



## FLATLIGHT FL1 30 m IP41

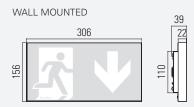


## FLATLIGHT FL1

What began as a feasibility study ended as the Flatlight FL1. With a 3 mm thick frame, homogeneous lighting, the enclosure is thinner than most smartphones. Particularly suitable in representative surroundings.



FLATLIGHT FL1	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance		30 m
Degree of protection	IP41	
Class	ı	
Enclosure material	Aluminium	
Enclosure colour/surface	Silver anodised	
Terminal block	3 x 2.5 □ for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	6.1 VA/3.5 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery		4.8 V/0.8 Ah (NiMH)
VERSIONS		
1 h with auto-check   with BUS check		•
3 h with auto-check   with BUS check		•
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		
Cinema version		
SPECIAL FEATURE		
- Unobtrusive all-round frame (3 mm)		



## LUMINA 2000/1 16 m IP44



### LUMINA 2000/1

Low ceilings or no space above the door? Then the Lumina 2000/1 is the right choice. The universal plastic enclosure is available in 6 installation types and despite its compact design, it has a viewing distance of 16 m.



OPTIONS /ACCESSORIES

- Ball guard

## 

# LUMINA 2000/16 26 m | 27 m | 1P54 | 1K08



### LUMINA 2000/16

The undisputed bestseller. With more than 1 million sold, our Lumina 2000/16 is a companion in everyday life. Look out for this luminaire. You will find it in football stadiums, multi-storey car parks and shopping centres. Since 2018, the rechargeable battery version has also been available with integrated heating (for outdoors). Your rechargeable battery will thank you for it.



#### LUMINA 2000/16 SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE Wall: 26 m | Ceiling: 27 m Viewing distance Degree of protection IP54

Impact resistance	IK08
Class	I
Enclosure material	Polycarbonate

Enclosure colour/surface	white
Terminal block	3 x 2.5 do for through wiring

wnite	
$3 \times 2.5^{\square}$ for through wiring	
LED	
-20° C to +40° C	0° C to +40° C
10.0 VA/5.5 W	
230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
	3.6 V/2.5 Ah (NiCd)
	-20° C to +40° C 10.0 VA/5.5 W 230V±10%,

#### **VERSIONS**

•   •   •
•   •   •
•   •   •

#### SPECIAL FEATURE

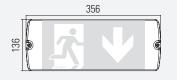
- High degree of protection (IP54)
- Impact resistant housing

#### OPTIONS /ACCESSORIES

- Ball guard
- Integrated heating (to ensure the rechargeable battery function at low temperatures up to -40 °C, output 40 W) Remote supply unit (rechargeable battery luminaire) in temperature controlled area\*

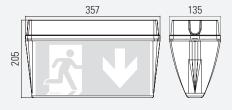


#### WALL MOUNTED

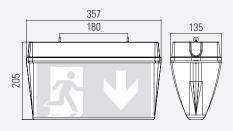




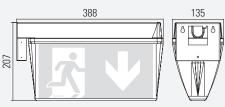
#### CEILING MOUNTED



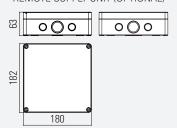
#### EYE INSTALLATION



#### WALL BRACKET MOUNTING



#### \*REMOTE SUPPLY UNIT (OPTIONAL)



Remote supply unit for rechargeable battery luminaire for mounting in temperature-controlled indoor area. Cable length max. 4 m (2.5  $\rm mm^{\rm C}$ ) provided on site.

### DISPLAY VISION 24 m IP41



#### **DISPLAY VISION**

The smart design luminaire has a convincingly slender enclosure and is a real universal genius with regard to the possible types of installation. The high energy efficiency makes the Display Vision an officially good choice for LEED certified construction projects.



DISPLAY VISION	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance		24 m
Degree of protection	IP41	
Class		1
Enclosure material		Polycarbonate
Enclosure colour/surface		white
Terminal block	3 x 2.5 □ for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	7.7 VA/4.3 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery		4.8 V/0.8 Ah (NiMH)
VERSIONS		
1 h with auto-check   with BUS check		•
3 h with auto-check   with BUS check		•
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module for SIBELON systems only	•	
with DALI monitoring		
Cinema version Luminous flux in normal mode 10 %		

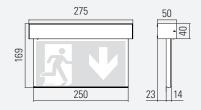
- Pictogram set included
- Universal enclosure for wall and ceiling installation

#### OPTIONS /ACCESSORIES

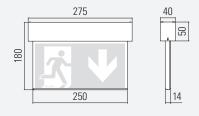
- Recessed enclosure, ceiling installation Pendant installation kit

- Eye installation kit
   Suspended installation kit

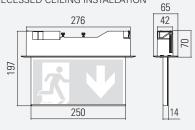
#### WALL MOUNTED



#### CEILING MOUNTED

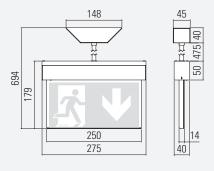


#### RECESSED CEILING INSTALLATION

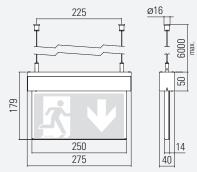


Ceiling cutout: 280 mm x 50 mm Maximum ceiling thickness: 45 mm

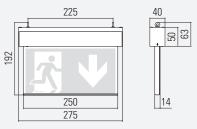
#### PENDANT



#### SUSPENDED



#### EYE INSTALLATION



### PATHFINDER VISION 1 24 m IP41



#### PATHFINDER VISION 1

Pathfinder exit sign luminaires are coupled with the fire detection and fire alarm system, which enables dynamic escape route control. The escape route direction can only be seen if the luminaire is switched on. When switched off, the pictogram is a neutral white. In this way, escape routes can be switched on, off or switched over as and when necessary.



During normal operation, the pathfinder luminaire indicates the designated 1st escape route. Indication of the alternative 2nd escape route is not visible.

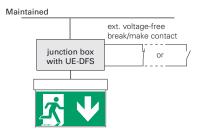


If a fire is detected by the fire detection and fire alarm system, the pathfinder luminaires can safely guide the escaping people from the danger zone. To this end, the alternative 2nd escape route is revealed. The indication of the 1st escape route in the danger zone is now not visible.

PATHFINDER VISION 1	SYSTEM LUMINAIRE
Viewing distance	24 m
Degree of protection	IP41
Class	l
Enclosure material	Polycarbonate
Enclosure colour/surface	white
Terminal block	3 x 2.5 do for through wiring
Light source	LED
Ambient temperature	-20° C to +40° C
Connected load (AC/DC)	7.4 VA/4.3 W
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC
VERSIONS	
1 h with auto-check   with BUS check	
3 h with auto-check   with BUS check	
8 h with auto-check   with BUS check	
without monitoring module	•
with monitoring module	•
with DALI monitoring	
Cinema version Luminous flux in normal mode 10 %	
SPECIAL FEATURE	
- Pictogram only visible when shone through - Actuation via external break/make contact	
OPTIONS /ACCESSORIES	

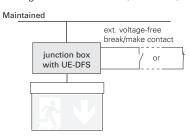
#### SCENE 1 – NORMAL CASE

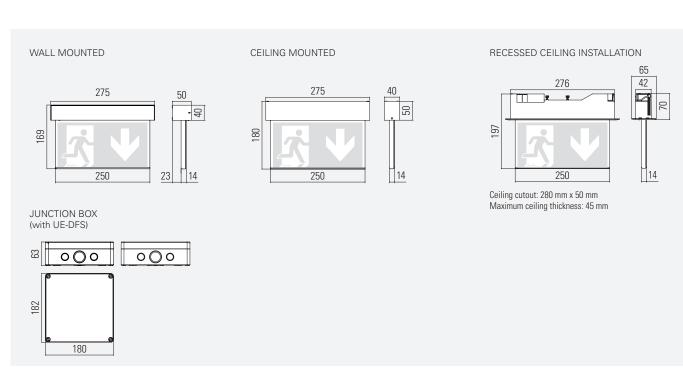
The 1st escape route is indicated via the switched on luminaires. The luminaire for the alternative 2nd escape route is switched off and the sign is not visible.

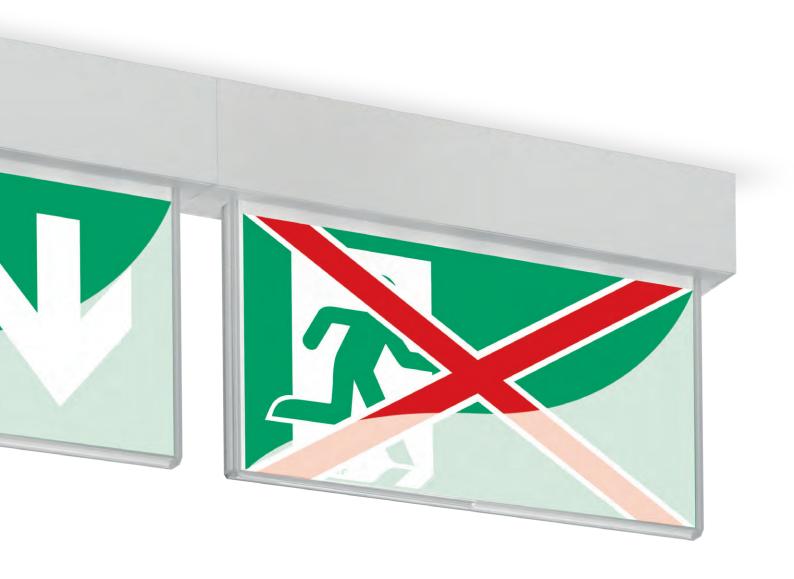


#### SCENE 2 - FIRE

The alternative 2nd escape route is indicated via the switched on luminaire. The luminaires of the 1st escape route are switched off so that the sign becomes "blind" (not visible).







#### PATHFINDER VISION 2

Pathfinder exit sign luminaires are coupled with the fire detection and fire alarm system, which enables dynamic escape route control. Depending on the situation, different escape routes can be indicated. Only the pictogram of the respective switched on pathfinder luminaire is visible. When switched off, the pictogram of the switched off luminaire is a neutral white.



During normal operation, the pathfinder luminaire indicates the designated 1st escape route. Indication of the alternative 2nd escape route is not visible.



If a fire is detected by the fire detection and fire alarm system, the pathfinder luminaires can safely guide the escaping people from the danger zone. To this end, the alternative 2nd escape route is revealed. The indication of the 1st escape route in the danger zone is now not visible.

#### PATHFINDER VISION 2 SYSTEM LUMINAIRE Viewing distance 24 m IP41 Degree of protection Class **Enclosure** material Polycarbonate Enclosure colour/surface white Terminal block $3 \times 2.5^{\,\square}$ for through wiring Light source LED Ambient temperature -20° C to +40° C Connected load (AC/DC) 7.4 VA/4.0 W Supply voltage $230V \pm 10\%$ , 50/60Hz/176-275VDC**VERSIONS** 1 h with auto-check | with BUS check 3 h with auto-check | with BUS check 8 h with auto-check | with BUS check without monitoring module with monitoring module with DALI monitoring Cinema version Luminous flux in normal mode 10 % SPECIAL FEATURE - Pictogram only visible when shone through

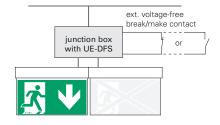
- Actuation via external break/make contact

- Recessed enclosure, ceiling installation

OPTIONS / ACCESSORIES

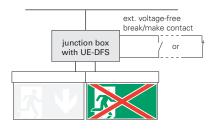
#### SCENE 1 - NORMAL CASE

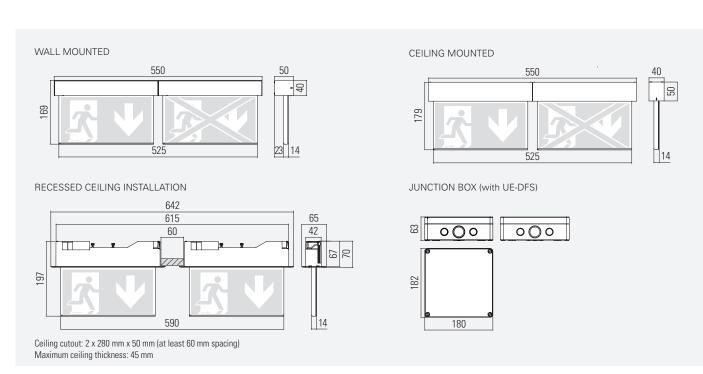
The 1st escape route is indicated via the left display of the pathfinder luminaire. The representation of the alternative 2nd escape route is not visible.



#### SCENE 2 - FIRE

The representation of the alternative 2nd escape route is switched on via an external break/make contact. This makes the indication of the 1st escape route not visible.





# LUMINA 2000/26 38 m IP54 | IK10



#### LUMINA 2000/26

The exit sign luminaire resistant to ball throwing has a viewing distance of 38 m and is equipped with an impact resistant polycarbonate cover. This exit sign luminaire is indestructible. Suitable in sports facilities for football, handball and basketball.



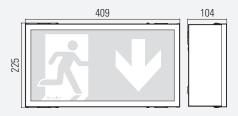
LUNINA 2000/26	SYSTEM LUMINAIRE	
Viewing distance	38 m	
Degree of protection	IP54	
Impact resistance	IK10	
Class	I	
Enclosure material	Sheet steel	
Enclosure colour/surface	RAL 9016 (white)	
Terminal block	3 x 2.5 □ for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	
Connected load (AC/DC)	17.5 VA/8.2 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	
VERSIONS		
1 h with auto-check   with BUS check		
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	
Cinema version Luminous flux in normal mode 10 %	•	

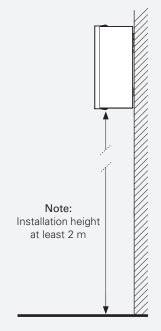
- Pictogram set included Enclosure resistant to ball throwing suitable for sports facilities

#### OPTIONS /ACCESSORIES

- Other RAL colours on request

#### WALL MOUNTED





# LUMINA 2000/27 38 m 1P40 | 1K10



#### LUMINA 2000/27

In sports facilities it's not unusual for a ball to miss its target. Not a problem for the Lumina 2000/27, because the exit sign luminaire was especially developed for installation in rebound walls, and thanks to its impact resistant polycarbonate cover, it skilfully repels event the hardest shots.



LUMINA 2000/27	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance		38 m
Degree of protection	IP40	
Impact resistance		IK10
Class		Į.
Enclosure material		Sheet steel
Enclosure colour/surface		RAL 9016 (white)
Terminal block	3 x 2	2.5 for through wiring
Light source	LED	
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	17.5 VA/8.2 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery		3.6 V/4 Ah (NiCd)
VERSIONS		
1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	
Cinema version Luminous flux in normal mode 10 %	•	

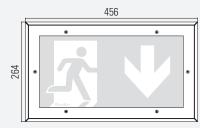
- Pictogram set included
- Enclosure resistant to ball throwing suitable for sports facilities

#### OPTIONS / ACCESSORIES

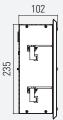
- Other RAL colours on request



#### RECESSED WALL INSTALLATION



Wall cutout (H x W x D): 240 mm x 430 mm x 95 mm



# EXIT SIGN LUMINAIRE BR1 38 m IR54 | IK10



#### **EXIT SIGN LUMINAIRE BR1**

Vandalism is a problem. The BR series is our answer. Thanks to the reinforced enclosure body, the impact resistant polycarbonate cover and an additional seal against water splashes, the BR1 is ideally suitable for use in public areas.

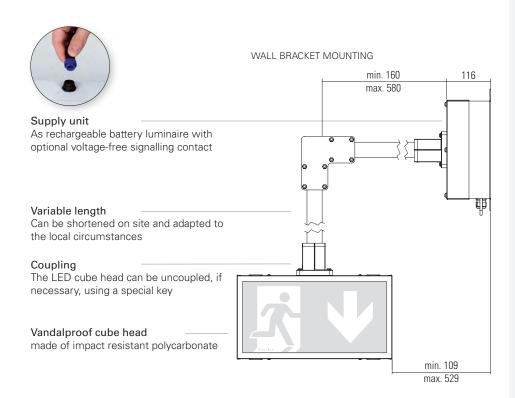


EXIT SIGN LUMINAIRE BR1	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance		38 m
Degree of protection	IP54	
Impact resistance		IK10
Class		II
Enclosure material		Sheet steel
Enclosure colour/surface		RAL 9016 (white)
Terminal block	3 x 2.5 do for through wiring	
Light source		LED
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	12.05 VA/7.1 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery		3.6 V/2.5 Ah (NiCd)
VERSIONS		
1 h with auto-check   with BUS check		• •
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		
Cinema version Luminous flux in normal mode 10 %		

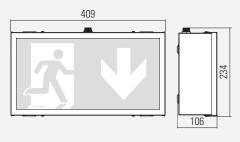
- High degree of protection (IP54)
   The luminaire head can be dismantled as a closed unit
   Impact resistant enclosure with additional window for downward light emission
   Voltage-free fault indication contact (rechargeable battery luminaire)
   Pictogram set included

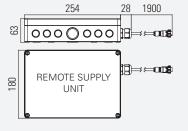
#### OPTIONS /ACCESSORIES

- Other RAL colours on request

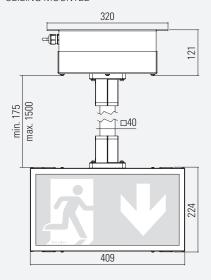


#### WALL MOUNTED

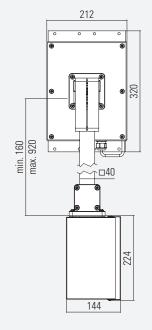




#### CEILING MOUNTED



#### WALL BRACKET MOUNTING



### EXIT SIGN LUMINAIRE BR2 38 m 1810



#### EXIT SIGN LUMINAIRE BR2

Vandalism is a problem. The BR series is our answer. Thanks to the reinforced enclosure body, the impact resistant polycarbonate cover and an additional seal against water splashes, the double-sided BR2 is ideally suitable for use in public areas.



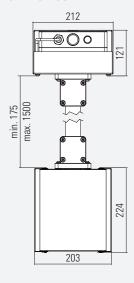
EXIT SIGN LUMINAIRE BR2	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance		38 m
Degree of protection		IP54
Impact resistance		IK10
Class		II
Enclosure material		Sheet steel
Enclosure colour/surface		RAL 9016 (white)
Terminal block	3 x 2	2.5 <sup>_</sup> for through wiring
Light source	LED	
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	24.1 VA/14.2 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery		2 x 3.6 V/2.5 Ah (NiCd)
VERSIONS		
1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		
Cinema version Luminous flux in normal mode 10 %		

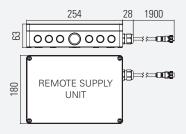
- High degree of protection (IP54)
- -The luminaire head can be dismantled as a closed unit
- Impact resistant enclosure with additional window for downward light emission
- Voltage-free fault indication contact (rechargeable battery luminaire)
- Pictogram set included

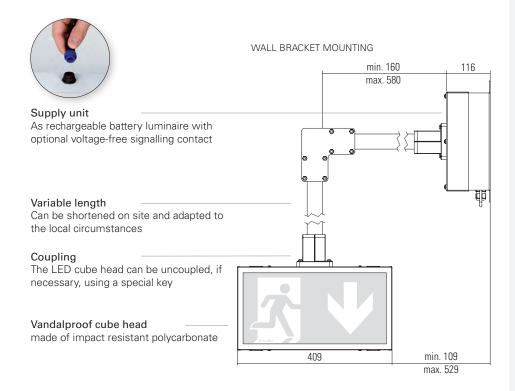
#### OPTIONS /ACCESSORIES

- Other RAL colours on request

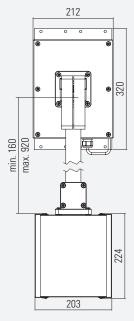
#### CEILING MOUNTED







#### WALL BRACKET MOUNTING



# EXIT SIGN CUBE B35 35 m IP54 | IK08



#### **EXIT SIGN CUBE B35**

The B35 has the ability to take blows. The cube head of the exit sign luminaire is impact resistant, vandalism-proof and, thanks to the high degree of protection, it is suitable for use in public areas.

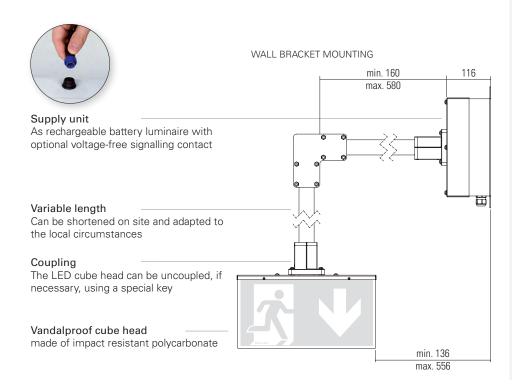


EXIT SIGN CUBE B35	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE
Viewing distance		35 m
Degree of protection	IP54	
Impact resistance		IK08
Class		II
Enclosure material	Pol	ycarbonate / sheet steel
Enclosure colour/surface		RAL 9016 (white)
Terminal block	3 x 2.5 <sup>□</sup> for through wiring	
Light source		LED
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	10.0 VA/6.0 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery		2x 3.6 V/2.5 Ah (NiCd)
VERSIONS		
1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	
Cinema version Luminous flux in normal mode 10 %		

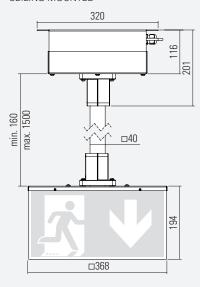
- High degree of protection (IP54)
- -The luminaire head can be dismantled as a closed unit
- Impact resistant housing
- Voltage-free fault indication contact (rechargeable battery luminaire)
- Pictogram set included

#### OPTIONS /ACCESSORIES

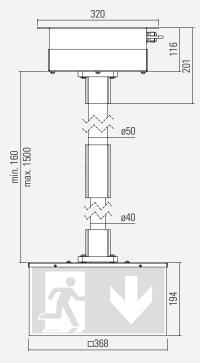
- Other RAL colours on request



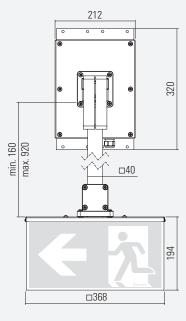
#### CEILING MOUNTED



#### TELESCOPIC INSTALLATION



#### WALL BRACKET MOUNTING





### EXIT SIGN CUBE 25 m | 35 m | 60 m | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1940 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1

#### EXIT SIGN CUBE W25 | W35 | W60

If several routes lead to an emergency exit, an exit sign cube is the right choice. The pictograms of the frameless acrylic glass hood are applied using the screen printing method.



Cinema version

- Pictograms are attached by the screen printing method (no adhesive film)
- All-round green printing

#### OPTIONS /ACCESSORIES

Luminous flux in normal mode 10 %

- Degree of protection IP54 (except pendant). Deviating dimensions: Increase of approx. 4 mm in the width and 7 mm in the height

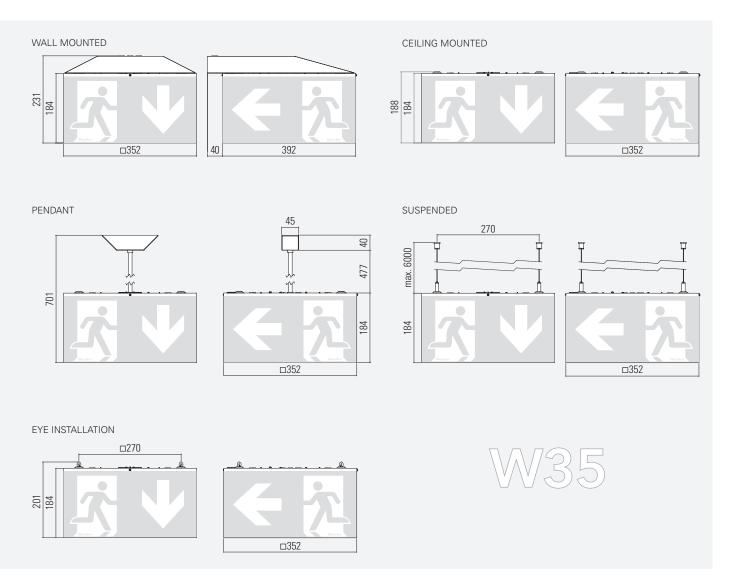
### WALL MOUNTED CEILING MOUNTED 181 138 34 40 □252 292 □252 PENDANT SUSPENDED 200 900 max. 651 34 34 □252 □252 EYE INSTALLATION □200 151 □252

EXIT OIGIT COBE TIOC	OTOTEN COMMONIC	THE OFFICE OF THE POST OF THE OFFI
Viewing distance	3	5 m
Degree of protection	IP40   IP54	
Class		I
Enclosure material	Acrylic glass	
Enclosure colour/surface	C	pal
Terminal block	3 x 2.5 for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	10.0 VA/6 W	-
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230 V AC
Rechargeable battery	_	3.6 V/2.5 Ah (NiCd)
VERSION		
1 h   with auto-check   BUS check		• •
3 h   with auto check   BUS check		•   •
8 h   with auto check   BUS check		•   •
without monitoring	•	
with monitoring	•	
DALI monitoring	•	
Cinema version		

- Pictograms are attached by the screen printing method (no adhesive film) All-round green printing

#### OPTIONS /ACCESSORIES

- Degree of protection: IP54 (except pendant) - Deviating dimensions: Increase of approx. 4 mm in the width and 7 mm in the height



#### EXIT SIGN CUBE W60 SYSTEM LUMINAIRE

Viewing distance	60 m	
Degree of protection	IP40	
Class	l l	
Enclosure material	Acrylic glass	
Enclosure colour/surface	opal	
Terminal block	$3 \times 2.5^{\square}$ for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	
Connected load (AC/DC)	17.2 VA/14.7 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	
Rechargeable battery		

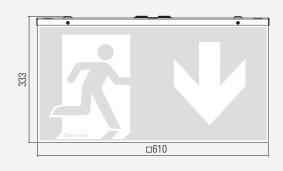
#### VERSION

VERSION		
1 h   with auto-check   BUS check		
3 h   with auto check   BUS check		
8 h   with auto check   BUS check		
without monitoring	•	
with monitoring	•	
DALI monitoring	•	
Cinema version		

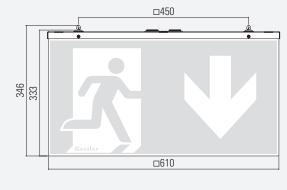
#### SPECIAL FEATURE

- Pictograms are attached by the screen printing method (no adhesive film) All-round green printing

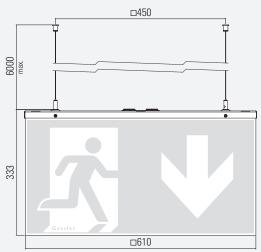
#### CEILING MOUNTED



#### EYE INSTALLATION



#### SUSPENDED

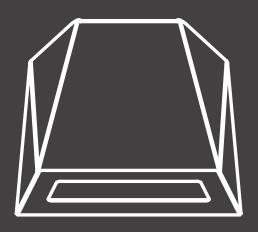












# EMERGENCY LUMINAIRES

### PRODUCTOVERVIEW

### **LENS** LUMINAIRES

### **POWER** LEDS



PRIMUS PG5 LED | IP67 System luminaire p. 104



PRIMUS PS4 LED | IP65 System | Rechargeable battery p. 118



LED Spot LG5 LED | IP40 | IP20 System luminaire p. 106



LED Spot LS40 | LS4B LED | IP40 | IP43 System | Rechargeable battery p. 120



LED Spot LG6 LED | IP40 | IP20 System luminaire p. 108



LED Spot LS4R | LS4E LED | IP40 | IP20 System | Rechargeable battery p. 121



LED Spot LF6 LED | IP20 System luminaire p. 110



LED Spot LS3 LED | IP20 System luminaire p. 126



LED Spot LB3 LED | IP20 System luminaire p. 128

### **LED** MASTER

### **FUNCTIONAL** LUMINAIRES



LED Master LM1 LED | IP65 System | Rechargeable battery p. 130



LED Spot LS1 LED | IP40 | IP20 System | Rechargeable battery p. 147



LED Master LM4 | PM4 LED | IP41 | IP65 System | Rechargeable battery p. 132



LUMINA 2000/1 LED | IP44 System | Rechargeable battery p. 150



LED Master LM5 | PM5 LED | IP41 | IP65 System | Rechargeable battery p. 134



LUMINA 2000/16 LED | IP54 System | Rechargeable battery p. 152





LED Master LM3 LED | IP43 System luminaire p. 154



STARLIGHT A20 LED | IP20 System | Rechargeable battery p. 138



SUB-LED SL1 LED | IP43 System luminaire p. 156



STARLIGHT S01 | S02 LED | IP40 System | Rechargeable battery p. 140 | p. 142



STARLIGHT S04 LED | IP66 System luminaire p. 144

# QUICKFINDER IPRATINGS

	IP20	IP40	IP41	IP43	IP44	IP54	IP65	IP66	IP67
PRIMUS PG5									•
LED Spot LG5	•	•							
LED Spot LG6	•	•							
LED Spot LF6	•								
PRIMUS PS4							•		
LED Spot LS4	•	•		•					
LED Spot LS3	•								
LED Spot LB3	•								
LED Master LM1							•		
LED Master LM4			•						
LED Master PM4							•		
LED Master LM5			•						
LED Master PM5							•		
STARLIGHT A20	•								
STARLIGHT S01		•							
STARLIGHT S02		•							
STARLIGHT S04								•	
LED Spot LS1	•	•							
LUMINA 2000/1					•				
LUMINA 2000/16						•			
LEDMASTER LM3				•					
SUB-LED SL1				•					

# QUICKFINDER TYPES OF INSTALLATION

	WALL	RECESSED WALL INSTALLATION	CEILING	RECESSED CEILING INSTALLATION	PENDANT	EYELET	WALL BRACKET	UNDER STEP TREAD	UNDER CHAIR
PRIMUS PG5			•	•			•		
LED Spot LG5			•	•	•				
LED Spot LG6			•	•	•				
LED Spot LF6				•					
PRIMUS PS4			•	•			•		
LED Spot LS4			•	•					
LED Spot LS3				•					
LED Spot LB3			•						
LED Master LM1	•								
LED Master LM4	•								
LED Master PM4	•								
LED Master LM5	•								
LED Master PM5	•								
STARLIGHT A20	•		•						
STARLIGHT S01	•		•						
STARLIGHT S02	•		•						
STARLIGHT S04	•		•						
LED Spot LS1			•	•					
LUMINA 2000/1	•		•		•	•	•		
LUMINA 2000/16	•		•						
LEDMASTER LM3	•	•	•					•	•
SUB-LED SL1		•							



# LENS LUMINAIRES





### **MODULAR** STRUCTURE

At the beginning it was only a vision. After many years of development work it has now become reality. We present: Lens luminaires in a modular structure.

#### The problem

We weren't prepared to be satisfied with the restriction that each new emergency luminaire developed has only ONE light distribution curve and ONE ideal installation height. The large number of different luminaires is based solely on these unalterable properties. Why can't any luminaire (individually assembled) fulfil the required properties?

Our standard of real innovation does not entail continuing along well-known paths. Innovation pursues completely new ways.

#### The solution

The godfather of our approach to the solution was the automotive industry. Modular systems compatible across series have been developed by this industry for many years.

We picked up this idea and took it further.

Our new, modular luminaire series consists of a highly efficient lighting module, a previously unknown choice of lenses and a large number of new luminaire designs:

#### **Light Engine**

The heart of our modular lens series is the newly developed Light Engine. New generation LEDs are turned into an efficient, powerful and durable unit by means of state-of-the-art heat management.

#### Lenses

Without appropriate lenses, the light of the LED cannot be distributed or directed optimally. The new module variety therefore includes 6 different lenses. 3 symmetrical and 3 asymmetrical lenses ensure optimum lighting. Luminaire spacings of up to 26 m and installation heights of up to 30 m are possible with the new lenses.

#### Design variety

All luminaire enclosures in this series have been designed to be compatible with the Light Engine and the required lens. A combination of 7 luminaire enclosures with different types of installation, degrees or protection and designs together with a variety of 6 high-performance lenses produces 42 different module options.

Each luminaire design can be equipped with each lens, to fulfil the precise properties and requirements you want.

That is innovation "Made in Rodgau".



### PRIMUS PG5 LED



### PG5D | IP67 | SYSTEM LUMINAIRE



### PG5E | IP67 | SYSTEM LUMINAIRE

Design meets function. The Primus PG5 is a powerful LED lens luminaire with increased degree of protection (IP67). The luminaire enclosure can be opened without tools and therefore does not need any screws that disrupt the clear design. Equipped with the lens of your choice, PRIMUS PG5 is suitable for lighting open areas and escape routes in accordance with EN 1838, in all areas and at all installation heights.

PRIMUS PG5 SYSTEM LUMINAIRE

Degree of protection	IP67				
Class	<u> </u>				
Enclosure material	Polycarbonate				
Enclosure colour/surface	white				
Terminal block	$3 \times 2.5^{\square}$ for through wiring				
Light source	LED				
Ambient temperature	-20° C to +40° C				
Connected load (AC/DC)	8.5 VA/5.2 W				
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC				
VERSIONS					
1 h with auto-check   with BUS check					
3 h with auto-check   with BUS check					
8 h with auto-check   with BUS check					
without monitoring module	•				
with monitoring module	•				
with DALI monitoring					
SPECIAL FEATURE					
- Very high degree of protection (IP67)					
OPTIONS /ACCESSORIES					

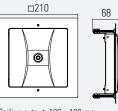
#### OPTIONS / ACCESSORIES

- Ceiling installation frame Wall bracket arm (lockable in 15° increments)



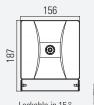


#### RECESSED CEILING INSTALLATION



Ceiling cutout: 190 x 190 mm Maximum ceiling thickness: 42 mm

#### WALL BRACKET MOUNTING



Lockable in 15  $^\circ$ increments





# LED Spot LG5 | IP20 | IP40 | IED



### LG5D | 1P40 | SYSTEM LUMINAIRE

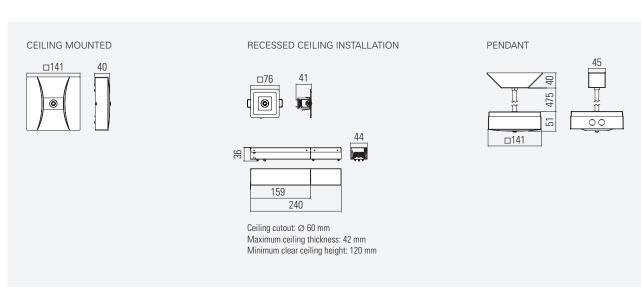


LG5E | IP20 | SYSTEM LUMINAIRE

Square, practical, powerful. The efficient LED Spot LG5 is a modern lens luminaire for lighting open areas and escape routes in accordance with EN 1838. With the right lens, the LED Spot LG5 is the right choice for any installation height and type of lighting.

LED Spot LG5 SYSTEM LUMINAIRE

Degree of protection	IP20 recessed   IP40 surface mounted	
Class	I	
Enclosure material	Sheet steel	
Enclosure colour/surface	RAL 9016 white	
Terminal block	3 x 2.5 □ for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	
Connected load (AC/DC)	8.5 VA/5.2 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	
VERSIONS		
1 h with auto-check   with BUS check		
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		
OPTIONS /ACCESSORIES		
- Enclosure colours in RAL 7024 (graphite grey)   Other colours on request		



# LED Spot LG6 LED IP20 | IP40



LG6D | IP40 | SYSTEM LUMINAIRE

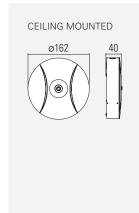


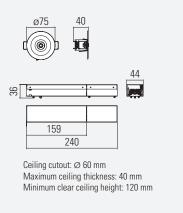
LG6E | IP20 | SYSTEM LUMINAIRE

The LED Spot LG6 is the round counterpart to the square LED Spot LG5. With the right lens, the LED Spot LG6 is the right choice for any installation height and type of lighting. The modern lens luminaire is designed for lighting open areas and escape routes in accordance with EN 1838.

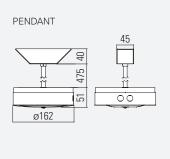
LED Spot LG6 SYSTEM LUMINAIRE

Degree of protection	IP20 recessed   IP40 surface mounted	
Class	I	
Enclosure material	Sheet steel	
Enclosure colour/surface	RAL 9016 white	
Terminal block	3 x 2.5 □ for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	
Connected load (AC/DC)	8.5 VA/5.2 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	
VERSIONS		
1 h with auto-check   with BUS check		
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		
OPTIONS /ACCESSORIES		
- Enclosure colours RAL 7024 (graphite grey)   Other colours on request		





RECESSED CEILING INSTALLATION



## LED Spot LF6 LED



Development cooperation







Emergency lights in fire resistant ceilings are always a challenge. The second generation of the LFseries, further developed with Kaiser, is available with lens technology. This means that far greater luminaire spacings can be achieved. The integrated intumescentpaint of the recessed luminaire foams in case of fire and closes the opening in the ceiling. The LF6 is suitable for installation in F-fire protection ceilings and removes the need for an additional fire protection enclosure or rework with fire resistant silicone.

LED Spot LF6 SYSTEM LUMINAIRE

Degree of protection	IP20	
Class	I I	
Enclosure material	LF6 sheet steel fascia	
Enclosure colour/surface	RAL 9016 (white)	
Terminal block	3 x 2.5 □ for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	
Connected load (AC/DC)	8.5 VA /5,2 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	

#### VERSIONS

1 h with auto-check   with BUS check		
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		

#### SPECIAL FEATURE

- Suitable for installation in F-fire resistant ceilings

#### OPTIONS / ACCESSORIES

- Brushed stainless steel fascia Fascia in RAL 7024 (graphite grey) | Other colours on request

#### RECESSED CEILING INSTALLATION





Ceiling cutout: Ø 74 mm Maximum ceiling thickness: 40 mm Minimum clear ceiling height: 120 mm

#### JUNCTION BOX





### LENS VERSIONS

#### VARIABLE HEIGHTS

Three symmetrical and three asymmetrical lenses are available for you to choose from. These are optimised for different installation heights (2 to 30 m).

Thanks to the modular design of our lens luminaire series, all the lenses shown are compatible with all enclosures.

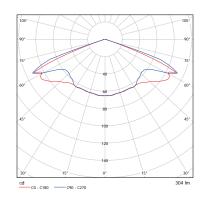
Thus, for the first time, the chosen luminaire design can be continued uniformly in all areas and at all installation heights of your project.

	TECHNICAL DATA
Light source	LED
Connected load (AC/DC)	8.5 VA /5,2 W
VERSION	
without monitoring	•
with monitoring	•
DALI monitoring	

#### **SYMMETRICAL LENSES** FOR OPEN AREAS

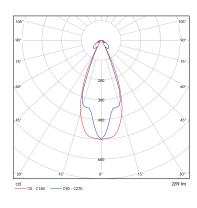


S1 LENS Installation height up to 12 m



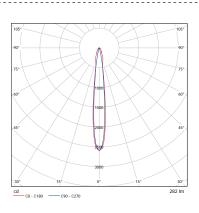


S2 LENS Installation height up to 18 m





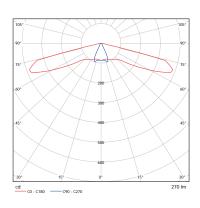
S3 LENS Installation height up to 30 m



#### **ASYMMETRICAL LENSES** FOR ESCAPE ROUTES

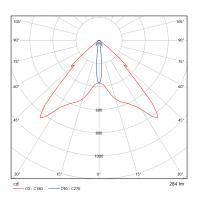


A1 LENS Installation height up to 11 m



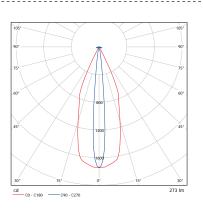


A2 LENS Installation height up to 16 m





A3 LENS Installation height up to 30 m



## SYMMETRICAL LENSES LIGHTING DATA (EN 1838)

	1	l lx	Ligh	Lighting of escape routes  1   X   Lighting of sales areas (self-service stores)  0.5   X   Lighting of sales areas (self-service stores)				Lighting	ing of open areas > 60m² panic lighting)									
		8	2		8	2		<del>8</del> 8			<b>X</b> X							
Installation height [m]	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens
2.00	4.50			10.00			3.25			7.75			4.00			8.25		
2.50	4.75			13.50			4.00			10.75			5.25			11.75		
3.00	4.25			13.50			4.00			10.75			5.25			11.75		
4.00	4.00	2.25		12.75	5.00		3.75	1.75		12.25	5.00		6.00	2.25		14.75	7.00	
5.00	3.75	2.75		11.50	6.00		2.50	2.00		11.25	5.50		5.75	2.50		16.50	6.75	
6.00	3.25	3.00		11.00	6.75		2.50	2.75		11.50	6.00		5.00	2.75		16.50	7.25	
7.00	2.25	3.25		11.25	7.75		2.50	3.00		11.50	6.75		4.75	3.00		14.50	8.00	
8.00	1.50	3.50	2.00	6.50	8.25	4.75	2.75	3.25	1.25	9.00	7.50	5.25	3.75	3.50	2.75	15.25	8.50	5.50
9.00		4.00	2.25		9.00	5.25	1.25	3.50	1.75	10.25	8.25	5.50	2.50	4.00	1.50	17.50	9.00	6.75
10.00		4.00	2.25		9.50	5.50	1.25	3.75	2.25	8.00	8.75	5.75	1.75	4.25	2.00	17.75	9.75	7.00
11.00		4.25	2.50		10.00	5.75	1.00	3.75	1.50	6.75	9.25	6.25	1.75	4.50	2.75	17.50	10.50	7.25
12.00		4.50	2.75		10.50	6.25	1.00	4.00	1.75	5.50	9.50	6.25	1.50	4.75	3.25	17.00	11.25	7.50
13.00		4.75	2.75		11.00	6.50		4.00	1.75		10.00	6.50		4.50	2.75		12.00	8.00
14.00		4.75	2.75		11.50	6.75		3.75	1.75		10.25	6.50		5.00	3.00		12.50	8.25
15.00		4.50	3.00		12.00	7.00		3.75	1.75		10.50	6.75		5.25	3.00		13.00	8.50
16.00		4.00	3.00		12.50	7.50		3.50	2.00		10.75	6.50		5.25	3.00		13.25	8.75
17.00		2.25	3.25		12.75	7.75		3.00	2.00		11.00	7.00		5.50	3.00		13.75	8.75
18.00		1.75	3.25		11.75	8.00		2.00	2.00		11.00	7.00		4.75	3.00		14.00	9.00
19.00			3.25			8.25			2.25			7.25			3.00			9.25
20.00			3.25			8.50			2.25			7.50			3.00			9.50
21.00			3.25			8.75			2.25			7.50			3.00			9.50
22.00			3.25			8.75			3.25			7.50			3.25			9.00
23.00			3.25			9.00			2.50			8.00			3.25			9.50
24.00			3.25			9.25			2.50			8.00			3.25			10.00
25.00			3.25			9.25			2.50			8.25			3.25			10.00
26.00			3.25			9.50			2.75			8.25			3.50			10.25
27.00			3.25			9.50			2.75			8.50			3.75			10.25
28.00			3.25			9.50			2.50			8.75			3.75			10.50
29.00			3.25			9.50			2.50			8.75			3.50			10.75
30.00			3.25			9.50			2.75			9.00			3.75			10.75

This table of distances (in metres) is based on the following factors: measurement plane 2 cm, maintenance factor MF = 80 %, reflectance: 0

Dated: March 2020

# ASYMMETRICAL LENSES LIGHTING DATA (EN 1838)

			1	X Light	ting of escape	routes					
Installation height [m]	A1 lens	A2 lens	A3 lens	A1 lens	A2 lens	A3 lens	A1 lens	A2 lens	A3 lens		
2.00	7.25			16.00			14.25				
2.50	8.00			19.00			17.00				
3.00	8.50			21.50			17.25				
4.00	9.50	4.75		24.50	10.50		18.75	10.00			
5.00	8.75	5.75		26.50	12.50		17.50	12.00			
6.00	5.25	6.75		27.50	14.50		10.50	14.00			
7.00	4.50	7.75		24.00	16.75		8.25	16.00			
8.00	4.00	8.75	4.00	16.50	18.75	8.75	2.00	17.75	8.25		
9.00	2.75	9.00	4.50	14.50	20.75	9.75		18.00	9.25		
10.00	1.00	9.50	5.00	8.50	22.25	10.50		19.50	10.00		
11.00	1.00	10.25	5.50	3.75	23.75	11.50		20.50	11.00		
12.00		11.00	5.75		25.25	12.50		22.00	10.75		
13.00		11.50	6.25		25.75	13.25		23.25	12.75		
14.00		12.25	6.75		27.00	14.25		24.50	13.50		
15.00		12.75	7.00		28.50	15.25		25.75	14.25		
16.00		13.25	7.50		29.75	16.00		26.75	15.00		
17.00			7.75			17.00			15.50		
18.00			8.00			17.75			16.00		
19.00			8.25			18.50			16.50		
20.00			8.50			19.25			17.00		
21.00			8.50			20.00			17.00		
22.00			8.50			20.75			17.00		
23.00			8.25			21.50			16.75		
24.00			8.25			21.50			16.50		
25.00			8.00			22.00			16.25		
26.00			8.00			22.25			16.00		
27.00			8.00			22.75			16.00		
28.00			7.75			23.00			15.75		
29.00			7.75			23.25			15.50		
30.00			7.50			23.50			15.00		

This table of distances (in metres) is based on the following factors: measurement plane 2 cm, maintenance factor MF = 80 %, reflectance: 0

Dated: March 2020





# Power LED

4-SERIES



### PRIMUS PS4 LED





#### PS4D | IP65 | SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE



SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE **PS4E** | IP65

Our PS4 is a real all-rounder. The high degree of protection and the impact resistant enclosure designed to be resistant to ball throwing makes the PS4 the right choice for sports facilities, public areas, swimming pools and food production facilities (IFS standard and HACCP regulation).

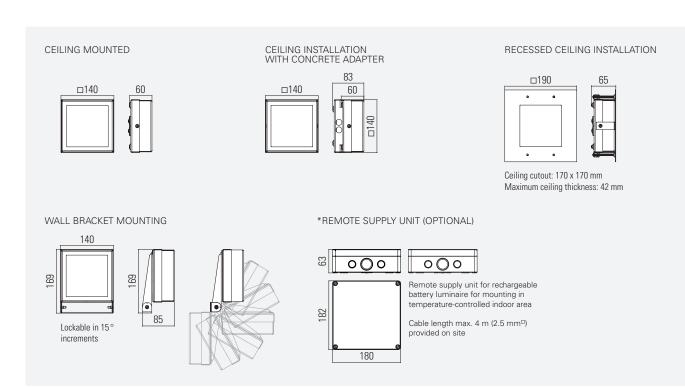
11111100104	OTOTEIN COMMIN MINE	TEOTI MIGE BEE BY IT TENT EGITING MILE
Degree of protection		IP65
Class		I
Enclosure material	Sta	ainless steel
Enclosure colour/surface		brushed
Terminal block	3 x 2.5 <sup>□</sup>	for through wiring
Light source	4 x 1	W power LED
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	13.2 VA/6.7 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz
Rechargeable battery		3.6 V/2.5 Ah (NiCd)
VERSIONS		
1 h with auto-check   with BUS check		•*   •*
3 h with auto-check   with BUS check		•   • '
8 h with auto-check   with BUS check		• • •
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	

#### SPECIAL FEATURE

- High degree of protection (IP65)
- Version resistant to ball throwing suitable for sports facilities
- Chlorine-resistant enclosure suitable for swimming pools
- Fulfils the IFS standard and the HACCP regulation (food industry)

#### OPTIONS /ACCESSORIES

- Remote supply unit (rechargeable battery luminaire) for mounting in temperature controlled area. Connection cable max. 4 m (2.5 mm²) provided on site\*.
- Concrete adapter for surface-mounted installation Wall bracket arm (lockable in 15° increments)
- Aluminium enclosure in RAL 9016 (white) and RAL 7024 (graphite grey) | Other colours on request



## LED Spot **LS4** IP40 | IP43 | IP20



#### LS40 | 1P40 | SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE



LS4B | 1P43 | SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE



LS4R | IP40 | SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE



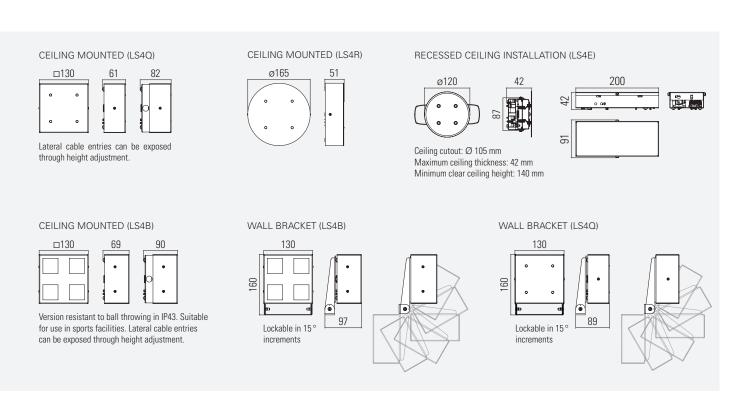
LS4E | IP20 | SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE

The unadorned LED emergency luminaire is available as a rechargeable battery and as a system luminaire. The LED Spot LS4 can be ordered for recessed ceiling installation or for surface mounting.

LLD 3pot L340   L340   L3411   L34L	3131LW LOWINAINL	NECHANGLABLE DATTENT LOWINAINE
Degree of protection	Recessed installation	IP40   Ceiling mounted IP20
Class		I
Enclosure material	SI	neet steel
Enclosure colour/surface	RAL	9016 (white)
Terminal block	3 x 2.5□ f	or through wiring
Light source	4 x 1 V	V power LED
Ambient temperature	-20° C to +40° C	0° C to +40° C
Connected load (AC/DC)	13.2 VA/6.7 W	6.2 VA
Supply voltage	$230V \pm 10 \%$ , $50/60 Hz / 176-275 V DC$	230V ± 10 %, 50/60 Hz
Rechargeable battery		3.6 V/2.5 Ah/3 Ah (NiCd)
VERSIONS  1 h with auto-check   with BUS check		• •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		•   •
without monitoring module	•	
with monitoring module	•	
with DALI monitoring only for recessed ceiling installation	•	
SPECIAL FEATURE		
- LED Spot LS4Q + LS4B: Lateral cable er - LED Spot LS4Q + LS4B: Wall bracket arr - LED Spot LS4B: Enclosure resistant to ba		

#### OPTIONS / ACCESSORIES

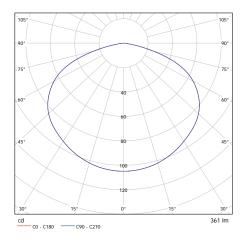
Enclosure colour in RAL 7024 (graphite grey) | Other colours on request



#### **POWER** LED 4-SERIES

#### LIGHTING of ESCAPE ROUTES - EN 1838

Installation heigh	t	· •			<u> </u>	
[m]	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
2.00	4.00	3.20	2.50	10.00	8.50	6.50
2.50	4.25	3.45	2.50	11.00	9.20	7.00
3.00	4.50	3.60	2.50	11.75	9.70	7.25
3.50	4.75	3.75	2.25	12.50	10.10	7.25
4.00	4.75	3.70	1.80	13.00	10.45	7.00
5.00	4.75	3.50	0.75	13.50	10.75	5.00
6.00	4.50	3.00		13.75	10.50	
7.00	4.00	2.25		13.75	10.00	



#### Lighting of OPEN AREAS > 60m<sup>2</sup> (ANTI-PANIC LIGHTING) – EN 1838

Installation height		<del>- 1</del>			<u>C</u> 9	
[m]	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
3.00	4.75	3.85	2.50	12.00	10.15	7.75
4.00	5.00	4.10	2.50	13.50	11.20	8.75
5.00	5.25	4.20	2.25	14.75	12.05	9.25
6.00	5.50	4.20	1.75	15.75	12.80	9.50
7.00	5.50	4.00		16.50	13.35	
8.00	5.25	3.65		17.25	13.80	
9.00	5.00	3.25		17.75	14.00	
10.00	4.50	2.25		18.00	14.00	

#### LIGHTING of SALES AREAS (e.g. SELF-SERVICE STORES) – EN 1838

Insta	llation height		· •			$\odot$	
	[m]	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	2.00	3.00	2.30	1.80	8.00	7.05	5.50
	3.00	3.25	2.60	1.75	10.00	8.10	6.25
	4.00	3.50	2.60	1.25	11.00	8.90	6.75
	5.00	3.50	3.00	1.50	11.75	9.60	4.50
	6.00	3.25	2.55	1.50	12.25	9.60	4.00
	7.00	3.00	1.75		12.75	10.00	
	8.00	2.50	1.50		13.00	8.50	
	9.00	2.00	2.50		12.25	5.00	

All figures in metres from the middle of the luminaire



## Power LED

3-SERIES



## LED Spot LS3 LED

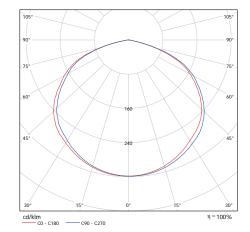


Small, unobtrusive LED emergency luminaire with a discreet look for flush installation in ceilings. Optionally available with brushed stainless steel fascia.

#### LED Spot LS3

#### SYSTEM LUMINAIRE

Degree of protection	IP20
Class	I
nclosure material	LS3 sheet steel
nclosure colour/surface	RAL 9016 (white)
erminal block	$3 \times 2.5^{\square}$ for through wiring
ight source	3 x 1 W power LED
mbient temperature	-20° C to +40° C
Connected load (AC/DC)	10.4 VA /5.5 W
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC



#### **VERSIONS**

- 1 h with auto-check | with BUS check
- 3 h with auto-check | with BUS check
- 8 h with auto-check | with BUS check

without monitoring module with monitoring module

with DALI monitoring

#### OPTIONS / ACCESSORIES

- Fascia in RAL 7024 (graphite grey) | Other colours on request
- Fascia made of brushed stainless steel

#### LIGHTING of ESCAPE ROUTES - EN 1838

			( <del>)</del>
Installation height [m]		System	System
	2.00	2.85	7.50
X	2.50	3.10	8.05
	3.00	3.10	8.50
	3.50	3.05	8.80
	4.00	2.90	8.95

#### LIGHTING of OPEN AREAS > 60m<sup>2</sup> (anti-panic lighting) – EN 1838

Installation height	<b>←</b>	$\odot$		
[m]	System	System		
3.00	3.45	8.95		
4.00	3.60	9.95		
5.00	3.55	10.70		
6.00	3.25	11.30		
7.00	2.85	11.55		
8.00	1.95	11.55		

#### LIGHTING of SALES AREAS (e.g. self-service stores) - EN 1838

Installation height	<b></b>	•
[m]	System	System
2.00	2.05	6.10
2.50	2.10	6.75
3.00	2.20	7.15
3.50	2.15	7.50
4.00	2.05	7.85

All figures in metres from the middle of the luminaire

#### RECESSED CEILING INSTALLATION





Ceiling cutout: Ø 60 mm Maximum ceiling thickness: 42 mm Minimum clear ceiling height: 120 mm

#### JUNCTION BOX





## LED Spot LB3 LED



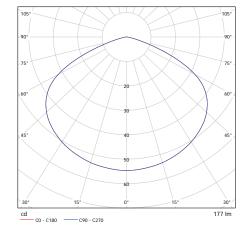


LED emergency luminaire in round design with symmetrical lighting for flush ceiling installation in an existing device junctionbox with standard combination distance of 71 mm in accordance with DIN 49073-1 (deeper version). Suitable for lighting open areas and escape routes in accordance with EN 1838.

#### LED Spot LB3

Degree of protection	IP20		
Class	I		
nclosure material	LB3 sheet steel fascia		
nclosure colour/surface	RAL 9016 (white)		
erminal block	3 x 2.5 <sup>□</sup> for through wiring		
ght source	3 x 1 W power LED		
mbient temperature	-20° C to +40° C		
onnected load (AC/DC)	9.9 VA /5.0 W		
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC		

SYSTEM LUMINAIRE



#### VERSIONS

VEHOLOTE		
1 h with auto-check   with BUS check		
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		

#### OPTIONS / ACCESSORIES

- Fascia in RAL 7024 (graphite grey) | Other colours on request
- Fascia made of brushed stainless steel

#### LIGHTING of ESCAPE ROUTES - EN 1838

Installation height	· · · · · ·	$\overline{\bullet}$		
[m]	System	System		
2.00	3.25	8.00		
2.50	3.50	8.75		
3.00	3.50	9.50		
3.50	3.50	9.75		
4.00	3.50	10.00		
4.50	3.25	10.25		
5.00	3.00	10.00		

#### LIGHTING of OPEN AREAS > 60m2 (anti-panic lighting) - EN 1838

Installation height	<del></del>	$\odot$		
[m]	System	System		
3.00	4.00	9.50		
4.00	4.00	11.25		
5.00	3.75	12.50		
6.00	4.00	12.75		
7.00	3.00	14.00		
8.00	2.50	14.25		

#### LIGHTING of SALES AREAS (e.g. self-service stores) – EN 1838

Installation height	<b></b>	<b>→</b>
[m]	System	System
2.00	2.25	6.50
2.50	2.25	7.50
3.00	2.25	8.25
3.50	2.25	8.75
4.00	2.00	9.25
4.50	2.00	9.50
5.00	2.00	9.75

All figures in metres from the middle of the luminaire

#### RECESSED CEILING INSTALLATION (LB3)



Ceiling cutout: Ø 74 mm

Maximum ceiling thickness: 40 mm

Installation in an existing device junction box with standard combination distance of 71 mm



LED driver with monitoring module for installation in an existing device junction box with standard combination distance of 71 mm in accordance with DIN 49073-1 (deep version)



## LED Master LM1 LED



A product with two hearts. The platform of this high-quality diecast aluminium emergency luminaire is an enclosure body made by BEGA. To counteract direct glare, the LED Master LM1 has a satin finish glass cover, which has an output angle of 45°. Designed for lighting open areas outdoors.

LED Master LM1	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE		
Degree of protection		IP65		
Class		I		
Enclosure material		Die cast aluminium		
Enclosure colour/surface		graphite		
Terminal block	3 x 2.	3 x 2.5 □ for through wiring		
Light source	3	3 x 1 W power LED		
Ambient temperature	-20° C to +40° C	0° C to +40° C		
Connected load (AC/DC)	10.0 VA/5.5 W	5.6 VA		
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz		
Rechargeable battery		3.6 V/2.5 Ah (NiCd)		
VEDGLONG				

# 

#### **VERSIONS**

1 h with auto-check   with BUS check		•*   •*
3 h with auto-check   with BUS check		•*   •*
8 h with auto-check   with BUS check		•*   •*
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	

#### OPTIONS /ACCESSORIES

- Concrete adapter (for surface-mounted installation)
- Remote supply unit (rechargeable battery luminaire) for mounting in temperature controlled area. Connection cable max. 4 m (2.5 mm²) provided on site.

#### LIGHTING of ESCAPE ROUTES – EN 1838 – $t^{**}$ = 1 m

Installation height h [m]		•		<b>←</b>	
		System	1 h + 3 h + 8 h	System	1 h + 3 h + 8 h
	2.00	2.00	Rechargeable battery values on request	4.75	Rechargeable battery values
	2.50	2.25		5.35	
X	3.00	2.35		5.85	
	3.50	2.45		6.25	
	4.00	2.35		6.55	on request
	4.50	2.15		6.70	
	5.00	1.70		6.70	

#### LIGHTING of ESCAPE ROUTES – EN 1838 – $t^{**}$ = 2 m

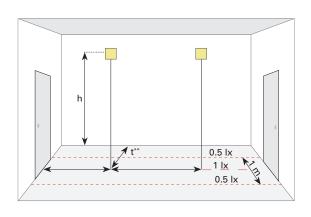
Installation height h [m]		<b>—</b>		<del></del>	
		System	1 h + 3 h + 8 h	System	1 h + 3 h + 8 h
	2.00	2.05		5.15	
	2.50	2.30		5.80	
X	3.00	2.45	Rechargeable battery values on request	6.30	Rechargeable battery values
	3.50	2.45		6.65	
	4.00	2.35		6.90	on request
	4.50	2.05		7.05	
	5.00	1.55		7.05	

#### LIGHTING of ESCAPE ROUTES – EN 1838 – $t^{**}$ = 3 m

Installation height h [m]			<del></del>	<b>←</b>		
		System 1 h + 3 h + 8 h		System	1 h + 3 h + 8 h	
	2.00	1.65		5.25		
	2.50	1.90		5.80		
X	3.00	2.00	Rechargeable	6.30	Rechargeable	
	3.50	1.90	battery values	6.60	battery values	
	4.00	1.70	on request	6.85	on request	
	4.50	1.25		6.90		
	5.00	-		-		

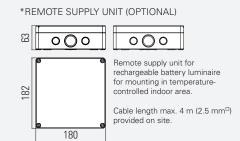
<sup>\*\*</sup>t = distance from the wall to the middle of the escape route

 $\ensuremath{\mathsf{All}}$  figures in metres from the middle of the luminaire



# WALL MOUNTED

# WALL MOUNTED WITH CONCRETE ADAPTER





## LED Master LM4 | PM4 | IP41 | IP65



Whether as PM4 for outdoors (IP65) or as LM4 for indoors (IP41), both versions are visually identical. To counteract direct glare, the LED Master LM4/PM4 has a satin finish glass cover, which has an output angle of 45°. Suitable for lighting indoor and outdoor open areas in accordance with EN 1838.

#### LED Master LM4 | PM4 SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE Degree of protection

IP41 (LM4) / IP65 (PM4)

Enclosure material Sheet steel

RAL 7024 (graphite grey) Enclosure colour/surface  $3 \times 2.5^{\square}$  for through wiring Terminal block

Light source 4 x 1 W power LED  $0^{\circ}$  C to +40° C Ambient temperature -20° C to +40° C Connected load (AC/DC) 13.2 VA/6.7 W 6.2 VA 230V ± 10 %, 50/60 Hz/176-275 V Supply voltage  $230V \pm 10 \%$ , 50/60 Hz

Rechargeable battery 3.6 V/4.4 Ah (NiMH)

#### **VERSIONS**

Class

1 h with auto-check   with BUS check		•*   •*
3 h with auto-check   with BUS check		•*   •*
8 h with auto-check   with BUS check		•*   •*
without monitoring module	•	
with monitoring module	•	
with DALI monitoring LM4 only	•	

#### SPECIAL FEATURE

- LED Master PM4: Very high degree of protection (IP65)

#### OPTIONS / ACCESSORIES

- Concrete adapter (for surface-mounted installation) | Enclosure colour in RAL 9016 (white) | Other colours
- Remote supply unit (rechargeable battery luminaire) for mounting in temperature controlled area. Connection cable max. 4 m (2.5 mm²) provided on site

#### LIGHTING of ESCAPE ROUTES - EN 1838 - (t\* = 1 m)

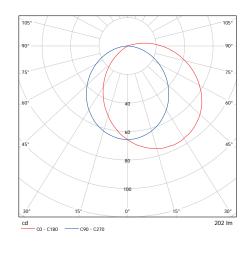
Instal	lation height h		<del></del>			<b>←</b>		
[m]		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h	
	2.00	3.00	2.75	2.25	7.75	7.00	5.75	
	2.50	3.25	2.75	2.25	8.50	7.50	6.25	
X	3.00	3.50	3.00	2.25	9.00	8.00	6.50	
	3.50	3.50	3.00	2.00	9.25	8.25	6.50	
	4.00	3.50	2.75	1.75	9.50	8.25	6.50	
	4.50	3.50	2.75	1.25	9.75	8.50	6.25	
	5.00	3.25	2.50	0.75	10.00	8.25	5.25	

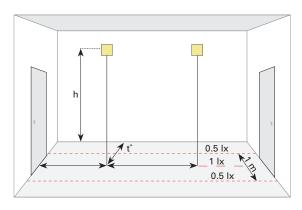
"t = distance from wall to the middle of the escape route

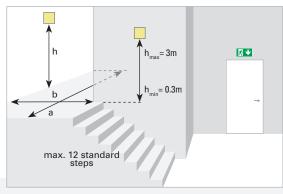
#### LIGHTING of ESCAPE ROUTES - EN 1838

Installation height h [m]			(a)			(b)	
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
X	2.00	6.10	5.60	4.50	4.00	3.60	1.25
	2.50	6.60	5.80	4.50	4.20	3.70	1.25
	3.00	6.80	5.80	4.25	4.40	3.80	1.25

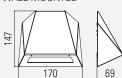
All figures in metres from the middle of the luminaire



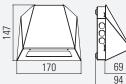




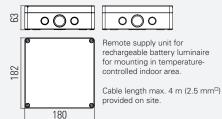
#### WALL MOUNTED



#### WALL MOUNTED WITH CONCRETE ADAPTER



#### \*REMOTE SUPPLY UNIT (OPTIONAL)





## LED Master LM5 | PM5 | IP41 | IP65



Visually identical, the two luminaires differ in their "interior values". While the PM5 was developed for outdoors (IP65), we have designed the LM5 with a lower degree of protection (IP41). To counteract direct glare, the LED Master LM5/PM5 has a satin finish glass cover, which has an output angle of 45°. Suitable for lighting indoor and outdoor open areas in accordance with EN 1838.

#### LED Master LM5 | PM5

#### SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE

Degree of protection	IP4°	IP41 (LM5) / IP65 (PM5)				
Class		I				
Enclosure material		Sheet steel				
Enclosure colour/surface		RAL 9016 white				
Terminal block	3 x 2.	3 x 2.5 <sup>□</sup> for through wiring				
Light source	4	4 x 1 W power LED				
Ambient temperature	-20° C to +40° C	0° C to +40° C				
Connected load (AC/DC)	13.2 VA/6.7 W	6.2 VA				
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V	230V ± 10 %, 50/60 Hz				
Rechargeable battery		3.6 V/4.4 Ah (NiMH)				

# 

#### **VERSIONS**

1 h with auto-check   with BUS check		•   • '
3 h with auto-check   with BUS check		•   • '
8 h with auto-check   with BUS check		• • •
without monitoring module	•	
with monitoring module	•	
with DALI monitoring LM5 only	•	

#### SPECIAL FEATURE

- LED Master PM5: Very high degree of protection (IP65)

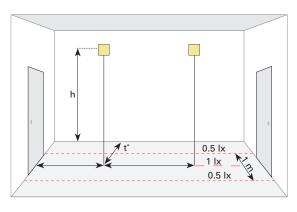
#### OPTIONS / ACCESSORIES

- Concrete adapter (for surface-mounted installation) | Enclosure colour in RAL 9016 (white) | Other colours on request
- Remote supply unit (rechargeable battery luminaire) for mounting in temperature controlled area.
   Connection cable max. 4 m (2.5 mm²) provided on site

#### LIGHTING of ESCAPE ROUTES – EN 1838 – $(t^* = 1 \text{ m})$

Installation height h [m]			<del></del>			<b>←</b>		
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h	
	2.00	3.00	2.75	2.25	7.75	7.00	5.75	
	2.50	3.25	2.75	2.25	8.50	7.50	6.25	
X	3.00	3.50	3.00	2.25	9.00	8.00	6.50	
	3.50	3.50	3.00	2.00	9.25	8.25	6.50	
	4.00	3.50	2.75	1.75	9.50	8.25	6.50	
	4.50	3.50	2.75	1.25	9.75	8.50	6.25	
	5.00	3.25	2.50	0.75	10.00	8.25	5.25	

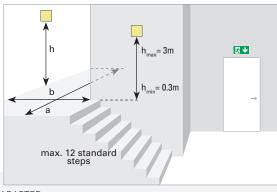
 $^{*}t$  = distance from wall to the middle of the escape route



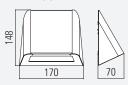
#### LIGHTING of ESCAPE ROUTES - EN 1838

Installation height h [m]		(a)			(b)		
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
X	2.00	6.10	5.60	4.50	4.00	3.60	1.25
	2.50	6.60	5.80	4.50	4.20	3.70	1.25
	3.00	6.80	5.80	4.25	4.40	3.80	1.25

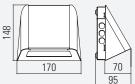
All figures in metres from the middle of the luminaire



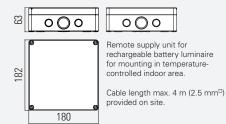
#### WALL MOUNTED



#### WALL MOUNTED WITH CONCRETE ADAPTER



#### \*REMOTE SUPPLY UNIT (OPTIONAL)







# STARLIGHT SERIES



## STARLIGHT A20 LED LED



Development cooperation







Developed in cooperation with Glamox, in normal mode, this combination luminaire does not differ from the pure general lighting luminaire. In the event of a mains failure, the integrated Gessler emergency lighting element supplies the LED panel with reduced power. The Starlight A20 is therefore the perfect symbiosis of general lighting and emergency luminaire.

#### STARLIGHT A20 SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE Degree of protection IP20 Class Die cast aluminium / PMMA Enclosure material Enclosure colour/surface RAL 9006 (grey) $3 \times 2.5^{\square}$ for through wiring Terminal block Light source LED 0° C to +40° C -20° C to +40° C Ambient temperature Connected load (AC/DC) 8.3 VA/5.2 W 6.2 VA Connected load (mains) 33.2 VA $230V \pm 10\%$ , Supply voltage $230V \pm 10\%$ , 50/60Hz50/60 Hz/176-275 V DC

3.6 V/2.5 Ah (NiCd)

105°	1			105°
-90°		•		90°
-75°	$\langle \rangle$	7	X	75°
60°	$\langle \rangle +$	40	$\langle \rangle \rangle \rangle$	60°.
	///	60	$\times$	
45°		80		45°
/			X	
30°	15°	0°	15°	30°
cd co - c180	C90 - C270		,	288 lm

#### VERSIONS

Rechargeable battery

1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		•   •
8 h with auto-check   with BUS check		•   •
without monitoring module	•	
with monitoring module	•	
with DALL monitoring	•	

#### LIGHTING of ESCAPE ROUTES in emergency mode

Installation height		• • •			•		
	[m]	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	2.00	3.50	2.50	1.50	8.50	6.25	4.50
×	2.50	3.75	2.50	1.50	9.25	6.75	4.50
	3.00	4.00	2.50	1.00	10.00	7.00	4.50
	3.50	4.00	2.50	0.50	10.50	7.25	4.25
	4.00	4.25	2.25		11.00	7.25	

#### LIGHTING of OPEN AREAS $> 60 \, \text{m}^2$ (anti-panic lighting) – EN 1838

Installation height		•			•		
	[m]	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	3.00	3.25	2.50	1.25	11.00	6.00	4.75
X	4.00	3.75	2.75	1.25	12.50	6.50	4.75
	5.00	4.25	2.25		13.25	7.00	
10	6.00	4.75	2.00		13.75	7.00	
	7.00	4.75	1.25		14.75	7.00	
	8.00	4.75			15.25	7.00	

#### LIGHTING of SALES AREAS (e.g. self-service stores) – EN 1838

Installation height [m]		<b>-</b>			•		
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	3.00	3.00	3.25	1.75	9.00	11.00	6.00
	4.00	3.25	3.50	1.75	10.00	12.50	6.50
	5.00	3.50	3.75	1.75	10.50	13.75	6.50
	6.00	3.75	4.75	1.25	11.00	14.00	6.25
	7.00	3.75	4.50	0.75	11.00	15.00	5.75
	8.00	3.50	4.50	0.75	11.50	15.50	5.00

All figures in metres from the middle of the luminaire

# UNIVERSAL INSTALLATION 9420 102

## STARLIGHT **S01** LED

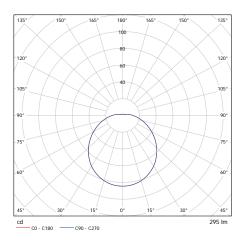


Starlight S01 is a general lighting luminaire with integrated emergency lighting functionality. Visually indistinguishable from our pure general lighting luminaire, the integrated emergency lighting module supplies the LED panel in emergency mode. Suitable for lighting open areas and escape routes according to EN 1838.

#### STARLIGHT S01

#### SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE

Degree of protection		IP40				
Class		I				
Enclosure material		PMMA				
Enclosure colour/surface		opal				
Terminal block	3 x 2.5 <sup>-</sup>	3 x 2.5 □ for through wiring				
Light source	LED (4000 K – also ava	LED (4000 K – also available in other colour temperatures)				
Ambient temperature	-20° C to +40° C	0° C to +40° C				
Connected load (AC/DC)	8.3 VA/5.2 W	6.2 VA				
Connected load (mains)		33.2 VA				
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz				
Rechargeable battery		3.6 V/2.5 Ah (Ni-Cd)				



#### VERSIONS

1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		• •
8 h with auto-check   with BUS check		•   •
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		

#### LIGHTING of ESCAPE ROUTES in emergency mode

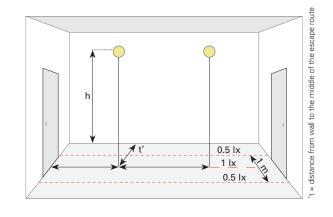
Installation height [m]		· · · · · ·			<b>→</b>		
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	2.00	3.50	2.25	1.50	8.50	6.00	4.00
X	2.50	3.75	2.50	1.25	9.25	6.50	4.00
	3.00	3.75	2.50	0.50	9.75	6.75	4.00
	3.50	4.00	2.25		10.25	6.75	
	4.00	4.00	2.00		10.75	6.75	

#### LIGHTING of OPEN AREAS > 60m<sup>2</sup> (anti-panic lighting) – EN 1838

Insta	Installation height [m]					•		
			1 h + 3 h	8 h	System	1 h + 3 h	8 h	
	3.00	4.25	2.75	1.75	10.00	7.75	5.75	
X	4.00	4.50	2.75	1.75	11.75	9.00	6.00	
	5.00	4.75	2.75	1.25	12.75	9.50	6.25	
T.	6.00	4.75	2.75	1.00	13.75	9.75	5.50	
	7.00	4.75	2.50	0.75	14.75	10.00	5.00	
	8.00	4.50	2.50	0.75	15.25	9.75	4.25	

#### LIGHTING of SALES AREAS (e.g. self-service stores) – EN 1838

Installation height [m]		<b></b>			<b>↔</b>		
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	3.00	3.00	2.50	1.25	9.00	6.25	4.50
	4.00	3.25	2.50	1.00	10.00	6.75	4.00
	5.00	3.50	1.75	0.75	10.50	7.25	3.50
	6.00	3.50	1.25	0.75	10.75	7.25	2.75
	7.00	3.25	1.25	0.75	11.00	6.00	2.50
	8.00	2.75	1.25	0.75	11.50	5.25	1.75

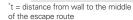


#### LIGHTING of ESCAPE ROUTES – EN 1838 – (t\* = 1 m)

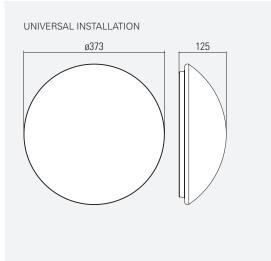
LIGHTING of ESCAPE ROUTES – EN 1838 –  $(t^* = 2 m)$ 

8 h
_

Installation height h [m]		• •			$\odot$		
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	2.00	2.75	1.00		7.25	4.50	
	2.50	2.75	0.50		7.50	4.50	
	3.00	2.50			7.25		
	3.50	2.00			6.75		
	4.00	1.50			6.75		



All figures in metres from the middle of the luminaire



## STARLIGHT **S02** LED

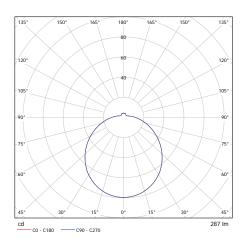


Starlight S02 is a general lighting luminaire with integrated emergency lighting functionality. Visually indistinguishable from our pure general lighting luminaire, the integrated emergency lighting module supplies the LED panel with reduced power in emergency mode. Suitable for lighting open areas and escape routes according to EN 1838.

#### STARLIGHT S02

#### SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE

* · · · · · · · · · · · · · · · · · · ·	* . * . =					
Degree of protection		IP40				
Class		I				
Enclosure material		PMMA				
Enclosure colour/surface		opal				
Terminal block	3 x 2.5 <sup>t</sup>	3 x 2.5 do for through wiring				
Light source	LED (4000 K – also ava	LED (4000 K – also available in other colour temperatures)				
Ambient temperature	-20° C to +40° C	0° C to +40° C				
Connected load (AC/DC)	8.3 VA/5.2 W	6.2 VA				
Connected load (mains)		33.2 VA				
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz				
Rechargeable battery		3.6 V/2.5 Ah (Ni-Cd)				



1 h with auto-check   with BUS check		•   •
3 h with auto-check   with BUS check		• •
8 h with auto-check   with BUS check		•   •
without monitoring module	•	
with monitoring module	•	
with DALI monitoring		

#### LIGHTING of ESCAPE ROUTES in emergency mode

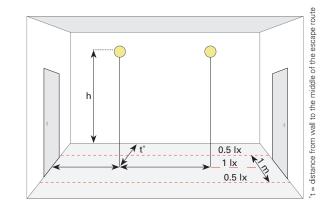
Installation height [m]			<b></b>			<b>⊕</b> ••	
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	2.00	3.25	2.25	1.25	8.25	6.00	3.75
X	2.50	3.50	2.50	1.00	9.00	6.50	3.75
	3.00	3.75	2.50		9.50	6.75	
	3.50	3.75	2.25		10.00	6.75	
	4.00	4.00	2.00		10.50	6.75	

#### LIGHTING of OPEN AREAS > 60m<sup>2</sup> (anti-panic lighting) – EN 1838

Insta	Illation height	•••			•		
	[m]		1 h + 3 h	8 h	System	1 h + 3 h	8 h
	3.00	4.25	3.00	1.75	10.00	8.00	5.50
X	4.00	4.25	3.00	1.75	11.50	9.25	5.75
	5.00	4.50	3.00	1.00	12.75	9.50	5.75
	6.00	4.50	3.00	0.75	13.75	9.75	5.00
	7.00	4.50	2.50	0.75	14.50	10.00	4.25
	8.00	4.50	2.50	0.75	15.00	9.75	4.00

#### LIGHTING of SALES AREAS (e.g. self-service stores) – EN 1838

Installation height [m]		<b>→</b>			• •		
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	3.00	3.00	2.25	1.25	9.00	6.50	4.00
	4.00	3.25	2.25	1.00	9.75	6.50	3.25
	5.00	3.50	1.75	0.75	10.25	6.75	3.00
	6.00	3.50	1.25	0.75	10.50	7.00	2.50
	7.00	3.25	1.25	0.75	11.00	5.00	2.00
	8.00	2.75	1.25	0.75	11.25	4.00	1.25



#### LIGHTING of ESCAPE ROUTES – EN 1838 – (t\* = 1 m)

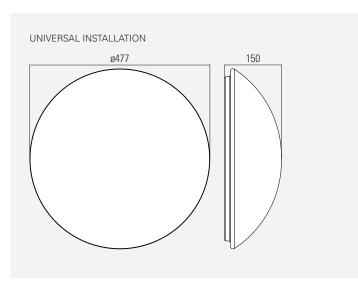
Installation height h [m]		<b></b>			•		
		System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	2.00	2.25	1.00		6.00	3.75	
	2.50	2.00	0.50		6.00	3.25	
	3.00	1.50			5.75		
	3.50						
	4.00						
	4.00						

#### LIGHTING of ESCAPE ROUTES – EN 1838 – $(t^* = 2 m)$

Installation height h		<b>→</b>			<b>→</b>		
	[m]	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	2.00	2.75	1.00		7.25	4.50	
	2.50	2.75	0.50		7.25	4.50	
	3.00	2.25			7.25		
	3.50	1.50			6.75		
	4.00	1.25			6.25		

= distance from wall to the middle of the escape route

All figures in metres from the middle of the luminaire



## STARLIGHT **S04** LED



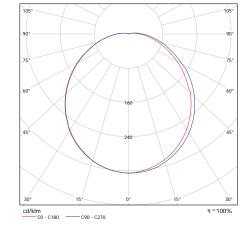


Starlight S04 defies the wind and weather. This decorative emergency luminaire has a weather-resistant enclosure with die cast aluminium look and was especially designed for use in outdoor areas.

#### STARLIGHT S04 SYSTEM LUMINAIRE

Degree of protection	IP66	
Class	II	
Enclosure material	PMMA	
Enclosure colour/surface	black   white	
Terminal block	$3 \times 2.5^{\square}$ for through wiring	
Light source	LED	
Ambient temperature	-20° C to +40° C	
Connected load (AC/DC)	18.5 VA/11.0 W	
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	





#### VERSIONS

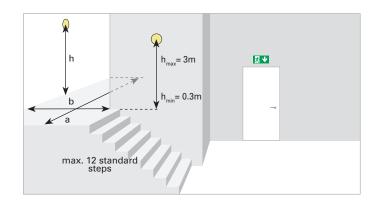
1 h with auto-check | with BUS check 3 h with auto-check | with BUS check 8 h with auto-check | with BUS check without monitoring module with monitoring module with DALI monitoring

#### SPECIAL FEATURE

- Very high degree of protection (IP66)
- Weather resistant plastic
- Suitable for outdoors

#### WALL MOUNTED LIGHTING of ESCAPE ROUTES - EN 1838

Installation height h		
[m]	a [m]	b [m]
1.00	4.30	3.90
1.50	5.80	5.70
2.00	6.15	6.25
2.50	5.80	6.90
3.00	7.25	5.75



#### LIGHTING of OPEN AREAS > 60m<sup>2</sup> (anti-panic lighting) – EN 1838

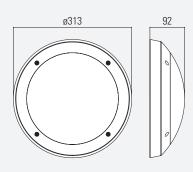
Installation height [m]		<del>•</del>
3.00	5.50	14.00
4.00	6.00	16.75
5.00	6.50	17.75
6.00	7.00	19.25
7.00	7.25	20.50
8.00	7.50	21.50
9.00	7.50	22.75

LIGHTING of SALES AREAS (e.g. self-service stores) – EN 1838

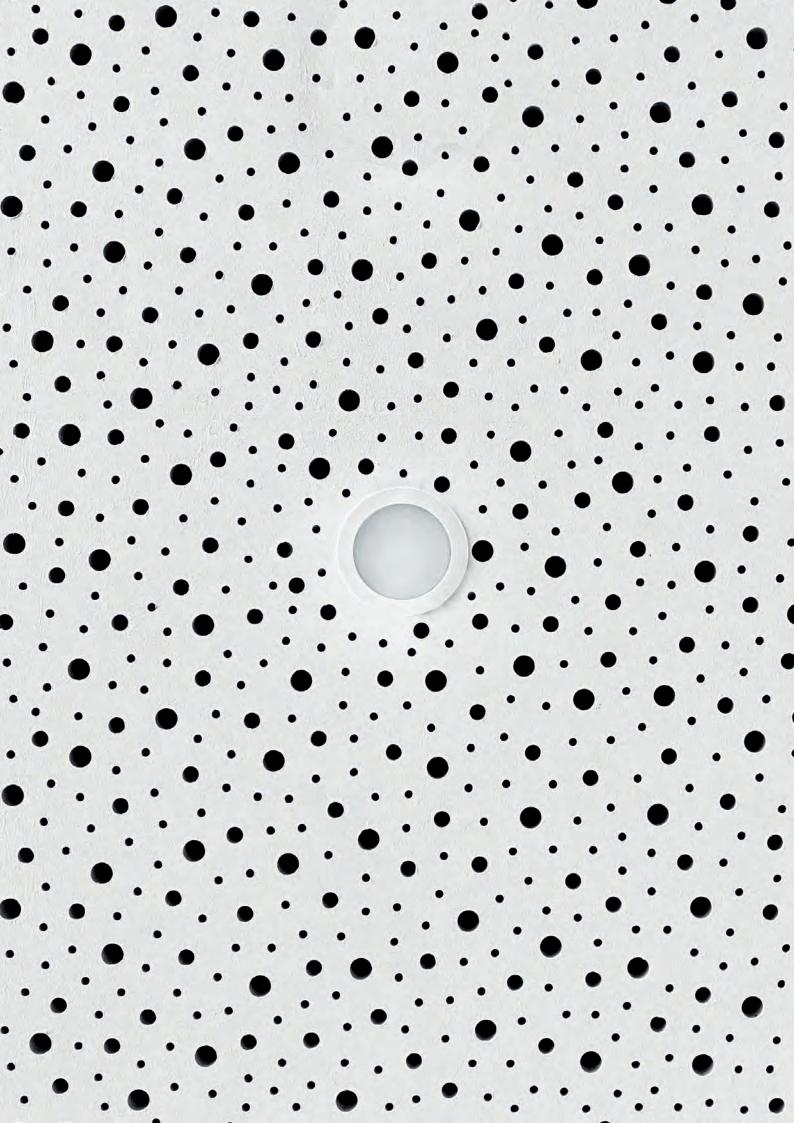
Insta	llation height [m]	<b>-</b>	$\odot$
	3.00	4.00	11.75
	4.00	4.50	13.25
X	5.00	5.00	14.25
	6.00	5.00	15.50
	7.00	5.25	16.50
	8.00	5.25	17.00
	9.00	5.00	18.00

All figures in metres from the middle of the luminaire

#### UNIVERSAL INSTALLATION







## LED Spot LS1 IP40 | IP20



#### LS10 | IP40 | SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE



#### LS1R | 1P40 | SYSTEM LUMINAIRE



LS1E | IP20 | SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE

The stylish LED non-maintained luminaire with satin finish glass cover is available as a rechargeable battery and as a system luminaire. The luminaire is available for recessed ceiling installation and surface-mounted wall/ceiling installation.

D Spot LST SYSTEM LOMINAIRE		RECHARGEABLE BATTERY LUMINAIRE			
Degree of protection	Recessed IP20   Surface mounted IP40				
Class					
Enclosure material	Sheet steel or polycarbo	onate   satin finish glass			
Enclosure colour/surface	wh	ite			
Terminal block	3 x 2.5 □ for t	hrough wiring			
Light source	LE	ED .			
Ambient temperature	-20° C to +40° C	0° C to +40° C			
Connected load (AC/DC)	11.2 VA/6.1 W				
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz			
Rechargeable battery		3.6 V/2.5 Ah (Ni-Cd)			
VERSIONS					
1 h with auto-check   with BUS check		• •			
3 h with auto-check   with BUS check		•   •			
8 h with auto-check   with BUS check					
without monitoring module	•				
with monitoring module	•				
with DALI monitoring					

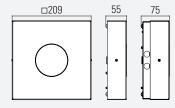
#### SPECIAL FEATURE

- Satin finish glass cover for homogeneous light distribution LED Spot LS1Q: Lateral cable entries can be exposed through height adjustment

#### OPTIONS /ACCESSORIES

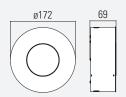
- Ball guard Concrete casting box ICE-CAP design cover

#### CEILING MOUNTED (LS1Q)



Lateral cable entries can be exposed through height adjustment.

#### CEILING MOUNTED (LS1R)



#### RECESSED CEILING INSTALLATION (LS1E)



Ceiling cutout: Ø 105 mm Maximum ceiling thickness: 42 mm Minimum clear ceiling height: 120 mm



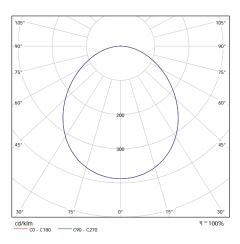
#### LED SPOT **LS1**

#### LIGHTING of ESCAPE ROUTES - EN 1838

Insta	Illation height		0	<u> </u>	<del>-</del>
	[m]	System	1 h + 3 h	System	1 h + 3 h
	2.00	2.95	3.00	7.45	7.45
X	2.50	3.20	3.20	8.15	8.15
	3.00	3.35	3.35	8.70	8.70
_	3.50	3.40	3.40	9.10	9.10
	4.00	3.50	3.50	9.45	9.45

#### LIGHTING of OPEN AREAS > 60m<sup>2</sup> (anti-panic lighting) – EN 1838

Installation height	<b>-</b>	$ \odot$	<u> </u>	
[m]	System	1 h + 3 h	System	1 h + 3 h
3.00	3.50	3.50	9.20	9.20
4.00	4.05	4.05	10.30	10.30
5.00	3.85	3.85	11.55	11.55
6.00	4.00	4.00	12.50	12.50
7.00	4.05	4.05	13.10	13.10
8.00	4.15	4.15	12.85	12.85



#### LIGHTING of SALES AREAS (e.g. self-service stores) – EN 1838

Installation height [m]		_		<del>C</del>	
		System	1 h + 3 h	System	1 h + 3 h
	2.00	2.05	2.05	6.00	6.00
	3.00	2.30	2.30	7.15	7.15
	4.00	2.45	2.45	8.00	8.00
	5.00	2.85	2.85	8.60	8.60
	6.00	2.50	2.50	9.00	9.00
	7.00	1.80	1.80	9.10	9.10

All figures in metres from the middle of the luminaire

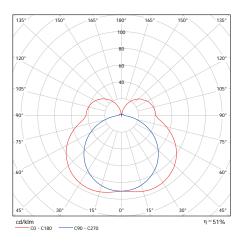
## LUMINA 2000/1 | P44 | LED





Wherever low ceilings pose a problem for the installation of emergency lighting, the Lumina 2000/1 is the preferred solution.

LUMINA 2000/1	SYSTEM LUMINAIRE	RECHARGEABLE BATTERY LUMINAIRE		
Degree of protection		IP44		
Class		I		
Enclosure material		Polycarbonate		
Enclosure colour/surface		white		
Terminal block	3 x	2.5 for through wiring		
Light source		LED		
Ambient temperature	-20° C to +40° C	0° C to +40° C		
Connected load (AC/DC)	10.0 VA/5.5 W			
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	230V ± 10 %, 50/60 Hz		
Rechargeable battery		3.6 V/2.5 Ah (Ni-Cd)		
VERSIONS				
1 h with auto-check   with BUS check		• •		
3 h with auto-check   with BUS check		•   •		
8 h with auto-check   with BUS check				
without monitoring module	•			
with monitoring module	•			



#### LIGHTING of ESCAPE ROUTES - EN 1838

with DALI monitoring
OPTIONS /ACCESSORIES

Ball guard

Insta	llation height		<b>→</b>	_			<b>→</b>	<del></del>	<b>→</b>
	[m]	System	1 h + 3 h	System	1 h + 3 h	System	1 h + 3 h	System	1 h + 3 h
	2.00	3.20	1.75	8.40	5.25	2.65	1.45	6.85	4.35
X	2.50	3.30	1.50	8.95	5.20	2.80	1.20	7.35	4.35
	3.00	3.35	0.85	9.30	4.95	2.80	0.55	7.70	4.10
	3.50	3.25	_	9.50	4.10	2.75	_	7.90	3.40
	4.00	3.15	_	9.60	2.50	2.60	_	8.00	1.95

All figures in metres from the middle of the luminaire



## LUMINA 2000/16 LED





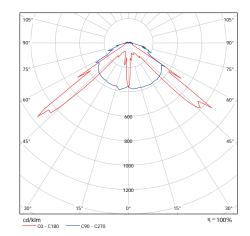
Optional: integrated heating for ensuring the rechargeable battery function at temperatures up to -40 °C



Lumina 2000/16 is a real all-rounder. Whether as an emergency luminaire indoors or outdoors, demanding ambient conditions are no problem at all for the impact resistant housing with high degree of protection. The Lumina 2000/16 can be delivered with optional integrated heating or remote supply unit.

#### LUMINA 2000/16 SYSTEM LUMINAIRE RECHARGEABLE BATTERY LUMINAIRE

Degree of protection		IP54		
Class		I		
Enclosure material		Polycarbonate		
Enclosure colour/surface		white		
Terminal block	3 x	3 x 2.5 □ for through wiring		
Light source		LED		
Ambient temperature	-20° C to +40° C	0° C to +40° C*		
Connected load (AC/DC)	10.0 VA/5.5 W			
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	7307 + 10 % 50/60 H		
Rechargeable battery	3.6 V/2.5 Ah (NiCd)			



#### **VERSIONS**

1 h with auto-check   with BUS check   w	ith heating	•   •   •
3 h with auto-check   with BUS check   w	ith heating	•   •   •
8 h with auto-check   with BUS check   w	ith heating	•   •   •
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	

#### SPECIAL FEATURE

- High degree of protection (IP54)
- Impact resistant housing Fulfils the IFS standard and the HACCP regulation (food industry)

#### OPTIONS / ACCESSORIES

- Ball guard
- Integrated heating (to ensure the rechargeable battery function at low temperatures up to -40 °C, output 40 W) Remote supply unit (rechargeable battery luminaire) in temperature controlled area\*

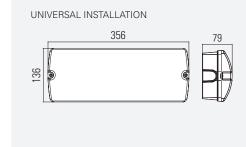
#### LIGHTING of ESCAPE ROUTES - EN 1838

Insta	Illation height	<b>—</b>			<del></del>				<b>←</b>				
	[m]	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
	2.00	3.20	3.20	3.00	6.90	6.90	6.50	3.60	3.60	2.50	9.00	9.00	6.25
X	2.50	3.85	3.85	1.25	8.30	8.30	3.00	4.15	4.15	2.75	9.55	9.55	6.75
	3.00	4.45	4.45	1.00	9.65	9.65	3.75	4.30	4.30	2.50	9.55	9.55	7.25
	3.50	2.65	2.63	2.50	8.15	8.15	2.50	4.50	4.50	2.50	11.60	11.62	7.75
	4.00	0.90	0.90	0.75	7.90	7.90	2.00	4.45	4.45	2.25	12.10	12.10	7.75

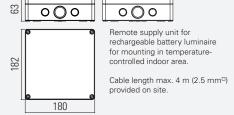
#### LIGHTING of OPEN AREAS > 60m2 (anti-panic lighting) - EN 1838

Installation height			<b>—</b>			+						<b>←</b>	
	[m]	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h	System	1 h + 3 h	8 h
×	3.00	5.30	5.30	1.50	10.25	10.25	7.50	2.45	2.45	2.00	7.50	7.50	6.25
	4.00	6.65	6.65	1.50	13.05	13.05	8.50	1.75	1.70	1.25	6.90	6.90	6.25
تا	5.00	1.60	1.60	1.25	9.90	9.90	9.00	2.95	2.95	1.75	8.30	8.30	8.25
	6.00	_	_	_	_	_	_	_	_	_	_	_	_

All figures in metres from the middle of the luminaire



\*REMOTE SUPPLY UNIT (OPTIONAL)





## LED Master LM3 LED

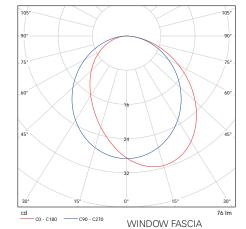


Universal emergency luminaire made of brushed stainless steel. The slender style of the LM3 enables emergency lighting to be installed under stair treads, concealed, under chairs and in shadow gaps. Optionally available with a grille or window fascia.

#### LED Master LM3

#### SYSTEM LUMINAIRE

Degree of protection	IP43
Class	l l
Enclosure material	Stainless steel
Enclosure colour/surface	brushed
Terminal block	3 x 2.5 □ for through wiring
Light source	4 x 1 W power LED
Ambient temperature	-20° C to +40° C
Connected load (AC/DC)	13.2 VA / 6.7 W
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC

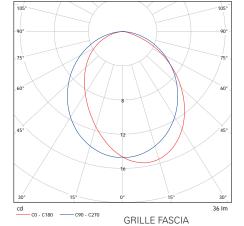


#### VERSIONS

1 h with auto-check   with BUS check	
3 h with auto-check   with BUS check	
8 h with auto-check   with BUS check	
without monitoring module	•
with monitoring module	•
with DALI monitoring	

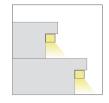
#### OPTIONS / ACCESSORIES

- Grille fascia in brushed stainless steel
- Window fascia in brushed stainless steel
   Enclosure in RAL 9016 (white) and RAL 9005 (matt jet black) | Other colours on request







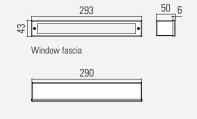


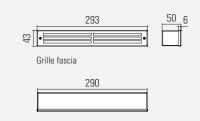
UNDER CHAIR

SHADOW GAP

UNDER STEPTREAD







## SUB-LED SL1 LED



SUB-LED SL1 is designed as an emergency luminaire for installation in steps. It lights the steps of stairs in cinemas or theatre halls in compliance with the relevant standards.

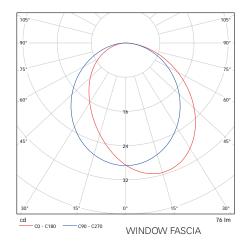
#### SUB-LED SL1

#### SYSTEM LUMINAIRE

Degree of protection	IP43
Class	
Enclosure material	Sheet steel
Enclosure colour/surface	Brushed stainless steel   sheet steel
Terminal block	3 x 2.5 do for through wiring
Light source	3 x 1 W power LED
Ambient temperature	-20° C to +40° C
Connected load (AC/DC)	10.0 VA /5.5 W
Supply voltage	230V ± 10 %, 50/60 Hz/176-275 V DC

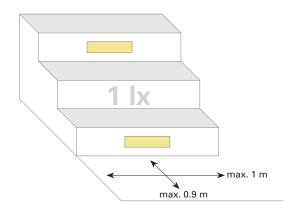


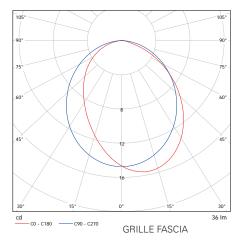
1 h with auto-check   with BUS check		
3 h with auto-check   with BUS check		
8 h with auto-check   with BUS check		
without monitoring module	•	
with monitoring module	•	
with DALI monitoring	•	



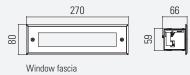
#### OPTIONS / ACCESSORIES

- Window fascia in brushed stainless steel
- Gill fascia in brushed stainless steel
- Concrete casting box
- Enclosure in RAL 9016 (white) and RAL 9005 (matt black) | Other colours on request





#### RECESSED WALL INSTALLATION



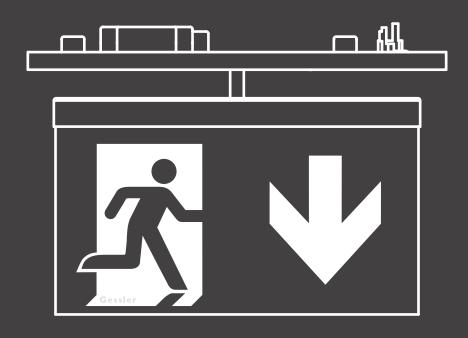
Wall cutout: 255 x 63 mm Maximum wall thickness: 34 mm











# LINEAR LIGHTING SOLUTIONS



Modern LED linear lighting systems have long since established themselves as an alternative to conventional lighting concepts. They are a fixed part of the modern lighting concepts of every lighting designer.

Working in close cooperation with leading European manufacturers, we have developed emergency lighting solutions, which can be supplied and monitored from a CPS or LPS system. All emergency lighting components are integrated in a module carrier of the corresponding manufacture and fit perfectly into the overall system, both technically and visually.

A selection of exit sign and emergency luminaires are available for you to choose from for identifying and lighting escape routes. A choice of lenses (three symmetrical and three asymmetrical) ensure lighting compliant with the DIN 1838 standard. Installation heights of up to 30 m and luminaire spacings of over 25 m are easily achieved by choosing the right lenses.

You are sure to find your preferred manufacturer for linear lighting systems with the matching Gessler emergency lighting solution on the following pages.





## TRILUX linear lighting solutions

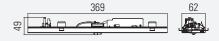
#### **GESSLER FITS IN ANY SYSTEM**

The perfect emergency lighting solution for the TRILUX linear lighting system of the E-Line series. All emergency lighting components are integrated in a TRILUX module carrier. This fits perfectly into the overall system, both technically and visually. Three symmetrical and three asymmetrical lenses are available for you to choose from. These are optimised for different installation heights (2 to 30 m).

Two exit sign luminaires with viewing distances of 24 m and 31 m are available for identifying escape routes. Also, two exit sign cubes with viewing distances of 25 m and 35 m.

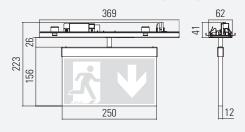


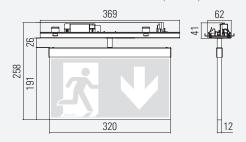
#### EMERGENCY LUMINAIRE with lens of your choice





#### EXIT SIGN LUMINAIRE (24 m)

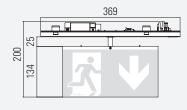


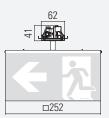




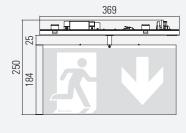


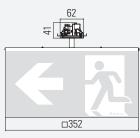
#### EXIT SIGN CUBE (25 m)





#### EXIT SIGN CUBE (35 m)





E-LINE

## SITECO linear lighting solutions

#### **GESSLER FITS IN ANY SYSTEM**

The perfect emergency lighting for the SITECO linear lighting system of the MODARIO® series. All emergency lighting components are integrated in a SITECOmodule carrier. This fits perfectly into the overall system, both technically and visually. Three symmetrical and three asymmetrical lenses are available for you to choose from. These are optimised for different installation heights (2 to 30 m).

Two exit sign luminaires with viewing distances of 24 m and 31 m are available for identifying escape routes. Also, two exit sign cubes with viewing distances of 25 m and 35 m.

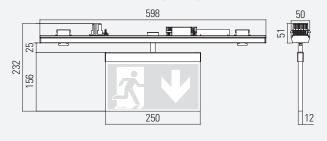


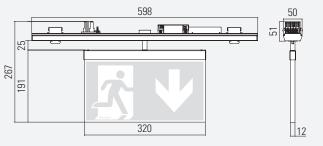
#### EMERGENCY LUMINAIRE with lens of your choice



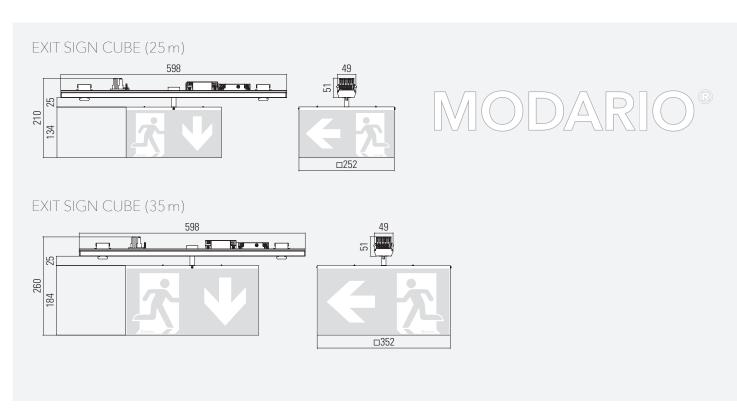
## MODARIO®

#### EXIT SIGN LUMINAIRE (24 m)









## REGENT LINEAR LIGHTING SOLUTIONS

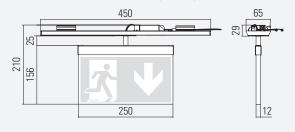
#### **GESSLER FITS IN ANY SYSTEM**

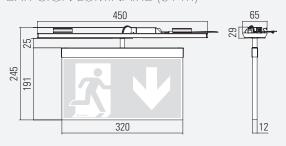
The perfect emergency lighting solution for the REGENT linear lighting system of the ICE 344 &TRAQ series. All emergency lighting components are integrated in a REGENT module carrier. This fits perfectly into the overall system, both technically and visually. Three symmetrical and three asymmetrical lenses are available for you to choose from. These are optimised for different installation heights (2 to 30 m).

Two exit sign luminaires with viewing distances of 24 m and 31 m are available to you for identifying the escape routes.



#### EXIT SIGN LUMINAIRE (24 m)



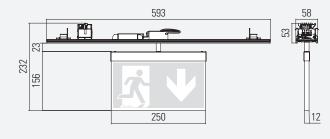


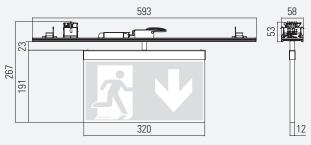






#### EXIT SIGN LUMINAIRE (24 m)



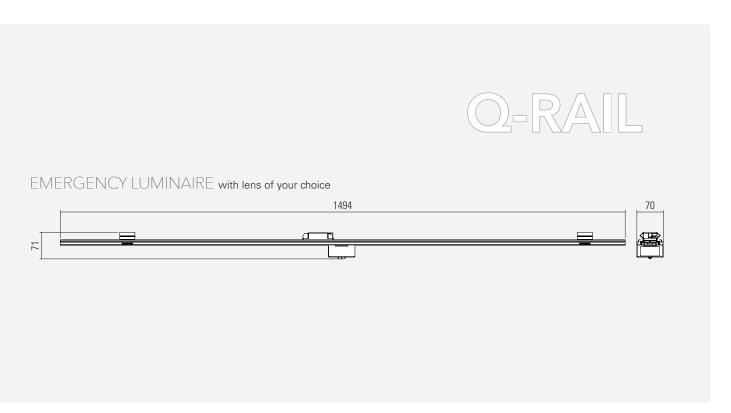


## LUNUX LINEAR LIGHTING SOLUTIONS

#### **GESSLER FITS IN ANY SYSTEM**

The perfect emergency lighting for the LUNUX linear lighting system of the Q-rail series. All emergency lighting components are integrated in a LUNUX module carrier. This fits perfectly into the overall system, both technically and visually. Three symmetrical and three asymmetrical lenses are available for you to choose from. These are optimised for different installation heights (2 to 30 m).





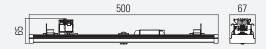
### RIDI LINEAR LIGHTING SOLUTIONS

#### **GESSLER FITS IN ANY SYSTEM**

The perfect emergency lighting solution for the RIDI linear lighting system of the LINIA series. All emergency lighting components are integrated in a RIDI module carrier. This fits perfectly into the overall system, both technically and visually. Three symmetrical and three asymmetrical lenses are available for you to choose from. These are optimised for different installation heights (2 to 30 m).



#### EMERGENCY LUMINAIRE with lens of your choice





## LENS VERSIONS

#### VARIABLE HEIGHTS

Three symmetrical and three asymmetrical lenses are available for you to choose from. These are optimised for different installation heights (2 to 30 m).

Thanks to the modular design of our lens luminaire series, all the lenses shown are compatible with all enclosures.

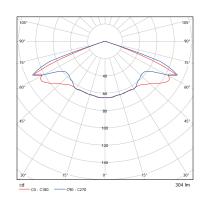
Thus, for the first time, the chosen luminaire design can be continued uniformly in all areas and at all installation heights of your project.

	TECHNICAL DATA
Light source	LED
Connected load (AC/DC)	8.5 VA /5.2 W
VERSION	
without monitoring	•
with monitoring	•
DALI monitoring	

#### **SYMMETRICAL LENSES** FOR OPEN AREAS

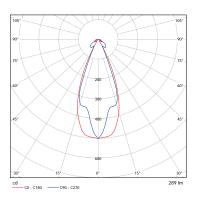


S1 LENS Installation height up to 12 m



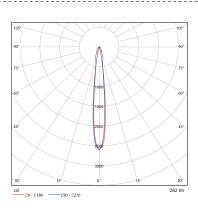


S2 LENS Installation height up to 18 m





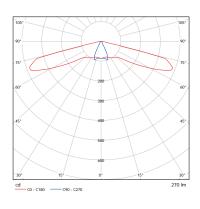
S3 LENS Installation height up to 30 m



#### **ASYMMETRICAL LENSES** FOR ESCAPE ROUTES

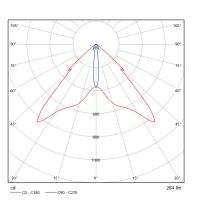


A1 LENS Installation height up to 11 m



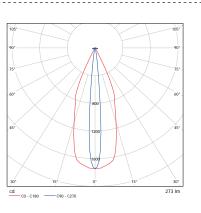


A2 LENS Installation height up to 16 m





A3 LENS Installation height up to 30 m



## SYMMETRICAL LENSES LIGHTING DATA (EN 1838)

	1 X Lighting of escape routes						1 X Lighting of sales areas (self-service stores)						<b>0.5 IX</b> Lighting of open areas > 60m <sup>2</sup> (anti-panic lighting)					
			2		8	2		<del>8</del> 8			<b>X</b> X			<b>X</b> X			<b>X</b> X	
Installation height [m]	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens	S1 lens	S2 lens	S3 lens
2.00	4.50			10.00			3.25			7.75			4.00			8.25		
2.50	4.75			13.50			4.00			10.75			5.25			11.75		
3.00	4.25			13.50			4.00			10.75			5.25			11.75		
4.00	4.00	2.25		12.75	5.00		3.75	1.75		12.25	5.00		6.00	2.25		14.75	7.00	
5.00	3.75	2.75		11.50	6.00		2.50	2.00		11.25	5.50		5.75	2.50		16.50	6.75	
6.00	3.25	3.00		11.00	6.75		2.50	2.75		11.50	6.00		5.00	2.75		16.50	7.25	
7.00	2.25	3.25		11.25	7.75		2.50	3.00		11.50	6.75		4.75	3.00		14.50	8.00	
8.00	1.50	3.50	2.00	6.50	8.25	4.75	2.75	3.25	1.25	9.00	7.50	5.25	3.75	3.50	2.75	15.25	8.50	5.50
9.00		4.00	2.25		9.00	5.25	1.25	3.50	1.75	10.25	8.25	5.50	2.50	4.00	1.50	17.50	9.00	6.75
10.00		4.00	2.25		9.50	5.50	1.25	3.75	2.25	8.00	8.75	5.75	1.75	4.25	2.00	17.75	9.75	7.00
11.00		4.25	2.50		10.00	5.75	1.00	3.75	1.50	6.75	9.25	6.25	1.75	4.50	2.75	17.50	10.50	7.25
12.00		4.50	2.75		10.50	6.25	1.00	4.00	1.75	5.50	9.50	6.25	1.50	4.75	3.25	17.00	11.25	7.50
13.00		4.75	2.75		11.00	6.50		4.00	1.75		10.00	6.50		4.50	2.75		12.00	8.00
14.00		4.75	2.75		11.50	6.75		3.75	1.75		10.25	6.50		5.00	3.00		12.50	8.25
15.00		4.50	3.00		12.00	7.00		3.75	1.75		10.50	6.75		5.25	3.00		13.00	8.50
16.00		4.00	3.00		12.50	7.50		3.50	2.00		10.75	6.50		5.25	3.00		13.25	8.75
17.00		2.25	3.25		12.75	7.75		3.00	2.00		11.00	7.00		5.50	3.00		13.75	8.75
18.00		1.75	3.25		11.75	8.00		2.00	2.00		11.00	7.00		4.75	3.00		14.00	9.00
19.00			3.25			8.25			2.25			7.25			3.00			9.25
20.00			3.25			8.50			2.25			7.50			3.00			9.50
21.00			3.25			8.75			2.25			7.50			3.00			9.50
22.00			3.25			8.75			3.25			7.50			3.25			9.00
23.00			3.25			9.00			2.50			8.00			3.25			9.50
24.00			3.25			9.25			2.50			8.00			3.25			10.00
25.00			3.25			9.25			2.50			8.25			3.25			10.00
26.00			3.25			9.50			2.75			8.25			3.50			10.25
27.00			3.25			9.50			2.75			8.50			3.75			10.25
28.00			3.25			9.50			2.50			8.75			3.75			10.50
29.00			3.25			9.50			2.50			8.75			3.50			10.75
30.00			3.25			9.50			2.75			9.00			3.75			10.75

This table of distances (in metres) is based on the following factors: measurement plane 2 cm, maintenance factor MF = 80 %, reflectance: 0

Dated: March 2020

## ASYMMETRICAL LENSES LIGHTING DATA (EN 1838)

	1 IX Lighting of escape routes											
Installation height [m]	A1 lens	A2 lens	A3 lens	A1 lens	A2 lens	A3 lens	A1 lens	A2 lens	A3 lens			
2.00	7.25			16.00			14.25					
2.50	8.00			19.00			17.00					
3.00	8.50			21.50			17.25					
4.00	9.50	4.75		24.50	10.50		18.75	10.00				
5.00	8.75	5.75		26.50	12.50		17.50	12.00				
6.00	5.25	6.75		27.50	14.50		10.50	14.00				
7.00	4.50	7.75		24.00	16.75		8.25	16.00				
8.00	4.00	8.75	4.00	16.50	18.75	8.75	2.00	17.75	8.25			
9.00	2.75	9.00	4.50	14.50	20.75	9.75		18.00	9.25			
10.00	1.00	9.50	5.00	8.50	22.25	10.50		19.50	10.00			
11.00	1.00	10.25	5.50	3.75	23.75	11.50		20.50	11.00			
12.00		11.00	5.75		25.25	12.50		22.00	10.7			
13.00		11.50	6.25		25.75	13.25		23.25	12.7!			
14.00		12.25	6.75		27.00	14.25		24.50	13.50			
15.00		12.75	7.00		28.50	15.25		25.75	14.2			
16.00		13.25	7.50		29.75	16.00		26.75	15.00			
17.00			7.75			17.00			15.50			
18.00			8.00			17.75			16.00			
19.00			8.25			18.50			16.5			
20.00			8.50			19.25			17.00			
21.00			8.50			20.00			17.00			
22.00			8.50			20.75			17.00			
23.00			8.25			21.50			16.7			
24.00			8.25			21.50			16.50			
25.00			8.00			22.00			16.25			
26.00			8.00			22.25			16.00			
27.00			8.00			22.75			16.00			
28.00			7.75			23.00			15.75			
29.00			7.75			23.25			15.50			
30.00			7.50			23.50			15.00			

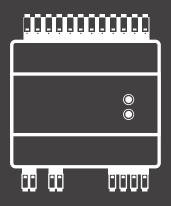
This table of distances (in metres) is based on the following factors: measurement plane 2 cm, maintenance factor MF = 80 %, reflectance: 0

Dated: March 2020









# ASSEMBLIES & MODULES



## PRODUCT OVERVIEW



#### EZ2

Central BUS unit for rechargeable battery luminaires p. 178



#### DMFI-MB

BUS phase monitor for MERLIN systems p. 187



#### MT2

Indication panel p. 180



#### I-CONNECT16

BUS phase monitor for SIBELON systems p. 188



#### MLB10

Address module for MERLIN systems p. 182



#### WEB-MASTER

High-level visualisation p. 189



#### MLB10DD

Address module with DALI disconnection for MERLIN systems p. 183



#### IOM230

Switch interrogation module 230 V for MERLIN systems p. 190



#### LB1/009

Address module for SIBELON systems p. 184



#### IOM24

Switch interrogation module 24 V for MERLIN systems p. 191



#### LB1/009DD

Address module with DALI disconnection for SIBELON systems p. 185



#### ELE

Recessed emergency lighting element p. 192



#### **DMFI**

Phase monitor p. 186



#### RISER JUNCTION BOX

for riser cable installation p. 194

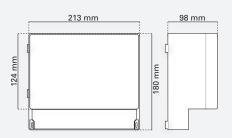
### F72

Central BUS monitoring unit for self-contained luminaires with detailed fault indication and location in plain text



#### **GENERAL**

The Gessler self-contained monitoring system is able to monitor up to 999 loads from a central place. The luminaire test required by the standards is performed by the EZ2 automatically and it records the result in the standard, integrated test log for 4 years.



CENTRAL BUS MONITORING UNIT	EZ2
Degree of protection	IP54
Class	II
Enclosure material	Plastic
Enclosure colour	Light grey
Power (AC)	14 VA
Voltage	230V ± 10 %, 50/60 Hz/176-275 V DC
Ambient temperature	-10 °C to +55 °C
Address range	999

#### **TEST FUNCTION**

The EZ2 performs the weekly functional test required by the VDE automatically. The test times can be freely selected by the operator/owner. All fault messages and events are stored for a period of four years.

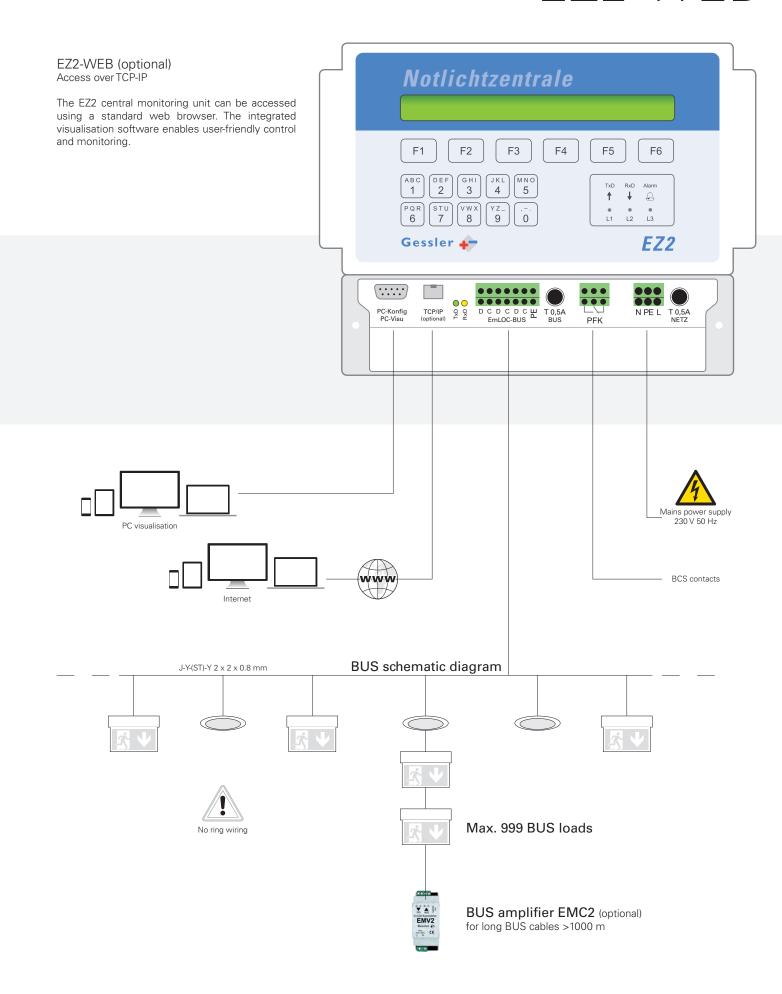
#### **MONITORING**

As soon as the function of a rechargeable battery luminaire to be monitored is impaired, the central BUS unit identifies this during a functional test and outputs an error message or signal. It is monitored and logged in accordance with DIN EN 62034.

#### **ERROR OUTPUT**

In the case of a fault, the error is output optionally as plain text on the display (e.g. rechargeable battery voltage is too high/low, inverter fault, lamp fault or communication error) or via a standard printer interface (serial).

## EZ2-WEB



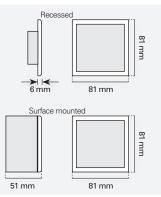
### MT2

#### Indication panel for connection to a Gessler LPS/CPS system



The MT2 indication panel is available not only as a surface-mounted version (MT2-A) but also as a recessed version (MT2-E). The latter is also suitable for installation in an existing device junction box with standard combination distance of 71 mm in accordance with DIN 49073-1.

Optionally available with surface-mounted enclosure (MT2-A)

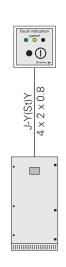


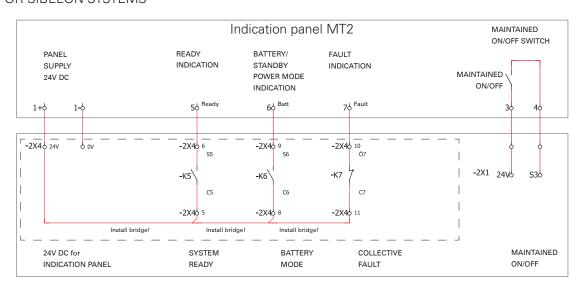
INDICATION PANEL	MT2-E   MT2-A
Enclosure material	Plastic
Enclosure colour	white
Supply voltage	24 V DC
LEDstatus display	Ready, battery mode, fault
Additional control functions	Maintained on/off, LED test, horn off
Degree of protection	IP30



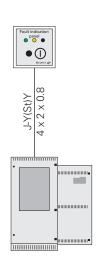


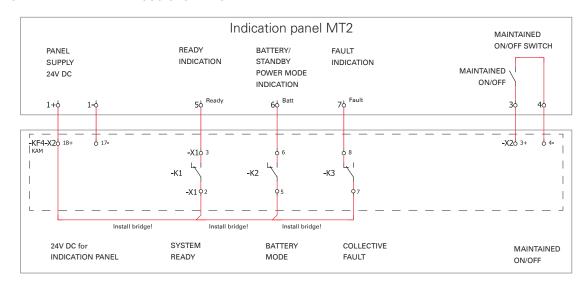
#### CONNECTION PLAN FOR SIBELON SYSTEMS





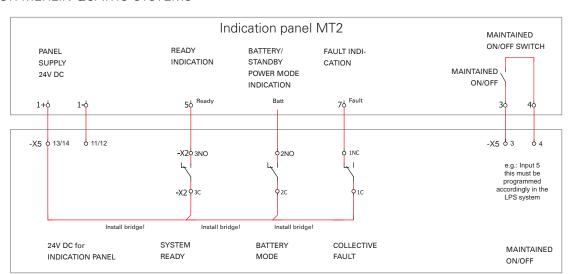
#### CONNECTION PLAN FOR MERLIN AND KV2000 SYSTEMS



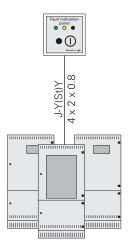


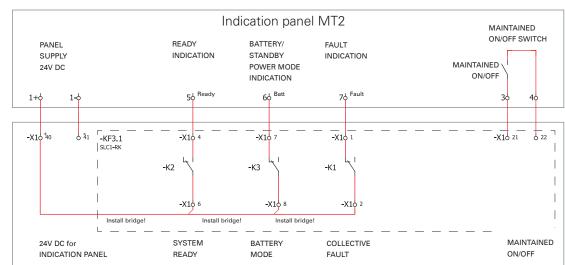
#### CONNECTION PLAN FOR MERLIN QUATRO SYSTEMS





#### CONNECTION PLAN FOR SIBECONTROL, SIBELIGHT, SIBEMATIC AND GV1500 SYSTEMS





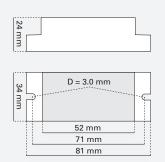
### MI B10

#### Merlin address module with additional hardwired switch



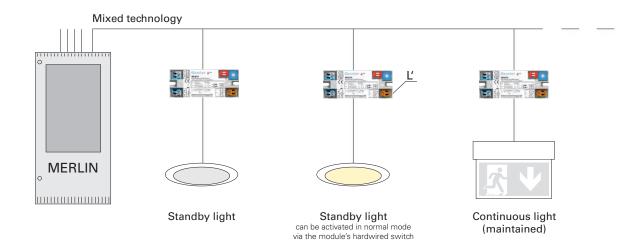
By using the Gessler MLB10 module, exit route and emergency luminaires can be implemented in one circuit (mixed technology). This means a substantial saving in the installation and a reduction of the fire load. The module is not only suitable for AC mains, but also for DC mains systems.

The connected luminaires are monitored and are activated via the hardwired switch with the general lighting. The data is transferred on the supply cable. In the event of a fault in an individual luminaire, the precise location can be indicated on the display of the LPS/CPS system.



LUMINAIRE MODULE	MLB10			
Enclosure material	Plastic			
Mains/emergency connection	230V ± 10 %, 50/60 Hz/176-275 V DC			
Ambient temperature	-10 °C to +55 °C			
Power range	2 – 120 W			
Address range	1 to 20			
Degree of protection	IP20			
Class	I			
System	MERLIN + QUATTRO			







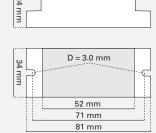
By using the Gessler MLB10 DD module, exit route and emergency luminaires can be implemented in one circuit (mixed technology). This means a substantial saving in the installation and a reduction of the fire load. The module is not only suitable for AC mains, but also for DC mains systems.

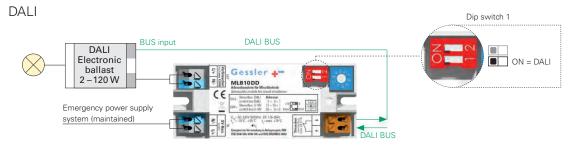
The connected luminaires are monitored and are activated via the hardwired switch with the general lighting. The data is transferred on the supply cable. In the event of a fault in an individual luminaire, the precise location can be indicated on the display of the LPS/CPS system.

In test and emergency mode, the MLB10DD disconnects the BUS signal from the electronic ballast. Suitable for all dimmable electronic ballasts, which adjust automatically in the event of a lack of a BUS signal.



LUMINAIRE MODULE	MLB10DD		
Enclosure material	Plastic		
Mains/emergency connection	230V ± 10 %, 50/60 Hz/176-275 V DC		
Ambient temperature	-10 °C to +55 °C		
Power range	2 – 120 W		
Address range	1 to 20		
Degree of protection	IP20		
Class			
System	MERLIN + QUATTRO		



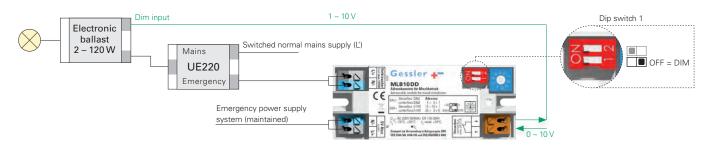




#### DALI

After test and emergency mode, the last transmitted DALI command must be transmitted again for all DALI emergency luminaires.

#### 1 – 10 V CONTROL



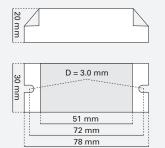
## B1/009

#### SIBELON address module with additional hardwired switch



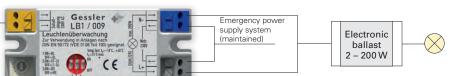
By using the Gessler LB1/009 module, exit route and emergency luminaires can be implemented in one circuit (mixed technology). This means a substantial saving in the installation and a reduction of the fire load. The module is not only suitable for AC mains, but also for DC mains systems.

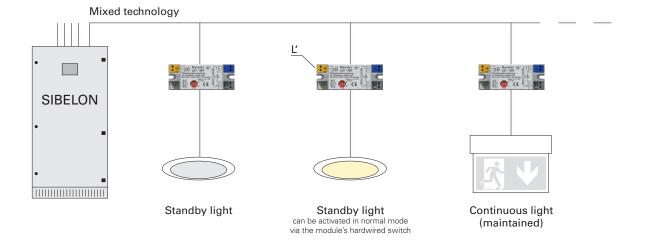
The connected luminaires are monitored and are activated via the hardwired switch with the general lighting. The data is transferred on the supply cable. In the event of a fault in an individual luminaire, the precise location can be indicated on the display of the LPS/CPS system.



LUMINAIRE MODULE	LB1/009
Enclosure material	Plastic
Mains/emergency connection	230V ± 10 %, 50/60 Hz/176-275 V DC
Ambient temperature	-10 °C to +60 °C
Power range	2 – 200 W
Address range	1 to 20
max. electronic ballast inrush current	45 A/5 ms
Degree of protection	IP20
Class	l l
System	SIBELON

Switched normal mains supply (L') / 1ph mains monitor (230 V AC) selectable via sliding switches







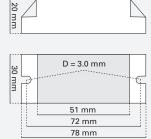
By using the Gessler LB1/009DD module, exit route and emergency luminaires can be implemented in one circuit (mixed technology). This means a substantial saving in the installation and a reduction of the fire load. The module is not only suitable for AC mains, but also for DC mains systems.

The connected luminaires are monitored and are activated via the hardwired switch with the general lighting. The data is transferred on the supply cable. In the event of a fault in an individual luminaire, the precise location can be indicated on the display of the LPS/CPS system.

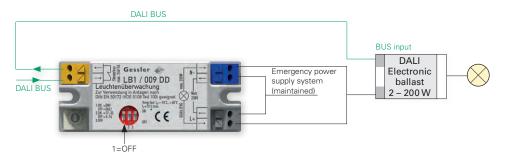
In test and emergency mode the LB1/009DD disconnects the BUS signal from the electronic ballast. Suitable for all dimmable electronic ballasts, which adjust automatically in the event of a lack of a BUS signal.



LUMINAIRE MODULE	LB1/009DD		
Enclosure material	Plastic		
Mains/emergency connection	$230V \pm 10\%$ , $50/60Hz/176-275VDC$		
Ambient temperature	-10 °C to +60 °C		
Power range	2 – 200 W		
Address range	1 to 20		
max. electronic ballast inrush current	45 A/5 ms		
Degree of protection	IP20		
Class	I		
System	SIBELON		



#### DALI

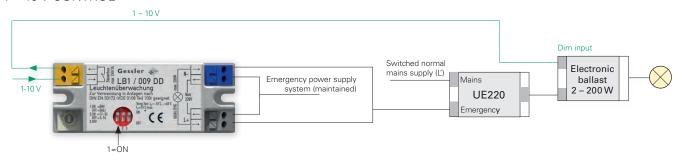




#### DAL

After test and emergency mode, the last transmitted DALI command must be transmitted again for all DALI emergency luminaires.

#### 1 - 10 V CONTROL



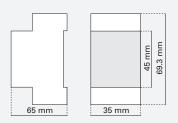


#### Phase monitor for monitoring the normal mains supply



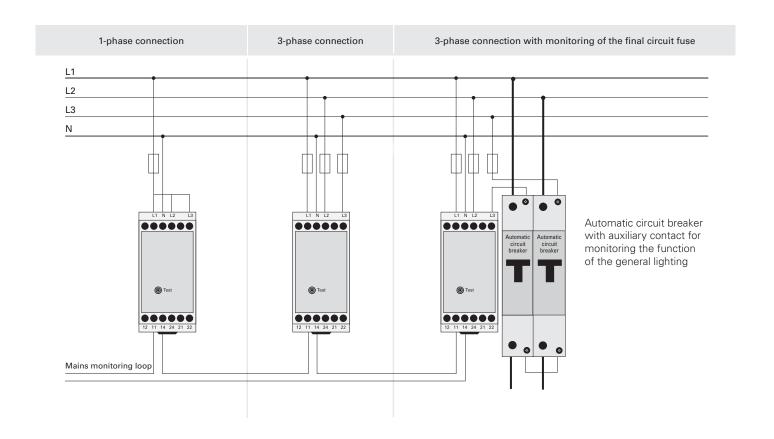
DMFI is a phase monitor, which is used to monitor the normal mains supply.

The DMFI is connected to a LPS/CPS system by means of a 24 V mains monitoring loop. As soon as one of the normal mains supply phases to be monitored falls below the nominal voltage by more than 15 %, the phase monitor opens the mains monitoring loop. The LPS/CPS system now switches on the emergency lighting off the area concerned and supplies the luminaires via the mains (local emergency mode).



Top-hat rail mounting 2 HP

PHASE MONITOR	DMFI
Enclosure material	Plastic
Nominal voltage	230V ± 10 %, 50/60 Hz/176-275 V DC
Power consumption	16 VA
Backup fuse	max. 16 A
Relay contacts	2 x voltage-free change-over contact (max. 4 A)
Display	LED status display (green: operation / red: Normal mains supply fault)
Class	l
System	All systems



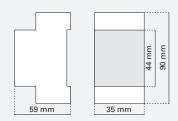


DMFI-MB is a BUS phase monitor, which is used to monitor the normal mains supply.

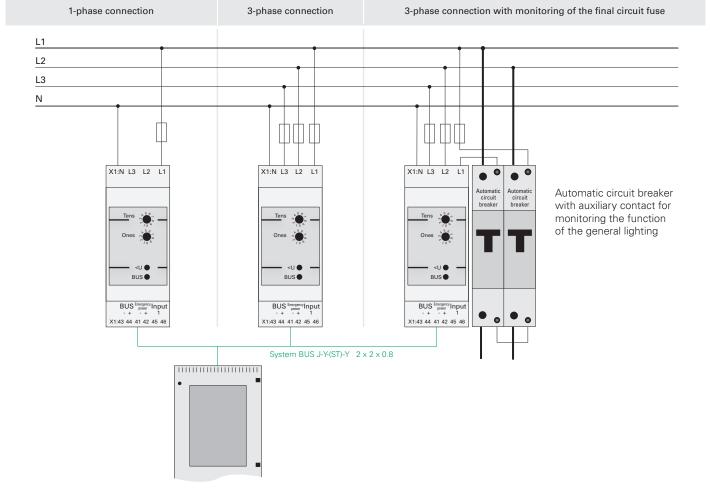
Each DMFI-MB is connected to a Gessler LPS/CPS system via a BUS cable. A unique BUS address is assigned to each DMFI-MB by means of a rotary coder. A location text can be assigned at any time (to enable accurately targeted correction of a local fault in the normal mains supply. As soon as one of the normal mains supply phases to be monitored falls below the nominal voltage by more than 15 %, the BUS phase monitor signals a local mains failure. The LPS/CPS system now switches on the emergency lighting off the area concerned and supplies the luminaires via the mains



BUS PHASE MONITOR	DMFI-MB			
Enclosure material	Plastic			
Nominal voltage	$230V \pm 10\%$ , $50/60 Hz/176-275 V DC$			
Power consumption	2 W			
Backup fuse	max. 16 A			
Address range	1 to 99			
Hardwired switches	1 x 24 V via external voltage-free contacts			
Display	LED status display			
Class				
System	MERLIN + QUATTRO			



Top-hat rail mounting 2 HP



# -CONNECT16

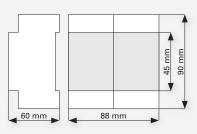
### BUS phase monitor for SIBELON systems for monitoring the normal mains supply



I-CONNECT 16 is a BUS phase monitor, which is used to monitor the normal mains supply.

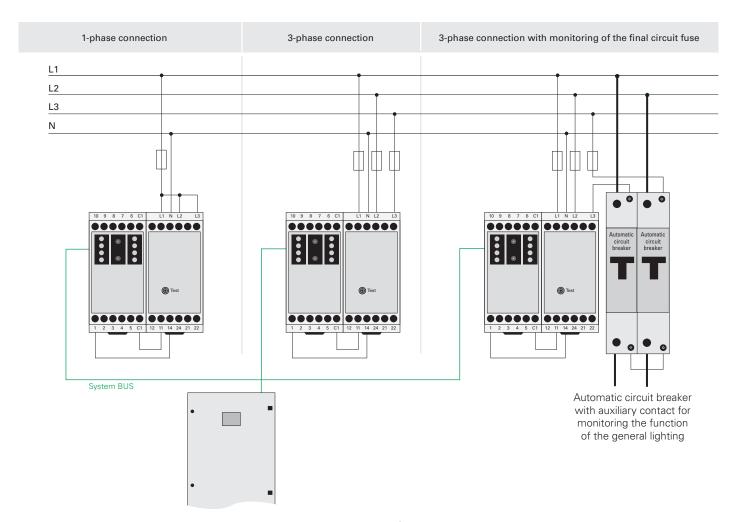
Each I-CONNECT 16 communicates with the SIBELON system via the BUS cable. A unique BUS address is assigned to each I-CONNECT 16 in the factory. A location text can be assigned at any time (to enable accurately targeted correction of a local fault in the normal mains supply.

As soon as one of the normal mains supply phases to be monitored falls below the nominal voltage by more than 15 %, the BUS phase monitor signals a local mains failure. The LPS/CPS system now switches on the emergency lighting off the area concerned and supplies the luminaires via the mains.



Top-hat rail mounting 4 HP

BUS PHASE MONITOR	I-CONNECT16			
Enclosure material	Plastic			
Nominal voltage	230V ± 10 %, 50/60 Hz/176-275 V DC			
Power consumption	2 W			
Backup fuse	max. 16 A			
Hardwired switches	1 x 24 V via external voltage-free contacts			
Display	LED status display			
Class	I			
System	SIBELON			



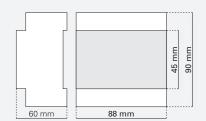
# WEB-MASTE

#### Central visualisation via TCP-IP

The web-master manages and monitors up to 1,000 Gessler emergency lighting systems conveniently by means of central visualisation via TCP-IP. In case of a fault, if necessary, the integrated email client sends a status message. Use of the web-master only requires an up-todate browser.



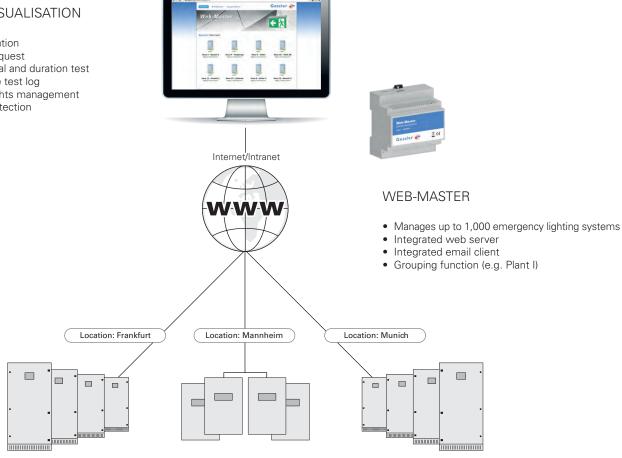
VISUALISATION	WEB-MASTER
Enclosure material	Plastic
Interface	Ethernet
Supply voltage	230 V AC/DC
Connected load (AC)	max. 20 VA
Degree of protection	IP20
Class	I
System	SIBELON + MERLIN + KV2000 + QUATTRO + NANO2 + EZ2 + POWERPACK



Top-hat rail mounting 5 HP

#### **CENTRAL VISUALISATION**

- Intuitive operation
- Live status request
- Start functional and duration test
- Read out/save test log
- Login with rights management
- Password protection



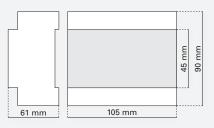


### Switch interrogation module 230 V with integrated BUS phase monitor for MERLIN systems



IOM230 is a switch interrogation module with integrated BUS phase monitor. The module can be optionally installed in the emergency lighting system cabinet or in the distribution of the general lighting. A unique BUS address is assigned to each module by means of a rotary coder. A location text can be assigned at any time (to enable accurately targeted correction of a local fault in the normal mains supply.

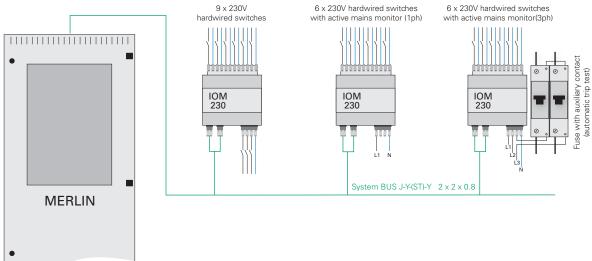
Depending on the programming of the IOM230, either  $9 \times 230 \, \text{V}$  hardwired switches or  $6 \times 230 \, \text{V}$  hardwired switches + one BUS phase monitor are available to you. The final circuits of your MERLIN system can be switched by means of the 230 V hardwired switches. The integrated BUS phase monitor reports a local mains failure as soon as at least one phase of the normal mains supply falls below the nominal voltage by more than 15 %. The LPS/CPS system now switches on the emergency lighting off the area concerned and supplies the luminaires via the mains.



Top-hat rail mounting 6 HP

SWITCH INTERROGATION MODULE	IOM230
ENCLOSURE MATERIAL	Plastic
HARDWIRED SWITCHES	9 x 230 V or 6 x 230 V + mains monitor
MAINS MONITOR	1 phase/3 phase
TERMINAL BLOCKS	up to 2.5 mm²
System	MERLIN + KV2000

### Remote installation in the subdistribution panel of the general lighting



Max. total BUS length: 1,000 m

Max. distance from BUS device to the CPS system: 400 m



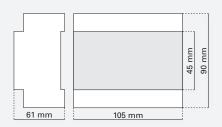
IOM24 is a switch interrogation module, which can be optionally installed in the emergency lighting system cabinet or in the distribution of the general lighting.

A unique BUS address is assigned to each module by means of a rotary coder. A location text can be assigned at any time.

 ${\sf IOM24}$  provides 16 voltage-free hardwired switches to switch the final circuits of your MERLIN system.

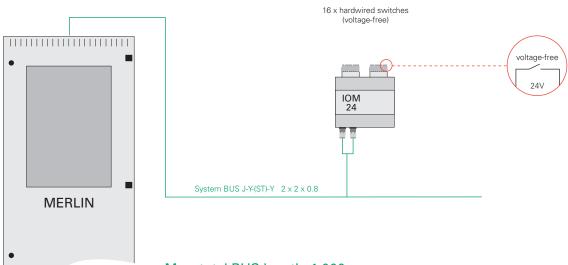


SWITCH INTERROGATION MODULE	IOM24		
ENCLOSURE MATERIAL	Plastic		
HARDWIRED SWITCHES	16 x 24 V via external voltage-free contacts		
TERMINAL BLOCKS	up to 1.5 mm <sup>2</sup>		
System	MERLIN + KV2000		
System	MERLIN + KV2000		



Top-hat rail mounting 6 HP

### Remote installation in the subdistribution panel of the general lighting



Max. total BUS length: 1,000 m

Max. distance from BUS device to the CPS system: 400 m



#### RECESSED EMERGENCY LIGHTING ELEMENT

By using a Gessler ELE, standard commercial luminaires can be modified to self-contained emergency luminaires.

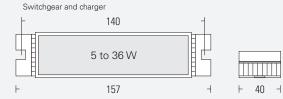


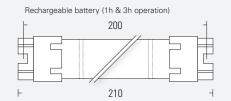
RECESSED EMERGENCY LIGHTING ELEMENT	ELE-V4	ELE-V5
NiCd rechargeable battery (1 h & 3 h)	3.6 V / 4 Ah	6 V/4 Ah
Power (AC)	5 – 36 W	18 – 58 W
Enclosure material	Plast	tic
Plug-in terminals	up to 1.5	i mm²
Voltage	230 V AC	50 Hz
Lamp types	LL  TC-SE	TC-DEL
Ambient temperature	+5 °C to -	+40 °C
Suitable ballasts	Electronic ballast   Low loss b	allast   Conventional ballast
Version		
1h   with auto-check   BUS check	•   •	•   •
3h   with auto-check   BUS check	•   •	•   •

#### LUMINOUS FLUX TABLE

YPE		ELE-V4		ELE-V5	
		1h	3h	1h	3h
6 (G5)	T5	25 %	15 %	-	_
8 (G5)	T5	23 %	14 %	-	_
13 (G5)	T5	17 %	11 %	-	_
18 (G13)	T8	14 %	8 %	28 %	12 %
36 (G13)	T8	9 %	5 %	22 %	10 %
58 (G13)	T8	8 %	_	15 %	7 %
20 (G10q)	T/R	9 %	5 %	22 %	8 %
22 (G10q)	T/R	_	-	-	_
32 (G10q)	T/R	9 %	6 %	20 %	8 %
40 (G10q)	T/R	9 %	-	22 %	10 %
10 (GR10q)	PLQ	24 %	15 %	-	_
16 (GR10q)	PLQ	19 %	13 %	_	_
28 (GR10q)	PLQ	12 %	8 %	29 %	13 %
38 (GR10q)	PLQ	9 %	_	19 %	8 %
10 (G24q)	TCD	20 %	13 %	-	_
13 (G24q)	TCD	21 %	14 %	-	_
18 (G24q)	TCD	15 %	9 %	36 %	17 %
26 (G24q)	TCD	11 %	8 %	26 %	13 %
10 (Gx24q)	T/E	20 %	13 %	-	_
13 (Gx24q)	T/E	21 %	13 %	_	_
18 (Gx24q)	T/E	15 %	9 %	36 %	17 %
28 (Gx24q)	T/E	_	_	23 %	13 %
32 (Gx24q)	T/E	10 %	_	21 %	12 %
42 (Gx24q)	T/E	10 %	_	22 %	_
5 (2G7)	PL	26 %	16 %	-	_
7 (2G7)	PL	23 %	16 %	_	_
9 (2G7)	PL	24 %	14 %	_	_
11 (2G7)	PL	24 %	14 %	_	_
18 (2G10)	TCF	12 %	7 %	25 %	10 %
24 (2G10)	TCF	10 %	7 %	21 %	10 %
36 (2G10)	TCF	9 %	6 %	20 %	9 %
18 (2G11)	PL	11 %	6 %	24 %	7 %
24 (2G11)	PL	10 %	6 %	27 %	11 %
36 (2G11)	PL	8 %	5 %	20 %	9 %
40 (2G11)	PL	9 %	_	21 %	12 %
55 (2G11)	PL	7 %	_	15 %	7 %
14 FHE (G5)	T5	19 %	12 %	42 %	19 %
21 FHE (G5)	T5	18 %	12 %	36 %	18 %
24 FHO (G5)	T5	11 %	9 %	26 %	11 %
28 FHE (G5)	T5	18 %	6 %	34 %	_
35 FHE (G5)	T5	_	_	30 %	_
39 FHO (G5)	T5	9 %	_	20 %	10 %
49 FHO (G5)	T5	10 %	_	21 %	-
54 FHO (G5)	T5	8 %	_	17 %	_

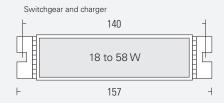
ELE-V4





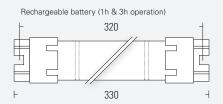


LE-V5





32



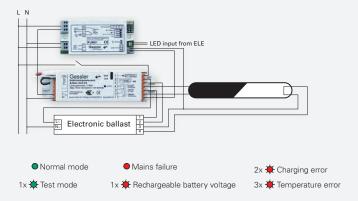


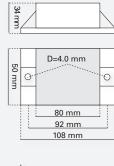
#### **OPTIONAL**

#### SELF-MONITORED (+PUM01)

The PUM 01 performs the weekly functional test required by the VDEautomatically.

Error signals are indicated via a coloured LED.



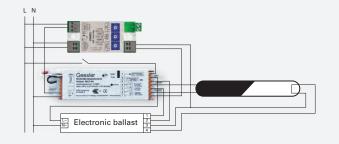


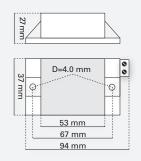
4x 🗯 Lamp error

#### **OPTIONAL**

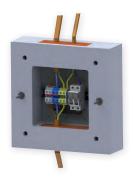
#### BUS MONITORED (+ESM02)

In the event of a malfunction, an error message is sent to the central BUS unit. The status of the built-in element is indicated at the central monitoring unit. In this way, the ELE can be monitored from a central position.





# RISER JUNCTION BOX in E30

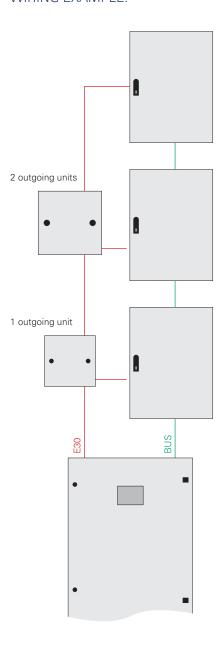


Whenever star-shaped installation of the supply cable between the CPS system and its substations is not possible or is uneconomical, a so-called riser installation can be selected.

To install this form of installation correctly according to the standards, the tapping of the supply cable (E30) must be protected with a backup fuse in a jumper ring with identical maintenance of integrity.

On the following pages you will find a selection of standard riser junction boxes in E30 and their versions.

#### WIRING EXAMPLE:



# RISER JUNCTION BOX project planning

#### RISER DISTRIBUTION

Max. power Fusing in the of the riser [W] central unit [A]		SVx.350.350.10x SVx.450.450.20x				SVx.350.350.11x SVx.450.450.21x		SVx.350.350.12x SVx.450.450.22x ATTENTION: Lay 5 x 50 mm <sup>2</sup>		
		4 mm²	6 mm²	10 mm <sup>2</sup>	16 mm²	25 mm²	35 mm <sup>2</sup>	50 mm <sup>2</sup>	70 mm²	95 mm
				6 – <mark>ratio of ho</mark> ax. E30 cabl						
1000	16	59	89	148	237	370	518	740	1036	1406
2000	16	30	44	74	118	185	259	370	518	703
3000	25	20	30	49	79	123	173	247	345	469
4000	35	-	22	37	59	93	130	185	259	352
6000	50	-	-	25	39	62	86	123	173	234
8000	63	-	-	-	30	46	65	93	130	176
10000	80	-	_	_	_	37	52	74	104	141
12000	80	-	-	-	-	31	43	62	86	117
15000	100	-	_	_	_	25	35	49	69	94
17000	125	-	_	_	_	22	30	44	61	83
		•		6 – ratio of ho ax. E30 cabl						1
1000	16	48	72	119	191	299	418	597	836	1135
2000	16	24	36	60	96	149	209	299	518	567
3000	25	16	24	40	64	100	139	199	345	378
4000	35	-	18	30	48	75	105	149	259	284
6000	50	-	-	20	32	50	70	100	173	189
8000	63	-	-	-	24	37	52	75	130	142
10000	80	-	-	-	-	30	42	60	104	113
12000	80	-	-	-	-	25	35	50	86	95
15000	100	-	_	-	_	20	28	40	69	76
17000	125	-	_	_	_	18	25	35	61	67
				6 – ratio of ho ax. E30 cabl						
1000	16	40	60	100	160	250	351	501	701	951
2000	16	20	30	50	80	125	175	250	351	476
3000	25	13	20	33	53	83	117	167	234	317
4000	35	-	15	25	40	63	88	125	175	238
6000	50	-	-	17	27	42	58	83	117	159
8000	63	-	-	-	20	31	44	63	88	119
10000	80	-	-	-	-	25	35	50	70	95
12000	80	-	_	_	_	21	29	42	58	79
15000	100	-	-	-	-	17	23	33	47	63
17000	125	_	_	_	_	15	21	29	41	56

Assumptions: AC/DC 1 conductor; cos(phi) = 0.9; 25° Celsius; voltage drop = 1.5 %; U = 216 V; type of laying = C; fuse load: 90%



<sup>\*</sup>The percentage of "hot to cold zone" is calculated from the ratio of the total length of the cable to the cable length that crosses the largest fire compartment/area subdivided in fire protection terms.

# RISER JUNCTION BOX Built-in units

#### E30 STANDARD TYPES WITH ONE OUTGOING UNIT

Type: SV3.350.350.100-00

Fuse element: max. 63 A (D02) Riser: max. 3 x 16 mm<sup>2</sup>

Incoming and outgoing terminals: max.  $3 \times 16 \text{ mm}^2$  Dimensions:  $350 \times 350 \times 140 \text{ mm}$  (H x W x D)



Type: SV3.350.350.101-00

Fuse element: max. 32 A (IEC 10 x 38)

Riser: max. 3 x 16 mm<sup>2</sup>

Incoming and outgoing terminals: max.  $3 \times 16 \text{ mm}^2$  Dimensions:  $350 \times 350 \times 140 \text{ mm}$  (H x W x D)



Type: SV3.350.350.110-00

Fuse element: max. 63 A (D02)

Riser: max. 3 x 50 mm<sup>2</sup>

Incoming and outgoing terminals: max. 3 x 16 mm² Dimensions: 350 x 350 x 140 mm (H x W x D)



Type: SV3.350.350.111-00

Fuse element: max. 32 A (IEC 10 x 38)

Riser: max. 3 x 50 mm²

Incoming and outgoing terminals: max.  $3 \times 16 \text{ mm}^2$  Dimensions:  $350 \times 350 \times 140 \text{ mm}$  (H x W x D)



Type: SV3.350.350.120-00

Fuse element: max. 63 A (D02)

Riser: max. 5 x 50 mm<sup>2</sup>

Incoming and outgoing terminals: max. 3 x 16 mm² Dimensions: 350 x 350 x 140 mm (H x W x D)



Type: SV3.350.350.121-00

Fuse element: max. 32 A (IEC 10 x 38)

Riser: max. 5 x 50 mm<sup>2</sup>

Incoming and outgoing terminals: max. 3 x 16 mm² Dimensions: 350 x 350 x 140 mm (H x W x D)

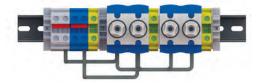


#### E30 STANDARD TYPES WITHTWO OUTGOING UNITS

Type: SV3.450.450.200-00

Fuse element: max. 63 A (D02) Riser: max. 3 x 16 mm<sup>2</sup>

Incoming and outgoing terminals: max. 3 x 16mm² Dimensions: 450 x 450 x 140 mm (H x W x D)



Type: SV3.450.450.201-00

Fuse element: max. 32 A (IEC 10 x 38)

Riser: max. 3 x 16 mm<sup>2</sup>

Incoming and outgoing terminals: max.  $3 \times 16 \text{ mm}^2$  Dimensions:  $450 \times 450 \times 140 \text{ mm}$  (H x W x D)

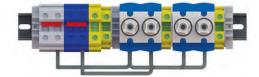


Type: SV3.450.450.210-00

Fuse element: max. 63 A (D02)

Riser: max. 3 x 50 mm<sup>2</sup>

Incoming and outgoing terminals: max.  $3 \times 16 \text{ mm}^2$  Dimensions:  $450 \times 450 \times 140 \text{ mm}$  (H x W x D



Type: SV3.450.450.211-00

Fuse element: max. 32 A (IEC 10 x 38)

Riser: max. 3 x 50 mm<sup>2</sup>

Incoming and outgoing terminals: max. 3 x 16 mm $^2$  Dimensions: 450 x 450 x 140 mm (H x W x D)

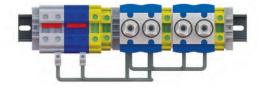


Type: SV3.450.450.220-00

Fuse element: max. 63 A (D02)

Riser: max. 5 x 50 mm<sup>2</sup>

Incoming and outgoing terminals: max.  $3 \times 16 \text{ mm}^2$  Dimensions:  $450 \times 450 \times 140 \text{ mm}$  (H x W x D)



Type: SV3.450.450.221-00

Fuse element: max. 32 A (IEC 10 x 38)

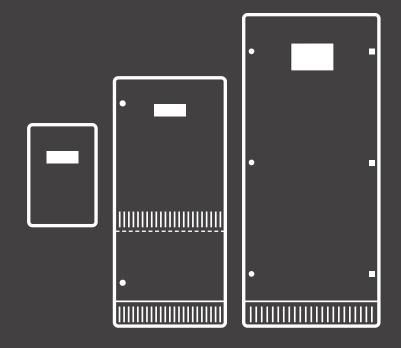
Riser: max. 5 x 50 mm<sup>2</sup>

Incoming and outgoing terminals: max.  $3 \times 16 \text{ mm}^2$  Dimensions:  $450 \times 450 \times 140 \text{ mm}$  (H x W x D)

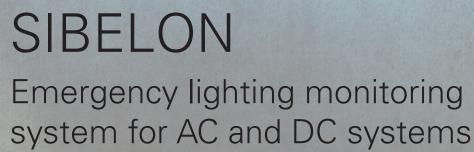








# EMERGENCY LIGHTING SYSTEMS





# SIBELON CPS - The system

The SIBELON system is not a central battery system in the classic sense, it is far more than that. It is an emergency lighting system of the latest generation that, for example, does not set any restrictions for the choice of power source. SIBELON adapts to your requirements, and not vice versa.

The power source for safety purposes does not necessarily have to be a battery system, which supplies the loads in the event of a mains failure. This provision of the power can be provided alternatively by an emergency standby power unit. In short: SIBELON is suitable not only for AC but also for DC systems.

Further, within the system, you have the opportunity to combine the power sources. For example, central unit can be supplied from a battery system and the connected substations from an emergency standby power unit.

SIBELON is produced to the industrial standard. It has a processor core made by Wago with Modbus-IP, which enables open interfaces such as BACnet for the provision of system messages to the BCS. This interface flexibility makes the SIBELON system the first choice in large projects.

Another advantage is that only one supply cable from the central unit is required to supply SIBELON substations. This reduces the wiring required and the fire load by 50%.

The SIBELON address module required to monitor the connected luminaires is not only suitable for AC systems but also for DC systems.

All final circuits are pre-equipped for mixed technology (escape route and emergency luminaires in one circuit) and can be loaded by up to max. 815 VA. Communication with the luminaires takes place on the supply line (without additional BUS cable). Each address can be assigned a clear, unique location text to enable a luminaire to be localised quickly and conveniently in case of a fault.

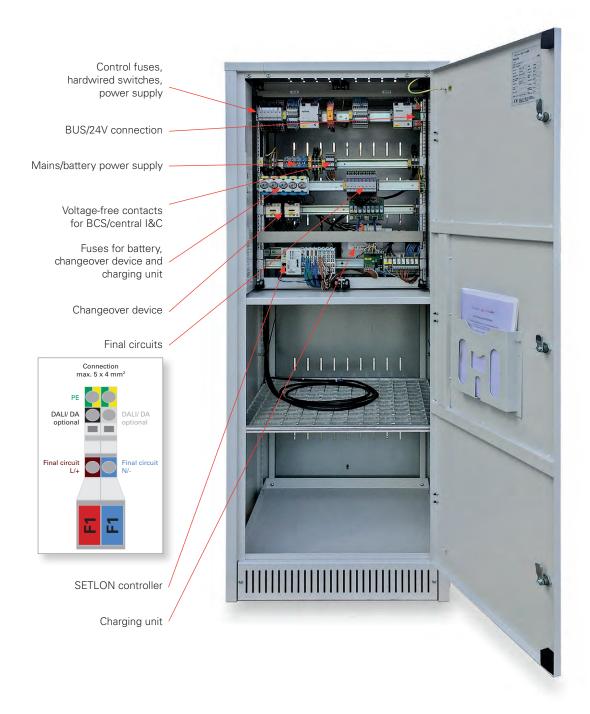
Due to the many advantages compared to a pure CPSsystem, we have given SIBELON a new system description:

### Emergency lighting monitoring system for AC and DC systems

The SIBELON system is naturally produced in accordance with the respective current legal standards. TÜV Rheinland has checked and certified the system in accordance with EN 50171. This confirms use of the system for emergency lighting in accordance with DIN VDE V 0108-100-1.

We have summarised the large number of different SIBELON systemoptions for you on the following catalogue pages.





#### **TECHNICAL DATA**

- Max. power: 150 kVA, Output voltage: 230 V AC/DC
- Standard single luminaire monitoring using address modules
- Freely programmable final circuits for maintained and non-maintainedlight and mixed technology
- Microprocessor-controlled functional and duration test
- 7" touchscreen operation

- Ethernet connection for web browser visualisation
- Autom. test equipment with logging/recording of results
- LON system BUS
- One system for AC and DC systems
- Optional: Higher-level visualisation via WEB-MASTER
- Optional: DALI system technology for DALI luminaires



# SIBELON CPS

#### SYSTEM DESCRIPTION

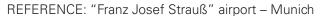
Central battery systems use a battery system as a standby electricity source, to supply the connected loads in emergency mode. This SIBELON system option is named SIBELON CPS.

#### How it works

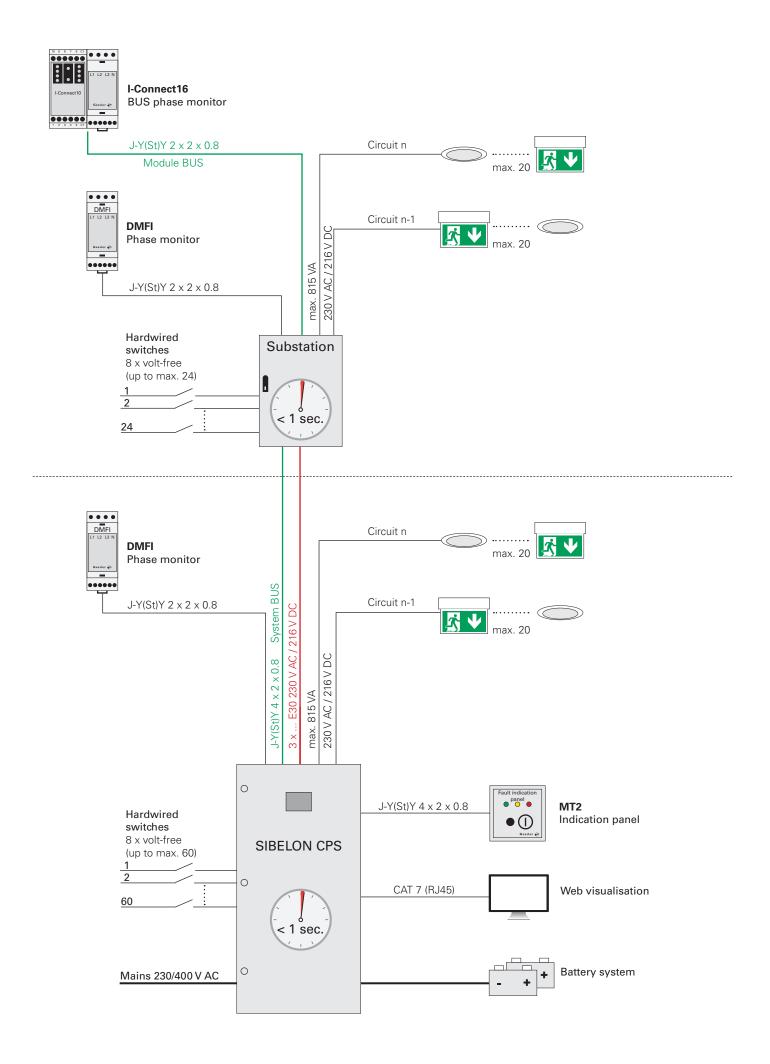
If a mains voltage is applied the loads are supplied from the mains and the battery system is charged. By monitoring the general lighting, it is ensured that in the event of a failure, the emergency lighting is switched on for the area concerned. In the event of failure or a fall in the mains voltage by more than 15%, the system switches to battery mode (DC mode). As a result, the connected escape route and emergency luminaires are switched on automatically.

As soon as a returning mains voltage is detected, SIBELON CPS switches to normal mode and again charges the battery system.

The luminaire test required by the standards is performed by the SIBELON CPS automatically and it records the result in the standard, integrated test log of the control unit.







# SIBELON CPS/ESPS

#### SYSTEM DESCRIPTION

If the central battery system uses a battery system as a standby electricity source, however, other system-oriented emergency lighting substations are supplied via ESPS (AC), the system is a **SIBELON CPS/ESPS** system. This option is only used if the transfer time requirements differ due to the use of the building (example: meeting places and workplaces).

#### How it works

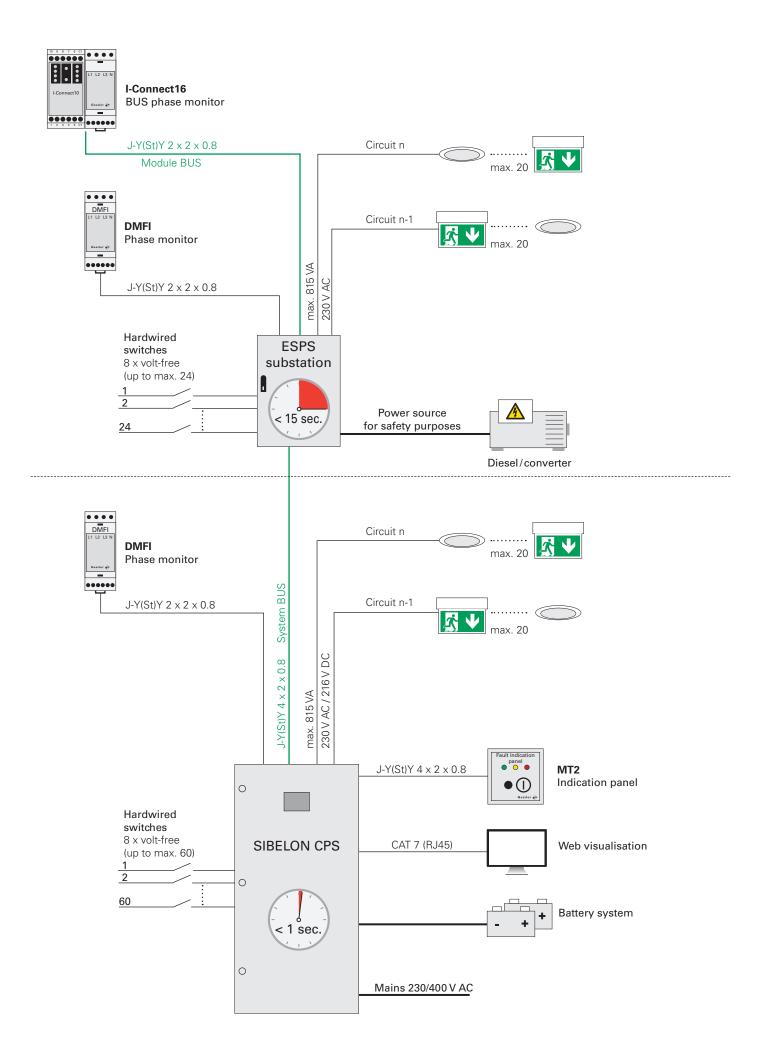
If a mains voltage is applied the loads are supplied from the mains and the battery system is charged. By monitoring the general lighting, it is ensured that in the event of a failure, the emergency lighting is switched on for the area concerned. In the event of failure or a fall in the mains voltage by more than 15 %, the central unit switches to battery mode (transfer time < 1 second). The loads of the ESPS substation are not supplied with AC voltage until the emergency standby power unit has switched on (transfer time < 15 seconds).

When the mains returns, the substation and the central unit switch back to normal mode automatically. The latter once again charges the previously discharged battery system. The luminaire test required by the standards is performed by the SIBELON CPS automatically and it records the result in the standard, integrated test log of the control unit.

Special feature: Identical address module for single luminaire monitoring, not only in AC systems but also in DC systems. There is no need for a BUS cable to the luminaires. Communication takes place via the supply cable.







# SIBELON ESPS

#### SYSTEM DESCRIPTION

System solutions in which emergency standby power units are used as the only standby electricity source, are always implemented if use of the building allows a transfer time of < 15 seconds (example: workplace).

This system option is named SIBELON-ESPS.

The central ESPS control serves as higher-level test equipment, which communicates with the autonomous ESPS substations via a BUS cable.

#### How it works

If a mains voltage is applied, all loads are supplied from the mains.

By monitoring the general lighting, it is ensured that in the event of a failure, the emergency lighting is switched on for the area concerned.

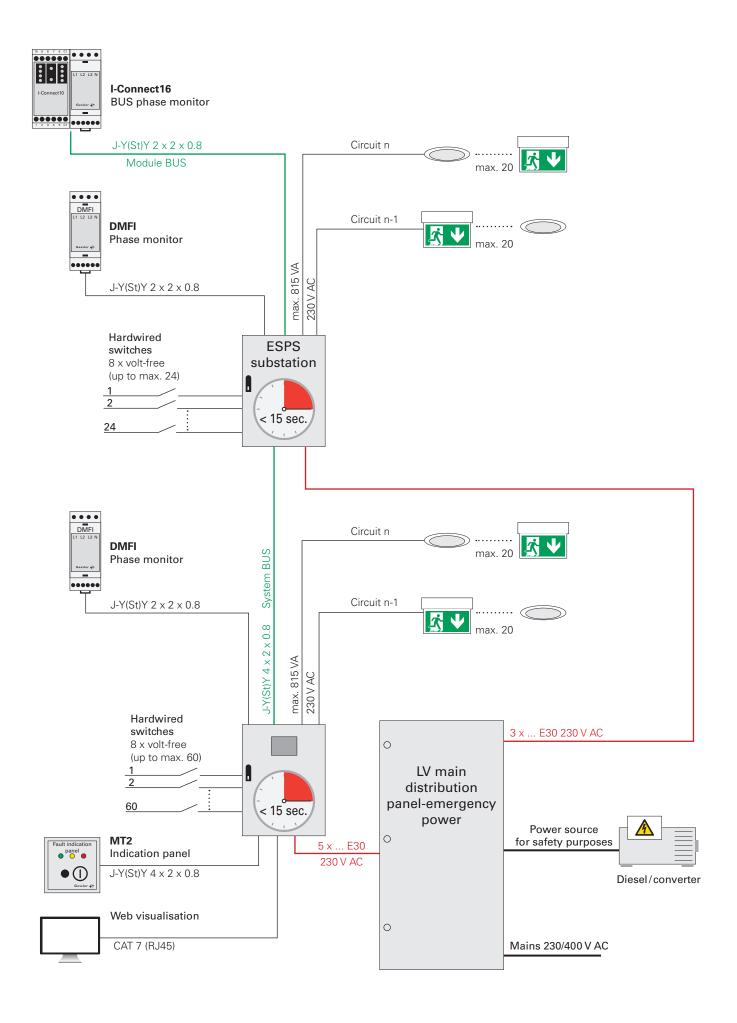
In the event of a failure or drop in mains voltage by more than 15%, the central ESPS unit and the ESPS substations switch on the exit sign and emergency luminaires automatically. In the event of a total mains failure, these loads are supplied via the now applied standby system. Return of the mains is detected by means of the mains monitor.

The luminaire test required by the standards is performed by the SIBELON ESPS automatically and it records the result in the standard, integrated test log of the control unit.

Special feature: There is no need for a BUS cable to the luminaires. Communication takes place via the supply cable.

REFERENCE: Klinikum am Gesundbrunnen – Heilbronn





# SIBELON DALI

#### SYSTEM DESCRIPTION

A DALI light control in the general lighting is the standard in many projects. Why can't these DALI luminairesbe part of the emergency lighting? We have found the right answer to this question: **SIBELON DALI**.

Gessler DALI exit sign luminaires are monitored together with DALI general lighting luminaires on site and, in emergency mode, they are supplied and controlled via the central battery system. The latter do not require an additional address module in the luminaires.

#### How it works

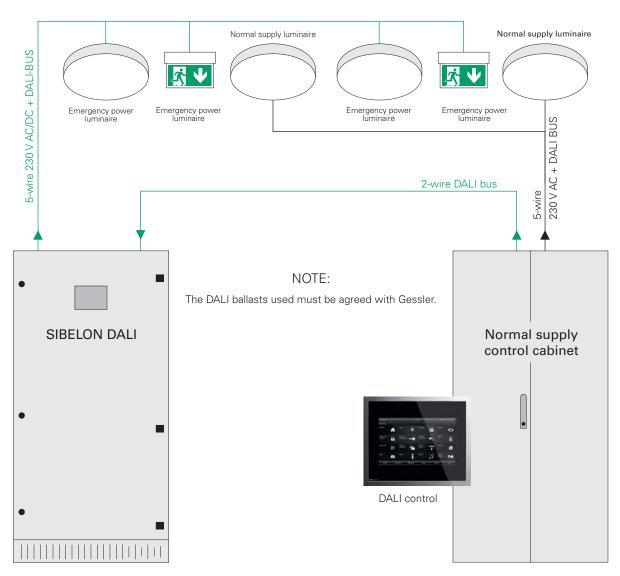
In normal mode, SIBELON DALI passes on the DALI signal of the general control directly to the connected DALI loads. The DALI luminaires additionally used as emergency luminaires can be controlled together with the DALI general lighting without limitation and without time delay. In the event of failure or a fall in the mains voltage by more than 15 %, the system switches to battery mode (DC mode) or emergency standby power mode (ESPS mode). The SIBELON DALI now controls the connected DALI exit sign and emergency luminaires, which control a pre-programmed emergency lighting level.

As soon as a returning mains voltage is detected, SIBELON-DALI switches to normal mode (all luminaires are again controlled via normal supply DALI) and charges the previously discharged battery system. After the mains returns, all DALI luminaires provided with emergency supply require an updated setpoint for the normal supply DALI control. This updated setpoint is also required after each weekly luminaire test. To this end, the central SIBLON DALI unit provides a voltage-free "Test/emergency mode" contact. The luminaire test required by the standards is performed by the SIBE-LON DALI automatically and it records the result in the standard, integrated test log of the control unit.

REFERENCE: European Central Bank - Frankfurt am Main



#### DALI BUS TOPOLOGY



#### NORMAL OPERATION

The DALI BUS is tunnelled via SIBELON DALI to the exit sign and emergency luminaires. The standard DALI functionalities are therefore maintained.

#### NORMAL OPERATION

In emergency mode, SIBELON DALI disconnects the DALI BUS and controls the Gessler DALI exit sign and emergency luminaires.

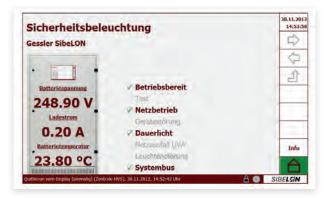
#### Operation + visualisation

The SIBELON system is accessed via the user-friendly 7" touchscreen control unit, the I-VIEW. The graphic menu navigation for operating and programming the system is intuitive and is set up to be self-explanatory. The standard IP connection provided enables the control unit display to be transferred by means of a standard web browser on any computer with authorised access.

The following settings, fault messages and system data can be called up and changed directly at the I-VIEW or securely via the IT interface:

- Visual display of all system information
- Display of each circuit with details of the configuration
- Display of defective luminaires
- Continuous compilation and saving of the test log
- Display and printout of the test log
- Programming of the destination location for each luminaire
- Fault indication with detailed fault information
- System overview with free naming for all subdistribution panels and circuits (installation site)
- Remote control of the system (ON/OFF, maintained luminaires ON/OFF, test initiation, circuit calibration)
- Integrated service module for programming the system and outgoing circuits

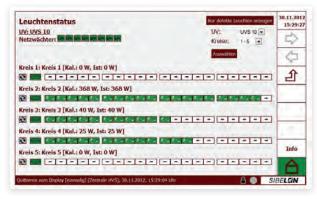
#### **DISPLAYS**



Start page, system overview



Overview of the connected substations



Overview of luminaire status



Test log display, collective faults



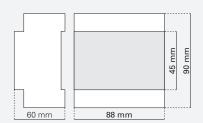
# WEB-MASTE

#### Central visualisation via TCP-IP

The web-master manages and monitors up to 1,000 Gessler emergency lighting systems conveniently by means of central visualisation via TCP-IP. In case of a fault, if necessary, the integrated email client sends a status message. Use of the web-master only requires an up-todate browser.



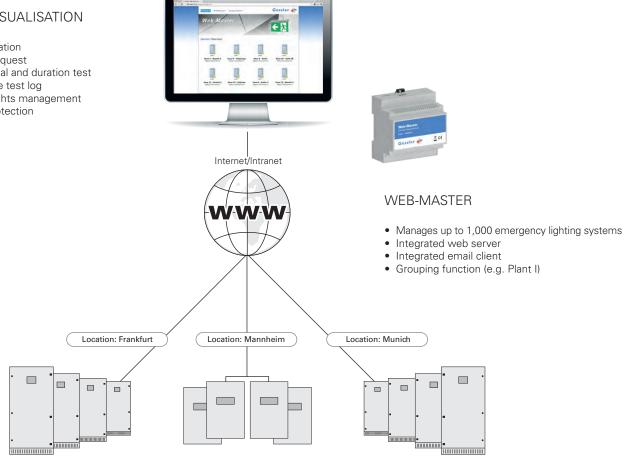
VISUALISATION	WEB-MASTER		
Enclosure material	Plastic		
Interface	Ethernet		
Supply voltage	230 V AC/DC		
Connected load (AC)	max. 20 VA		
Degree of protection	IP20		
Class			
System	SIBELON + MERLIN + KV2000 + QUATTRO + NANO2 + EZ2 + POWERPACK		



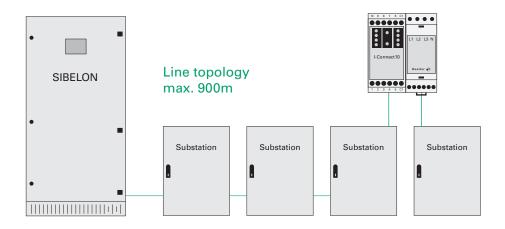
Top-hat rail mounting 5 HP

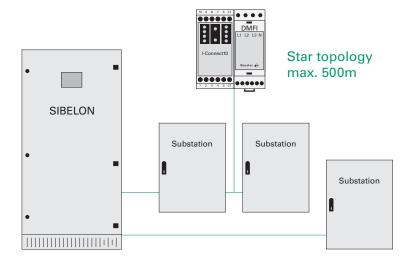
#### **CENTRAL VISUALISATION**

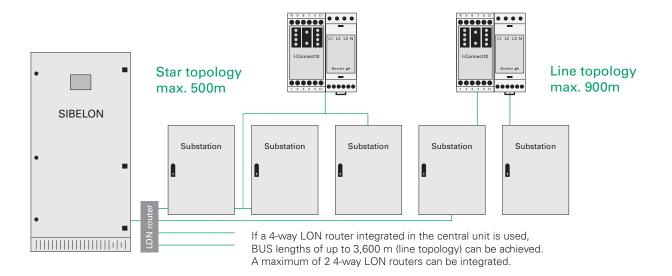
- Intuitive operation
- Live status request
- Start functional and duration test
- Read out/save test log
- Login with rights management
- Password protection



# BUS CABLE LENGTHS SIBELON

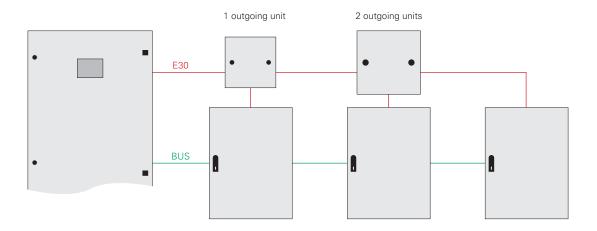






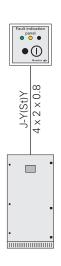
# RISER JUNCTION BOX in E30

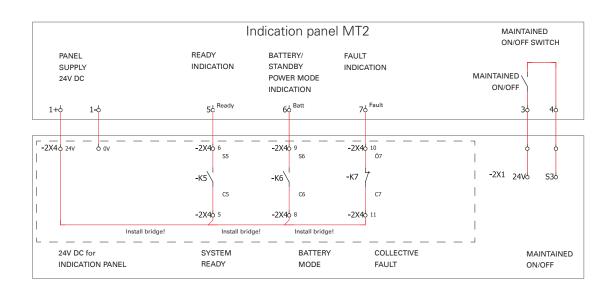




# INDICATION PANEL MT2

#### CONNECTION PLAN FOR SIBELON

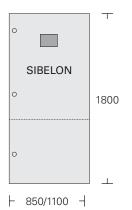


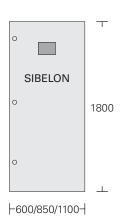


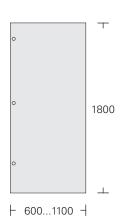


### SIBELON main devices and substations

#### MAIN DEVICES







TECHNICAL DATA - COMBINED CABINET

	Dimensions H x W x D [mm]	max. circuits (2-pole)
	1800 x 850 x 600	40
	1800 x 1100 x 600	60

TECHNICAL DATA – EQUIPMENT CABINET

Dimensions H x W x D [mm]	max. outgoing units (2-pole)
1800 x 600 x 600	40
1800 x 850 x 600	60
1800 x 1100 x 600	80

TECHNICAL DATA – BATTERY CABINET

Dimensions H x W x D [mm]			
1800 x 600 x 600			
1800 x 850 x 600			
1800 x 950 x 600			
1800 x 1100 x 600			

#### SHEET STEEL SUBSTATIONS (E0)



#### SUBSTATIONS IN MAINTENANCE OF INTEGRITY (E30\*)



#### TECHNICAL DATA - SUBSTATIONS in E0

1201111071227117					
Dimensions H x W x D [mm]	max. circuits (2-pole)	Version			
800 x 300 x 161	20	Wall-mounted cabinet			
800 x 550 x 161	40	Wall-mounted cabinet			
800 x 800 x 161	60	Wall-mounted cabinet			
Colour: RAL 9010					
	Degree of protection: IP43				

#### TECHNICAL DATA - SUBSTATIONS in MAINTENANCE OF INTEGRITY

Dimensions H x W x D [mm]	max. circuits (2-pole)	Version			
918 x 418 x 396	20	Wall-mounted cabinet			
918 x 668 x 396	40	Wall-mounted cabinet			
on request	60	Wall-mounted cabinet			
Colour: RAL 7035					
Degree of protection: IP42					

<sup>\*</sup> According to MLAR 11/2005 (Section 5.2.2), a "verification of function in case of fire" must exist. The verification for the maintenance of integrity (fire resistance) of the electrical installations is provided by a type test in combination with an approved empty enclosure.



# ASSEMBLIES | MODULES SIBELON

The following assemblies and modules are compatible with SIBELON:



#### LB1/009

Address module for SIBELON systems



#### **DMFI**

Phase monitor



#### LB1/009DD

Address module with DALI disconnection for SIBELON systems



#### **I-CONNECT 16**

BUS phase monitor for SIBELON systems



#### MT2

Indication panel



#### WEB-MASTER

High-level visualisation

# MERLIN

CPS system



## MERLIN CPS-The system

In the event of a mains failure, the MERLIN CPS system supplies the connected exit sign and emergency luminaires via a battery system.

All final circuits are pre-equipped for mixed technology (escape route and emergency luminaires in one circuit) and can be loaded up to max. 650 VA. Communication with the luminaires takes place on the supply line (without additional BUS cable). Each address can be assigned a clear, unique location text to enable a luminaire to be localised quickly and conveniently in case of a fault.

The monitoring of the general lighting can be ensured by means of MERLIN BUS mains monitors.

In the event of a failure, the emergency lighting for the area concerned is switched on automatically. Each BUS mains monitor can be assigned a unique location test, so that the local normal supply fault can be corrected in a targeted way.

Another advantage is that only one supply cable from the central unit is required to supply MERLIN substations. This reduces the wiring required and the fire load by 50%.

The universal MERLIN charging unit allows all standard battery types as the standby electricity source, such as OGIVbattery (sealed lead grid plates), OPsV battery (sealed lead heavy-duty plates) and OPzS battery (closed lead heavy duty plates).

Whether BACnet or Modbus interface. MERLIN transfers the data in the required format.

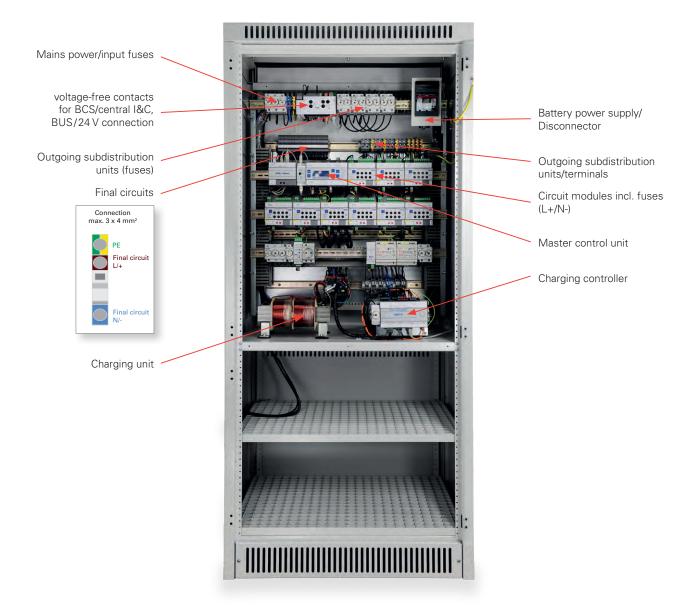
Voltage-free signalling contacts are naturally included as astandard feature.

You want visualisation of the system and all connected luminaires. Not a problem.

You can access the complete system via a TCP/IP interface. We would be pleased to help you to program your MERLIN CPS system by means of remote access.

The MERLIN CPS system is produced in accordance with the respective current standard (EN 50171).





#### TECHNICAL DATA

- Max. power: 150 kVA, Output voltage: 230 V AC/DC
- Standard single luminaire monitoring using address modules
- Freely programmable final circuits for maintained and non-maintainedlight and mixed technology
- Microprocessor-controlled functional and duration test

- Programming optionally via PC
- Ethernet connection for web browser visualisation
- Autom. test equipment with logging/recording of results
- Optional: Higher-level visualisation via WEB-MASTER
- Optional: External IOM module (switch interrogation modules)



### MERLIN CPS

#### SYSTEM DESCRIPTION

CPS systems use a battery system as a standby electricity source for safety purposes, to supply the connected loads in emergency mode. The bridging (stored energy time) is designed for 1h, 3h or 8h, depending on the requirements.

#### How it works

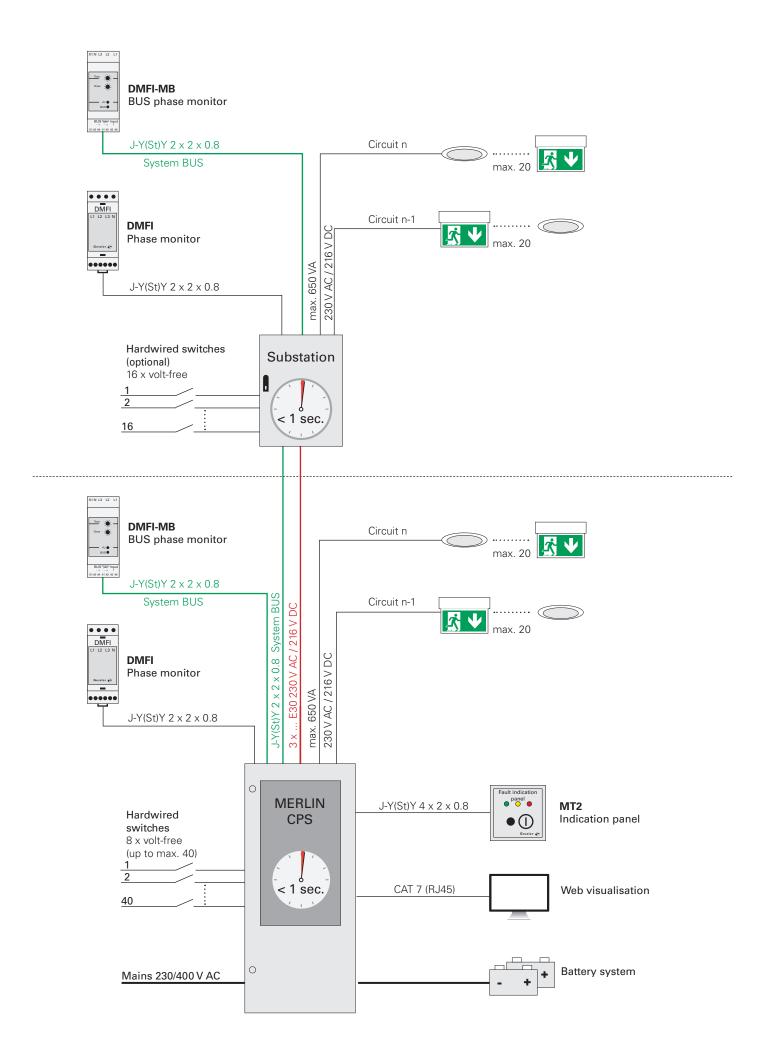
If a mains voltage is applied the loads are supplied from the mains and the battery system is charged. By monitoring the general lighting, it is ensured that in the event of a failure, the emergency lighting is switched on for the area concerned. In the event of failure or a fall in the mains voltage by more than 15%, the system switches to battery mode (DC mode). As a result, all connected exit sign and emergency luminaires, which are supplied from the central unit and the substations, are switched on automatically.

When the mains returns, the complete CPS system switches back to normal mode and charges the previously discharged battery system.

The luminaire test required by the standards is performed by MERLIN automatically and it records the result in the standard, integrated test log of the control unit.

#### REFERENCE: Tanzende Türme – Hamburg





### MERLINMaster



#### **CONTROL UNIT**

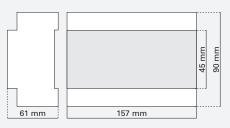
The master forms the heart of the system. It carries out all monitoring, logging and tests required by VDE 0108, EN 50172 and EN 50171.

The complete system can be programmed via the illuminated display.

All messages are displayed in plain text. The location texts can be input via the menu control or via a PC.

#### Examples:

Luminaire error, staircase 1, 2nd floor Mains failure DMFI-BAV-UV Corridor 3, 2md floor



Top-hat rail mounting 9 HP

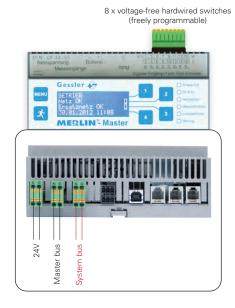
TECHNICAL DATA	MERLIN MASTER	
Enclosure material	Plastic	
Degree of protection	IP20	
Display	4 x 20 characters	
Operation / programming	via menu buttons	
Hardwired switches	8 (freely programmable)	
Connection ports	3 x RJ11 or 1 x USB   2 x RJ11	

Substations can be optionally extended with a master.

Due to the resulting distributed intelligence, all options are open to the owner/operator.

MERLIN - Button
Fast access to frequently used functions.

This button enables the owner/operator to call up a menu that they have compiled themself with the press of a button.



### WEB BROWSER Visualisation

#### **FUNCTIONAL DESCRIPTION**

Access via a standard web browser enables user-friendly and self-explanatory menu navigation of the CPS system. All error messages and system data can be called up securely over the internet/intranet.

These are, g.g.:

- Visual display of all system information
- Continuous compilation and saving of the test log
- Display and printout and export of the test log

- Fault indication with detailed fault information
- Remote control of the system (ON/OFF, maintained luminaires ON/OFF, test initiation, circuit calibration)

#### **DISPLAYS**



Start page, system overview



Test log



Test results



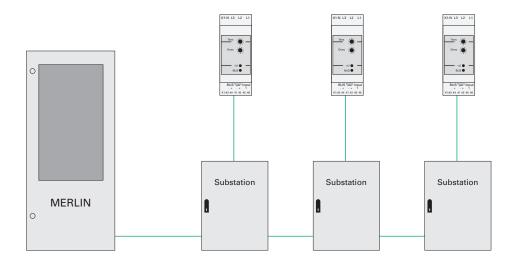
Master remote control

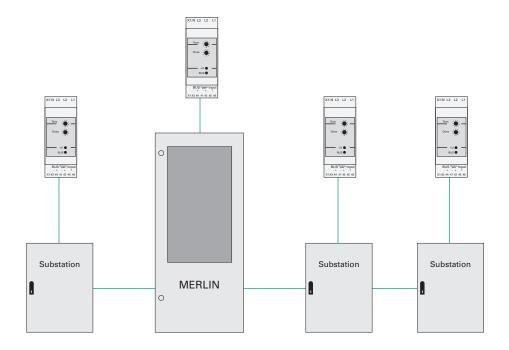


## BUS CABLE LENGTHS MERLIN

Max. total BUS length: 1,000 m

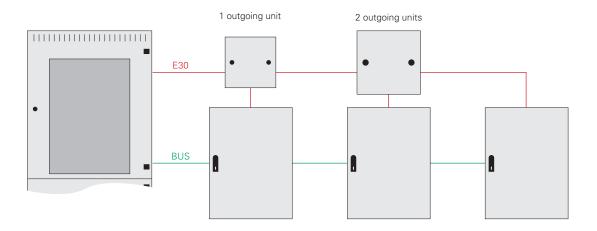
Max. distance from BUS device to the CPS system: 400 m





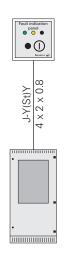
### RISER JUNCTION BOX in E30

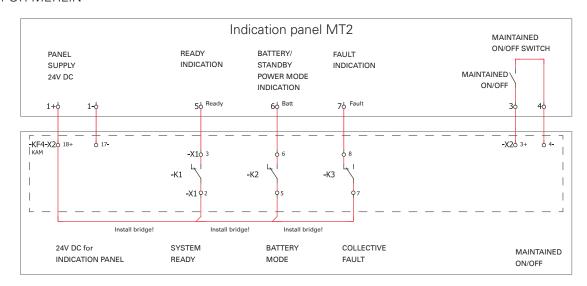




### INDICATION PANEL MT2

#### CONNECTION PLAN FOR MERLIN





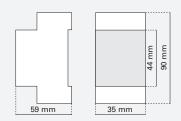
DMFI-MB is a BUS phase monitor, which is used to monitor the normal mains supply.

Each DMFI-MB is connected to a Gessler LPS/CPS system via a BUS cable. A unique BUS address is assigned to each DMFI-MB by means of a rotary coder. A location text can be assigned at any time (to enable accurately targeted correction of a local fault in the normal mains supply.

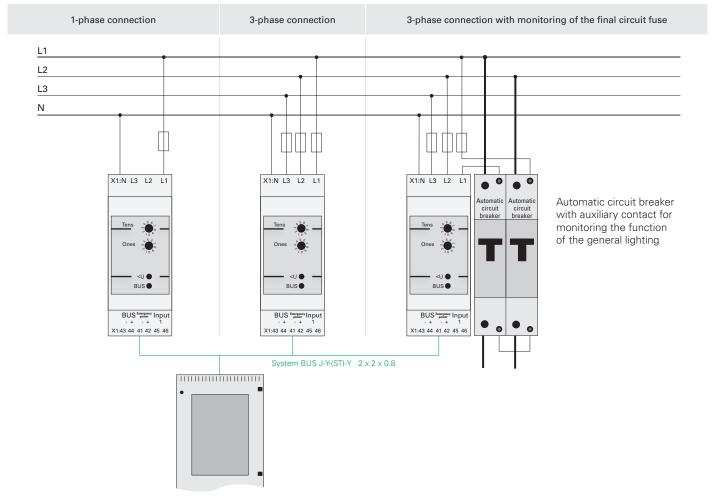
As soon as one of the normal mains supply phases to be monitored falls below the nominal voltage by more than 15 %, the BUS phase monitor signals a local mains failure. The LPS/CPS system now switches on the emergency lighting off the area concerned and supplies the luminaires via the mains.



BUS MAINS MONITOR	DMFI-MB	
Enclosure material	Plastic	
Nominal voltage	230V ± 10 %, 50/60 Hz/176-275 V DC	
Power consumption	2 W	
Backup fuse	max. 16 A	
Address range	1 to 99	
Hardwired switches	1 x 24 V via external voltage-free contacts	
Display	LED status display	
Class	I	
System	MERLIN + Quattro	



Top-hat rail mounting 2 HP



# ASSEMBLIES | MODULES MERLIN

The following assemblies and modules are compatible with MERLIN:



#### MLB10

Address module for MERLIN systems



#### IOM230

Switch interrogation module 230 V for MERLIN systems



#### MLB10DD

Address module with DALI disconnection for MERLIN systems



#### IOM24

Switch interrogation module 24 V for MERLIN systems



#### DMFI-MB

BUS phase monitor for MERLIN systems



#### WEB-MASTER

High-level visualisation



#### **DMFI**

Phase monitor

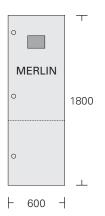


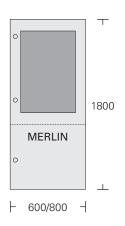
#### MT2

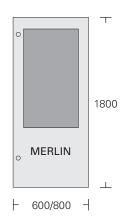
Indication panel

### DIMENSIONS

#### MAIN DEVICES







TECHNICAL DATA – SLIMLINE COMBINED CABINET

Dimensions H x W x D [mm]	max. outgoing units (2-pole)	
1800 x 600 x 500	20	
max. 9200 VA		

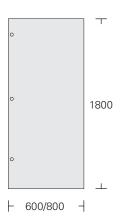
#### TECHNICAL DATA – COMBINED CABINET

Dimensions H x W x D [mm]	max. outgoing units (2-pole)	
1800 x 600 x 450/600	20	
1800 x 800 x 450/600	36	
max. 9200 VA		

#### TECHNICAL DATA – **EQUIPMENT CABINET**

Dimensions H x W x D [mm]	max. outgoing units (2-pole)	
1800 x 600 x 450/600	60	
1800 x 800 x 450/600	72	
may 18000 VΔ		

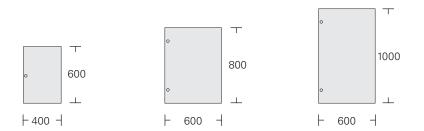
#### **BATTERY CABINET**



TECHNICAL DATA – BATTERY CABINET

Dimensions H x W x D [mm]	
1800 x 600 x 600	
1800 x 800 x 600	

#### PVC SUBSTATION (E0)





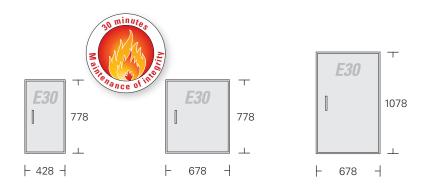
#### TECHNICAL DATA - SUBSTATIONS in E0

Dimensions H x W x D [mm]	max. outgoing units (2-pole)	Version	
600 x 400 x 250	12	Wall-mounted cabinet	
800 x 600 x 250	32	Wall-mounted cabinet	
1000 × 600 × 250	44	Wall-mounted cabinet	
	Colour: RAL 7035		
	Degree of protection: IP20		

#### TECHNICAL DATA - SUBSTATION in E0

Dimensions H x W x D [mm]	max. outgoing units (2-pole)		
385 x 295 x 110	8		
Colour: RAL 9010			
Degree of protection: IP43			
Version			
Wall-mounted cabinet			

#### SUBSTATIONS IN MAINTENANCE OF INTEGRITY (E30)



TECHNICAL DATA - SUBSTATIONS in MAINTENANCE OF INTEGRITY

TECHNIC IES III CODE II III III III III III III III III II			
Dimensions $H \times W \times D$ [mm]	max. outgoing units (2-pole)	Version	
778 x 428 x 275	8	Wall-mounted cabinet	
778 x 678 x 325	28	Wall-mounted cabinet	
1078 x 678 x 325	52	Wall-mounted cabinet	
Colour: RAL 7035			
Degree of protection: IP54			



# MERLIN KV 2000

LPS system



### MERLIN KV2000 - The System

In the event of a mains failure, the MERLIN KV2000 LPS system supplies the connected luminaires via a battery system. All final circuits are pre-equipped for mixed technology (escape route and emergency luminaires in one circuit) and can be loaded up to max. 650 VA. The power of LPS systems is limited by the standards. Nonetheless, with 2000 W for 1h, 800 W for 3h and 370 W for 8h, the MERLIN KV2000 is a compact power wizard.

Communication with the luminaires takes place on the supply line (without additional BUS cable). Each address can be assigned a clear, unique location text to enable a luminaire to be localised quickly and conveniently in case of a fault.

The monitoring of the general lighting can be ensured by means of MERLIN BUS phase monitors. In the event of a failure, the emergency lighting for the area concerned is switched on automatically. Each BUS phase monitor can be assigned a unique location test, so that the local normal supply fault can be corrected in a targeted way.

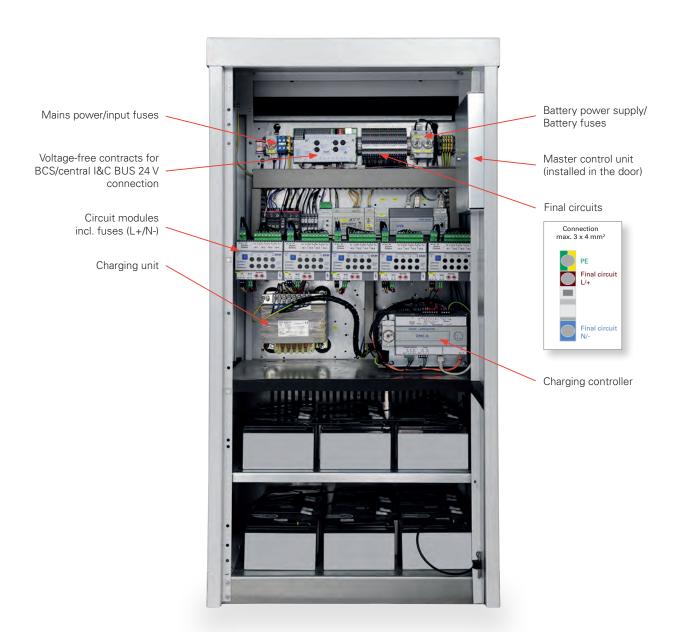
Whether BACnet or Modbus interface, MERLIN transfers the data in the required format. Voltage-free signalling contacts are naturally included as a standard feature.

You want visualisation of the system and all connected luminaires. Not a problem.

You can access the complete system via a TCP/IP interface. We would be pleased to help you to program your MERLIN LPS system by means of remote access.

MERLIN KV2000 is produced in accordance with the respective current standard (EN 50171).





#### TECHNICAL DATA

- Power 1h: 2000 W 3h power: 800 W 8h power: 370 W incl. 25 % ageing reserve
- 4, 8, 12, 16 or 20 circuits (5A each) 230V output voltage AC/DC
- Standard single luminaire monitoring using address modules
- Freely programmable final circuits for maintained and non-maintainedlight and mixed technology
- Microprocessor-controlled functional and duration test

- Programming optionally via PC
- Ethernet connection for web browser visualisation
- Autom. test equipment with logging/ recording of results
- Optional: Higher-level visualisation via WEB-MASTER
- Optional: External IOM modules (switch interrogation modules)
- Optional: Installed in tested E-30 fire protection cabinet



### MERLIN KV2000

#### SYSTEM DESCRIPTION

LPS systems use a battery system as a standby electricity source, to supply the connected loads in emergency mode. The bridging (stored energy time) is designed for 1h, 3h or 8h, depending on the requirements.

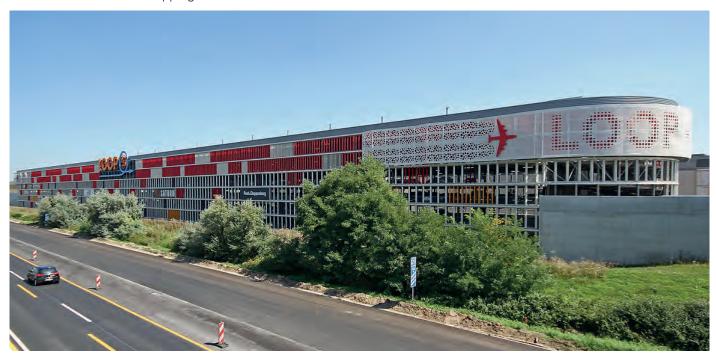
#### How it works

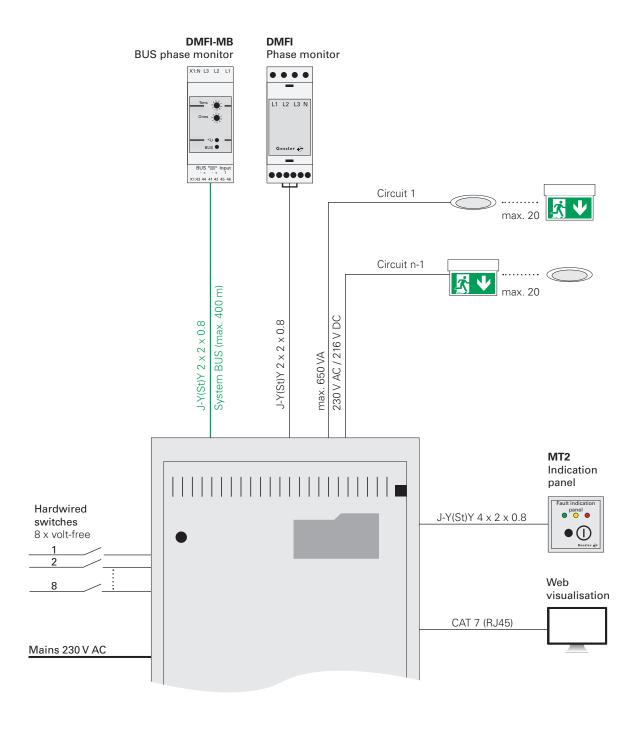
If a mains voltage is applied the loads are supplied from the mains and the battery system is charged. By monitoring the general lighting, it is ensured that in the event of a failure, the emergency lighting is switched on for the area concerned. In the event of failure or a fall in the mains voltage by more than 15%, the system switches to battery mode (DC mode). As a result, the connected escape route and emergency luminaires are switched on automatically.

As soon as a returning mains voltage is detected, MERLIN KV2000 switches to normal mode and again charges the battery system.

The luminaire test required by the standards is performed by the LPS system automatically and it records the result in the standard, integrated test log of the control unit.

REFERENCE: LOOP5 shopping centre - Weiterstadt

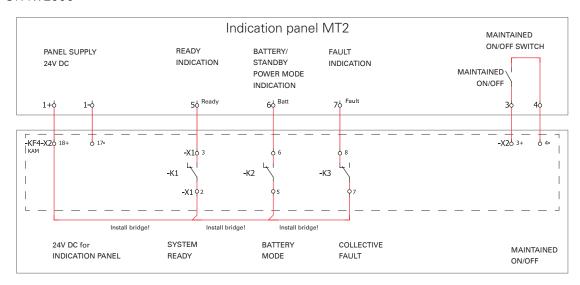




### MT2

#### **CONNECTION PLAN FOR KV2000**



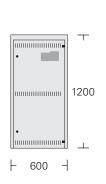


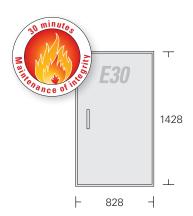
## DIMENSIONS

MERLIN KV2000

#### MERLIN KV2000

#### MERLIN IN MAINTENANCE OF INTEGRITY (E30)





#### TECHNICAL DATA – MERLIN KV2000

Dimensions H x W x D [mm] 1200 x 600 x 430

Weight incl. batteries: approx. 150 kg

TECHNICAL DATA – MERLIN KV2000 in E30

Dimensions H x W x D [mm]

1428 x 828 x 575 Weight incl. device approx. 350 kg

# ASSEMBLIES | MODULES KV2000

The following assemblies and modules are compatible with MERLIN:



#### MLB10

Address module for MERLIN systems



#### IOM230

Switch interrogation module 230 V for MERLIN systems



#### MLB10DD

Address module with DALI disconnection for MERLIN systems



#### IOM24

Switch interrogation module 24 V for MERLIN systems



#### DMFI-MB

BUS phase monitor for MERLIN systems



#### WEB-MASTER

High-level visualisation



#### **DMFI**

Phase monitor



#### MT2

Indication panel

# MERLIN QUATTRO LIGHT

Emergency lighting system



# MERLIN QUATTRO LIGHT The System

MERLIN QUATTRO LIGHT is a new generation LPS system. Designed to supply exit sign and emergency luminaires of individual fire compartments, in the event of a mains failure, QUATTRO LIGHT supplies all connected luminaires via a compact (low-gasification) 24V battery system.

Despite the 24V battery voltage, QUATTRO LIGHT has a system output voltage of 230V in normal and emergency mode.

Advantages: Gessler emergency lights do not necessarily have to provide the lighting of the escape routes.

You have the possibility of supplying part of the 230V general lighting (e.g. staircase lighting) in emergency mode.

To supply several fire compartments by means of one system, QUATTRO LIGHT is installed in a fire protection cabinet. This combination has a national technical approval (Z-86.2-76) issued by the Deutschen Institut für Bautechnik (DIBt).

All final circuits are pre-equipped for mixed technology (escape route and emergency luminaires in one circuit). Communication with the luminaires takes place on the supply line (without additional BUS cable).

Each address can be assigned a clear, unique location text to enable a luminaire to be localised quickly and conveniently in case of a fault.

The monitoring of the general lighting can be ensured by means of MERLIN BUS phase monitors.

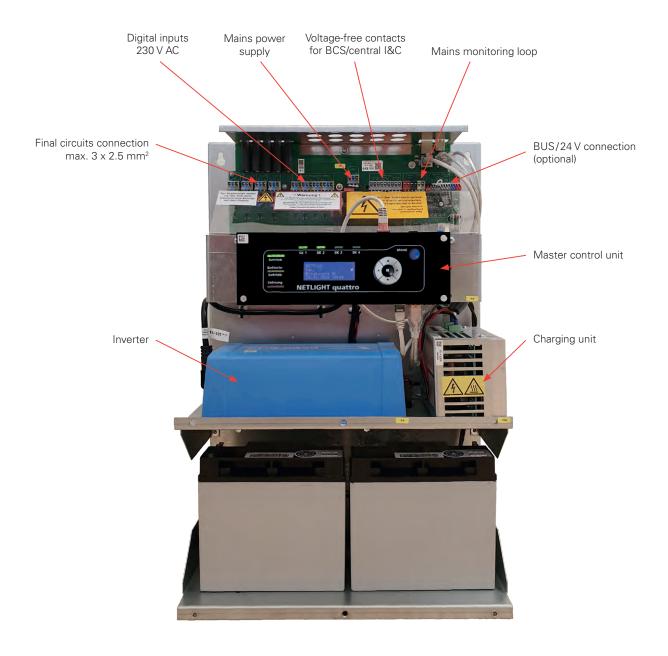
In the event of a failure, the emergency lighting for the area concerned is switched on automatically. Each BUS phase monitor can be assigned a unique location test, so that the local normal supply fault can be corrected in a targeted way.

You want visualisation of the system and all connected luminaires? Not a problem.

You can access the complete system via a TCP/IP interface.

QUATTRO LIGHT is produced in accordance with the respective current standard (EN 50171).



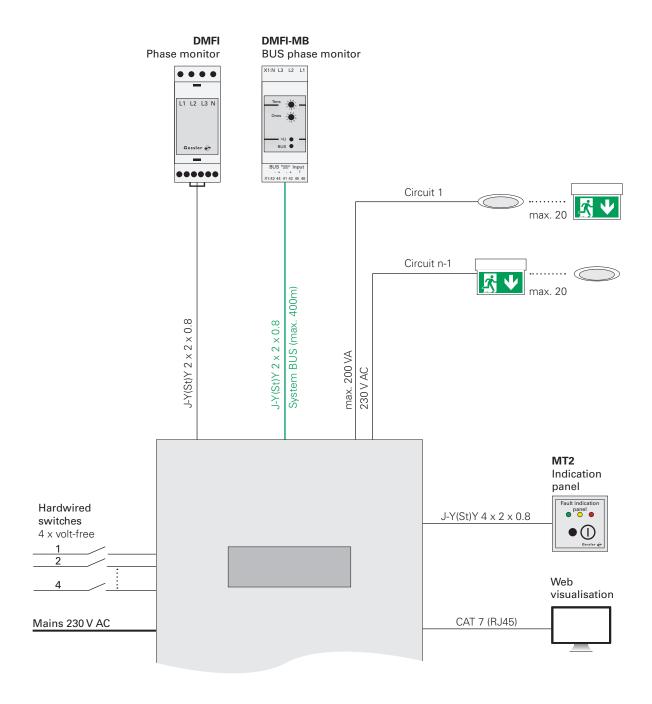


#### TECHNICAL DATA

- Power 1h: 250 VA / 350 VA 3h power: 225 VA / 350 VA 8h power: 88 VA / 188 VA / 250 VA incl. 25 % ageing reserve
- 4 freely programmable final circuits (1.6 A each) for all operating modes
- 230 V output voltage (AC) 24 V battery voltage (DC)
- Standard single luminaire monitoring using address modules
- Freely programmable final circuits for maintained and non-maintained lighting and mixed technology

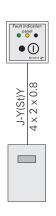
- Microprocessor-controlled functional and duration test
- Programming optionally via PC
- Ethernet connection for web browser visualisation
- Automatic test equipment with logging
- Optional: Higher-level visualisation via WEB-MASTER
- Optional: Installed in tested E-30 fire protection cabinet

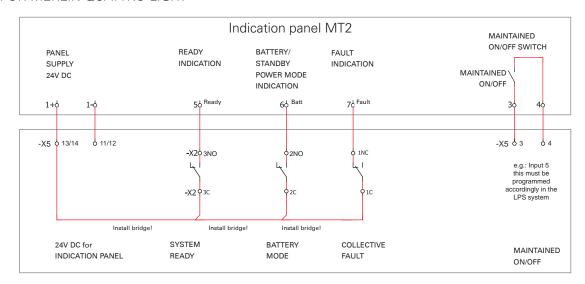




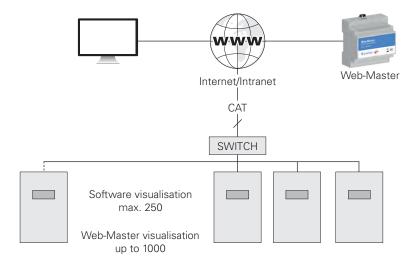
### MT2

#### CONNECTION PLAN FOR MERLIN QUATTRO LIGHT

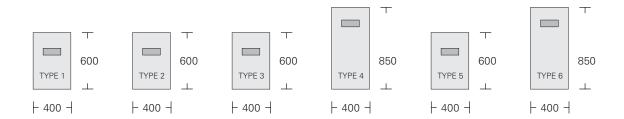




#### DISPLAY OF SOFTWARE / WEB-MASTER VISUALISATION



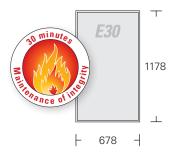
#### **EQUIPMENT CABINETS**



#### TECHNICAL DATA - QUATTRO LIGHT

Version	Power	Charging unit	Dimensions H x W x D [mm]	Weight [kg]
QUATTRO 1 h				
Type 1	250 VA	2.7 A	600 x 400 x 200	25
Type 2	350 VA	2.7 A	600 x 400 x 200	35
QUATTRO 3 h				
Type 3	225 VA	2.7 A	600 x 400 x 200	35
Type 4	350 VA	5.4 A	850 x 400 x 200	61
QUATTRO 8 h				
Type 5	88 VA	2.7 A	600 x 400 x 200	35
Type 6	188 VA	5.4 A	850 x 400 x 200	61

#### QUATTRO LIGHT IN MAINTENANCE OF INTEGRITY (E30)



#### TECHNICAL DATA - E30

TEOTIVICAL DATA 1500
Dimensions H x W x D [mm]
1178 x 678 x 345
Weight: 180 kg

# ASSEMBLIES | MODULES QUATTRO

The following assemblies and modules are compatible with MERLIN:



#### MLB10

Address module for MERLIN systems



#### **DMFI**

Phase monitor



#### MLB10DD

Address module with DALI disconnection for MERLIN systems



#### DMFI-MB

BUS phase monitor for MERLIN systems



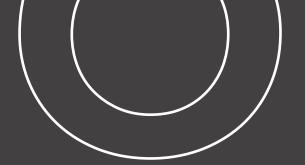
#### MT2

Indication panel



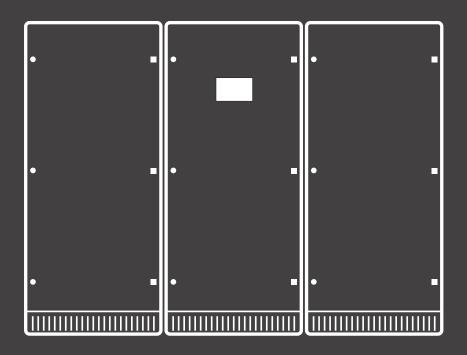
#### WEB-MASTER

High-level visualisation









# STANDBY POWER SUPPLY



Dynamic battery standby power supply



# POWERPACK - The System

POWERPACK is a battery backup, rotating standby power supply, which we have developed as an alternative to conventional emergency standby power units (ESPU).

The system consists of a rotating generator set, a high-performance battery and a charging and control section with remote outgoing unit.

If a mains voltage is applied, the loads are supplied from the mains. In the event of failure or reduction of the mains voltage by more than 15 %, the generator set is started and supplies the connected loads within approx. 2 seconds (transfer time < 15 sec required). On request, the outgoing unit can be extended to include final circuits of the emergency lighting (transfer time < 1 second). Contemporary mixed technology (escape route and emergency luminaires in one circuit) with single luminaire monitoring and IP visualisation is easily possible.

POWERPACK has substantial advantages compared to units with a combustion engine:

#### No exhaust routing

The standards require exhaust routing above the roof for units with combustion engines. POWERPACK is completely exhaust-free.

#### No noise generation

While conventional units generate very high noise levels during operation, even when running at full load, the POW-ERPACK is roughly as loud as a standard hairdryer.

#### No approval procedures

No exhaust and no noise. For this reason, the POWER-PACK is not a system requiring approval.

ATA Air or TA Noise approval (in Germany) is therefore not required.

#### Space requirement

POWERPACK only requires its own electrical location for the installation.

#### Compact design

Thanks to the upright converter (direct current motor with coupled three-phase AC generator), POWERPACK is very space-saving.

#### Maintenance

POWERPACK is virtually maintenance-free, as it has no consumables or wearing parts. The maintenance merely involves the annual testing of the battery.

POWERPACK is the right choice, and not only for the advantages named above. The emission-free system is also convincing with regard to ecological aspects. Due to permanent self-monitoring, the system provides maximum security. A conventional emergency standby power unit (ESPU) cannot ensure this operating reliability.

As a global market leader for rotating, battery standby power supply systems, we are the right partner for the project planning, dimensioning and implementation of your emergency power supply.

POWERPACK is produced to the respective current standards. The system fulfils DIN VDE 0100-560, DIN VDE 0108-100, EN 50171 and EN 50172.



# Supply of



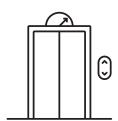
# Firefighting water supply

POWERPACK is the ideal standby power supply for pumps for firefighting water supply (sprinkler or pressure increase). The starting currents of the pumps are given particular consideration when dimensioning the system size. The supply times depend on the requirements of the fire protection design analysis. 90-minute supply of the pumps within 12h mains failure can also be achieved easily.



## Smoke control (SHEVS / SPS)

POWERPACK supplies smoke control fans in staircases, lift shafts and necessary corridors/ escape routes (e.g. underground car park) for the required autonomy of 180 minutes.



#### Lifts

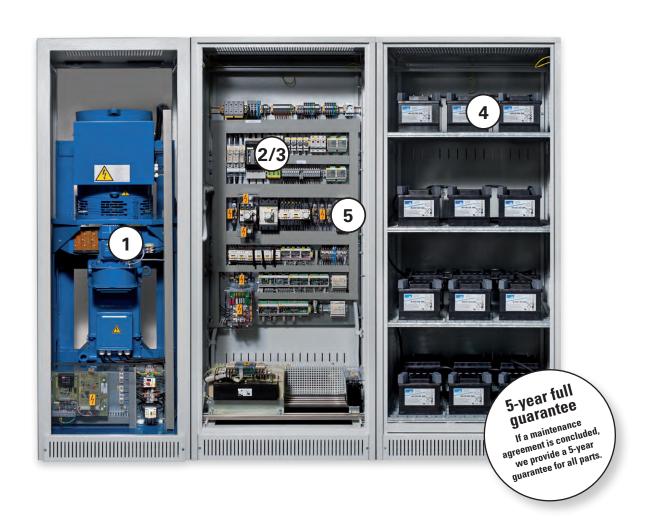
POWERPACK ensures safe evacuation runs of passenger lifts. In the event of mains failure, these are lowered cascaded on the evacuation level (requested via the lift control). Fire service lifts can also be supplied. In this way, for example, the lift can be operated for 90 minutes within an 8h mains failure (supply provided after request).



# **Emergency escape lighting**

POWERPACK can be extended to include final circuits for emergency lighting. All final circuits are pre-equipped for mixed technology (escape route and emergency luminaires in one circuit). Single luminaire monitoring is achieved by means of address modules in the luminaires. The stored energy time is designed for 1h, 3h or 8h, depending on the requirements. Up to a system power of 50 kVA, the transfer time is < 1 second.





# SYSTEM STRUCTURE

# 1. ROTATING CONVERTER

The heart of the POWERPACKsystem is the rotating generator set. It consists of a direct current shunt motor and a synchronous generator. These are mounted vertically upright on top of each other and are connected by a coupling.

The direct current shunt motor is equipped with a completely laminated magnetic circuit. A speedometer with control electronics ensures that the speed of the direct current motor, and thus the output frequency of the generator, remains constant even if the battery voltage drops.

The synchronous generator is brush less, self-excited and self-regulating. The automatic voltage regulator ensures a constant output voltage (400 V + /- 2 %).

# The particular properties of the generator are:

- High steady-state short-circuit current
- Very good peak load performance
- · High efficiency
- Low ripple content

The converter complies with or takes into account the basic conditions to DIN 6280-13 and DIN 6280-14 required in DIN VDE 0100-560.

#### 2. SWITCHGEAR / CONTROL CABINET

The control cabinet contains the charging rectifier, the complete control and switching equipment to DINVDEV 0108-100 and the connector panel with fuses for the mains and loads.

The built-in components are easily accessed and are arranged clearly and are safe to touch.

The core element is the microprocessor-controlled signalling and test system (STS) for permanent monitoring and automatic test running of the system. All data are recorded and registered in the event memory for 2 years.

# 3. OUTGOING UNIT (CABINET "E0" or "E90")

The loads are fused with low-voltage high-performance fuse circuit breakers (size 0 – 3) or DO2 Lino cur switches. These are mounted under the output terminals for easy access.

The system can be optionally equipped with loads for emergency lighting.

#### 4. BATTERY SYSTEM

Only high-quality, maintenance-free and sealed lead batteries with a useful life of at least 10 years are used.

The battery housings are fully insulated and are set up to the safe to touch and non-spellable. The voltage of each individual cell can be controlled through measurement openings.

The battery blocks are accommodated in modular cabinets, suitable for the switchgear.

Attention must be paid to ensuring sufficient air supply and ventilation of the room in accordance with EN IEC 62485-2.

### 5. TEST EQUIPMENT

The integrated fully-automatic test equipment of the POWERPACKsystem performs the specified functional tests automatically and records not only the test results but also the operating and fault messages.

The logged data and the results of the circuit monitoring and individual luminaire testing can be shown on the display at any time, or output on an optional printer.



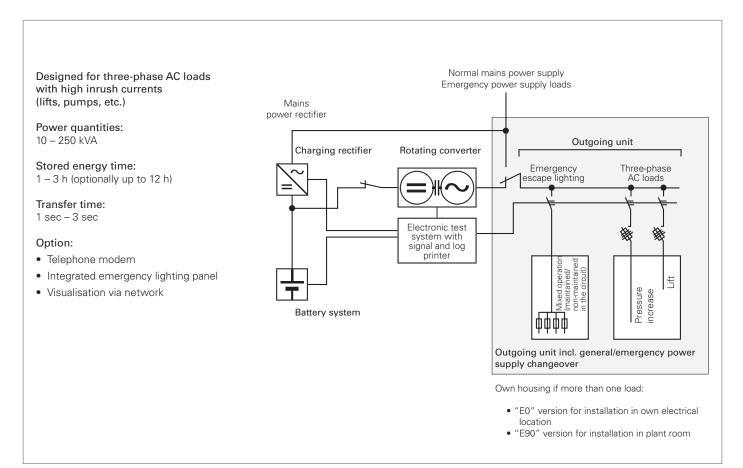
## PROJECT PLANNING DATA

Rated apparent power [kVA]	Mains supply cable* [mm²]	Fusing in V MAIN DISTRIBUTION*	Steady-state short-circuit current (3-pole short-circuit) [A]	Steady-state short-circuit current (1-pole short-circuit) [A]	Max. load fusing [A]	Dimensions e.g. for 1.5 h emergency operation** H x W x D [mm]	Weight [t]
10	5 x 10	50	81	200	20	1800 x 2400 x 600	2.2
15	5 x 16	63	160	400	35	1850 x 2600 x 600	2.4
20	5 x 16	63	180	480	35	2000 x 2400 x 800	2.7
25	4 x 25/16	80	230	570	50	2000 x 2800 x 800	3.0
35	4 x 35/16	100	270	675	50	2000 x 3000 x 800	3.5
45	4 x 50/35	125	400	1000	80	2000 x 3400 x 800	4.1
55	4 x 70/35	160	480	1200	80	2000 x 3600 x 800	4.7
65	4 x 95/50	200	580	1480	100	2000 x 4050 x 800	5.9
80	4 x 95/50	200	690	1725	125	2150 x 4200 x 800	7.2
100	4 x 120/70	250	840	2100	160	2150 x 4800 x 800	8.4
120	4 x 150/70	315	1080	2625	200	2150 x 5800 x 800	10.3
140	4 x 185/95	400	1150	2875	200	2150 x 8800 x 800	11.6
160	4 × 240/120	500	1400	3500	250	2150 x 10200 x 800	13.5
180	2 x 4 x 120/70	630	1600	4000	315	2150 x 12500 x 800	14.8
200	2 x 4 x 150/95	630	1600	4000	315	2150 x 13300 x 800	17.0

<sup>\*</sup>Attention: If several lifts are supplied, the cross-section and fusing are increased accordingly.

Attention must also be paid to the cable length and type of laying.

# SCHEMATIC CIRCUIT DIAGRAM



<sup>\*\*</sup>The dimensions can change due to different supply times or the number and type of outgoing load units.

# POWERPACK

# TECHNICAL DATA

[kVA]	10   15   20   25   35   45   55   65   80   100   120   140   160   180   200   250			
[min.]	up to 180 min			
	Voltage: Frequency:	230/400 V ±10 % 50 Hz ±5 %		
	Voltage:	230/400V ±2 % (static load) $230/400V$ ±10 % (dynamic load)		
	Frequency:	50 Hz $\pm$ 1% (static load) 50 Hz $\pm$ 5% (dynamic load)		
	Recovery time: Interference suppression level:	0.3 s 'N' in accordance with VDE 0875		
	120 % 150 %	for 1 h for 5 min		
	250 %	for 30 sec		
	min. 85 %  3 x I <sub>nm</sub> for 3-pole short-circuit	for 10 sec		
	4.8 x I for 2-pole short-circuit 7.8 I for 1-pole short-circuit	for 7 sec for 3 sec		
	70 – 82 dB(A) in emergency operation			
	Signal and test system for automatic	c test run		
Sealed lead batteries (other battery types possible)  Capacity reserve in accordance with EN 50171	Design life: Nominal voltage: Number of cells:	12 years 420 V/228 V 210/114		
	End-point voltage:	1.8 V/cell		
All operating states and fault messages are displayed clearly on a block diagram by means of LEDs.	<ul> <li>Load voltage (L1 – L3)</li> <li>Load current (L1 – L3)</li> <li>Frequency</li> <li>Battery voltage</li> <li>Charging current</li> </ul>	<ul> <li>Operating hours counter</li> <li>Active load power (L1 – L3)</li> <li>Apparent load power (L1 – L3)</li> <li>Power factor (cos phi) (L1 – L3)</li> <li>Withdrawal capacity</li> </ul>		
	Temperature:  Rel. humidity:	0 °C to + 40 °C switchgear + generator +5 °C to + 25 °C battery max. 95 % non-condensing		
Modular sheet steel cabinets	Degree of protection: Cable entry: Paint finish (cabinet): Paint finish (converter) Right/left-hinged door:	IP 20 optionally from above /below RAL 7035 (other colours optional) RAL 5019 selectable		
Potential-free signals to DIN VDE 0100-560 (changeover contact)	<ul><li>Ready for operation</li><li>Battery mode</li></ul>	<ul><li>Collective fault</li><li>Emergency operation</li></ul>		
Optional:	,	ingle luminaire monitoring (mixed operation)		



# POWERSTAR

Static battery standby power supply



# POWERSTAR – The system

POWERSTAR is a static battery standby power supply for supplying 1-phase and 3-phase safety-related loads. Depending on the system size, the compact design requires an installation space of only 2 - 8 m<sup>2</sup>. The permanent self-monitoring ensures maximum security.

The system consists of a rectifier, an inverter with electromechanical changeover device, a long-life, high-performance battery and a remote outgoing unit (optional).

If a mains voltage is applied, the loads are supplied from the mains. In the event of failure or reduction of the mains voltage by more than 15 %, POWERSTART switches to battery mode and supplies the connected loads within approx. 3 seconds via the inverter. On request, the outgoing unit can be extended to include final circuits of the emergency lighting. Contemporary mixed technology (escape route and emergency luminaires in one circuit) with single luminaire monitoring and web-based visualisation is easily possible. The transfer time is 1 second.

As the market leader for battery standby power supply systems, we are the right partner for the project planning, dimensioning and implementation of your emergency power supply.

POWERSTAR is produced to the respective current standards. The system fulfils DIN VDE 0100-560, EN 50171 and EN 50172 and DIN VDE V 0108 Part 100-1.



# Supply of



# **Emergency warning systems**

POWERSTAR supplies electro-acoustic emergency warning systems in public buildings such as airports, railways stations, department stores and sports venues. If they do not have their own power supply (UPS), they must be supplied from a central emergency power supply.



# Smoke control (SHEVS / SPS)

POWERSTAR supplies smoke control fans in staircases, lift shafts and necessary corridors/ escape routes (e.g. underground car park) for the required autonomy of 180 minutes.



## **Emergency escape lighting**

POWERSTAR can be extended to include final circuits for emergency lighting. All final circuits are pre-equipped for mixed technology (escape route and emergency luminaires in one circuit). Single luminaire monitoring is achieved by means of address modules in the luminaires. The stored energy time is designed for 1h, 3h or 8h, depending on the requirements.



## CO<sub>2</sub> detection system

POWERSTAR ensures a secure supply of CO<sub>2</sub> sensor units in danger zones, including the extraction equipment. Carbon dioxide (CO<sub>2</sub>) is toxic and low concentrations are sufficient to damage health. The consequences can be dizziness, cramps through to fast unconsciousness and death. The legal requirements were made more stringent to prevent this risk and an emergency power supply is required.

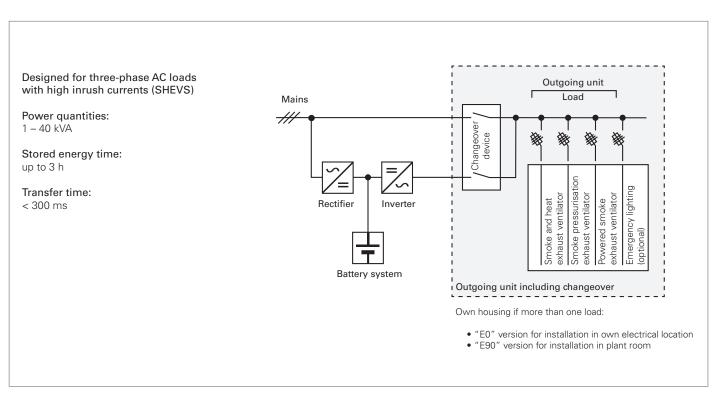


# PROJECT PLANNING DATA

Rated apparent power [kVA]	Max. power supplied to the motor/load [kVV]	Dimensions H x W x D [mm]	Dimensions of battery cabinet, e.g. for 1.5 h emergency operation* H x W x D [mm]	Approx. weight [kg]	Approx. weight, e.g. for 1.5 h emergency operation* [kg]
1	0.65	2000 x 850 x 600 Combined cabinet	-	200	120
1.5	1.0	2000 x 850 x 600 Combined cabinet	-	210	160
2.2	1.5	2000 x 850 x 600 Combined cabinet	-	225	250
3.2	2.2	2000 x 850 x 600 Combined cabinet	-	250	340
4.2	3.0	2000 x 950 x 600 Combined cabinet	-	260	400
5.7	4.0	2000 x 950 x 600	2000 x 600 x 600	290	640
7.8	5.5	2000 x 950 x 600	2000 x 950 x 600	335	930
10	7.5	2000 x 950 x 600	2000 x 1700 x 600	400	1350
15	11	2000 x 1100 x 600	2000 x 1900 x 600	600	1850
20	16	2000 x 1100 x 800	2000 x 2550 x 600	700	2300
25	20	2000 x 2 x 850 x 800	2000 x 1900 x 800	915	2500
30	24	2000 x 2 x 850 x 800	2000 x 2550 x 800	975	3000
40	32	2000 x 2 x 0950 x 800	2000 x 3150 x 800	1120	3500

<sup>\*</sup>Attention: The dimensions can change due to different supply times or the number and type of outgoing load units.

# SCHEMATIC CIRCUIT DIAGRAM



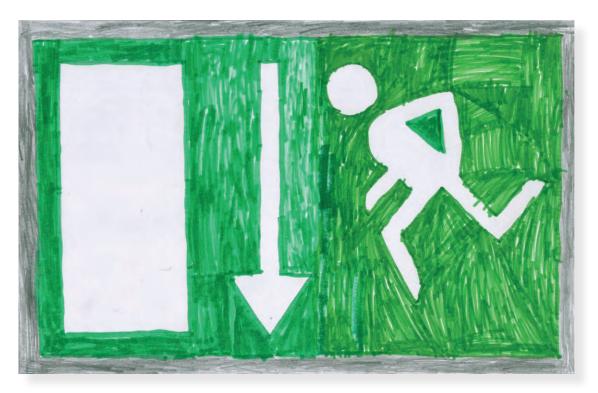
# POWERSTAR

# TECHNICAL DATA

Power quantities [kVA]	1   1.5   2.2   3.2   4.2   5.7   7.8   10   15   20   25   30   40		
Stored energy time [min.]	up to 180 min		
Input	Voltage: (1-phase systems also possible)	3/N/PE 400 V ±10 %	
	Frequency:	50 Hz ±5 %	
Output	Voltage: (1-phase systems also possible) Frequency: Power factor: Distortion factor:	3/N/PE 400 V ±2 % (dynamic < 8 %)  50 Hz ±0.1% free-running 0.8 ind0.8 cap.  THDU < 3 % for linear load	
Overload capability	105 % 125 % 150 % 700 %	continuous for 10 min for 1 min for 10 sec (current limiting 7 x I <sub>NOM</sub> )	
Efficiency	min. 88 %		
Noise level	< 60 dB(A)		
Automatic testing	Signal and test system for automatic test run		
Batteries Sealed lead batteries (other battery types possible)	Design life: Nominal voltage: Number of cells:	12 years 220 V 108	
Capacity reserve in accordance with EN 50171	End-point voltage:	1.8 V/cell	
Charging characteristic	IU		
Display /measured values All operating states and fault messages are displayed clearly on a block diagram by means of LEDs.	<ul> <li>Load voltage (L1 – L3)</li> <li>Load current (L1 – L3)</li> <li>Frequency</li> <li>Battery voltage</li> <li>Charging current</li> </ul>	<ul> <li>Operating hours counter</li> <li>Active load power (L1 – L3)</li> <li>Apparent load power (L1 – L3)</li> <li>Power factor (cos phi) (L1 – L3)</li> <li>Withdrawal capacity</li> </ul>	
Ambient conditions	Temperature:  Rel. humidity:	0 °C to +40 °C system +5 °C to +25 °C battery max. 95 % non-condensing	
<b>Housing</b> Modular sheet steel cabinets	Degree of protection: Cable entry: Paint finish (cabinet): Paint finish (converter) Right/left-hinged door:	IP 20 top (optionally possible from the bottom) RAL 7035 (other colours optional) RAL 5019 selectable	
Signals Potential-free signals to DIN VDE 0100-560 (changeover contact)	Ready for operation     Battery mode	Collective fault     Emergency operation	
Optional:	Emergency escape lighting with sir     WEB-MASTER link	ngle luminaire monitoring (mixed operation)	



# NOTES



Up-and-coming talent, Leonard Ruppel, 9 years old - 2019

We thank Leonard for the great picture and his enormous interest in our products.

Your Gessler team

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