

# Emergency Lighting

CATALOG

**Beghelli**



## Beghelli Brand

Beghelli S.p.A. together with the Beghelli Group has become one of the leading groups in the sector of emergency lighting. It sets the pace of the market by way of innovative technology and functional design.

The Beghelli group comprises several companies in Europe, America, and Asia. The activities of the Beghelli group focus on the development, manufacturing, and sales of products for general and emergency lighting, industrial and commercial security systems, and other commercial products.



## Our Products

Our product portfolio comprises exit sign and emergency luminaries, self-contained power packs, group and central battery systems, exit sign and emergency luminaries for external power supply, as well as monitoring and control systems. The high standards of our luminaries, devices, and systems reflect our expertise in the field of functional and cost-effective emergency lighting. This is backed by ongoing new developments and improvements. Thereby, the integration of new technologies and materials ensures a quick response to varying market requirements. The result is a continuous flow of innovative products, features, and styles.

Exit sign and emergency luminaries in compact design, like UTILED, or with optimised reflectors, like LOGICA, are only examples of our innovative power. Also the advanced Logica FM

system, as well as the multifunctional monitoring and control system LOGICA for self-contained emergency lighting systems reflect the knowhow of the Beghelli group.

The LOGICA system meets all the criteria of a system for cost-effective monitoring and the control of self-contained emergency lighting systems. This modular concept is based on exit signs, emergency luminaries, and power packs with test facilities for autonomous monitoring (Autotest). The same luminaries and devices can be connected to a LOGICA (wired) or LOGICA FM (radio) monitoring and control unit (Centraltest). A DALI-compatible bus is used for communications for LOGICA devices while connection is performed via radio for LOGICA FM devices. Enterprises with large-scale or multiple buildings can monitor their emergency lighting systems from a PC via a data or GSM network.

## The Reliability of a great brand

Beghelli has become, in just a couple of decades, a leading company in Europe's emergency lighting, and commercial and industrial safety systems. A leadership driven by a market strategy based on three basic principles: research, innovation and communication.

Technology, design, high quality materials and components, and thorough testing ensure the dynamic improvement in the standards of any product manufactured under the Beghelli trademark, a brand that guarantees performances, quality and service.



## Research and Innovation

R&D is a top priority of the Group, employing 15 % of the company's staff and is performed in Beghelli's own laboratories and development centers, carrying out product design, engineering, testing and certification, to develop products technologically innovative in both performances and design.

New NiMh batteries used in emergency lighting, Self Testing technology, Central Test Emergency lighting systems, Digital

Wireless Central Test systems are just some examples of the main results of this focus on R&D and innovation. An agreement with Fiat Research Centre to cooperate on developing new lighting design solutions has made possible the creation of a new range of products at the cutting edge of research applied to lighting engineering.

## International certification

Beghelli products are certified by the most important international Duality approval marks. The company is qualified to carry out "Type Testing" in its own laboratories for certification purposes. Since 1995, Beghelli has been certified according to the ISO

9001 standard, a system extended to all the manufacturing activities, from design to distribution. Beghelli has always been "environmental friendly": confirming this commitment the company has recently been certified according to the ISO 14001.

## The Group Structure

Beghelli Group, quoted since June 1998 on the Milan Stock Exchange, currently consists of 12 companies, operating in R&D, manufacturing and marketing.

The Group's international development is represented by its subsidiaries in Germany, USA, Canada, Czech Republic, Mexico and Hong Kong. Beghelli products are sold in 40 different countries worldwide.

## International Installations

Tens of thousands of installations testify the high worldwide positioning of Beghelli products. To mention just a few of the most prestigious: Vatican Museums, Teatro La Scala in Milan, Moscow Conservatory, Olympic Stadiums in Rome and Lillehammer, the Airports of Rome, Milan, Tripoli and Prague, McDonalds restau-

rants in Denmark, Russia, Czech Republic and China, several Universities in USA, the underground in Guadalajara, Government buildings of Sirte Lybia, Expo in Seville and various shopping centres and buildings in Hong Kong.



## Beghelli-Elplast – company profile

The Beghelli-Elplast moves on the Czech market under various names for over 130 years. During that time, the company managed to create a name as a manufacturer of quality lighting that meets the highest technical and aesthetic requirements. The domestic market is one of the most important producers of luminaires, branded products Beghelli-Elplast very well also apply

to foreign markets in Europe and overseas. Currently Beghelli-Elplast is part of the multinational group Gruppo Beghelli, which gives it the necessary economic stability while ensuring distribution and technical support to new overseas markets such as Mexico, Hong Kong or Canada.



The composition range of Beghelli-Elplast is designed so that the company was able to offer complete lighting solutions for various projects and to meet various requirements. The main part of production program consists of interior and industrial fluorescent lighting. This is mainly a traditional recessed, surface mounted or pendant luminaires with louver and a higher degree of protection, shock-resistant. The various types of luminaires are available in many varieties so as accurately meet customer requirements. In the Beghelli-Elplast product range can be also found lamps specially designed for specific environments with special requirements for quality and durability, such as lamps with a high degree of protection IP 65 and special lighting features designed for use in healthcare, shock-resistant lighting for sports, etc. Offer of fluorescent luminaires is supplemented by luminaires with discharge lamps that are designed for industrial lighting or outdoor lighting, such as streets, parks, sports fields, etc. A special group consists of the circular recessed lighting – downlights. Last year Beghelli-Elplast range was extended to fluorescent dustproof luminaires, intended for use in potentially explosive atmospheres of flammable gases – Zone 2 and for hazardous explosions of combustible dusts – Zone 22. Also important are the new luminaires on light-based of power LEDs that follow the global trend of development.

Trying to keep up with the latest trends in lighting technology and provide quality and innovative products lead the company to restore production investment planned park and care for employees' professional growth. Therefore, in recent years spent

tens of millions crowns in new machinery, which increased the quality, speed and production efficiency to meet the most demanding current requirements. Among the largest investments included the purchase of an automated painting line Eisenmann, which in addition to high power produces minimal environmental load. Excellent applied is also automatic cutting, punching and forming center Salvagnini or molding center line SWAH. Thanks to these investments were included into product range new luminaires on world's technical and aesthetic level.

Beghelli-Elplast also pays great attention to ensure the service of their luminaires. Company, in addition to standard post-warranty service, offers its clients assistance in the preparation and specification of lighting projects. In addition, Beghelli-Elplast prepares for its clients (designers and representatives of wholesales electrical installation companies) special thematic trainings on the novelties of range and awareness of new trends in lighting.

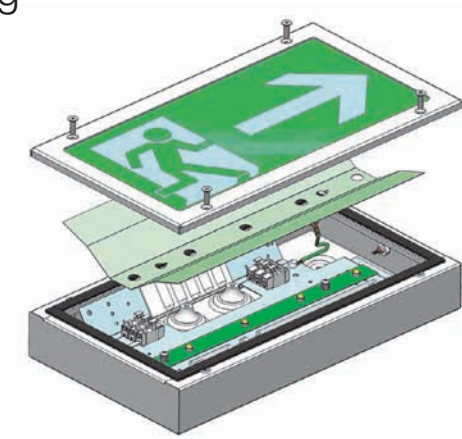
Currently Beghelli-Elplast is one of the most stable companies in the Brno region and permanently employs over 200 skilled employees. Even in this area the company's management is aware of the benefits of investment and therefore regularly organizes training sessions and educational events that enhance their professional level and thus contribute to sustained growth in labor productivity.



# Advantages of emergency systems

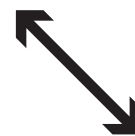
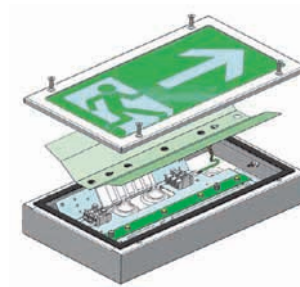
## General benefits for emergency lighting with its own battery

- easy installation
- maximum variability
- connection using standard connection cables
- low cost
- functionality without relation to other elements of the system
- automatically carried out tests in AT versions



## General benefits for CentralTest system of emergency lighting Logica with its own battery

- easy installation and maximum variability
- simple and effective supervision of the emergency lighting mode CentralTest
- modular system
- light sources T5, T8, LED...
- high efficiency lighting in Safe Mode
- possibility of individual planning and manual tests
- ability to change the length of autonomy
- monitoring and control from one point – CU or PC
- metallurgical data communication with length up to 750 m
- possibility of branching data communication
- PC with AutoCad visualization options
- traceable back tests up to two years in the past
- possibility of integration into the BMS
- Logica FM
- wireless data communications – saving wiring
- possibility of connection 992 emergency lighting fixtures on one central unit
- communication range up to 400 m in open space



Important note for user: all emergency luminaires and modules containing battery need to be formatted prior to putting luminaire/module into operation. Formatting: battery full discharge, then charged for minimum 24 hours without interruption. Repeat this cycle three times.

## General benefits for system with central-, resp. group-battery Beghelli-Präzisa System

- simple and cheap maintenance of the system
- high efficiency lighting in Safe Mode
- wide range of usable light sources (LED, CCFL, T5, T8, high pressure lamps...)
- possibility of changing autonomy with regard to installed capacity battery
- supervision and management in one place
- not necessary to conduct data communication
- battery life for more than 10 years
- battery in one place
- archived tests for two years
- possible management of the supervisory PC
- possibility of individual addressing
- automated functional tests
- possibility of integration into the BMS
- possibility of individual (SLEB) or automatic (ALOG) addressing
- possibility of setting up to 32 addresses at a range of emergency lighting



## COSTS ASSOCIATED WITH EMERGENCY LIGHTING

### ACQUISITION COSTS



### OPERATING COSTS

#### ENERGY COSTS



The actual power consumption of emergency lighting fixtures and emergency lighting systems

#### COSTS FOR CONTROL OF EMERGENCY LIGHTING

##### VISUAL INSPECTION



##### CentralTest CONTROL



#### SERVICE COSTS OF EMERGENCY LIGHTING

##### MATERIAL PART



##### WAGE PART



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## EMERGENCY LUMINAIRES AND EXIT SIGN LUMINAIRES INCLUDING AUTOTEST VERSIONS



Aestetica 12



Aestetica LED 13



Formula65 14



Formula65 LED 15



Acciaio LED 17



EcoLED Bandiera 19



Pluraluce LED 20



Pluraluce LED 22



Emergency LED module 25



Indica LED 20 m 28



Indica LED 30 m 30



Granluce LED 32



Maxima 38



Quader 50



Titania 51



Electroinverter 52

## EMERGENCY LUMINAIRES AND EXIT SIGN LUMINAIRES OF THE SYSTEM LG AND LGFM



Logica Control Unit 48



Logica FM Control Unit 48



Logica Supervisor Unit 49



Inibit Control Unit 49



GSM Interface 50



LON Interface 50



USB/RS485 Converter 51



Ethernet/RS485 Converter 51



Logica FM Radio Circuit 51



Logica Visual Software 52



Logica 53



Logica LED 54



Acciaio LED 56



Pluraluce LED 58



Pluraluce LED 60



Emergency LED module 63



Indica LED 20 m 66



Indica LED 30 m 68



Maxima 70



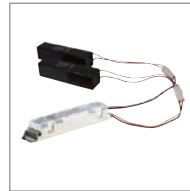
Kubus IP65 71



Quader 72



Electroinverter Logica 73



Halogen Kit Logica 74



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Monitoring software LOGICA-Visual 83



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Logica 116



Acciaio LED 117



Formula65 118



Pluraluce LED 119



Pluraluce downlight LED 121



Pluraluce-Module 122



Kubus IP65 123



Maxima 124



Granluce LED 125



Aestetica 126



Quader 127



Aestetica 12



Aestetica LED 13



Formula65 14



Formula65 LED 15



Acciaio LED 17



EcoLED Bandiera 19



Pluraluce LED 20



Pluraluce LED 22



Emergency LED module 25



Indica LED 20 m 28



Indica LED 30 m 30



Granluce LED 32



Maxima 38



Quader 50



Titania 51



Electroinverter 52



**EMERGENCY  
LUMINAIRES AND  
EXIT SIGN LUMINAIRES  
INCLUDING AUTOTEST  
VERSIONS**

**Beghelli**

# Aestetica



Emergency lighting fixture and fixture with exit sign supplied with IP 40 suitable for use in indoor buildings. Fixture can be mounted on ceiling or wall. There are types for 6–8–11 W SA (Maintained) or SE (Non maintained) with duration 1hr or 3hrs. Adhesive legends must be ordered separately.

Symbols see page 134

## Technical data

Mounting: on ceiling or wall,  
mounting on box 503

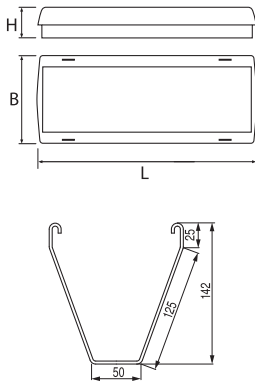
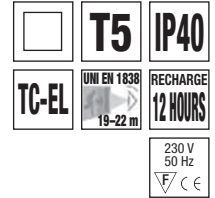
Body: self-snuffing plastic  
(standard EN 60598-1,  
UL 94)

Diffuser: clear plastic






Rated voltage:  
230 V/50 Hz

Specification: available in  
SA (Maintained) and SE  
(Non maintained)





W	• Dimensions (mm) •			Source	Socket
L	B	H			
6	259	112.5	45.5	T5	G5
8	336.4	134.6	46.8	T5	G5
11	336.4	134.6	46.8	TC-EL	2G7



## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
<b>99-710</b>	 Exit sign (8 W, 11 W only)	1 4
<b>12150</b>	 Exit sign 6 W LEFT/RIGHT	1
<b>12151</b>	 Exit sign 6 W DOWN	1
<b>12152</b>	 Exit sign 8 W LEFT/RIGHT	1
<b>12153</b>	 Exit sign 8 W DOWN	1

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
<b>8785</b>	 Adhesive legends 6 W	3
<b>8788</b>	 Adhesive legends 8 W, 11 W	3
<b>99-886</b>	 Adhesive legend DOWN 6 W	1
<b>99-888</b>	 Adhesive legend DOWN 8 W	1

W	Code	Article	Version	Duration	Battery	Kg	Pckg / pcs
<b>Non maintained</b>							
6	<b>12500</b>	543 6SE 1N	SE	1 h	NiCd 3.6 V 0.75 Ah	0.7	24
8	<b>12508</b>	544 8SE 1N	SE	1 h	NiCd 4.8 V 0.75 Ah	0.8	24
8	<b>12510</b>	544 8SE 3N	SE	3 h	NiCd 4.8 V 1.7 Ah	1.0	24
11PL	<b>12520</b>	544 11SE 1N	SE	1 h	NiCd 3.6 V 1.7 Ah	0.8	24
6	<b>12501</b>	543 6SE 1N/RM	SE RM	1 h	NiCd 3.6 V 0.75 Ah	0.7	24
8	<b>12509</b>	544 8SE 1N/RM	SE RM	1 h	NiCd 4.8 V 0.75 Ah	0.8	24
8	<b>12511</b>	544 8SE 3N/RM	SE RM	3 h	NiCd 4.8 V 1.7 Ah	1.0	24
11PL	<b>12521</b>	544 11SE 1N/RM	SE RM	1 h	NiCd 3.6 V 1.7 Ah	0.8	24
<b>Maintained</b>							
8	<b>12504</b>	544 8SA 1N	SA	1 h	NiCd 4.8 V 0.75 Ah	0.8	24
8	<b>12506</b>	544 8SA 3N	SA	3 h	NiCd 4.8 V 1.7 Ah	1.0	24
8	<b>12505</b>	544 8SA 1N/RM	SA RM	1 h	NiCd 4.8 V 0.75 Ah	0.8	24
8	<b>12507</b>	544 8SA 3N/RM	SA RM	3 h	NiCd 4.8 V 1.7 Ah	1.0	24

# Aestetica LED

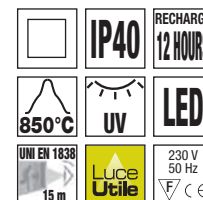
Emergency lighting fixture and fixture with exit sign that meets international safety standards using the latest LED technology. Highly efficient optical system and very easy installation rank these fixtures among the most cost-effective lighting products on the market. Thanks to IP 40 and the construction of durable polycarbonate fixture Aestetica LED is suitable for general use in interior areas and demanding operating conditions.

Symbols see page 134



W**	• Dimensions (mm) •			Source
	L	B	H	
6-8-11-24	292	102	36.8	LED

\*\* Indicative power for comparison with fluorescent tube lighting

Visible distance	
Exit sign	15 m
Exit sign Bandiera	20 m



## ACCESSORIES: TO BE ORDERED SEPARATELY

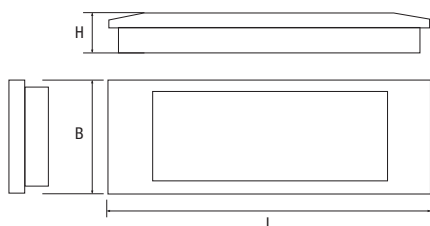
Code	Description	Pcs
<b>4266</b>	holders for recessed mounting	1
<b>4265</b>	bracket for flag installation on wall	1
<b>3733</b>	recessed box into the wall	1
<b>16230</b>	exit sign right	1
<b>16231</b>	exit sign left	1
<b>16232</b>	exit sign down	1
<b>4267</b>	 exit sign left, right Bandiera	1
<b>4268</b>	 exit sign down Bandiera	1

## German standard

<b>16233</b>	exit sign LEFT / RIGHT Bandiera	1
<b>16234</b>	exit sign DOWN Bandiera	1
<b>16235</b>	exit sign RIGHT	1
<b>16236</b>	exit sign LEFT	1
<b>16237</b>	exit sign DOWN	1

## Technical data

Mounting: on ceiling or wall, recessed mounting  
Diffuser: clear plastic  
Body and reflector: white polycarbonate  
Rated voltage: 230 V / 50 Hz



W	Code	Article	Duration	Battery	LED	Luminous flux	Absorption W	Kg	Pckg/pcs
6	<b>16220</b>	6 W SE 1H	1 h	NiMH 4.8 V 0.75 Ah	10 Pcs	75 lm	0.7	0.5	12
8	<b>16221</b>	8 W SE 1H	1 h	NiMH 4.8 V 0.75 Ah	16 Pcs	120 lm	0.7	0.5	12
11	<b>16222</b>	11 W SE 1H	1 h	NiMH 4.8 V 0.75 Ah	20 Pcs	150 lm	0.7	0.5	12
11	<b>16223</b>	11 W SA 1H	1 h	NiMH 4.8 V 0.75 Ah	20 Pcs	150 lm (SE) / 75 lm (SA)	1.6	0.5	12
24	<b>16224</b>	24 W SE 1H	1 h	NiMH 4.8 V 0.75 Ah	32 Pcs	240 lm	0.9	0.6	12

# Formula65

Emergency lighting fixture and fixture with exit sign/adhesive legend in an elegant design suitable for recessed, ceiling and wall mounting. Thanks to high protection IP 65 and durable polycarbonate construction Formula65 is suitable for use in demanding operating conditions. Fixture is available in 6–8–11–24 W SA (Maintained) or SE (Non maintained) with Duration 1hr or 3hrs. Selectable function RM (Rest Mode) by using a single command button. Installation on a ceiling, wall or recessed mounting into ceiling or plasterboard. Formula65 is supplied in a standard version or version with AutoTest. Symmetrical plastic reflector provides uniform distribution of luminous flux.

Symbols see page 134

W	• Dimensions (mm) • L B H	Source	Socket
6–8	354 152 48.5	T5	G5
11	354 152 48.5	TC-EL	2G7
24	354 152 48.5	TC-L	2G7



## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
<b>19040</b>	recessed box with frame	1
<b>19041</b>	false ceiling bracket	1
<b>19042</b>	exit sign LEFT, RIGHT Bandiera	1
<b>19043</b>	exit sign DOWN Bandiera	1
<b>19044</b>	adhesive legends LEFT/RIGHT/DOWN	1
<b>19045</b>	bracket for flag installation on wall	1

## Technical data

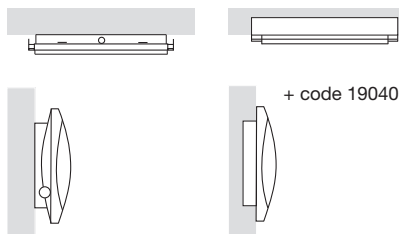
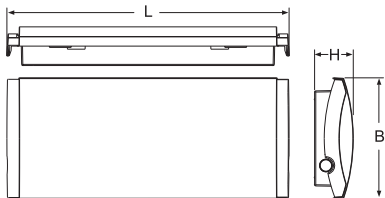
Mounting: on ceiling or wall, with recessed box

Body: self-snuffing plastic (standard EN 60598-1, UL 94)

Diffuser: polycarbonate

Rated voltage: 230 V/50 Hz

Specification: available in SA (Maintained) and SE (Non maintained)



+ code 19041

## AutoTest

W	Code	Article	Duration	Battery	Luminous flux	Kg	Pckg/ pcs
6	<b>19020</b>	F65 6 W IP65 AT SE 1N/RM	1 h	NC HT 4.8 V 0.75 Ah	80 lm	0.5	12
6	<b>19021</b>	F65 6 W IP65 AT SE 3N/RM	3 h	NC HT 4.8 V 1.7 Ah	80 lm	0.5	12
8	<b>19022</b>	F65 8 W IP65 AT SE 1N/RM	1 h	NC HT 4.8 V 0.75 Ah	100 lm	0.7	12
8	<b>19023</b>	F65 8 W IP65 AT SE 3N/RM	3 h	NC HT 4.8 V 1.7 Ah	100 lm	0.7	12
8	<b>19024</b>	F65 8 W IP65 AT SA 1N/RM	1 h	NC HT 4.8 V 0.75 Ah	93/130 lm	0.7	12
8	<b>19025</b>	F65 8 W IP65 AT SA 3N/RM	3 h	NC HT 4.8 V 1.7 Ah	93/130 lm	0.7	12
11	<b>19026</b>	F65 11 W IP65 AT SE 1N/RM	1 h	NC HT 7.2 V 0.75 Ah	120 lm	0.7	12
11	<b>19027</b>	F65 11 W IP65 AT SE 3N/RM	3 h	NC HT 7.2 V 1.7 Ah	120 lm	0.7	12
11	<b>19028</b>	F65 11 W IP65 AT SA 1N/RM	1 h	NC HT 7.2 V 0.75 Ah	120 lm	0.7	12
11	<b>19029</b>	F65 11 W IP65 AT SA 3N/RM	3 h	NC HT 7.2 V 1.7 Ah	120 lm	0.7	12
24	<b>19030</b>	F65 24 W IP65 AT SE 1N/RM	1 h	NC HT 4.8 V 1.7 Ah	130 lm	0.9	12
24	<b>19031</b>	F65 24 W IP65 AT SE 3N/RM	3 h	NC HT 7.2 V 1.7 Ah	130 lm	0.9	12
24	<b>19032</b>	F65 24 W IP65 AT SA 1N/RM	1 h	NC HT 4.8 V 1.7 Ah	130 lm	0.9	12
24	<b>19033</b>	F65 24 W IP65 AT SA 3N/RM	3 h	NC HT 7.2 V 1.7 Ah	130 lm	0.9	12

## Standard

W	Code	Article	Duration	Battery	Luminous flux	Kg	Pckg/ pcs
6	<b>19000</b>	F65 6 W IP65 SE 1N/RM	1 h	NC+CAB HT 3.6 V 0.75 Ah	80 lm	0.5	12
6	<b>19001</b>	F65 6 W IP65 SE 3N/RM	3 h	NC+CAB HT 4.8 V 1.7 Ah	80 lm	0.5	12
8	<b>19002</b>	F65 8 W IP65 SE 1N/RM	1 h	NC HT 4.8 V 0.75 Ah	100 lm	0.7	12
8	<b>19003</b>	F65 8 W IP65 SE 3N/RM	3 h	NC HT 4.8 V 1.7 Ah	100 lm	0.7	12
8	<b>19004</b>	F65 8 W IP65 SA 1N/RM	1 h	NC HT 4.8 V 0.75 Ah	93/130 lm	0.7	12
8	<b>19005</b>	F65 8 W IP65 SA 3N/RM	3 h	NC HT 4.8 V 1.7 Ah	93/130 lm	0.7	12
11	<b>19006</b>	F65 11 W IP65 SE 1N/RM	1 h	NC HT 7.2 V 0.75 Ah	120 lm	0.7	12
11	<b>19007</b>	F65 11 W IP65 SE 3N/RM	3 h	NC HT 7.2 V 1.7 Ah	120 lm	0.7	12
11	<b>19008</b>	F65 11 W IP65 SA 1N/RM	1 h	NC HT 7.2 V 0.75 Ah	120 lm	0.7	12
11	<b>19009</b>	F65 11 W IP65 SA 3N/RM	3 h	NC HT 7.2 V 1.7 Ah	120 lm	0.7	12
24	<b>19010</b>	F65 24 W IP65 SE 1N/RM	1 h	NC HT 4.8 V 1.7 Ah	130 lm	0.9	12
24	<b>19011</b>	F65 24 W IP65 SE 3N/RM	3 h	NC HT 7.2 V 1.7 Ah	130 lm	0.9	12
24	<b>19012</b>	F65 24 W IP65 SA 1N/RM	1 h	NC HT 4.8 V 1.7 Ah	130 lm	0.9	12
24	<b>19013</b>	F65 24 W IP65 SA 3N/RM	3 h	NC HT 7.2 V 1.7 Ah	130 lm	0.9	12





**New**

## Formula65 LED

LED emergency lighting fixture and fixture with adhesive legend which complies with international safety standards using the latest LED technology. Thanks to high protection IP 65 and durable polycarbonate construction fixture is suitable for use in demanding operating conditions. Highly efficient optical system and very easy installation rank these fixtures among the most cost-effective lighting products on the market. Inside the body made of a white polycarbonate are two series of highperformance LEDs (greater than 100 lm/W).

Symbols see page 134

### Technical data

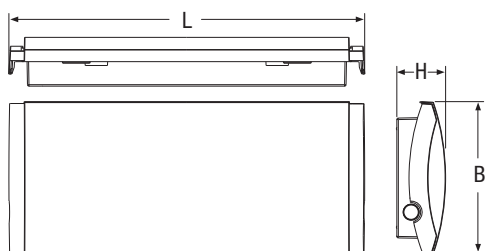
Mounting: on ceiling or wall,  
with recessed box

Rated voltage:  
230 V/50 Hz

Body: self-snuffing plastic  
(standard EN 60598-1,  
UL 94)

Specification: available in  
SA (Maintained) and SE  
(Non maintained)

Diffuser: polycarbonate



W**	• Dimensions (mm) •			Source
	L	B	H	
6-8-11-24	354	152	48.5	LED

\*\* Indicative power for comparison with fluorescent tube lighting

Visible distance	
Adhesive legend	26 m
Exit sign	28 m



### ACCESSORIES: PROVIDED WITH

Code	Description	Pcs
<b>19040</b>	recessed box with frame	1
<b>19044*</b>	adhesive legends left / right / down	1

\* Adhesive legends are provided for SA (Maintained) version only.

### ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
<b>19041</b>	false ceiling bracket	1
<b>19042</b>	exit sign LEFT, RIGHT Bandiera	1
<b>19043</b>	exit sign DOWN Bandiera	1
<b>19044</b>	adhesive legends LEFT/RIGHT/DOWN	1
<b>19045</b>	bracket for flag installation on wall	1

### WALL MOUNTING WITH BUBBLE LEVEL, CEILING MOUNTING

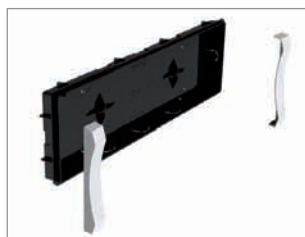


**19040** recessed box with frame, supplied with the fixture

### WALL MOUNTING



### RECESSED MOUNTING



**19040** recessed box with frame, supplied with the fixture

### DOUBLE-SIDED FLAG MOUNTING ON WALL



**19045** bracket for flag installation on wall, TO BE ORDERED SEPARATELY

**19042** exit sign LEFT, RIGHT Bandiera, TO BE ORDERED SEPARATELY

**19043** exit sign DOWN Bandiera, TO BE ORDERED SEPARATELY

## FALSE CEILING RECESSED MOUNTING



**19041** false ceiling bracket, TO BE ORDERED SEPARATELY

## FALSE CEILING RECESSED DOUBLE-SIDED MOUNTING











**19041** false ceiling bracket, TO BE ORDERED SEPARATELY

**19042** exit sign LEFT, RIGHT Bandiera, TO BE ORDERED SEPARATELY









**19043** exit sign DOWN Bandiera, TO BE ORDERED SEPARATELY

## AutoTest

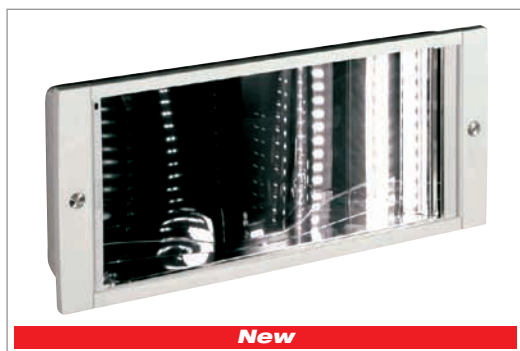
	W	Code	Article	Version	Duration	Battery	LED	Flow* SE lm	Flow* SA lm	Absorption W	Kg	Pckg/pcs
	6	<b>19220</b>	F65 LED 6 W IP65 AT SE 1H/RM	SE	1 h	NiCd 4.8 V 0.75 Ah	10 Pcs	70 lm	–	0.7 W	0.4	12
	6	<b>19221</b>	F65 LED 6 W IP65 AT SE 3H/RM	SE	3 h	NiMH 4.8 V 1.7 Ah	10 Pcs	70 lm	–	1.5 W	0.4	12
	8	<b>19222</b>	F65 LED 8 W IP65 AT SE 1H/RM	SE	1 h	NiCd 4.8 V 0.75 Ah	16 Pcs	112 lm	–	0.7 W	0.6	12
	8	<b>19223</b>	F65 LED 8 W IP65 AT SE 3H/RM	SE	3 h	NiMH 4.8 V 1.7 Ah	16 Pcs	112 lm	–	1.5 W	0.6	12
	8	<b>19224</b>	F65 LED 8 W IP65 AT SA 1H/RM	SA	1 h	NiCd 4.8 V 0.75 Ah	16 Pcs	112 lm	56 lm	1.4 W	0.6	12
	8	<b>19225</b>	F65 LED 8 W IP65 AT SA 3H/RM	SA	3 h	NiMH 4.8 V 1.7 Ah	16 Pcs	112 lm	56 lm	2.7 W	0.6	12
	11	<b>19226</b>	F65 LED 11 W IP65 AT SE 1H/RM	SE	1 h	NiCd 4.8 V 0.75 Ah	20 Pcs	140 lm	–	0.7 W	0.6	12
	11	<b>19227</b>	F65 LED 11 W IP65 AT SE 3H/RM	SE	3 h	NiMH 4.8 V 1.7 Ah	20 Pcs	140 lm	–	1.5 W	0.6	12
	11	<b>19228</b>	F65 LED 11 W IP65 AT SA 1H/RM	SA	1 h	NiCd 4.8 V 0.75 Ah	20 Pcs	140 lm	70 lm	1.6 W	0.6	12
	11	<b>19229</b>	F65 LED 11 W IP65 AT SA 3H/RM	SA	3 h	NiMH 4.8 V 1.7 Ah	20 Pcs	140 lm	70 lm	2.9 W	0.6	12
	24	<b>19230</b>	F65 LED 24 W IP65 AT SE 1H/RM	SE	1 h	NiCd 2× 4.8 V 0.75 Ah	32 Pcs	224 lm	–	0.9 W	0.8	12
	24	<b>19231</b>	F65 LED 24 W IP65 AT SE 3H/RM	SE	3 h	NiMH 2× 4.8 V 1.7 Ah	32 Pcs	224 lm	–	2.2 W	0.8	12
	24	<b>19232</b>	F65 LED 24 W IP65 AT SA 1H/RM	SA	1 h	NiCd 2× 4.8 V 0.75 Ah	32 Pcs	224 lm	112 lm	2 W	0.8	12
	24	<b>19233</b>	F65 LED 24 W IP65 AT SA 3H/RM	SA	3 h	NiMH 2× 4.8 V 1.7 Ah	32 Pcs	224 lm	112 lm	3.7 W	0.8	12

\* Guaranteed minimum luminous flux according to EN 60598-2-22

## Standard

	W	Code	Article	Version	Duration	Battery	LED	Flow* SE lm	Flow* SA lm	Absorption W	Kg	Pckg/pcs
	6	<b>19200</b>	F65 LED 6 W IP65 SE 1H	SE	1 h	NiCd 4.8 V 0.75 Ah	10 Pcs	70 lm	–	0.7 W	0.4	12
	6	<b>19201</b>	F65 LED 6 W IP65 SE 3H	SE	3 h	NiMH 4.8 V 1.7 Ah	10 Pcs	70 lm	–	1.5 W	0.4	12
	8	<b>19202</b>	F65 LED 8 W IP65 SE 1H	SE	1 h	NiCd 4.8 V 0.75 Ah	16 Pcs	112 lm	–	0.7 W	0.6	12
	8	<b>19203</b>	F65 LED 8 W IP65 SE 3H	SE	3 h	NiMH 4.8 V 1.7 Ah	16 Pcs	112 lm	–	1.5 W	0.6	12
	8	<b>19204</b>	F65 LED 8 W IP65 SA 1H	SA	1 h	NiCd 4.8 V 0.75 Ah	16 Pcs	112 lm	56 lm	1.4 W	0.6	12
	8	<b>19205</b>	F65 LED 8 W IP65 SA 3H	SA	3 h	NiMH 4.8 V 1.7 Ah	16 Pcs	112 lm	56 lm	2.7 W	0.6	12
	11	<b>19206</b>	F65 LED 11 W IP65 SE 1H	SE	1 h	NiCd 4.8 V 0.75 Ah	20 Pcs	140 lm	–	0.7 W	0.6	12
	11	<b>19207</b>	F65 LED 11 W IP65 SE 3H	SE	3 h	NiMH 4.8 V 1.7 Ah	20 Pcs	140 lm	–	1.5 W	0.6	12
	11	<b>19208</b>	F65 LED 11 W IP65 SA 1H	SA	1 h	NiCd 4.8 V 0.75 Ah	20 Pcs	140 lm	70 lm	1.6 W	0.6	12
	11	<b>19209</b>	F65 LED 11 W IP65 SA 3H	SA	3 h	NiMH 4.8 V 1.7 Ah	20 Pcs	140 lm	70 lm	2.9 W	0.6	12
	24	<b>19210</b>	F65 LED 24 W IP65 SE 1H	SE	1 h	NiCd 2× 4.8 V 0.75 Ah	32 Pcs	224 lm	–	0.9 W	0.8	12
	24	<b>19211</b>	F65 LED 24 W IP65 SE 3H	SE	3 h	NiMH 2× 4.8 V 1.7 Ah	32 Pcs	224 lm	–	2.2 W	0.8	12
	24	<b>19212</b>	F65 LED 24 W IP65 SA 1H	SA	1 h	NiCd 2× 4.8 V 0.75 Ah	32 Pcs	224 lm	112 lm	2 W	0.8	12
	24	<b>19213</b>	F65 LED 24 W IP65 SA 3H	SA	3 h	NiMH 2× 4.8 V 1.7 Ah	32 Pcs	224 lm	112 lm	3.7 W	0.8	12

\* Guaranteed minimum luminous flux according to EN 60598-2-22



### Technical data

Mounting: on ceiling or wall, recessed mounting with box

Body: aluminium casting

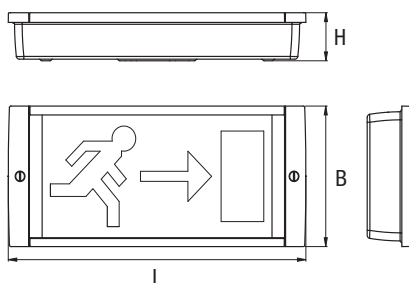
Reflector: special optical system made of aluminium 99.99 %

Diffuser: tempered glass

Rated voltage:  
230 V/50 Hz

Specification: available in SA (Maintained) and SE (Non maintained)

Design intended for use in hazardous areas: ATEX 94/9/CE for zone 2-22 (with installation kit ATEX 15017)



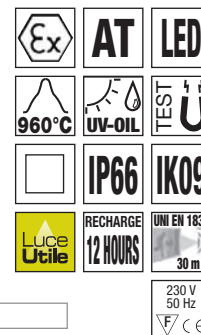
## Acciaio LED

Acciaio LED features a high technological content for particularly complex applications in high risk areas. The die-cast aluminium housing and glass screen have an excellent mechanical strength (IK09) and resist well to aggressive chemical agents. In industrial applications, the fixture is ideal for installation in areas with explosive atmospheres caused by gaseous alterations or airborne combustible dust (as indicated in the ATEX Directive 94/9/EC). The dual series of high-performance LEDs has a special extra lens, to make screen illumination even more uniform. The Acciaio Beghelli also features a revolutionary lamp test system: a magnetic switch allows for manual testing of the operation of one fixture, by moving a magnet close to it, to immediately test efficiency.

Symbols see page 134

W**	• Dimensions (mm) •			Source
	L	B	H	
8-24	391	174	59.5	LED

\*\* Indicative power for comparison with fluorescent tube lighting







### ACCESSORIES: PROVIDED WITH

Code	Description	Pcs
<b>15009</b>	exit sign LEFT, RIGHT, DOWN (except for version SE AT)	1

### ACCESSORIES: TO BE ORDERED SEPARATELY

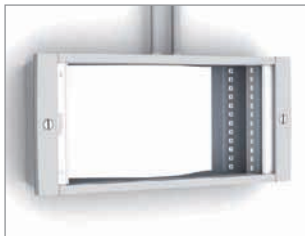
Code	Description	Pcs
<b>15010</b>	exit sign LEFT, RIGHT Bandiera	1
<b>15011</b>	exit sign DOWN Bandiera	1
<b>15012</b>	bracket for recessed mounting	1
<b>15016</b>	bracket for flag installation on wall	1
<b>15017</b>	installation kit ATEX	1

	W	Code	Article	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/ pcs
	8	<b>15000</b>	ACC LED 8 W SE AT 1N	SE	1 h	NiCd 7.2 V 0.75 Ah	24 Pcs	160 lm	—	1 W	2.5	6
	8	<b>15001</b>	ACC LED 8 W SA AT 1N	SA	1 h	NiCd 7.2 V 0.75 Ah	24 Pcs	160 lm	96 lm	3.5 W	2.5	6
	24	<b>15002</b>	ACC LED 24 W SE AT 1N	SE	1 h	NiCd 7.2 V 0.75 Ah	24 Pcs	224 lm	—	1 W	2.5	6
	24	<b>15003</b>	ACC LED 24 W SA AT 1N	SA	1 h	NiCd 7.2 V 0.75 Ah	24 Pcs	224 lm	135 lm	6.5 W	2.5	6

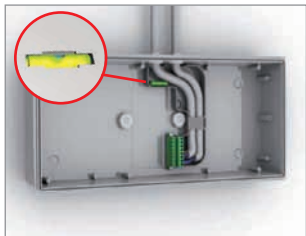
\* Guaranteed minimum luminous flux according to EN 60598-2-22



### WALL/CEILING MOUNTING – QUICK TERMINAL BLOCK AND BUBBLE LEVEL



Terminal block for a 1–2.5 mm wire, with 2 inputs per terminal



### SEMI- RECESSED WALL MOUNTING



**15012** bracket for recessed mounting



TO BE ORDERED SEPARATELY

### CEILING/FALSE CEILING RECESSED DOUBLE-SIDED MOUNTING



**15010** exit sign LEFT, RIGHT Bandiera

**15011** exit sign DOWN Bandiera

**15012** bracket for recessed mounting



to be ordered separately

to be ordered separately

to be ordered separately

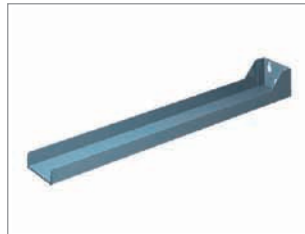
### WALL DOUBLE-SIDED MOUNTING



**15016** bracket for flag installation on wall

**15010** exit sign LEFT, RIGHT Bandiera

**15011** exit sign DOWN Bandiera



to be ordered separately

to be ordered separately

to be ordered separately

### CEILING, RECESSED MOUNTING



**15012** bracket for recessed mounting



Dimensions: 378 × 163 mm

TO BE ORDERED SEPARATELY

### MAGNETIC SWITCH FOR LOCAL MANUAL DIAGNOSIS

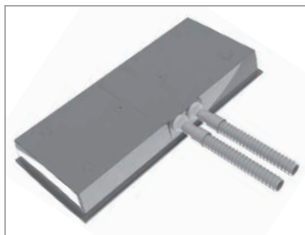


– REED bulb and magnetic key



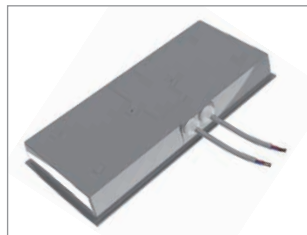
PROVIDED WITH

### CONNECTOR AND BUSHINGS



PROVIDED WITH

### IP PLUG WIRING MEMBRANE



PROVIDED WITH



# EcoLED Bandiera



Recessed version



Surfaced version

**New**

Emergency LED fixture with diffuser and double sided exit sign designed for recessed mounting into ceiling module or surface mounting on ceiling. Fixture delivering high luminous efficiency. Easy installation classifies these fixtures among the most-economical products on the market. Its aesthetic shape provides an ideal solution to indicate escape routes. The fixture is ideal for use in modern applications that require emergency lighting. A characteristic feature of this series is very quick installation and reliable operation. Maximal visibility distance is 30 m.

Symbols see page 134

W**	• Dimensions (mm) •			Source	Version
L	B	H			
8	325	56	248	LED	surfaced
8	396	81	228	LED	recessed

\*\* Indicative power for comparison with fluorescent tube lighting



## ACCESSORIES: PROVIDED WITH

Code	Description	Pcs
—	clear opal pane	1

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
99-0051	← adhesive legend LEFT	1
	→ adhesive legend RIGHT	1
99-0052	↓ adhesive legend DOWN	2
99-0081	bracket for wall mounting (for surfaced version only)	1

## Technical data

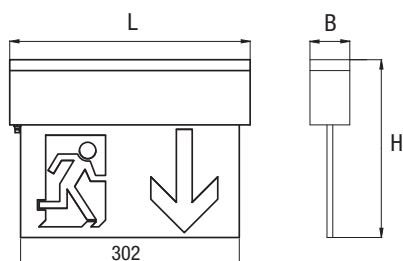
Mounting: surfaced on ceiling or recessed into ceiling

Rated voltage: 230 V / 50 Hz

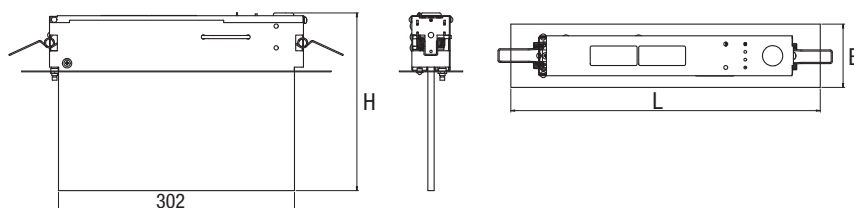
Body: steel sheet finished by powder technology varnishing in white color

Specification: available in LED SA (Maintained), duration 3hrs

## Surfaced version



## Recessed version



W	Code	Article	Version	Duration	Battery	LED	Absorption W	Hole cut out (mm)	Kg	Pckg/ pcs
8	58-009/801/N	Eco LED Bandiera	surfaced	3 h	NiCd 4.8 V 0.75 Ah	8 Pcs	4.2 W	—	2.9	1
8	58-019/801/N*	Eco LED Bandiera	surfaced	3 h	NiCd 4.8 V 0.75 Ah	8 Pcs	4.2 W	—	2.9	1
8	58-029/801/N	Eco LED Bandiera	recessed	3 h	NiCd 4.8 V 0.75 Ah	8 Pcs	4.2 W	350 × 55	2.8	1
8	58-039/801/N*	Eco LED Bandiera	recessed	3 h	NiCd 4.8 V 0.75 Ah	8 Pcs	4.2 W	350 × 55	2.8	1

\* Standard type supplied with emergency test switch



# Pluraluce LED



LED fixture for high performance emergency lighting, with special high-transparency plexiglas lenses kit, for both the Lungaluce and Largaluce versions, to obtain different dimensions of illuminated areas. Each lens has a white polycarbonate cover with fixing system for different types of false ceilings. High-efficiency LEDs, die-cast aluminium housing with integrated heat sink.

Symbols see page 134

## Technical data

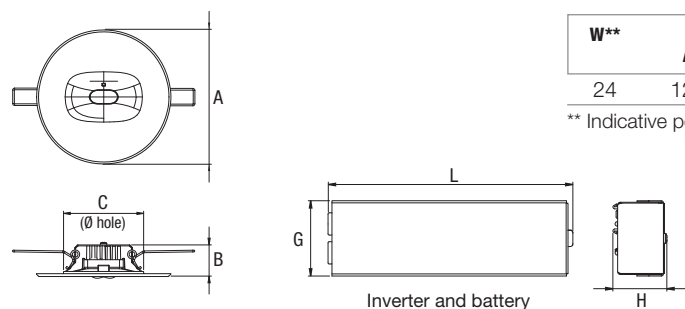
Mounting: recessed into ceiling

Body: white polycarbonate RAL 9010

Optical part: special optic types

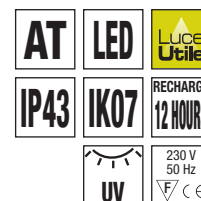
Rated voltage: 198–254 V/50 Hz

Specification: available in SE (Non maintained)



W**	A	B	• Dimensions (mm) •				H	Source
			C	L	G			
24	120	28	80–100	204	63	46		LED

\*\* Indicative power for comparison with fluorescent tube lighting



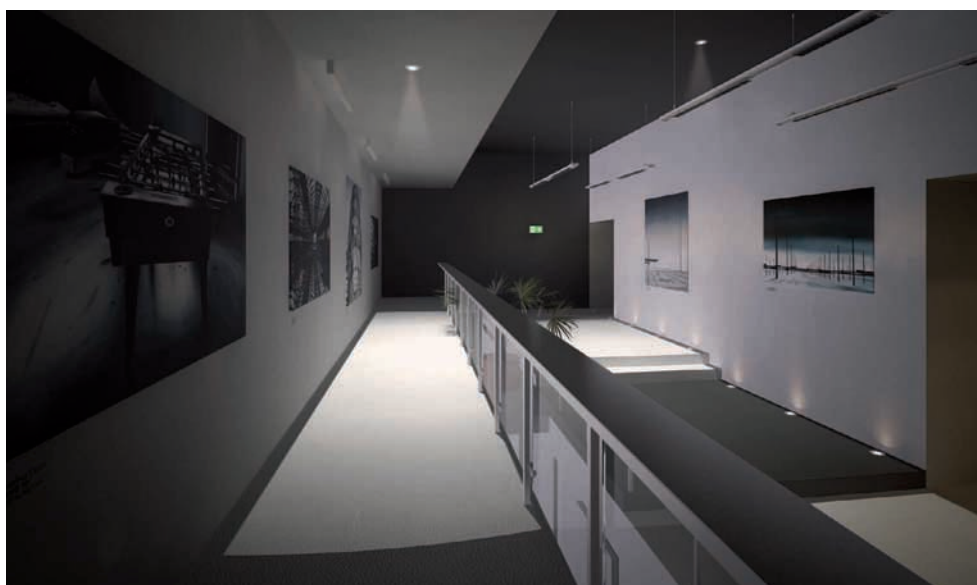
## ACCESSORIES: PROVIDED WITH

Code	Description
–	LUNGALUCE lens with cover
–	LARGALUCE lens with cover

## AutoTest

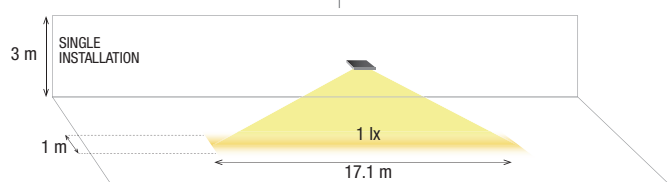
W	Code	Article	Duration	Battery	LED	Luminous flux SE*	Absorption W	Kg	Pckg/pcs
24	19331	L.LARG DW RC AT 24 W SE 1H	1 h	NiCd 7.2 V 0.75 Ah	1 Pc	180 lm	1	0.8	6

\* Guaranteed minimum luminous flux according to EN 60598-2-22



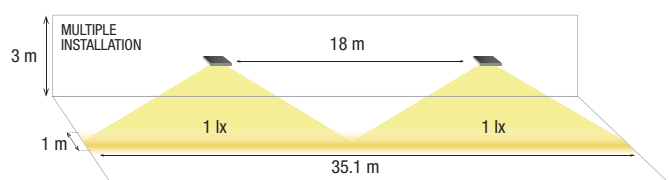


### LUNGALUCE LENS



#### Single installation

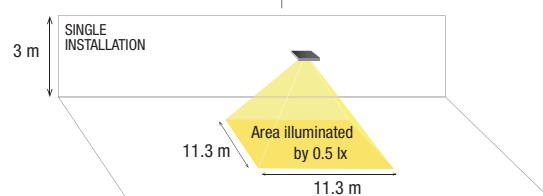
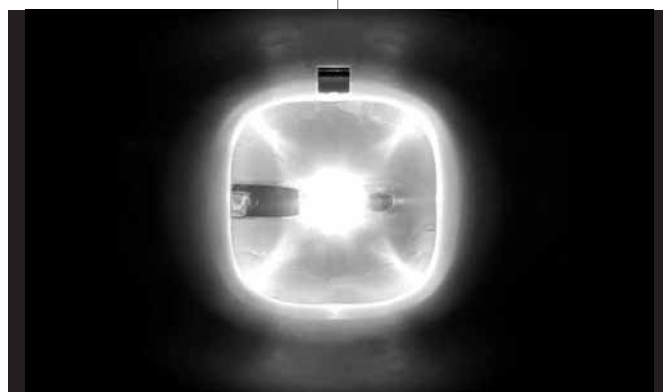
covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 within 1 m



#### Multiple installation, centre distance of 18 m between fixtures

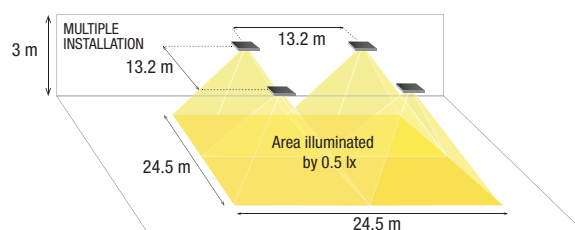
covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 within 1 m

### LARGALUCE LENS



#### Single installation

illuminates a surface area of  $11.3 \times 11.3$  m at 0.5 lux (128 m<sup>2</sup>)



#### Multiple installation, centre distance of 13.2 m between fixtures

lights up a surface area of  $24.5 \times 24.5$  m at 0.5 lux (600 m<sup>2</sup>)

# Pluraluce LED



LED fixture for high performance emergency lighting, with special high-transparency plexiglass lenses kit, for both the Lungaluce, Largaluce and Diffusaluce versions, to obtain different dimensions of illuminated areas. Each lens has white polycarbonate housing. High-efficiency LEDs, die-cast aluminium housing with integrated heat sink.

Symbols see page 134

## Technical data

Mounting: on ceiling

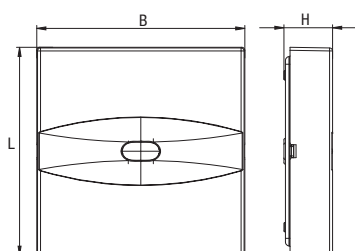
Body: white polycarbonate  
RAL 9010

Optical part: special optic  
types

Rated voltage:

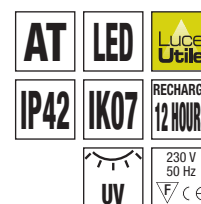
198-254 V/50 Hz

Specification: available in SE  
(Non maintained)



W**	• Dimensions (mm) •			Source
	L	B	H	
24	137	137	32	LED

\*\* Indicative power for comparison with fluorescent tube lighting



## ACCESSORIES: PROVIDED WITH

Code	Description
—	LUNGALUCE lens with cover
—	LARGALUCE lens with cover
—	DIFFUSALUCE lens with cover

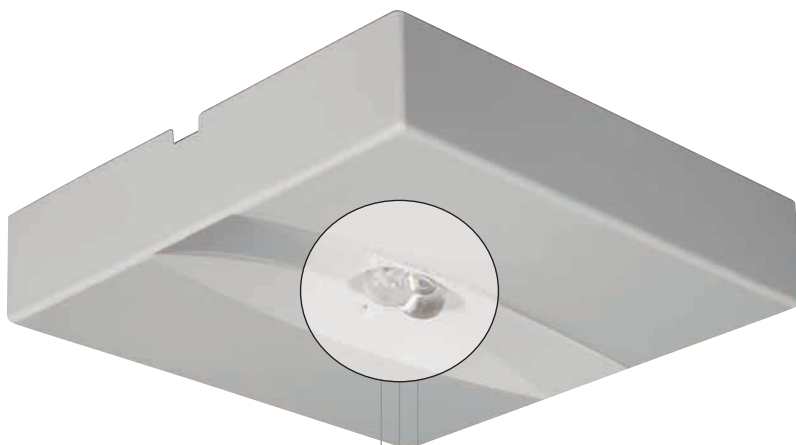
## AutoTest

W	Code	Article	Duration	Battery	LED	Luminous flux SE*	Absorption W	Kg	Pckg / pcs
24	<b>19321</b>	L.LARG DW CL AT 24 W SE 1H	1 h	NiCd 7.2 V 0.75 Ah	1 Pc	180 lm	1	0.6	6

\* Guaranteed minimum luminous flux according to EN 60598-2-22







#### **Lungaluce lens**

installed at a height of 3 m covers an escape route of 17.1 m with 1 lux along the centre line and  $> 0.5$  within 1 m



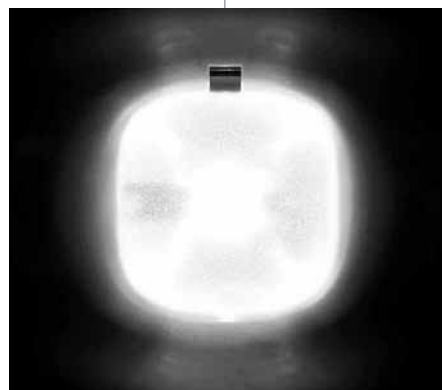
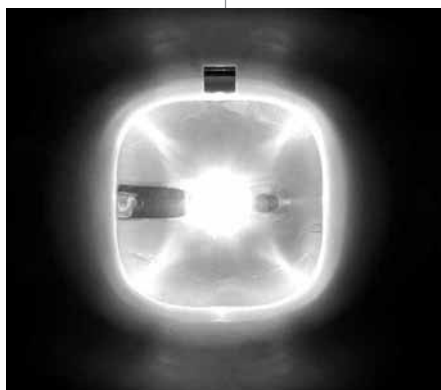
#### **Largaluce lens**

installed at a height of 3 m illuminates a surface area of  $11.3 \times 11.3$  m at 0.5 lux (128 m<sup>2</sup>)



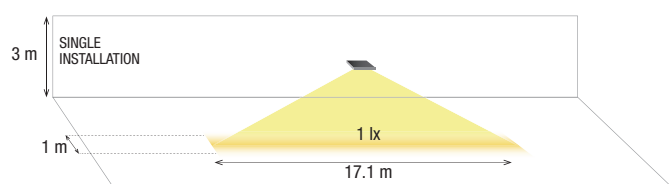
#### **Diffusaluce lens**

a wall mounted diffusa luce lens at a height of 2.5 m illuminates a surface area of  $7 \times 3$  m at 0.5 lux (21 m<sup>2</sup>)



# Lighting performance on the ground

## Lungaluce lens – installation at 3 m from the ground

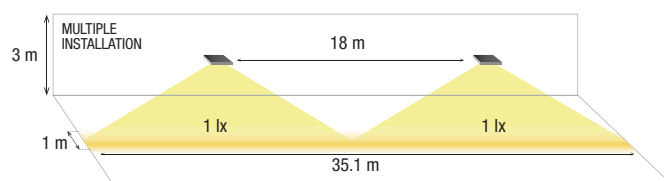


### Single installation

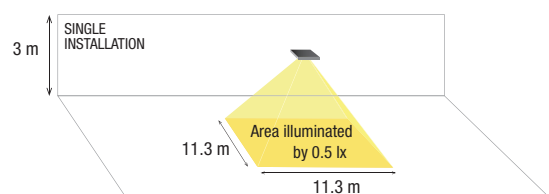
covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 within 1 m

### Multiple installation, centre distance of 18 m between fixtures

covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 within 1 m



## Largaluce lens – installation at 3 m from the ground

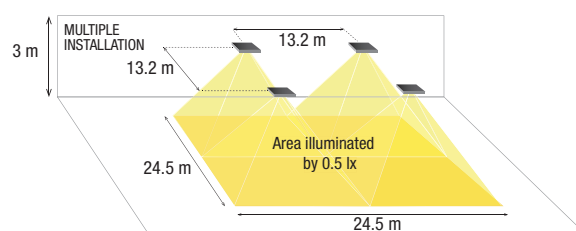


### Single installation

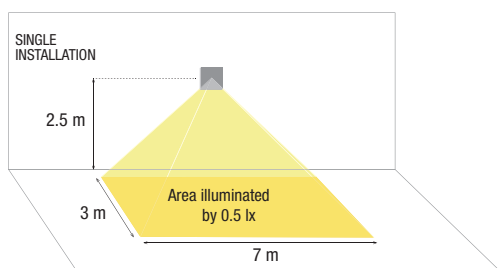
illuminates a surface area of 11.3 × 11.3 m at 0.5 lux (128 m²)

### Multiple installation, centre distance of 13.2 m between fixtures

lights up a surface area of 24.5 × 24.5 m at 0.5 lux (600 m²)



## Diffusaluce lens – installation at 2.5 m from the ground

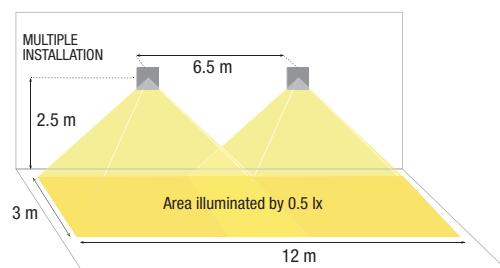


### Single installation

illuminates a surface area of 7 × 3 m at 0.5 lux (21 m²)

### Multiple installation, centre distance of 13.7 m between fixtures

illuminates a surface area of 12 × 3 m at 0.5 lux (36 m²)



LENS	Lamps	Coverage
<b>LUNGALUCE</b> <b>3 m</b>	1	Covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 lux within 1 metre from the centre line
	2	Centre distance of 18 m between luminaires covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 lux within 1 m from the centre line
<b>LARGALUCE</b> <b>3 m</b>	1	Covers a surface area of 11.3 × 11.3 m at least 0.5 lux except for 0.5 m around the perimeter
	4	Centre distances of 13.2 m cover a surface area of 24.5 × 24.5 m at least 0.5 lux except for 0.5 m around the perimeter
<b>DIFFUSALUCE</b> <b>2.5 m</b>	1	Covers a surface area of 7 × 3 m at least 0.5 lux except for 0.5 m around the perimeter
	2	Centre distance of 6.5 m covers a surface area of 12 × 3 m at least 0.5 lux except for 0.5 m around the perimeter

**New**

## Emergency LED module

A high-performance auxiliary fixture for emergency lighting. Operation is subject to the installation of a traditional lighting fixture where the LED module and relative inverter with battery set are installed. The kit has 3 special high-transparency plexiglas lenses, for the Lungaluce Altaluce and Largaluce versions, to obtain different dimensions of illuminated surface areas, and allow for an installation height from 3 to 7 metres. Each lens has a RAL 9010 white polycarbonate cover. The LED module has an elastic clip fastening system for T8 and T5 tubes. The high-efficiency LED has a die-cast aluminium heat sink.

Symbols see page 134

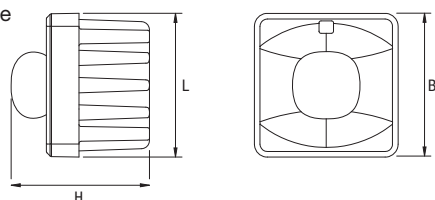
### Technical data

Mounting: universal application for ceiling, suspended and recessed lighting fixtures (T5 and T8 lamps)

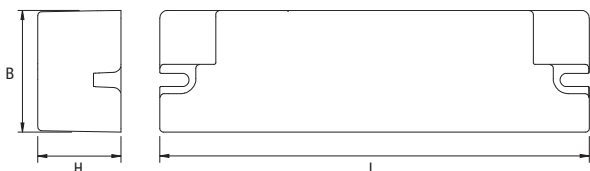
Body: white polycarbonate RAL 9010

Rated voltage: 230 V/50 Hz

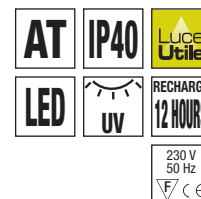
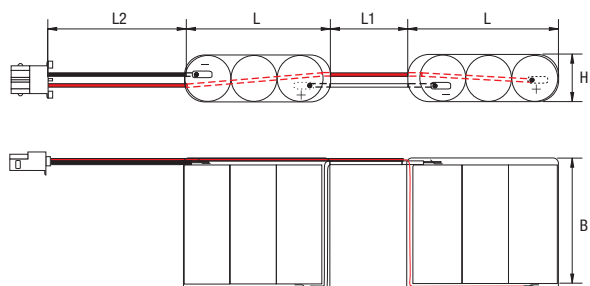
LED module



Inverter



Battery



	W	• Dimensions (mm) •				
		L	L1	L2	B	H
LED module with lens	T8, T5	35	–	–	35	33
Inverter	–	114	–	–	32	22
Battery	–	40	70	80	50	14.5

### ACCESSORIES: PROVIDED WITH

Code	Description
–	<b>3 lenses:</b> LUNGA, LARGA, ALTA with 3 different covers
–	2 springs for fixing on T8 and T5 tubes

### AutoTest

W	Code	Article	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/pcs
T8, T5	<b>19341</b>	MODULE EM LED AT SE 1N	SE	1 h	NiCd 7.2 V 0.75 Ah	1 Pc	180 lm	–	1 W	0.2	6

\* Minimum flow guaranteed according to EN 60598-2-22

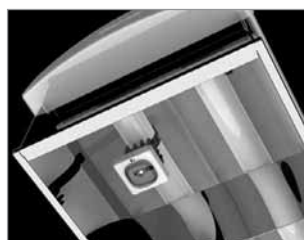
### INSTALLATION ON EQUIPMENT WITH T5 TUBES



Steel slips provided



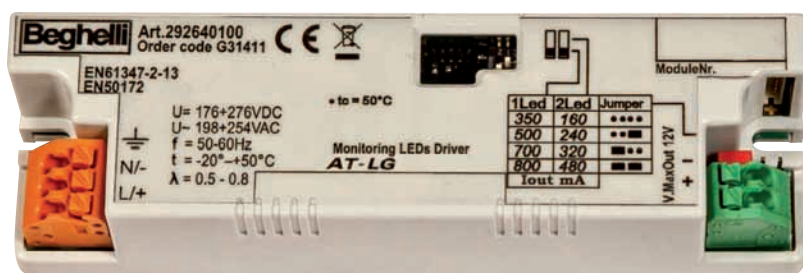
### INSTALLATION ON EQUIPMENT WITH T8 TUBES



Steel slips provided



# One fixture for several applications



Inverter provided



Battery set



## The Lungaluce lens

installed at a height of 3 m covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 within 1 m



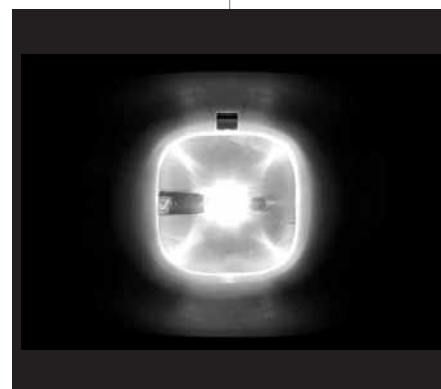
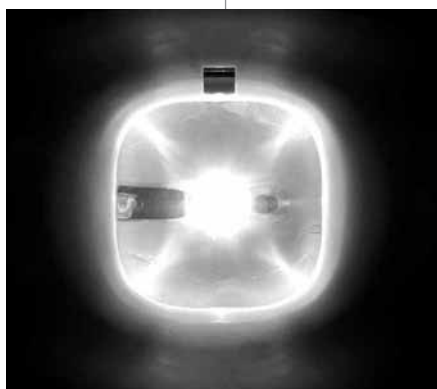
## The largaluce lens

installed at a height of 3 m illuminates a surface area of 11.3 × 11.3 m at 0.5 lux



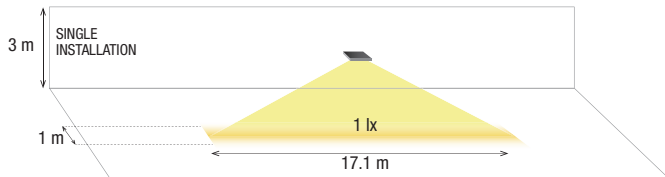
## The altaluce lens

installed at a height of 7 m lights up a surface area of 12.4 × 12.4 m at 0.5 lux



# Lighting performance on the ground

## Lungaluce lens – installation at 3 m from the ground

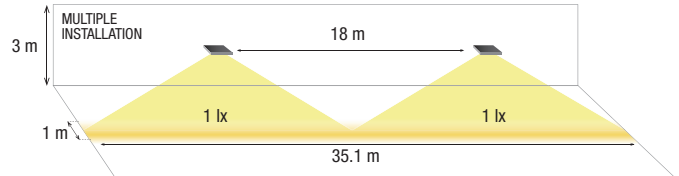


### Single installation

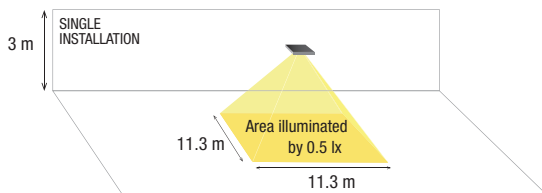
Covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 within 1 m

### Multiple installation, centre distance of 18 m between fixtures

Covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 within 1 m



## Largaluce lens – installation at 3 m from the ground

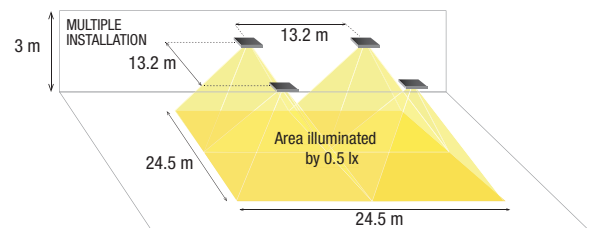


### Single installation

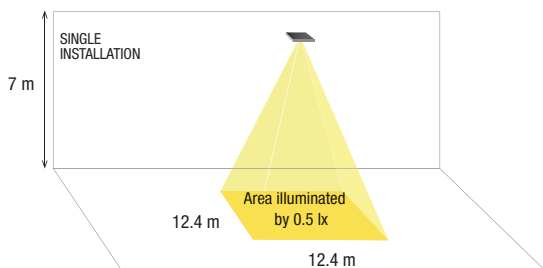
Illuminates a surface area of 11.3 × 11.3 m at 0.5 lux (128 m²)

### Multiple installation, centre distance of 13.2 m

Illuminates a surface area of 24.5 × 24.5 m at 0.5 lux (600 m²)



## Altaluce lens – installation at 7 m from the ground

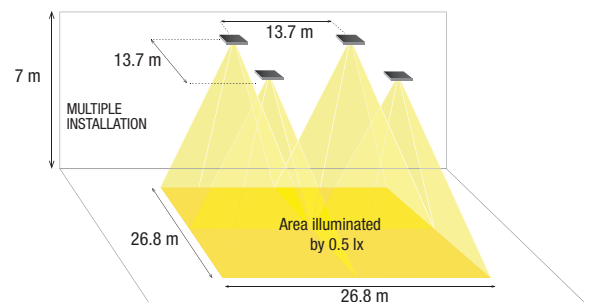


### Single installation

Lights up a surface area of 12.4 × 12.4 m at 0.5 lux (154 m²)

### Multiple installation, centre distance of 13.7 m

Illuminates a surface area of 26.8 × 26.8 m at 0.5 lux (718 m²)



LENS	Lamps	Coverage
<b>LUNGALUCE</b> <b>3 m</b>	1	Covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 lux within 1 metre from the centre line
	2	Centre distance of 18 m between luminaires covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 lux within 1 m from the centre line
<b>LARGALUCE</b> <b>3 m</b>	1	Covers a surface area of 11.3 × 11.3 m at least 0.5 lux except for 0.5 m around the perimeter
	4	Centre distances of 13.2 m cover a surface area of 24.5 × 24.5 m at least 0.5 lux except for 0.5 m around the perimeter
<b>ALTALUCE</b> <b>7 m</b>	1	Covers a surface area of 12.4 × 12.4 m at least 0.5 lux except for 0.5 m around the perimeter
	4	Centre distance of 14.4 m covers a surface area of 26.8 × 26.8 m at least 0.5 lux except for 0.5 m around the perimeter





**New**

# Indica LED 20m

Indica LED is the design solution for sign lighting requirements, with a high technological content for all types of applications. A back light system is used, and thanks to a patented optical system, sign illumination is as uniform as possible, and luminosity is excellent. The fixture is particularly versatile as it is supplied with a universal bracket that can be fitted on the long side, for ceiling mounting, and on the short side for double-sided wall mounting. A single-sided version is also available for above door installations. All Indica LED products have silk-screen printed opaline polycarbonate screens for easier installation and a very high single illuminance uniformity (over 500 cd/m<sup>2</sup>).

## Technical data

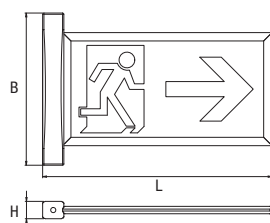
Mounting: on wall or ceiling with bracket, recessed into wall, suspended on wire or tube pendants

Body: aluminium frame and polycarbonate bracket RAL 7035

Rated voltage: 230 V/50 Hz

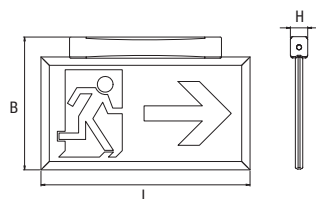
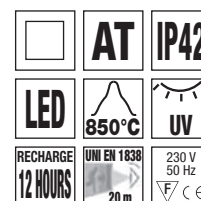
Specification: available in SA (Maintained)

Symbols see page 134



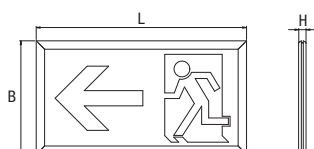
### Wall double-sided version

DV	• Dimensions (mm) •		
	L	B	H
20	266	252	36



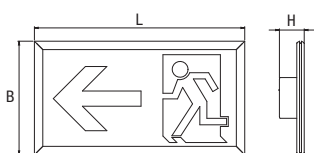
### Wall single-sided version

DV	• Dimensions (mm) •		
	L	B	H
20	235	166	36



### Recessed single-sided version

DV	• Dimensions (mm) •		
	L	B	H
20	235	135	15



### Ceiling double-sided version

DV	• Dimensions (mm) •		
	L	B	H
20	235	135	38

## ACCESSORIES: PROVIDED WITH

Code	Description
—	RIGHT/LEFT/DOWN screen

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>19380</b>	brackets 250 mm Indica DF
<b>19381</b>	brackets 500 mm Indica DF
<b>19382</b>	brackets 1000 mm Indica DF
<b>19383</b>	Indica DF 2 m wire suspension
<b>19384</b>	20 m false ceiling recessed bracket

W	Code	Article	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/pcs
2.1	<b>19303</b>	Indica LED DF20M AT SA 1/H	SA	1 h	NiMH 7.2 V 0.75 Ah	32 Pcs	192 lm	115 lm	3.5 W	0.52	6

\* Minimum flow guaranteed according to EN 60598-2-22

#### WALL DOUBLE-SIDED MOUNTING



#### CEILING DOUBLE-SIDED MOUNTING



#### HANGING DOUBLE-SIDED MOUNTING



**19383** wire suspension max 100, to be ordered separately



#### CEILING DOUBLE-SIDED MOUNTING WITH BRACKETS



**19380** brackets 250 mm Indica DF, to be ordered separately

**19381** brackets 500 mm Indica DF, to be ordered separately

**19382** brackets 1000 mm Indica DF, to be ordered separately

#### FALSE CEILING RECESSED DOUBLE-SIDED MOUNTING



Recessed hole dimensions:  
297 × 43 mm

**19384** 20 m false ceiling recessed bracket, to be ordered separately

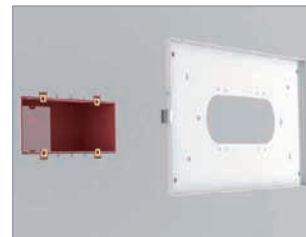
W	Code	Article	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/pcs
1	<b>19313</b>	Indica LED SF20M AT SA 1H	SA	1 h	NiCd 7.2 V 0.75 Ah	16 Pcs	96 lm	58 lm	2.6 W	0.65	6

\* Minimum flow guaranteed according to EN 60598-2-22

#### WALL MOUNTING



#### RECESSED WALL MOUNTING WITH RECESSED BOX





**New**

# Indica LED 30m

Indica LED is the design solution for sign lighting requirements, with a high technological content for all types of applications. A back light system is used, and thanks to a patented optical system, sign illumination is as uniform as possible, and luminosity is excellent. The fixture is particularly versatile as it is supplied with a universal bracket that can be fitted on the long side, for ceiling mounting, and on the short side for double-sided wall mounting. A single-sided version is also available for above door installations. All Indica LED products have silk-screen printed opaline polycarbonate screens for easier installation and a very high sign illuminance uniformity (over 500 cd/m<sup>2</sup>).

## Technical data

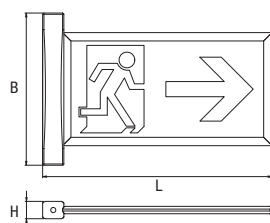
Mounting: on wall or ceiling with bracket, recessed into wall, suspended on wire or tube pendants

Body: aluminium frame and polycarbonate bracket  
RAL 7035

Rated voltage:  
230 V/50 Hz

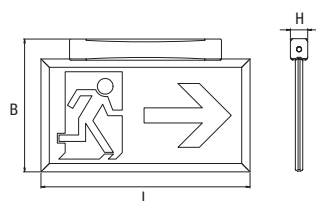
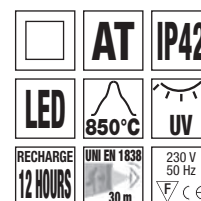
Specification: available  
in SA (Maintained)

Symbols see page 134



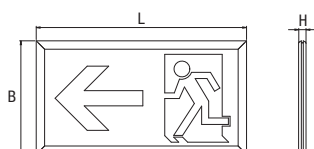
### Wall double-sided version

DV	• Dimensions (mm) •		
	L	B	H
30	366	252	36



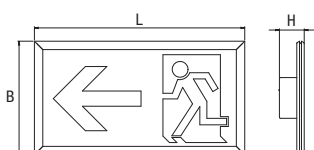
### Wall single-sided version

DV	• Dimensions (mm) •		
	L	B	H
30	335	216	36



### Recessed single-sided version

DV	• Dimensions (mm) •		
	L	B	H
30	335	185	15



### Ceiling double-sided version

DV	• Dimensions (mm) •		
	L	B	H
30	335	185	38

## ACCESSORIES: PROVIDED WITH

Code	Description
—	RIGHT/LEFT/DOWN screen

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>19380</b>	brackets 250 mm Indica DF
<b>19381</b>	brackets 500 mm Indica DF
<b>19382</b>	brackets 1000 mm Indica DF
<b>19383</b>	Indica DF 2 m wire suspension
<b>19386</b>	30 m false ceiling recessed bracket

W	Code	Article	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/pcs
3.2	<b>19302</b>	Indica LED DF30M AT SA 1/H	SA	1 h	NiMH 7.2 V 0.75 Ah	48 Pcs	288 lm	173 lm	4.2 W	0.8	6

\* Minimum flow guaranteed according to EN 60598-2-22

#### WALL DOUBLE-SIDED MOUNTING



#### CEILING DOUBLE-SIDED MOUNTING



#### HANGING DOUBLE-SIDED MOUNTING



**19383** wire suspension max 100, to be ordered separately



#### CEILING DOUBLE-SIDED MOUNTING WITH BRACKETS



**19380** brackets 250 mm Indica DF, to be ordered separately

**19381** brackets 500 mm Indica DF, to be ordered separately

**19382** brackets 1000 mm Indica DF, to be ordered separately



#### FALSE CEILING RECESSED DOUBLE-SIDED MOUNTING



Recessed hole dimensions:  
367 × 43 mm

**19384** 30 m false ceiling recessed bracket, to be ordered separately

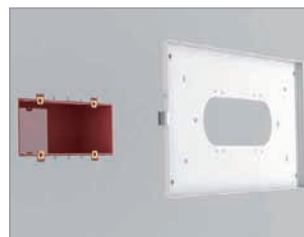
W	Code	Article	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/pcs
1.6	<b>19312</b>	Indica LED SF30M AT SA 1H	SA	1 h	NiCd 7.2 V 0.75 Ah	24 Pcs	144 lm	86 lm	3 W	1.1	6

\* Minimum flow guaranteed according to EN 60598-2-22

#### WALL MOUNTING



#### RECESSED WALL MOUNTING WITH RECESSED BOX





Fixture with an excellent lighting performance. LED light source with controlled beam lens. Monolithic optical assembly to protect from dust. Polycarbonate housing, high transparency screen. Wide-beam louver in metallic polycarbonate with complex faceting geometry and sequential reflection planes. Expanded EPDM sealing gasket, resistant to ageing and atmospheric agents. High-efficiency electronic circuit with SE (non-maintained) and SA (Maintained) versions, and 1 or 3 hours' duration.

Symbols see page 134

## Technical data

Mounting: on wall or ceiling,  
recessed mounting

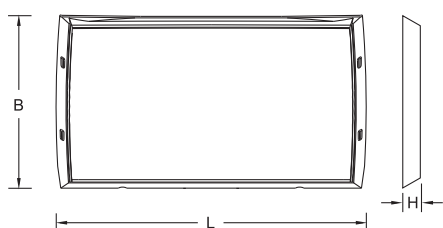
Body: white polycarbonate  
RAL 9010

Reflector: asymmetric  
polycarbonate

Diffuser: clear plastic

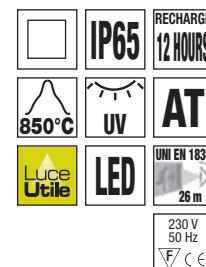
Rated voltage:  
230 V/50 Hz

Specification: available in  
SA (Maintained) and SE  
(Non maintained)



W**	• Dimensions (mm) •			Source
	L	B	H	
6	213	155	52	LED
8	355	180	58	LED
11	213	155	52	LED
18	355	180	58	LED
24	355	180	58	LED

\*\* Indicative power for comparison with fluorescent tube lighting



## ACCESSORIES: PROVIDED WITH

Code	Article	Description	Pcs
<b>3727</b>	4003/RG	tube clamp PG16/PG20	1
<b>12941*</b>		adhesive legend left, right, down 8/18/24 W	1

\* Adhesive legends are supplied for 8/18/24 W SA (Maintained) versions only.

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
<b>12942</b>	recess mounting kit 6/11 W	1
<b>12943</b>	recess mounting kit 8/18/24 W	1

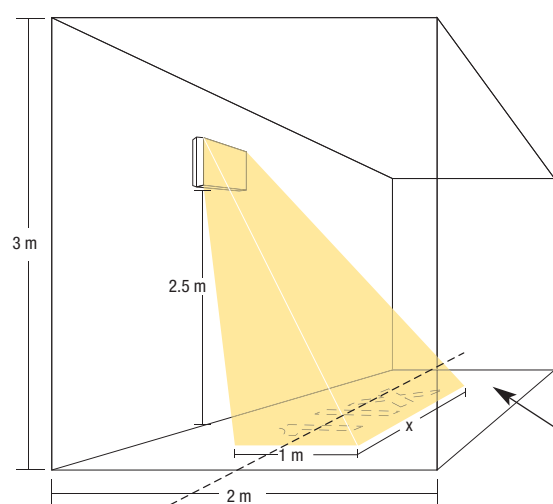
## AutoTest

	W	Code	Article	Version	Duration	Battery	LED	Luminous flux*	Absorption W	Kg	Pckg/pcs
03	6	<b>12950</b>	GRANLUCE LED IP65 AT 6 W SE1NRM	SE	1 h	NiCd HT 4.8 V 0.75 Ah PACK	1 Pc	58 lm	0.2 W	0.6	12
03	6	<b>12951</b>	GRANLUCE LED IP65 AT 6 W SE3NRM	SE	3 h	NiCd HT 4.8 V 1.7 Ah SC TYPE AA	1 Pc	58 lm	0.2 W	0.7	12
03	8	<b>12952</b>	GRANLUCE LED IP65 AT 8 W SE1NRM	SE	1 h	NiCd HT 6 V 0.75 Ah AA PACK	2 Pcs	60 lm	0.2 W	0.8	6
03	8	<b>12953</b>	GRANLUCE LED IP65 AT 8 W SE3NRM	SE	3 h	NiCd HT 7.2 V 1.7 Ah SC TYPE AA	2 Pcs	60 lm	0.2 W	0.9	6
03	8	<b>12954</b>	GRANLUCE LED IP65 AT 8 W SA1NRM	SA	1 h	NiCd HT 6 V 0.75 Ah AA PACK	2 Pcs	60 lm/45 lm	0.3 W	0.8	6
03	8	<b>12955</b>	GRANLUCE LED IP65 AT 8 W SA3NRM	SA	3 h	NiCd HT 7.2 V 1.7 Ah SC TYPE AA	2 Pcs	60 lm/45 lm	0.3 W	0.9	6
03	11	<b>12956</b>	GRANLUCE LED IP65 AT 11 W SE1NRM	SE	1 h	NiCd HT 4.8 V 0.75 Ah PACK	1 Pc	82 lm	0.2 W	0.6	12
03	11	<b>12957</b>	GRANLUCE LED IP65 AT 11 W SE3NRM	SE	3 h	NiCd HT 4.8 V 1.7 Ah SC TYPE AA	1 Pc	82 lm	0.2 W	0.7	12
03	18	<b>12960</b>	GRANLUCE LED IP65 AT 18 W SE1NRM	SE	1 h	NiCd HT 6 V 0.75 Ah AA PACK	2 Pcs	116 lm	0.2 W	0.8	6
03	18	<b>12961</b>	GRANLUCE LED IP65 AT 18 W SE3NRM	SE	3 h	NiCd HT 7.2 V 1.7 Ah SC TYPE AA	2 Pcs	116 lm	0.2 W	0.9	6
03	18	<b>12962</b>	GRANLUCE LED IP65 AT 18 W SA1NRM	SA	1 h	NiCd HT 6 V 0.75 Ah AA PACK	2 Pcs	116 lm/75 lm	0.3 W	0.8	6
03	18	<b>12963</b>	GRANLUCE LED IP65 AT 18 W SA3NRM	SA	3 h	NiCd HT 7.2 V 1.7 Ah SC TYPE AA	2 Pcs	116 lm/75 lm	0.3 W	0.9	6
03	24	<b>12964</b>	GRANLUCE LED IP65 AT 24 W SE1NRM	SE	1 h	NiCd HT 4.8 V 1.7 Ah SC TYPE AA	2 Pcs	142 lm	0.2 W	0.8	6
03	24	<b>12965</b>	GRANLUCE LED IP65 AT 24 W SE3NRM	SE	3 h	NiCd HT 7.2 V 1.7 Ah SC TYPE AA	2 Pcs	142 lm	0.2 W	0.9	6
03	24	<b>12966</b>	GRANLUCE LED IP65 AT 24 W SA1NRM	SA	1 h	NiCd HT 4.8 V 1.7 Ah SC TYPE AA	2 Pcs	142 lm/75 lm	0.3 W	0.8	6
03	24	<b>12967</b>	GRANLUCE LED IP65 AT 24 W SA3NRM	SA	3 h	NiCd HT 7.2 V 1.7 Ah SC TYPE AA	2 Pcs	142 lm/75 lm	0.3 W	0.9	6

\* In the case of LED lamps, the luminous flux remains constant throughout the duration of emergency operation: therefore, the lumen rating can be considered to correspond to the average flow.

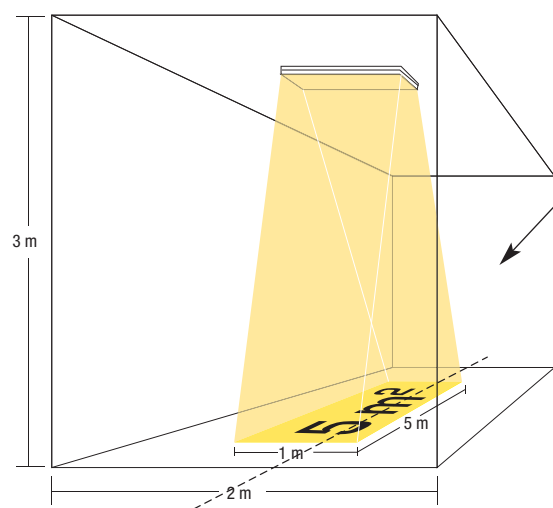


## Wall mounting



W	Code	Luminous lux	X
6	<b>12950</b>	2.04 lx	5.0 m <sup>2</sup>
8	<b>12952</b>	2.47 lx	5.5 m <sup>2</sup>
11	<b>12956</b>	2.84 lx	6.0 m <sup>2</sup>
18	<b>12960</b>	4.71 lx	6.5 m <sup>2</sup>
24	<b>12964</b>	5.71 lx	7.5 m <sup>2</sup>

## Ceiling mounting



Respect minimal illuminance level 1 lx on the floor at zero reflectance factors, required by EN 1838 for emergency illumination of escape ways.

W	Code	Luminous lux	X
11	<b>12956</b>	1.13 lx	5.0 m <sup>2</sup>
18	<b>12960</b>	1.20 lx	6.0 m <sup>2</sup>
24	<b>12964</b>	1.46 lx	7.0 m <sup>2</sup>



# Maxima



Emergency plastic luminaire with single-sided or double-sided design with a pictogram at 8 W T5 fluorescent lamp to mark escape routes. Due to the high coverage IP 54 is luminaire suitable for all kinds of indoor and outdoor applications. Mounting is designed on ceiling or wall or suspensions.

Symbols see page 134

## Technical data

Mounting: on wall or ceiling, suspended mounting

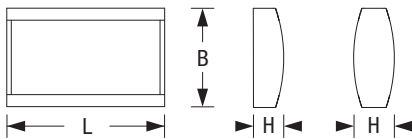
Body: polycarbonate

Rated voltage:

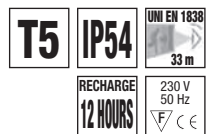
198–254 V/50 Hz

Specification: available with T5 8 W



Specification: available in SA (Maintained) and SE (Non maintained)



W	• Dimensions (mm) •			Source	Socket	Version
	L	B	H			
8	350	227	79.3	T5	G5	single-sided
8	350	227	90	T5	G5	double-sided



## ACCESSORIES: PROVIDED WITH

Code	Description
	
<b>FB16910</b>	 exit signs (set with 4 films)
<b>F95505</b>	adaptor for ceiling mounting
<b>F95506</b>	wall bracket

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>FB3723</b>	adaptor for wire or chain suspension
<b>F95510</b>	suspension profile 500 mm
<b>F95511</b>	suspension profile 1000 mm
<b>F95512</b>	suspension profile 1500 mm

W	Code	Duration	Battery	Ballast lumen factor	Kg	Pckg/ pcs
<b>Single-sided version</b>						
8	<b>NB90360</b>	1 h	NiCd 4.8 V 1.2 Ah	43 %	1.8	1
8	<b>NB90361</b>	3 h	NiCd 4.8 V 2.2 Ah	33 %	2.0	1
<b>Double-sided version</b>						
8	<b>NB90362</b>	1 h	NiCd 4.8 V 1.2 Ah	43 %	1.8	1
8	<b>NB90363</b>	3 h	NiCd 4.8 V 2.2 Ah	33 %	2.0	1

The luminaire is equipped with the emergency function test button.



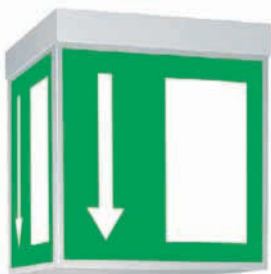


Illustration image

## Quader

Exit sign luminaire consisting of a square base and a cuboids transparent diffuser. Three sided exit route sign (ceiling mounting). Long range visibility due to large diffuser. Special features: Three sided exit route sign for large sized areas like supermarkets.

Symbols see page 134

### Technical data

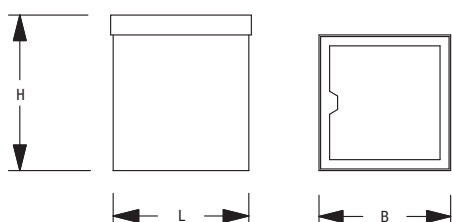
Mounting: ceiling or  
pendant mounting, wire or  
chain suspension

Body: polypropylene

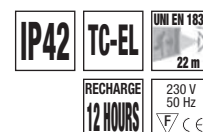
Diffuser: PMMA

Rated voltage:  
198–254 V/50 Hz

Specification: available in  
SA (Maintained) and SE  
(Non maintained)



W	• Dimensions (mm) •			Source	Socket
	L	B	H		
9	239	248	274	TC-EL	2G7



### ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>F15330N</b>	diffuser with exit sign DOWN
<b>F15331N</b>	diffuser with exit sign RIGHT
<b>F15332N</b>	diffuser with exit sign LEFT
<b>F95600</b>	pendant rod 250 mm
<b>F95601</b>	pendant rod 500 mm
<b>F95602</b>	pendant rod 1 000 mm
<b>F95400</b>	pendant rod
<b>F95401</b>	wire suspension kit
<b>F95210</b>	adaptor for pendant suspended mounting
<b>F95406</b>	adaptor for wire or chain suspension

W	Code	Duration	Battery	Ballast lumen factor	Kg	Pckg/ pcs
9	<b>NB90480</b>	1 h	NiCd 4.8 V 1.2 Ah	38 %	2.2	1
9	<b>NB90481</b>	3 h	NiCd 4.8 V 2.2 Ah	29 %	2.6	1

The luminaire is equipped with the emergency function test button.

# Titania



**New**

Professional emergency luminaire for tunnels equipped with LED light sources with high service life. The light is wall-mounted, made of high-quality stainless steel AISI 316Ti with internal glued-on ground screens from safety hardened glass, protection IP65. The fixture is fitted with LED light sources with long life. Power consumption in safe mode is 19 W. The unit is equipped with aluminium reflectors with ideal distribution of luminous flux. The fixture is used to indicate the escape routes and assist in the orientation of people in case of fire in the tunnel. The fixture is designed for connection to UPS.

Symbols see page 134

## Technical data

Mounting: on wall

Body: stainless steel

DIN 1.4571 (AISI 316 Ti)

Equipped with safety hardened glass 4 mm thick. Optical system from high-polished aluminium sheet. Rubber sealing from EPDM. Escape marking pictogram and side strips from UV-resistant polycarbonate with glued-on PVC foil.

Rated voltage:  
230 V/50 Hz

Operating temperature:  
ta -20 to +40 °C

Specification: The Titania tunnel luminaire is composed of two independent lighting circuits. The primary lighting circuit is designed for marking of escape routes and is equipped with 6 pcs of LEDs. The secondary light circuit is designed for orientation lighting and is equipped with 2 pcs of LEDs, supplied directly from the 230 VAC network.

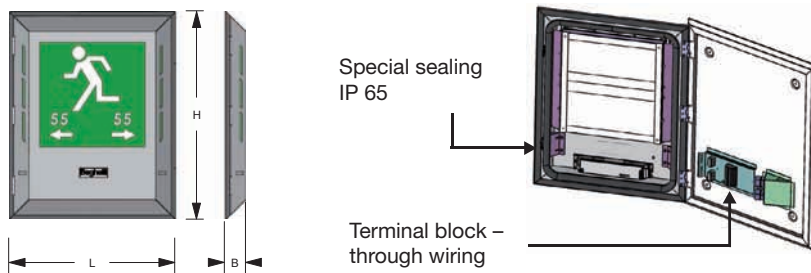
• Dimensions (mm) •			Source
L	B	H	
479	59.5	599	LED



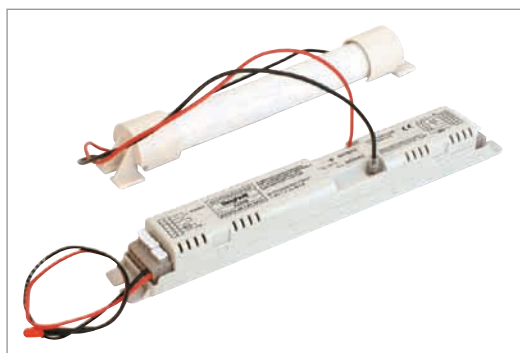
## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>99-0033</b>	light cover opening tool

**Escape marking pictogram dimensions: 300 x 300 mm. The values shown on the pictogram indicates the number of meters to the nearest emergency exit and will depend on each project based on its specific requirements.**



W	Code	Light input (escape signs)	Light input (escape signs + orientation light)	Luminous flux (escape signs)	Luminous flux (orientation light)	Kg	Pckg/pcs
8x LED	<b>48-909/023/N</b>	10 W	19 W	132 lm/LED	215 lm/LED	8.3	1



# Electroinverter

Electronic conversion kit for T5 and T8 fluorescent lamps. Easy to install within ceiling light fittings, it supplies them in the event of a power failure.

Symbols see page 134



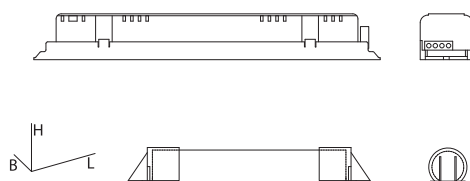
## Technical data

Recharging time: 12 h

LED indicating: the presence of power supply and activation of the recharge circuit

Operating temperature:  $t_a$  0–40 °C

Rated voltage: 230 V/50 Hz



Code	• Dimensions (mm) •		
	L	B	H
Inverter, T8			
<b>12478</b>	235	30	26
<b>12480, 12481</b>	230	30	26
<b>12482, 12483</b>	230	30	26
<b>12484, 12485</b>	230	30	26
<b>12486, 12487</b>	230	30	26
<b>12513</b>	232	40	36

Inverter, T5			
<b>12488, 12489</b>	230	30	26
<b>12490, 12491</b>	230	30	26
<b>12492, 12493</b>	230	30	26
<b>12494, 12495</b>	230	30	26

• Dimensions (mm) •			Ø	Type
L	B	H		
Battery, T8				
205			30	NiCd
340			37	NiCd
340			37	NiCd
200	45	45		Pb
200	45	45		Pb
210			30	NiCd

Battery, T5				
208		29		NiCd
340		37		NiCd
340		37		NiCd
200	45	45	Pb	

## T8

W	Code	Article	Duration	Battery	Pckg/pcs
18–58	<b>12478</b>	EL E843/18–58 4.8 V SA1N	1 h	NiCd 4.8 V 1.7 Ah	12
18–58	<b>12480</b>	EL E843/18–58 6 V SA1N	1 h	NiCd 6 V 4 Ah	12
18–58	<b>12482</b>	EL E843/18–58 6 V SA3N	3 h	NiCd 6 V 4 Ah	12
18–58	<b>12484</b>	EL E843/18–58 6 V SA1P	1 h	Pb 6 V 4 Ah	12
18–58	<b>12486</b>	EL E843/18–58 6 V SA3P	3 h	Pb 6 V 4 Ah	12
18–58	<b>12481</b>	EL E843/18–58 6 V SA1N RM	1 h	NiCd 6 V 4 Ah	12
18–58	<b>12483</b>	EL E843/18–58 6 V SA3N RM	3 h	NiCd 6 V 4 Ah	12
18–58	<b>12485</b>	EL E843/18–58 6 V SA1P RM	1 h	Pb 6 V 4 Ah	12
18–58	<b>12487</b>	EL E843/18–58 6 V SA3P RM	3 h	Pb 6 V 4 Ah	12
18–58	<b>12513</b>	839/18–58 W SA (Aestetica inv.)	1 h	NiCd 4.8 V 1.7 Ah	12

## T5

W	Code	Article	Duration	Battery	Pckg/pcs
14–24	<b>12488</b>	EL E843/14–24 4.8 V SA1N T5	1 h	NiCd 4.8 V 1.7 Ah	12
14–28	<b>12490</b>	EL E843/14–28 6 V SA3N T5	3 h	NiCd 6 V 4 Ah	12
28–80	<b>12492</b>	EL E843/28–80 6 V SA1N T5	1 h	NiCd 6 V 4 Ah	12
28–80	<b>12494</b>	EL E843/28–80 6 V SA1P T5	1 h	PB 6 V 4 Ah	12
14–24	<b>12489</b>	EL E843/14–24 4.8 V SA1N T5 RM	1 h	NiCd 4.8V 1.7 Ah	12
14–28	<b>12491</b>	EL E843/14–28 6 V SA3N T5 RM	3 h	NiCd 6 V 4 Ah	12
28–80	<b>12493</b>	EL E843/28–80 6 V SA1N T5 RM	1 h	NiCd 6 V 4 Ah	12
28–80	<b>12495</b>	EL E843/28–80 6 V SA1P T5 RM	1 h	PB 6 V 4 Ah	12



# References

Carmel tunnel in Israel – Kubus IP65



Prague Airport – terminal B







Logica Control Unit 48



Logica FM Control Unit 48



Logica Supervisor Unit 49



Inibit Control Unit 49



GSM Interface 50



LON Interface 50



USB/RS485 Converter 51



Ethernet/RS485 Converter 51



Logica FM Radio Circuit 51



Logica Visual Software 52



Logica 53



Logica LED 54



Acciaio LED 56



Pluraluce LED 58



Pluraluce LED 60



Emergency LED module 63



Indica LED 20 m 66



Indica LED 30 m 68



Maxima 70



Kubus IP65 71



Quader 72



Electroinverter Logica 73



Halogen Kit Logica 74



Power Pack NVG 75

**EMERGENCY  
LUMINAIRES AND  
EXIT SIGN LUMINAIRES  
OF THE SYSTEM LG  
AND LGFM**

**Beghelli**



## Components of LOGICA System

Self-contained emergency luminaries, exit sign and power packs enable the installation of emergency lighting systems in small, medium-sized and large areas. Additionally, the LOGICA system enables an automatic control and monitoring of the emergency lighting system.

### Concept:

- LOGICA control and monitoring system
- Emergency luminaries
- Exit sign luminaries
- External power packs
- Inverter kits incorporated into the luminaries

### Features:

- Modular system
- Luminaries fit both auto-test and central-test
- Programmable Test duration (1 h or 3 h)
- Deferred Test applicable to subset of the plant
- Connection via cable (LOGICA) or radio (LOGICA FM)
- LOGICA Control Unit can control and monitor exit signs, emergency luminaries, and power packs with the LOGICA interface or general lighting luminaries with the DALI interface.
- Optional monitoring from a PC via data or GSM network
- No manual addressing at luminaries or devices required
- 16 programmable control groups
- 16 programmable control scenarios
- Power packs fit:
  - Incandescent lamps
  - Halogen lamps with electronic or magnetic transformers
  - Fluorescent tubes with electronic or magnetic ballast

## The LOGICA System

LOGICA is a modular system for cost-effective monitoring and control of self-contained emergency lighting installations. It is designed to ensure the protective function of emergency lighting installations. Moreover, the LOGICA system ensures the testing of the emergency lighting system as according to different local or national regulations. LOGICA can be installed as an auto test or a central test system.

### AutoTest

In the auto test mode, emergency luminaries, exit signs, as well as power packs are self-contained components of the emergency lighting installation without any connection to a remote monitoring and control equipment. The duration can be set to 1 h or 3 h by coding in the luminary or in the device. An integrated test functionality automatically executes function tests and duration tests. A multicolour LED signals the operation mode (mains or battery mode, charging, switching to battery mode blocked or test triggering blocked) or irregularities (lamp, battery or charging fault) at all times.

### CentralTest

In the central test mode, monitoring and control of the emergency lighting installation is centralised. For this purpose, emergency luminaries, exit signs or power packs are connected either to an INIBIT Control Unit or to a LOGICA Control Unit or to a LOGICA FM Control Unit. Communications between the emergency luminaries, exit signs or power packs and the LOGICA Control Unit are based on a DALI compatible bus, on a radio connection for LOGICA FM Control Units. LOGICA Control Unit can also be used to control the luminaries of the general lighting installation featuring a DALI interface.

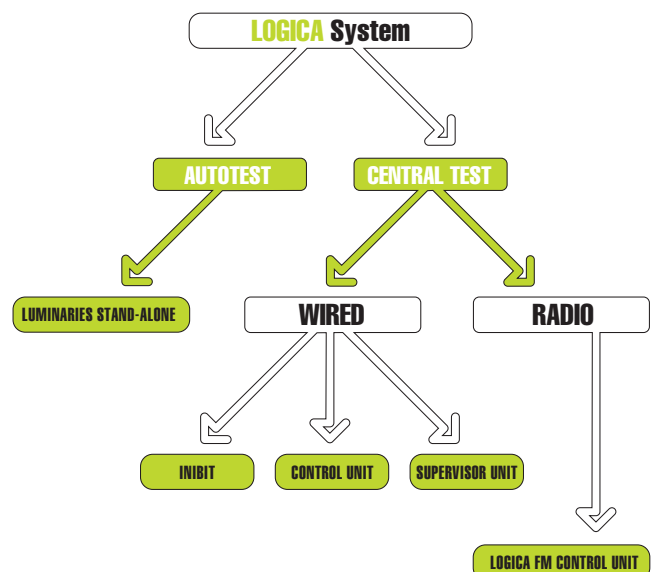
A maximum of 128 emergency luminaries, exit signs, power packs and luminaries with a DALI interface can be connected to a single LOGICA Control Unit. For centralised monitoring and control in largescale objects, it is possible to connect up to 32 LOGICA Control Units with a LOGICA Supervisor Unit leading to a maximum centralisation of 4096 devices.

Up to 992 exit signs or emergency luminaries can be connected to a single LOGICA FM Control Unit.

LOGICA, LOGICA Supervisor and LOGICA FM Control Units can be connected to a PC by using either a RS232/RS485 interface, a USB/RS485 interface, a Ethernet/RS485 interface or a wireless connection via a GSM interface.

The monitoring and control software for PC (Logica Visual) allows you to fulfill a centralised management of an unlimited number of systems. Moreover, integration into a building management system is possible via LON or EIB-CONNEX interfaces.

All emergency luminaries, exit signs or power packs have a unique identification number (4-digit code for LOGICA, 6-digit code for LOGICA FM). It is no longer needed to manually set the address to the luminary or device. The LOGICA Control Unit and the LOGICA FM Control Unit detect this unique identification number and automatically register the address. Supplied labels with the identification number (figure and bar code) enable to link the luminaries address with the identification number for the documentation.





## FM radio control

### Low-Power Spread-Spectrum radio waves which avoid electromagnetic pollution while offering high energy savings

The radio waves used by Logica System FM are extremely low power, so they do not generate any type of electromagnetic interference or pollution. The 2.4 GHz of power output is less than 1 hundredth of the power emitted by a normal mobile phone. All the products from this range fall into the categories defined by European Recommendation ERC/REC 70-03.

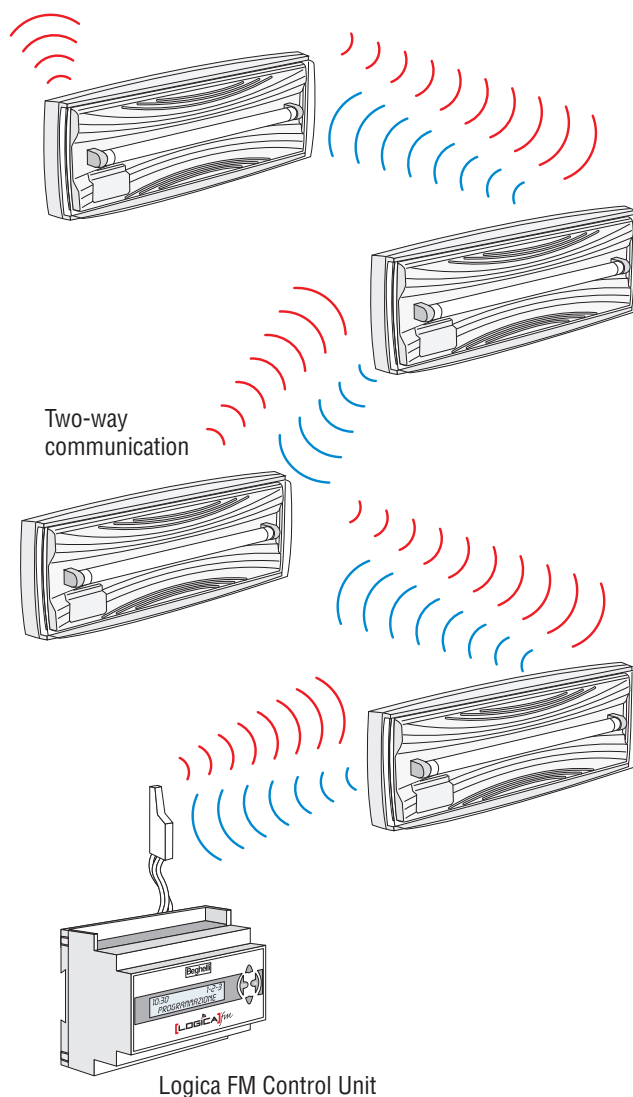
### Automatic routing of communication between the Control Unit and Luminaries

When the system is switched on, the Logica FM Control Unit sends out radio signals in order to recognize and determine the number and position of the installed light fixtures. The system's self-learning function automatically constructs an optimal dedicated "path" for each individual luminary. This process is launched automatically at start-up, without requiring any intervention on the installer's part, which considerably simplifies and speeds up work. The System has a capability of reorganizing the radio "path" any time the system configuration is changed.

### Unlimited range

The sequential repetition system developed by Beghelli has made it possible to achieve extremely high ranges despite the low power used. The signal transmitted by the Control Unit is received by the first luminary situated along the "path" memorized during the Control Unit start-up procedure. Each luminary, being equipped with a transceiver and radio amplifier, will receive and transmit the signal to the next luminary along the memorized "path". By using low-power radio waves, it is possible to guarantee a perfect reception of signals, regardless of the distance of the system extensions.

Signal repeated with the same intensity as the initial signal



## LOGICA VISUAL

### LOGICA/LOGICA FM Monitoring and Control software

The Logica Visual software enables centralised monitoring and control of complex emergency lighting systems, e.g. for large buildings or enterprises with many buildings at a single or several sites. A PC running the Logica Visual software can be connected to a centralised system governed by:

- LOGICA Control Units or
- LOGICA Supervisor Units or
- LOGICA FM Control Units

by means of:

- RS232/RS485 interface or
- USB/RS485 interface or
- Ethernet/RS485 interface or
- wireless by connecting a GSM Interface

### Configuration functions:

- Import of building plans as dxf or dwg format files.
- Schedule function and duration tests.
- Program the duration (1h or 3h) separately for each luminary / device.
- Allocation of emergency luminaires, exit sign or power packs featuring a LOGICA interface to the control groups 1 to 16.
- Allocation of general lighting luminaires featuring a DALI interface to the control groups 1 to 16.
- Program up to 16 different lighting scenarios.
- Schedule up to 16 events of activation for different scenarios.

### Visualisation functions:

- Numeric and graphic display of emergency luminaires, exit signs or power packs on building plans and luminary/device lists.
- Numerically and graphically indicate operational conditions and irregularities of emergency luminaires, exit signs, power packs and DALI luminaires.

- Luminary/device configurations
- Operating mode (mains/battery mode)
- Emergency mode suppression (on/off)
- Dimming (%)
- Irregularities (charging/battery/lamp)
- Test results
- Logbook

### Control functions:

- Manual control of emergency and general lighting in mains mode, individually or within the control groups 1 to 16.
- Manual dimming of the emergency and general lighting in mains mode, individually or within the control groups 1 to 16.
- Manual triggering of function and duration tests separately for each emergency luminaire, exit sign or power pack, or for the control groups 1 to 16.
- Manual control of the emergency mode suppression separately for each emergency luminaire, exit sign or power pack, or for the control groups 1 to 16.
- Manual activate scenarios 1 to 16 separately for each DALI luminaire and emergency luminaire (maintained mode only devices) or for the entire system.

### Hardware requirements:

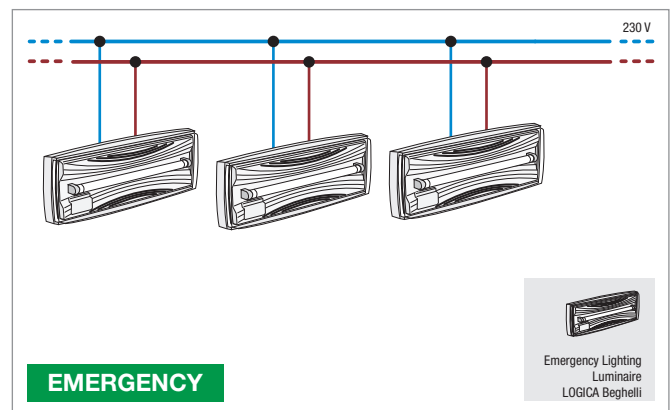
- IBM-compatible PC, Pentium II processor recommended, 166 MHz, 100 MB free hard disk capacity.

### Software requirements:

- Operating system Windows 98, Windows 2000, Windows XP or Windows NT.

## SYSTEM LOGICA AT (AutoTest)

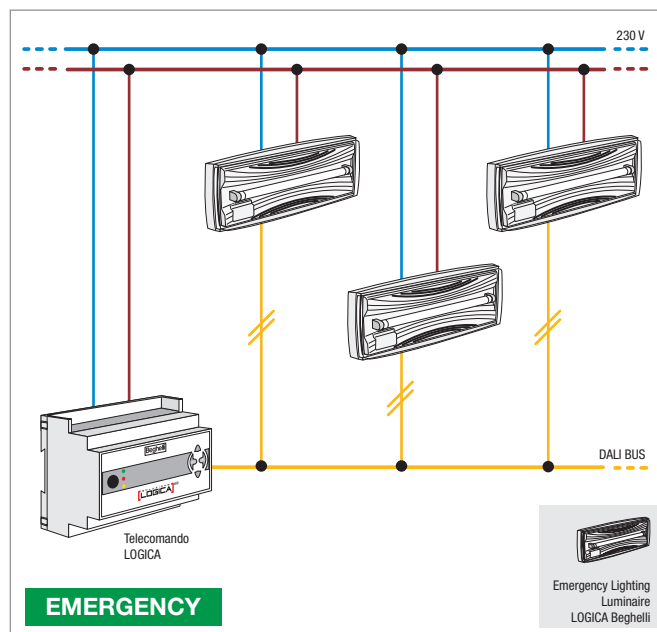
LOGICA Beghelli is an emergency lighting device that includes an intelligent circuit by means of which you can connect the systems which later manage and control the installation. This device may, at first, be installed without being connected to any other luminaires. In this case, the circuit is configured as "Auto Test" to provide you with a self-diagnosis of each luminaire. Through the multi-colored LED present in the parabolic, it is possible to receive information on the status of the luminaire functioning. If you decide to centralize the control system, it is not necessary to replace the luminaires; you can just integrate the system through the connection to a Central Logic Unit by using a BUS line (compatible with DALI).



## SYSTEM LOGICA AT INIBIT

Control Module INIBIT is used when the system requirements are limited to the following operations:

- Centralise Manual Tests
- Synchronise the test time for all luminaires/devices.
- Suppress emergency state for all luminaires/devices.
- Clear error indication at luminaires/devices.



## LOGICA SYSTEM CT via wire Up to 128 luminaires

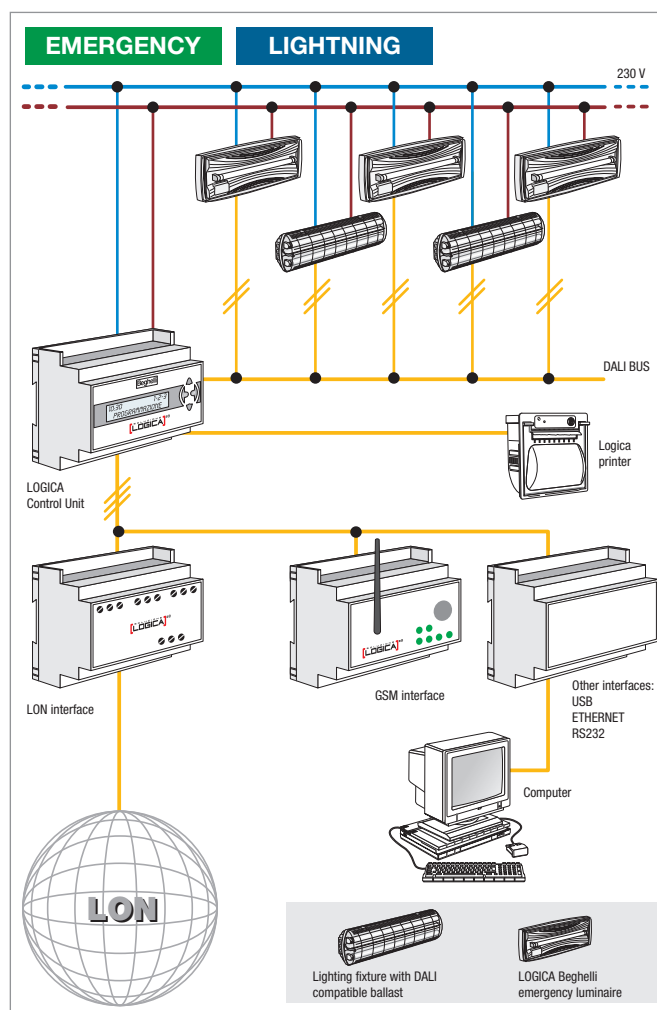
With the LOGICA Control Unit, it is possible to control and monitor both LOGICA series emergency luminaires and DALI lighting luminaires; it can monitor up to 128 devices. Via PC it is possible to manage a virtually unlimited number of LOGICA Control Units, allowing systems composed of a very large number of luminaires to be centralised under one single station.

### Options for the DALI lighting luminaires:

- Set-up of control groups (up to 16) to transmit several commands
- Light dimming.
- Management of preprogrammed scenarios to control lighting, according to requested functions. The Central LOGICA is equipped with four inputs to activate scenarios or groups through the use of suitable switches.
- Timer with a daily/weekly/monthly set-up to activate the various scenarios (for example, night light).

### Options for the LOGICA series emergency luminaires

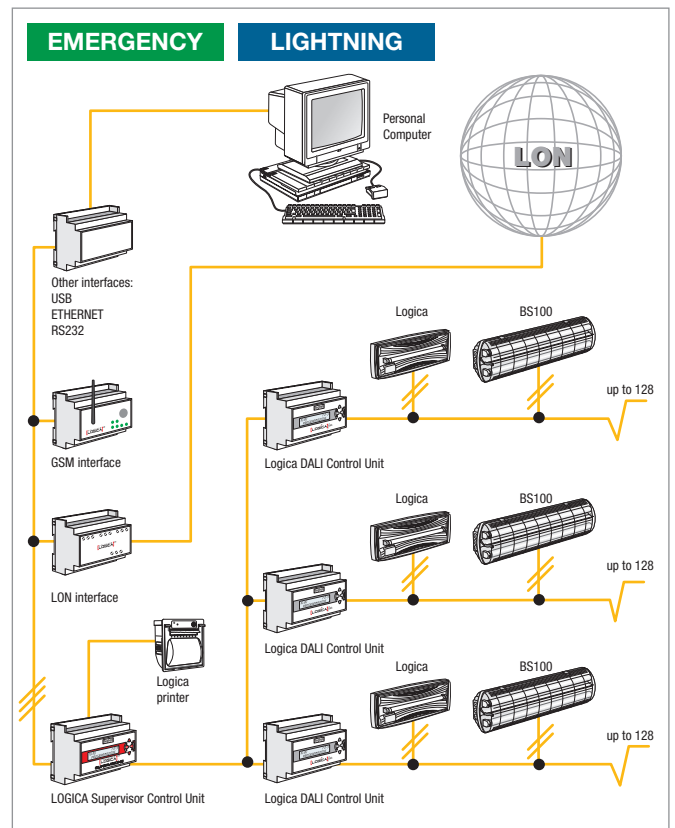
- Synchronization of test operations.
- Schedule of the Emergency Test functions.
- Manual test by single luminaire or by group.
- Reprogramming the autonomy of each luminaire (1–3 h).
- Set-up of control groups (up to 16) for allocation of different commands.
- Emergency inhibition by group or by single luminaire.
- Error management customized for each single luminaire and with description of battery type and fluorescent tube installed.
- Error cancellation.
- Lighting dimming (for maintained emergency luminaires only)
- Timer with daily/weekly/monthly set up to switch on and switch off for maintained emergency luminaires.



## LOGICA SYSTEM centralised on a LOGICA Supervisor Unit up to 4096 luminaries

It is possible to connect up to 32 LOGICA Control Units to LOGICA Supervisor Unit with a total of 4096 lighting and emergency luminaires. Moreover, the LOGICA Supervisor Unit can be connected to a local or remote PC. The Logica Supervisor Unit adds the following options to the LOGICA System:

- Centralised programming and monitoring of all connected LOGICA Control Units
- Centralised printing
- Logbook (Storage of test results for 2 years)

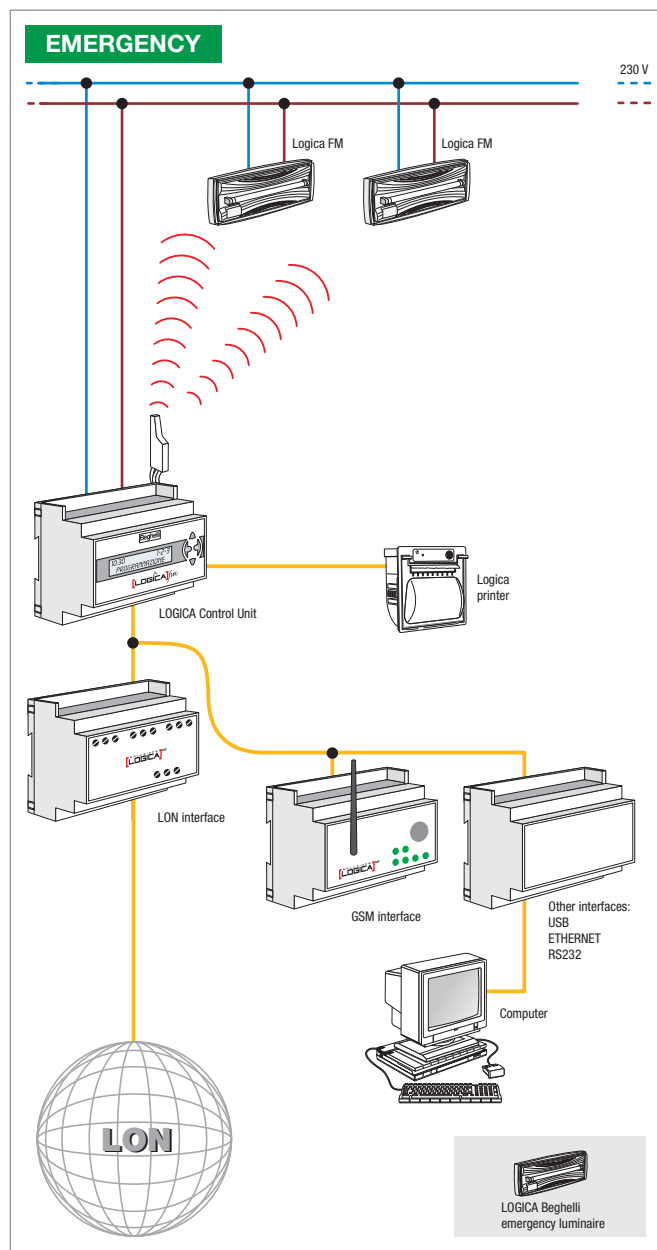


## LOGICA SYSTEM CT via Radio Up to 992 luminaires

Having the LOGICA FM control units, gives you the possibility to control and monitor emergency luminaires of the LOGICA FM series. Via PC it is possible to manage a virtually unlimited number of LOGICA FM Control Units, allowing the system with a large number of luminaires to be centralised under a single station.

### Options for the LOGICA FM series emergency luminaires

- Schedule of the Emergency Test functions
- Synchronization of test operations
- Manual test by single luminaire or by group
- Emergency inhibition by group or by single luminaire
- Reprogramming the autonomy of each luminaire (1–3 h)
- Set-up of control groups (up to 16) for different commands' allocation
- Error management customized for each single luminaire and with description of battery type and luminaire installed
- Error cancellation
- Lighting dimming (for maintained emergency luminaires only)
- Logbook (Storage of test results for 2 years)







## Logica Control Unit

Logica series control unit – 9 DIN modules Module for monitoring and control of a maximum of 128 exits, emergency luminaires, or power packs featuring a LOGICA interface, or general lighting luminaires with the DALI interface (a single unit can manage a maximum of 64 DALI light fixtures). Display with scroll menu Parameter input and indication via front panel with 2×16 character display and 4 control buttons. Control inputs: 4 switching inputs, isolated. Interface RS485. Direct connection of LOGICA-PRINTER or LOGICA Supervisor Unit module. Connection to a PC via USB, or Ethernet, or RS232, or GSM interface.

Symbols see page 134

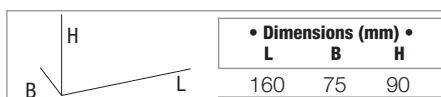
### Technical data

Mounting: DIN rail

Degree of protection: IP 20

Material: plastic

Electrical class: II



Code	Type	Duration	Battery	Kg	Pckg / pcs
<b>12100 (FB16300)</b>	LOGICA CONTROL UNIT	5 h	NiCd 7.2 V 0.75 Ah	0.6	1

IF YOU REQUIRE TO PROGRAM THIS PRODUCT IN A CERTAIN LANGUAGE, PLEASE SELECT ORDER CODE FROM MENU BELOW:

**12100GB** CENTRAL LOGICA ENGLISH

**12100F** CENTRAL LOGICA FRENCH

**12100D** CENTRAL LOGICA GERMAN

**12100CZ** CENTRAL LOGICA CZECH



## Logica FM Control Unit

Logica series control unit with an external transceiver module. The unit can autonomously manage an emergency system comprising up to 992 luminaires. Display with scroll menu. Occupies 9 DIN modules.

Symbols see page 134

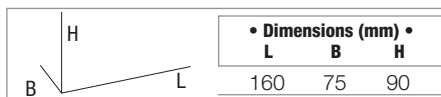
### Technical data

Mounting: DIN rail

Degree of protection: IP 20

Material: plastic

Electrical class: II



Code	Type	Duration	Battery	Kg	Pckg / pcs
<b>12128 (FB16303)</b>	LOGICA FM CONTROL UNIT	5 h	NiCd 7.2 V 0.75 Ah	0.8	1



## Logica Supervisor Unit

Module for central monitoring and control of max. 32 monitoring and control modules. Connection via a 3-wire cable. Parameter input and indication via front panel with 2x16 character display and 4 control buttons. Interface: RS232 interface for PC connection. Supervisor unit for simultaneous control of a number of Logica control units (max 32). Display with a scroll print menu. Occupies 9 DIN modules.

Symbols see page 134

### Technical data

Mounting: DIN rail

Degree of protection: IP 20

Material: plastic

Electrical class: II

	• Dimensions (mm) •		
	L	B	H
	160	75	90

230 V  
50 Hz  
CE



Code	Type	Duration	Battery	Kg	Pckg / pcs
<b>12131 (FB16305)</b>	SUPERVISOR UNIT	5 h	NiCd 7.2 V 0.75 Ah	0.6	1



## Inibit Control Unit

Module to control a maximum of 128 exit signs and emergency luminaires. Power packs featuring a LOGICA interface. Connection via a double-wire cable. Inibit centralised remote control unit for switching off the emergency lighting system. It allows the clearing of error signals and test synchronisation.

Symbols see page 134

### Technical data

Mounting: DIN rail

Degree of protection: IP 20

Material: plastic

Electrical class: II

	• Dimensions (mm) •		
	L	B	H
	160	75	90

230 V  
50 Hz  
CE



Code	Type	Duration	Battery	Kg	Pckg / pcs
<b>12101 (FB16301)</b>	INIBIT LOGICA REMOTE CONTROL	5 h	NiCd 7.2 V 0.75 Ah	0.5	1



## GSM Interface

Device for interfacing with a Logica lighting system (either DALI or FM), via a remote computer and GSM network. Complete with telecontrol software to be installed on the remote PC, you want to control the system from. Occupies 9 DIN modules.

Symbols see page 134

### Technical data

Mounting: DIN rail

Degree of protection: IP 20

Material: plastic

Electrical class: II

	• Dimensions (mm) •		
	L	B	H
	160	75	90

230 V  
50 Hz  
CE



Code	Type	Duration	Battery	Kg	Pckg/pcs
<b>12132 (FB16306)</b>	LOGICA GSM INTERFACE	1 h	NiCd 7.2 V 0.75 Ah	—	1



## LON Interface

Device for interfacing and supervision of a Logica lighting system via a LON-type Building Automation system. Occupies 6 DIN modules.

Symbols see page 134

### Technical data

Mounting: DIN rail

Degree of protection: IP 20

Material: plastic

Electrical class: II

	• Dimensions (mm) •		
	L	B	H
	105	75	90

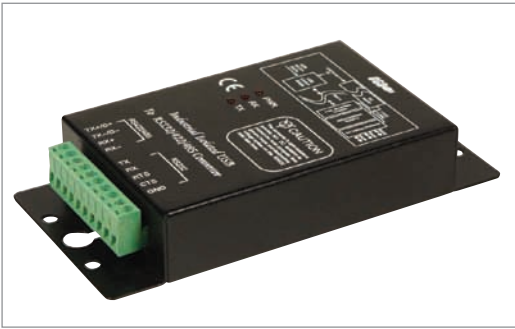
CE



Code	Type	Duration	Battery	Kg	Pckg/pcs
<b>12140 (FB12140)</b>	LOGICA LON INTERFACE	—	—	—	1

For information on product availability, please contact the Beghelli-Elplast sales department.

## USB/RS485 Converter



Interface for connecting a PC with any Logica control unit or system. Occupies 6 DIN modules.

Symbols see page 134

### Technical data

Mounting: surface mounting  
(dimension of 6 DIN modules)

Material: metal  
Electrical class: II

• Dimensions (mm) •		
L	B	H
150	75	26

CE

**LOGICA**

Code	Type	Duration	Battery	Kg	Pckg/pcs
12136 (FB16319)	USB/RS485 CONVERTER	–	–	0.4	1

## Ethernet/RS485 Converter



Interface for connecting a PC with any Logica control unit or system.

Symbols see page 134

### Technical data

Material: plastic  
Electrical class: II

• Dimensions (mm) •		
L	B	H
87	56	30

230 V  
50 Hz  
CE

**LOGICA**

Code	Type	Duration	Battery	Kg	Pckg/pcs
12135 (FB12135)	ETHERNET RS485 CONVERTER	–	–	0.5	1

## Logica FM Radio Circuit



High-frequency transceiver module for spread spectrum radio transmission. The radio circuit can be connected to all compatible products from the LOGICA range. Module for wireless communication between exit sign, emergency luminaires, or power packs, and a LOGICA and LOGICA FM monitoring and control station. Accommodated within the luminaires/devices (for luminaires/devices with plastic body) or attached to the luminaires/devices (for luminaires/devices with metallic body). Connection to luminaires/devices via cable with plug-type connector (cable length: 250 mm).

Symbols see page 134

### Technical data

Mounting: built-in/attached  
Material: plastic  
Degree of protection: IP 20

• Dimensions (mm) •		
L	B	H
70	10	40

CE

**LOGICA**

Code	Type	Duration	Battery	Kg	Pckg/pcs
12130 (FB16304)	LOGICA FM MODULE RADIO CIRCUIT	–	–	–	1



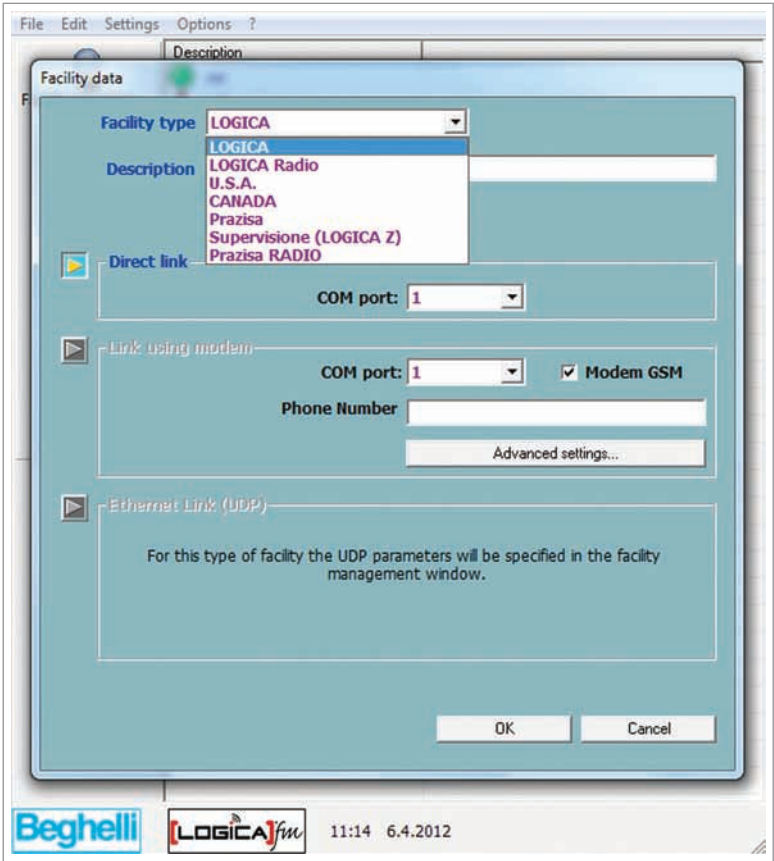
# Logica Visual Software

Software for the management of one or more centralised DALI lighting and emergency lighting systems. Layouts can be imported in standard formats and completed with the positioning of the various normal and emergency light fixtures. The video interface enables the user to act directly on the lighting fixtures and view their status. It allows all control unit operations to be executed remotely: it is possible to automatically obtain a report on the system status. Reports can be stored so as to create a historical record of the status of the various systems.

Symbols see page 134

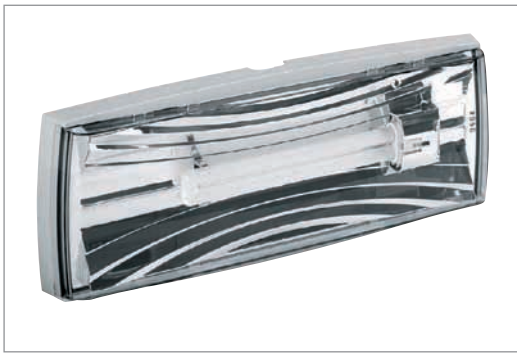


Code	Type	Pckg / pcs
12139 (SWB16310)	SOFTWARE LOGICA VISUAL	1





# Logica



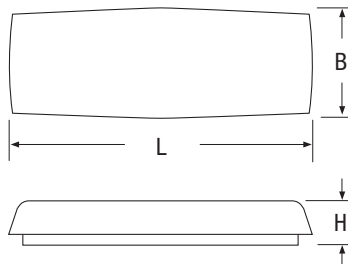
## Technical data

Mounting: ceiling or wall mounting, recessed mounting

Body: self-snuffing plastic (standard EN 60598-1, UL 94)

Rated voltage: 198–254 V/50 Hz

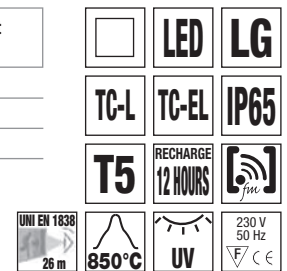
Specification: available in SA (Maintained) and SE (Non maintained)



LOGICA Beghelli presents another exclusive new offering: it is the first emergency luminaire whose duration can be set according to need. It enables the user to adjust the required parameter (1h or 3 h) by applying the jumper provider directly to the circuit (1 h or 3 h). Exit sign and emergency luminaire in a functional cover, consisting of a body with convex contours and a flat transparent cover. Light distribution by mirror reflector from aluminised plastic with complex shape. One-sided exit route sign (recessed wall and wall mounting). Luminaires supplied with three exit sign films and recess box. Wall and ceiling installation with mounting bracket. Recessed installation with box and frame Designed for installation with Ø16 and Ø20 tubes. EN 60598-1, EN 60598-2-22, UNI EN 1838. Functional look, wide beam light distribution, high light output ratio, suited for an exit route signalling or exit route lighting, choice of surface or recessed mounting, surface mounting via quick-fix adapter with integrated bubble level.

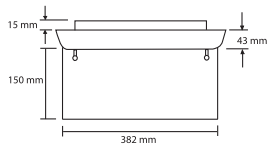
Symbols see page 134

W	• Dimensions (mm) •			Source	Socket
L	B	H			
8	406	147	81	T5	G5
11	406	147	81	TC-EL	2G7
24	406	147	81	TC-L	2G11



## Logica sign

Code	Type
<b>12102S</b>	LOGICA SIGN LG 8W SE 1-3P
<b>12103S</b>	LOGICA SIGN LG 11W SE 1-3P
<b>12104S</b>	LOGICA SIGN LG 24W SE 1-3P
<b>12105S</b>	LOGICA SIGN LG 8W SA 1-3P
<b>12106S</b>	LOGICA SIGN LG 11W SA 1-3P
<b>12107S</b>	LOGICA SIGN LG 24W SA 1-3P



## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Article	Description	Pcs
	3283-SN		1
<b>3966</b>	3282-DS	additional adhesive legends	1
	3287-BS	(for SA versions supplied with luminaire)	1
<b>FB16909</b>		additional adhesive legends (German standard)	1
<b>12194</b>	312449000	Logica luminaire grid	1
<b>12193</b>	161300312	Logica false ceiling bracket	1

## ACCESSORIES: PROVIDED WITH

Code	Article	Description	Pcs
—	—	Logica 1 tube clamp	1
<b>12198</b>	16110408	recessed box LOGICA IP65	1
<b>12199</b>	162300311	bracket for quick wall mounting	1

**[LOGICA]**

W	Code	Type	Version	Duration	Battery	Medium flux SE	Medium flux SA	Max. absorption	Kg	Pckg/pcs
8	<b>12102</b>	LOGICA LG 8 W SE 1-3P	SE	1/3 h	Pb 6 V 4 Ah	354/210 lm	—	10 VA	2.4	6
11	<b>12103</b>	LOGICA LG 11 W SE 1-3P	SE	1/3 h	Pb 6 V 4 Ah	538/218 lm	—	10 VA	2.4	6
24	<b>12104</b>	LOGICA LG 24 W SE 1-3P	SE	1/3 h	Pb 6 V 4 Ah	608/305 lm	—	10 VA	2.5	6
8	<b>12105</b>	LOGICA LG 8 W SA 1-3N	SA	1/3 h	NiCd 7.2 V 2.2 Ah	336/189 lm	340/340 lm	12 VA	2.1	6
8	<b>NB16311*</b>	LOGICA LG 8 W SA 1-3N	SA	1/3 h	NiCd 7.2 V 2.2 Ah	336/189 lm	340/340 lm	12 VA	2.1	6
11	<b>12106</b>	LOGICA LG 11 W SA 1-3N	SA	1/3 h	NiCd 7.2 V 2.2 Ah	429/155 lm	590/590 lm	12 VA	2.1	6
24	<b>12107</b>	LOGICA LG 24 W SA 1-3N	SA	1/3 h	NiCd 7.2 V 2.2 Ah	565/181 lm	450/450 lm	15 VA	2.1	6

\* In order to transform this product into LOGICA FM, it is necessary to order the product 12130 (FB16304).

**[LOGICA]**<sup>fm</sup>



W	Code	Type	Version	Duration	Battery	Medium flux SE	Medium flux SA	Max. absorption	Kg	Pckg/pcs
8	<b>12102FM</b>	LOGICA LG FM 8 W SE 1-3P	SE	1/3 h	Pb 6 V 4 Ah	354/210 lm	—	10 VA	2.5	6
11	<b>12103FM</b>	LOGICA LG FM 11 W SE 1-3P	SE	1/3 h	Pb 6 V 4 Ah	538/218 lm	—	10 VA	2.5	6
24	<b>12104FM</b>	LOGICA LG FM 24 W SE 1-3P	SE	1/3 h	Pb 6 V 4 Ah	608/305 lm	—	10 VA	2.6	6
8	<b>12105FM</b>	LOGICA LG FM 8 W SA 1-3N	SA	1/3 h	NiCd 7.2 V 2.2 Ah	336/189 lm	340/340 lm	12 VA	2.2	6
11	<b>12106FM</b>	LOGICA LG FM 11 W SA 1-3N	SA	1/3 h	NiCd 7.2 V 2.2 Ah	429/155 lm	590/590 lm	12 VA	2.2	6
24	<b>12107FM</b>	LOGICA LG FM 24 W SA 1-3N	SA	1/3 h	NiCd 7.2 V 2.2 Ah	565/181 lm	450/450 lm	15 VA	2.2	6

# Logica LED



**New**

## Technical data

Mounting: on ceiling or wall, recessed mounting

Body: self-snuffing plastic (standard EN 60598-1, UL 94)

Degree of protection: IP 65

Rated voltage: 230 V/50 Hz

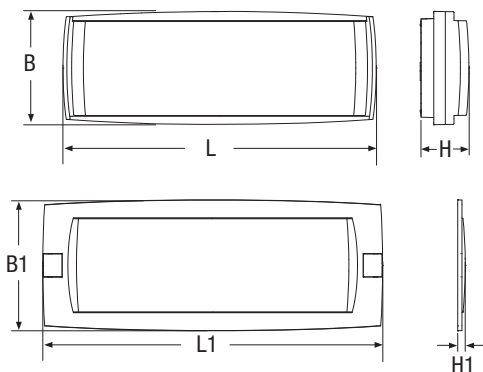
Specification: available in SA (Maintained) and SE (Non maintained), PS (with reduced lighting output)

This emergency luminaire features an extremely sophisticated electronic technology. The Logica LED is the only emergency luminaire supplied as a centralised version (LG, LGFM), with the Autotest (AT) version automatically configuring if it is not connected to a control unit. Individual luminaires can also be manually tested, using a magnet with the magnetic switch below the screen. This technology makes it possible to immediately test luminaire efficiency.

The circuit also allows for the fixture to be customised to requirements. Duration can be adjusted, (1h/2h/3h) and Maintained versions can be changed to Public venue versions, adjusting light intensity to the venue requirements. This provides an excellent solution when safety signs are the only objects that are visible. The sign must be immediately identifiable, stylish, minimal and with uniform components. A symmetrical and extremely uniform illumination make the Logica LED ideal for wall or ceiling mounting, without an established direction, or for recessed mounting, with the kit provided that includes a box and wire cover.

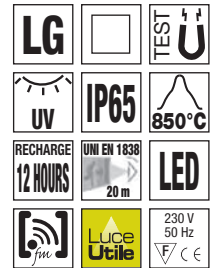
The housing contains a dual reflection optic which integrates two series of ultraefficient LEDs to deliver an unprecedented lighting performance (up to 600 lm). The highly transparent polycarbonate screen has been designed to seal the optical unit and provide an IP rating of IP65.

Symbols see page 134



W**	• Dimensions (mm) •						Source
	L	B	H	L1	B1	H1	
8	406	147	63	440	170	10	LED
11	406	147	63	440	170	10	LED
24	406	147	63	440	170	10	LED

\*\* Indicative power for comparison with fluorescent tube lighting



## ACCESSORIES: PROVIDED WITH

Code	Description	Pcs
—	Logica tube clamp	1
12198	Recessed box IP65 with wire cover frame	1
12199	Bracket for quick wall mounting	1
12175*	Logica RIGHT screen	1
12176*	Logica LEFT screen	1
12177*	Logica DOWN screen	1

\* only for SA/PS versions

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
12194	Logica lamp grille	
12193	Logica false ceiling bracket	
12175	Logica RIGHT screen	1
12176	Logica LEFT screen	1
12177	Logica DOWN screen	1

**[LOGICA]**

(AT if not connected to a control unit)

W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/pcs
8	12182	LOG LED LG 8 W SE 1/2/3H	SE	1/2/3 h	Pb 6 V 2.2 Ah	30 Pcs	400/200/150 lm	—	3 W	2.4	6
8	12185	LOG LED LG 8 W SA/PS 1/2/3H	SA/PS	1/2/3 h	NiCd 7.2 V 2.2 Ah	30 Pcs	400/200/150 lm	300 lm	3/13 W	2.4	6
11	12183	LOG LED LG 11 W SE 1/2/3H	SE	1/2/3 h	Pb 6 V 2.2 Ah	30 Pcs	500/300/200 lm	—	3 W	2.4	6
11	12186	LOG LED LG 11 W SA/PS 1/2/3H	SA/PS	1/2/3 h	NiCd 7.2 V 2.2 Ah	30 Pcs	500/300/200 lm	400 lm	3/14 W	2.4	6
24	12184	LOG LED LG 24 W SE 1/2/3H	SE	1/2/3 h	Pb 6 V 2.2 Ah	30 Pcs	600/350/250 lm	—	3 W	2.4	6
24	12187	LOG LED LG 24 W SA/PS 1/2/3H	SA/PS	1/2/3 h	NiCd 7.2 V 2.2 Ah	30 Pcs	600/350/250 lm	500 lm	3/16 W	2.4	6

\* Minimum flow guaranteed according to EN 60598-2-22

**[LOGICA]fm**

(AT if not connected to a control unit)

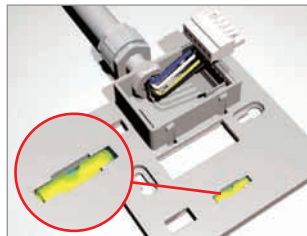
W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/pcs
8	12182FM	LOG LED LGFM 8 W SE 1/2/3H	SE	1/2/3 h	Pb 6 V 2.2 Ah	30 Pcs	400/200/150 lm	—	4/14 W	2.4	6
8	12185FM	LOG LED LGFM 8 W SA/PS 1/2/3H	SA/PS	1/2/3 h	NiCd 7.2 V 2.2 Ah	30 Pcs	400/200/150 lm	300 lm	14 W	2.4	6
11	12183FM	LOG LED LGFM 11 W SE 1/2/3H	SE	1/2/3 h	Pb 6 V 2.2 Ah	30 Pcs	500/300/200 lm	—	4/15 W	2.4	6
11	12186FM	LOG LED LGFM 11 W SA/PS 1/2/3H	SA/PS	1/2/3 h	NiCd 7.2 V 2.2 Ah	30 Pcs	500/300/200 lm	400 lm	15 W	2.4	6
24	12184FM	LOG LED LGFM 24 W SE 1/2/3H	SE	1/2/3 h	Pb 6 V 2.2 Ah	30 Pcs	600/350/250 lm	—	4/17 W	2.4	6
24	12187FM	LOG LED LGFM 24 W SA/PS 1/2/3H	SA/PS	1/2/3 h	NiCd 7.2 V 2.2 Ah	30 Pcs	600/350/250 lm	500 lm	17 W	2.4	6

\* Minimum flow guaranteed according to EN 60598-2-22

#### WALL MOUNTING WITH QUICK-FIT BRACKET AND BUBBLE LEVEL



**12199** bracket for quick wall mounting



provided with

#### MAGNETIC SWITCH FOR LOCAL MANUAL DIAGNOSIS



– REED bulb and magnetic key provided



provided with

#### RECESSED MOUNTING



**12198** LOGICA IP65 recessed box



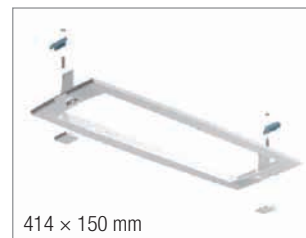
recessed mounting hole:  
430 × 165 mm

provided with

#### FALSE CEILING AND PLASTERBOARD MOUNTING



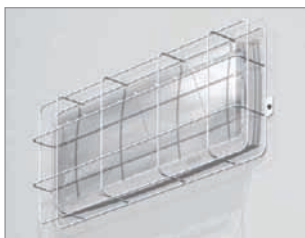
**12193** Logica false ceiling bracket



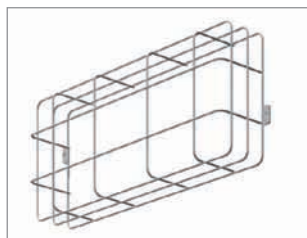
414 × 150 mm

MUST BE ORDERED SEPARATELY

#### LOGICA LUMINAIRE GRID



**12194** Logica lamp grille



MUST BE ORDERED SEPARATELY

#### LOGICA SCREENS



**12175** Logica PS RIGHT screen

**12176** Logica PS LEFT screen

**12177** Logica PS DOWN screen



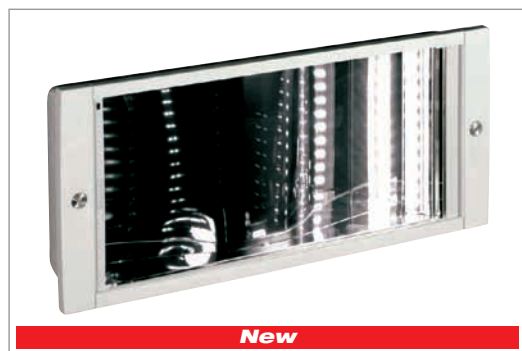
MUST BE ORDERED SEPARATELY

MUST BE ORDERED SEPARATELY

MUST BE ORDERED SEPARATELY



# Acciaio LED



## Technical data

Mounting: on wall or ceiling, recessed mounting with box

Body: die-cast aluminium

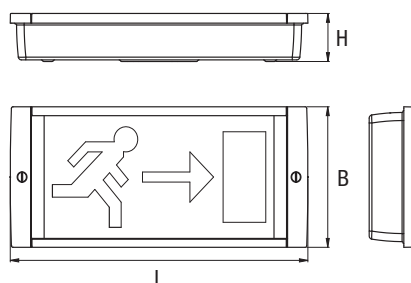
Reflector: symmetrical, polished aluminium

Diffuser: hardened glass

Rated voltage: 230 V/50 Hz

Specification: available in SA (Maintained) and SE (Non maintained) and PS (with reduced lighting output)

In industrial areas, the product has its ideal location in explosive environment installations, due to gas or flammable dust in the air (ATEX 94/9/CE).



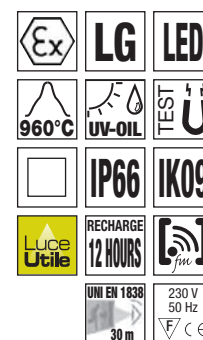
Acciaio LED features a high technological content for particularly complex applications in high risk areas. The die-cast aluminium housing and glass screen have an excellent mechanical strength (IK09) and resist well to aggressive chemical agents. In industrial applications, the fixture is ideal for installation in areas with explosive atmospheres caused by gaseous alterations or airborne combustible dust (as indicated in the ATEX Directive 94/9/EC). The reflector is in 99.99 % antiridescant polished aluminium, with a dual reflection optical system for more uniform illumination. The dual series of highperformance LEDs has a special extra lens, to make screen illumination even more uniform. The Acciaio Beghelli also features a revolutionary lamp test system: a magnetic switch allows for manual testing of the operation of one fixture, by moving a magnet close to it, to immediately test efficiency.

The safety sign version of the Acciaio LED has an additional opaline polycarbonate screen for easier installation, which also guarantees extremely uniform sign illumination (over 500 cd/m<sup>2</sup>). The range also includes a number of measures for easier installation, such as: an incorporated bubble level, a quick-fit system, feed through wiring, dual wire entry for each terminal, stainless steel, wide-head screws.

Symbols see page 134

W**	• Dimensions (mm) •			Source
L	B	H		
8-24	391	174	59.5	LED

\*\* Indicative power for comparison with fluorescent tube lighting



## ACCESSORIES: PROVIDED WITH

Code	Description	Pcs
15009	RH/LH low screen (version SE AT excluded)	1

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
15010	RH/LH flag screen	1
15011	DH flag screen	1
15012	false ceiling / recessed bracket	1
15016	bracket for flag installation	1
15017	ATEX kit	1

**[LOGICA]**

W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption	W Kg	Pckg/ pcs
8	15004	ACC LED 8 W SE/SA/PS LG 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	24 Pcs	160/160/90 lm	112 lm	1/3.5 W	2.5	6
24	15006	ACC LED 24 W SE/SA/PS LG 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	24 Pcs	224/224/125 lm	157 lm	1/6.5 W	2.5	6

\* Indicative power just for fluorescent fixtures comparison purpose

**[LOGICA]**<sub>fm</sub>



W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption	W Kg	Pckg/ pcs
8	15005	ACC LED 8 W SE/SA/PS LGFM 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	24 Pcs	160/160/90 lm	112 lm	2/4.5 W	2.5	6
24	15007	ACC LED 24 W SE/SA/PS LGFM 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	24 Pcs	224/224/125 lm	157 lm	2/7.5 W	2.5	6

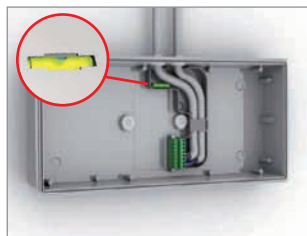
\* Indicative power just for fluorescent fixtures comparison purpose



## WALL/CEILING INSTALLATION – FAST TERMINAL AND LEVEL INDICATOR



Terminal for cables from 1 to 2.5 mm<sup>2</sup> with two inputs for each terminal



## RECESSED WALL INSTALLATION



**15012** bracket for recessed installation



MUST BE ORDERED SEPARATELY

## FLAG CEILING INSTALLATION/FALSE CEILING INSTALLATION



**15010** housing + flag screen RH/LH

**15011** housing + flag screen low

**15012** false ceiling / recessed bracket



to be ordered separately

to be ordered separately

to be ordered separately

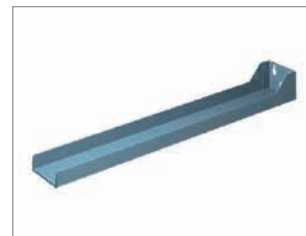
## WALL FLAG INSTALLATION



**15016** bracket for flag installation

**15010** housing + flag screen LH/RH

**15011** housing + flag screen low



to be ordered separately

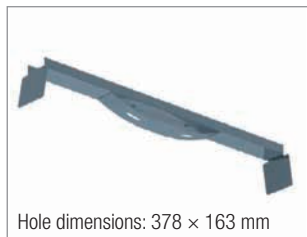
to be ordered separately

to be ordered separately

## CEILING RECESSED INSTALLATION



**15012** false ceiling / recessed bracket



Hole dimensions: 378 × 163 mm

MUST BE ORDERED SEPARATELY

## MAGNETIC FIXTURE TEST BUTTON

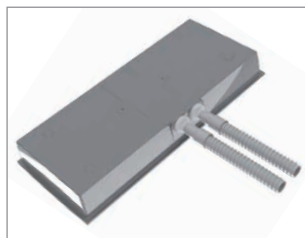


– REED ampoule and magnetic key



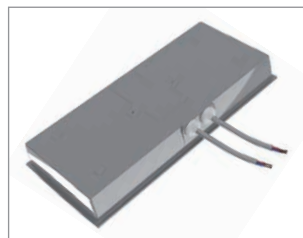
supplied with

## INVISIBLE CONNECTOR



supplied with

## IP PLUG FOR WIRING



supplied with







## Pluraluce LED

LED fixture for high performance emergency lighting, with special high-transparency plexiglas lenses kit, for both the Lungaluce and Largaluce versions, to obtain different dimensions of illuminated areas. Each lens has a white polycarbonate cover with fixing system for different types of false ceilings. High-efficiency LEDs, die-cast aluminium housing with integrated heat sink. Environmentally friendly NiMH Batteries are components of the fixture. The luminaire is capable of performing self-control autotests or to be managed by Logica control unit. Duration 1–2–3 hrs.

Symbols see page 134

### Technical data

Mounting: recessed into ceiling

Material: white polycarbonate RAL 9010

Optical part: High-transparency plexiglas optical lenses

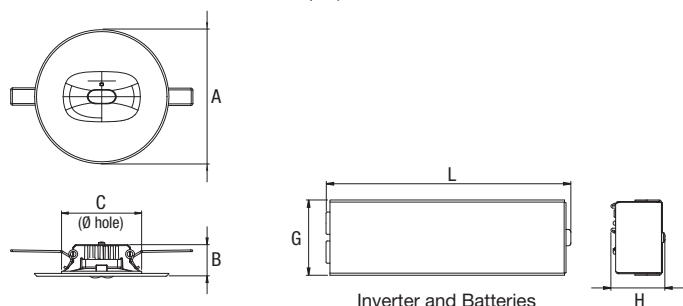
Degree of protection: IP 43

Rated voltage: 230 V/50 Hz

Specification: available in SA (Maintained) and SE (Non maintained) and PS (with reduced lighting output)

W**	A	B	• Dimensions (mm) •				Source
			C	L	G	H	
24	120	28	80–100	204	63	46	LED

\*\* Indicative power for comparison with fluorescent tube lighting



### ACCESSORIES: PROVIDED WITH

Code	Description
–	LUNGALUCE lens with cover
–	LARGALUCE lens with cover



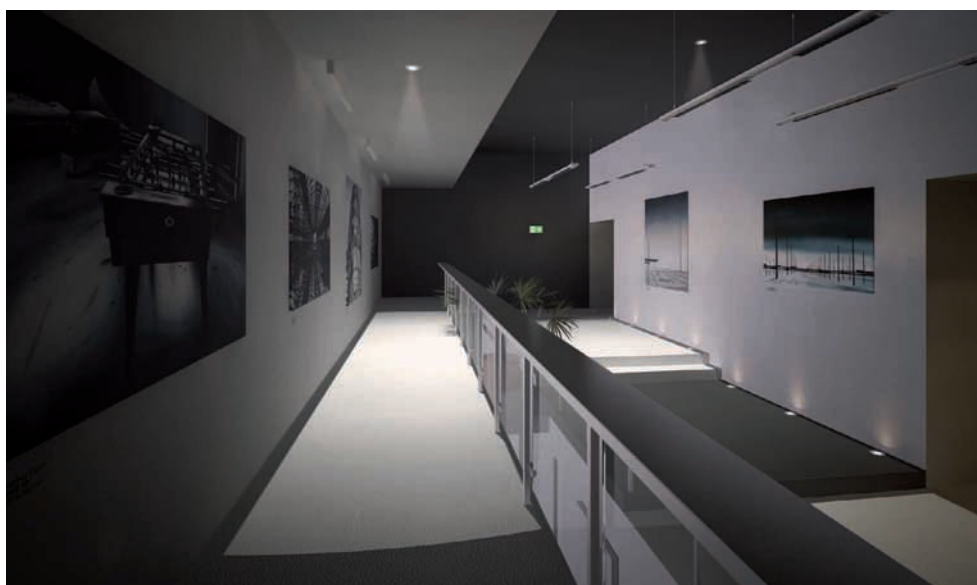
W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W Kg	Pckg/ pcs
24	19332	L.LARG DW RC LG 24 W SE/SA/PS 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	1 Pc	180/180/100 lm	126 lm	1/6.5 W 0.8	6

\* Minimum flow guaranteed according to EN 60598-2-22



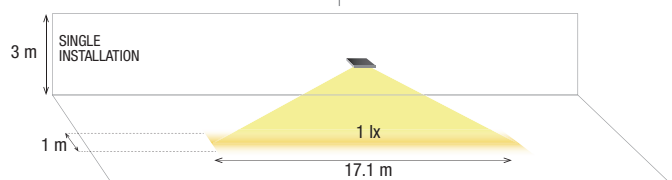
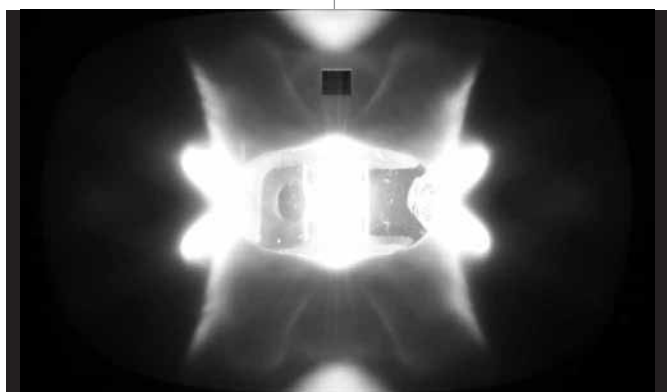
W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W Kg	Pckg/ pcs
24	19333	L.LARG DW RC LGFM 24 W SE/SA/PS 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	1 Pc	180/180/100 lm	126 lm	2/7.5 W 0.8	6

\* Minimum flow guaranteed according to EN 60598-2-22



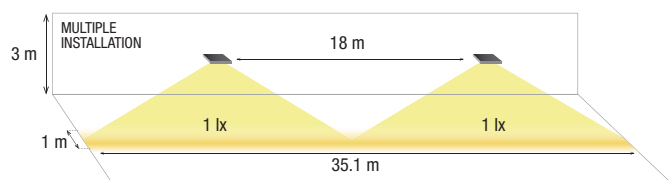


### LUNGALUCE LENS



#### Single installation

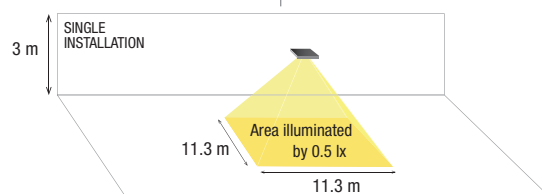
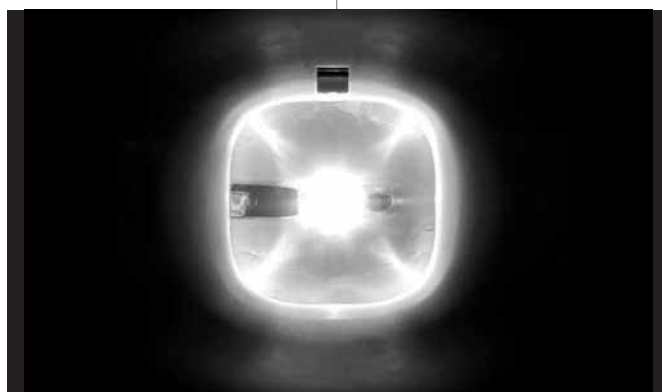
covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 within 1 m



#### Multiple installation, centre distance of 18 m between fixtures

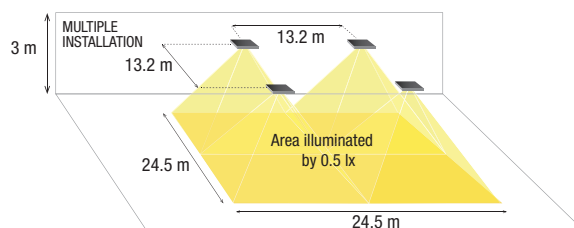
covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 within 1 m

### LARGALUCE LENS



#### Single installation

illuminates a surface area of 11.3 × 11.3 m at 0.5 lux (128 m²)



#### Multiple installation, centre distance of 13.2 m between fixtures

lights up a surface area of 24.5 × 24.5 m at 0.5 lux (600 m²)

# Pluraluce LED



**New**

Fixture for high performance emergency lighting, with special high-transparency plexiglas lenses kit, for both the Lungaluce, Largaluce and Diffusaluce versions, to obtain different dimensions of illuminated areas. Each lens has white polycarbonate housing. High-efficiency LEDs, die-cast aluminium housing with integrated heat sink. Environmentally friendly NiMH Batteries are components of the fixture. The luminaire is capable of performing self-control autotests or to be managed by Logica control unit. Duration 1–2–3 hrs.

Symbols see page 134

## Technical data

Mounting: surfaced on ceiling

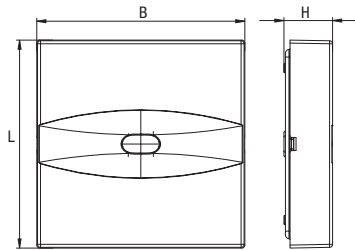
Body: white polycarbonate RAL 9010

Optical part: High-transparency plexiglas optical lenses

Degree of protection: IP 42

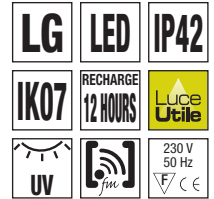
Rated voltage: 230 V/50 Hz

Specification: available in SA (Maintained) and SE (Non maintained) and PS (with reduced lighting output)



W**	• Dimensions (mm) •			Source
	L	B	H	
24	137	137	32	LED

\*\* Indicative power for comparison with fluorescent tube lighting



## ACCESSORIES: PROVIDED WITH

Code	Description
—	LUNGALUCE lens with cover
—	LARGALUCE lens with cover
—	DIFFUSALUCE lens with cover



W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/ pcs
24	19322	L.LARG DW CL LG 24 W SE/SA/PS 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	1 Pc	180/180/100 lm	126 lm	1/6.5 W	0.6	6

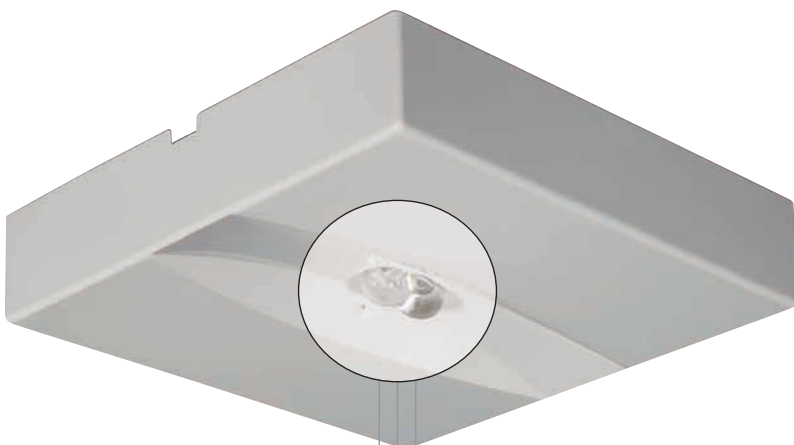
\* Minimum flow guaranteed according to EN 60598-2-22



W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/ pcs
24	19323	L.LARG DW CL LGFM 24 W SE/SA/PS 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	1 Pc	180/180/100 lm	126 lm	2/7.5 W	0.6	6

\* Minimum flow guaranteed according to EN 60598-2-22





#### **Lungaluce lens**

installed at a height of 3 m covers an escape route of 17.1 m with 1 lux along the centre line and  $> 0.5$  within 1 m



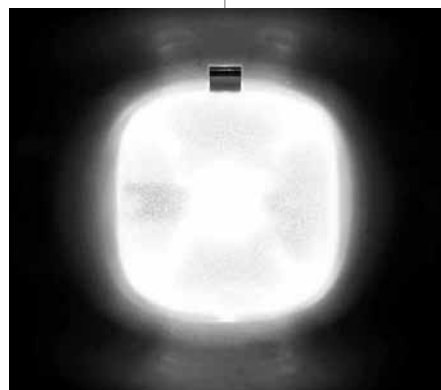
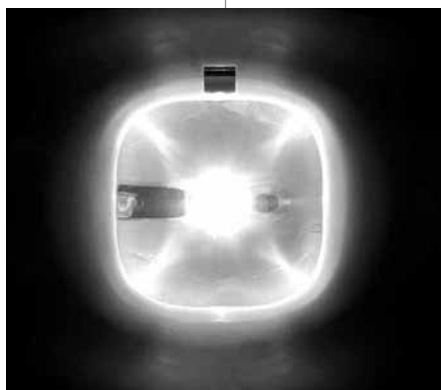
#### **Largaluce lens**

installed at a height of 3 m illuminates a surface area of  $11.3 \times 11.3$  m at 0.5 lux ( $128 \text{ m}^2$ )



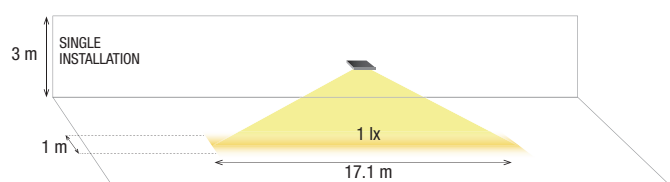
#### **Diffusaluca lens**

A wall mounted diffusa luce lens at a height of 2.5 m illuminates a surface area of  $7 \times 3$  m at 0.5 lux ( $21 \text{ m}^2$ )



# Lighting performance on the ground

## Lungaluce lens – installation at 3 m from the ground

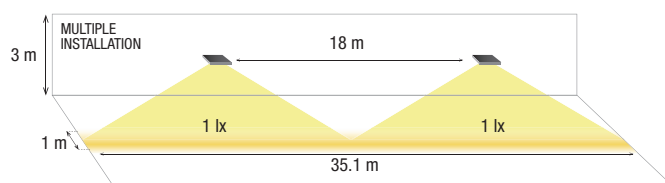


### Single installation

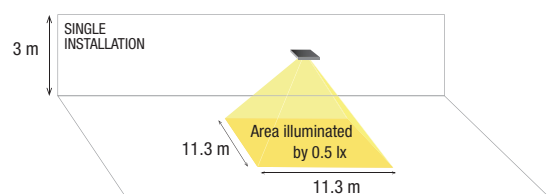
Covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 within 1 m

### Multiple installation, centre distance of 18 m between fixtures

Covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 within 1 m



## Largaluce lens – installation at 3 m from the ground

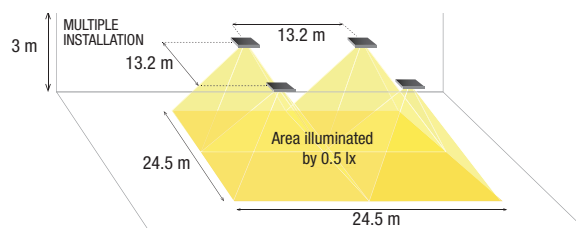


### Single installation

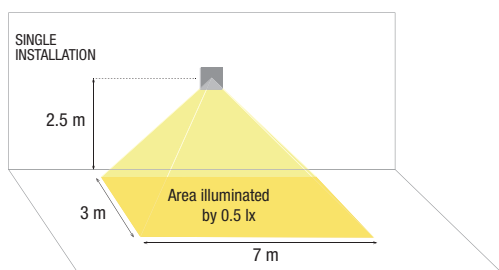
Illuminates a surface area of 11.3 x 11.3 m at 0.5 lux (128 m²)

### Multiple installation, centre distance of 13.2 m between fixtures

Lights up a surface area of 24.5 x 24.5 m at 0.5 lux (600 m²)



## Diffusaluce lens – installation at 2.5 m from the ground

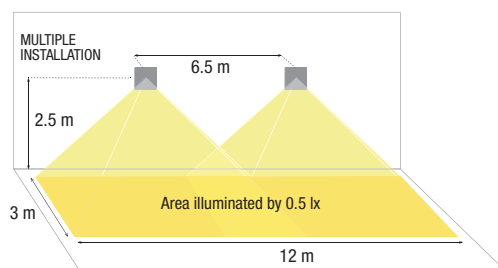


### Single installation

Illuminates a surface area of 7 x 3 m at 0.5 lux (21 m²)

### Multiple installation, centre distance of 13.7 m between fixtures

Illuminates a surface area of 12 x 3 m at 0.5 lux (36 m²)



LENS	Lamps	Coverage
<b>LUNGALUCE</b> <b>3 m</b>	1	Covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 lux within 1 metre from the centre line
	2	Centre distance of 18 m between luminaires covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 lux within 1 m from the centre line
<b>LARGALUCE</b> <b>3 m</b>	1	Covers a surface area of 11.3 x 11.3 m at least 0.5 lux except for 0.5 m around the perimeter
	4	Centre distances of 13.2 m cover a surface area of 24.5 x 24.5 m at least 0.5 lux except for 0.5 m around the perimeter
<b>DIFFUSALUCE</b> <b>2.5 m</b>	1	Covers a surface area of 7 x 3 m at least 0.5 lux except for 0.5 m around the perimeter
	2	Centre distance of 6.5 m covers a surface area of 12 x 3 m at least 0.5 lux except for 0.5 m around the perimeter



# Emergency LED module



**New**

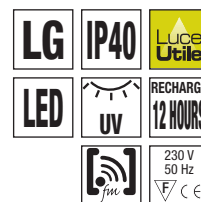
## Technical data

Mounting: universal application for ceiling, suspended and recessed lighting fixtures (T5 and T8 lamps)

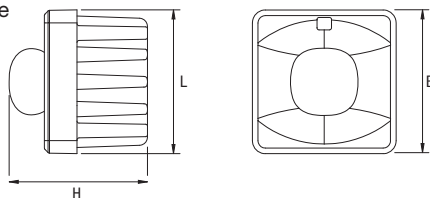
Material: white polycarbonate RAL 9010  
Degree of protection: IP 40  
Rated voltage: 230 V/50 Hz

Symbols see page 134

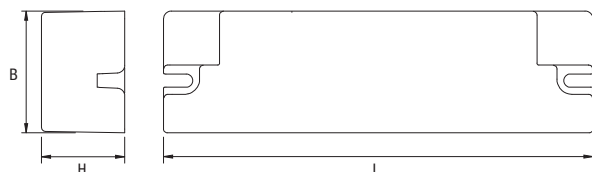
	W	• Dimensions (mm) •				
		L	L1	L2	B	H
LED module with lens	T8, T5	35	—	—	35	33
Inverter	—	114	—	—	32	22
Battery	—	40	70	80	50	14.5



LED module



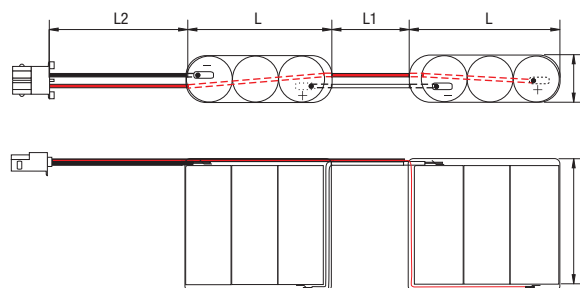
Inverter



## ACCESSORIES: PROVIDED WITH

Code	Description
—	<b>3 lenses:</b> LUNGA, LARGA, ALTA with 3 different covers
—	2 springs for fixing on T8 and T5 tubes

Battery



**[LOGICA]**

W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/ pcs
T8, T5	<b>19342</b>	MODULE EM LED LG SE/SA/PS 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	1 Pc	180/180/100 lm	126 lm	1/6.5 W	0.2	6

\* Minimum flow guaranteed according to EN 60598-2-22

**[LOGICA]** *fm*



W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption W	Kg	Pckg/ pcs
T8, T5	<b>19343</b>	MODULE EM LED LGFM SE/SA/PS 1/2/3H	SE/SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	1 Pc	180/180/100 lm	126 lm	2/7.5 W	0.2	6

\* Minimum flow guaranteed according to EN 60598-2-22

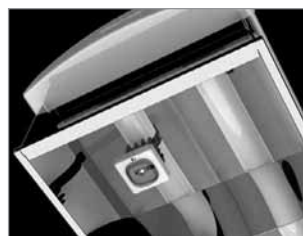
## INSTALLATION ON EQUIPMENT WITH T5 TUBES



Steel clips provided



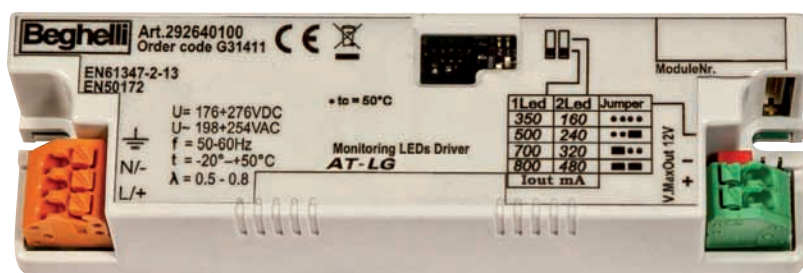
## INSTALLATION ON EQUIPMENT WITH T8 TUBES



Steel clips provided



# One fixture for several applications



Electroinverter



Battery set



**The Lungaluce lens**

installed at a height of 3 m covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 within 1 m



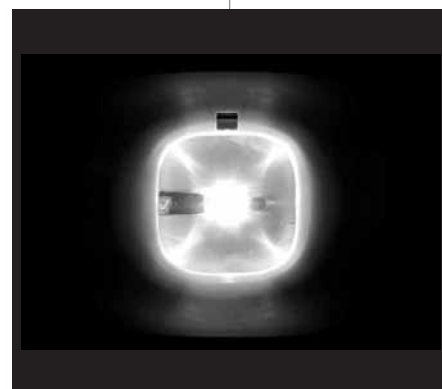
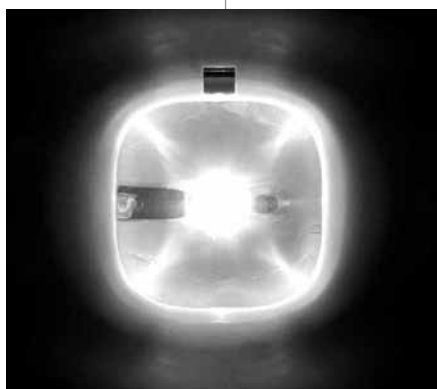
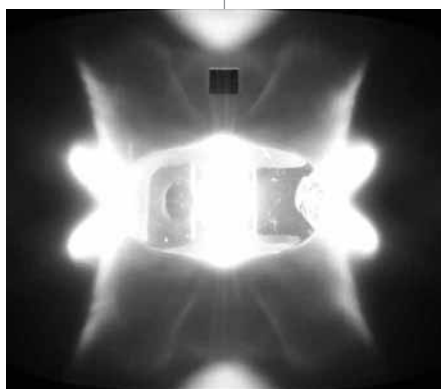
**The largaluce lens**

installed at a height of 3 m illuminates a surface area of 11.3 × 11.3 m at 0.5 lux



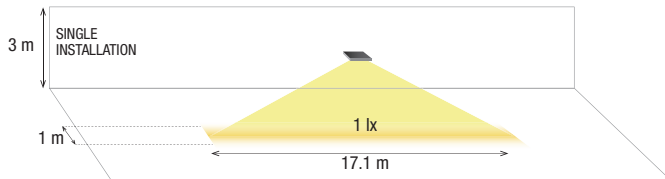
**The altaluce lens**

installed at a height of 7 m lights up a surface area of 12.4 × 12.4 m at 0.5 lux



# Lighting performance on the ground

## Lungaluce lens – installation at 3 m from the ground

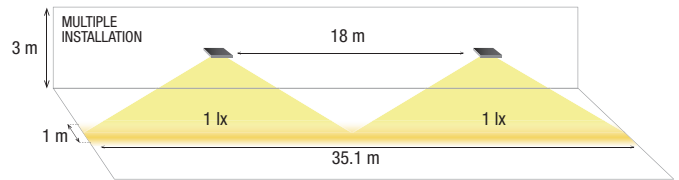


### Single installation

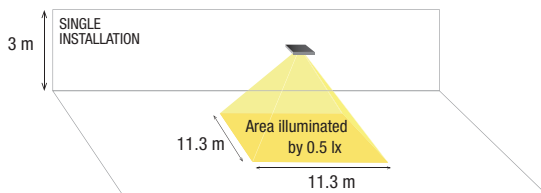
Covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 within 1 m

### Multiple installation, centre distance of 18 m between fixtures

Covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 within 1 m



## Largaluce lens – installation at 3 m from the ground

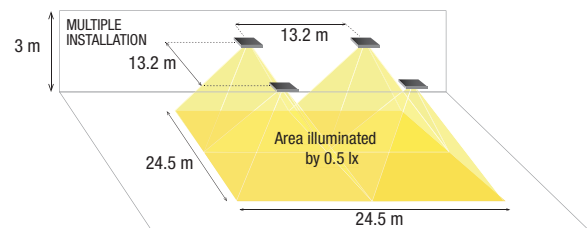


### Single installation

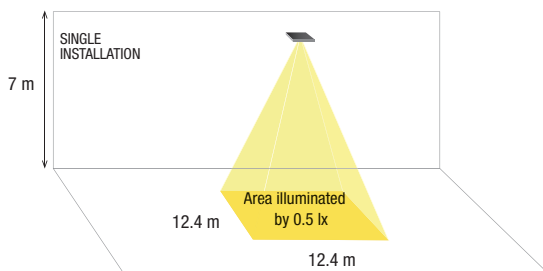
Illuminates a surface area of 11.3 × 11.3 m at 0.5 lux (128 m²)

### Multiple installation, centre distance of 13.2 m

Illuminates a surface area of 24.5 × 24.5 m at 0.5 lux (600 m²)



## Altaluce lens – installation at 7 m from the ground

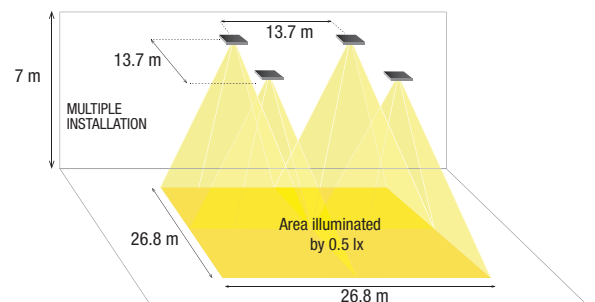


### Single installation

Lights up a surface area of 12.4 × 12.4 m at 0.5 lux (154 m²)

### Multiple installation, centre distance of 13.7 m

Illuminates a surface area of 26.8 × 26.8 m at 0.5 lux (718 m²)



LENS	Lamps	Coverage
<b>LUNGALUCE</b> <b>3 m</b>	1	Covers an escape route of 17.1 m with 1 lux along the centre line and > 0.5 lux within 1 metre from the centre line
	2	Centre distance of 18 m between luminaires covers an escape route of 35.1 m with 1 lux along the centre line and > 0.5 lux within 1 m from the centre line
<b>LARGALUCE</b> <b>3 m</b>	1	Covers a surface area of 11.3 × 11.3 m at least 0.5 lux except for 0.5 m around the perimeter
	4	Centre distances of 13.2 m cover a surface area of 24.5 × 24.5 m at least 0.5 lux except for 0.5 m around the perimeter
<b>ALTALUCE</b> <b>7 m</b>	1	Covers a surface area of 12.4 × 12.4 m at least 0.5 lux except for 0.5 m around the perimeter
	4	Centre distance of 14.4 m covers a surface area of 26.8 × 26.8 m at least 0.5 lux except for 0.5 m around the perimeter



**New**

## Indica LED 20m

Emergency LED luminaire with exit sign and new optical system Back Light with high efficiency. The device is versatile due to universal bracket that allows for several types of installation. Moreover, it is available in single-sided version for installation above door. The luminaire is equipped with exit sign opal pane and ensures high luminosity (more than 500 cd/m<sup>2</sup>). The luminaire is capable of performing self-control autotests or to be managed by Logica control unit. Duration 1–2–3 hrs.

Symbols see page 134

### Technical data

Mounting: on wall or ceiling with bracket, recessed mounting into the wall, suspended mounting on wire or tube pendants

Material: aluminium frame and polycarbonate bracket RAL 7035

New optical system with high efficiency.

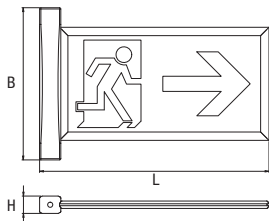
Degree of protection: IP 42

Rated voltage: 230 V/50 Hz

Specification: available in SA (Maintained) / PS (with reduced light output)

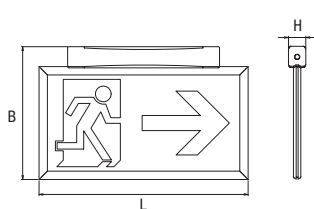


### Wall double-sided version



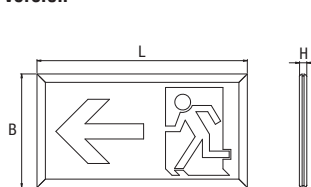
DV	• Dimensions (mm) •	Source
	L B H	
20	266 252 36	LED

### Ceiling double-sided version



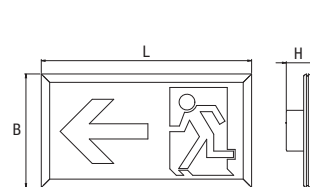
DV	• Dimensions (mm) •	Source
	L B H	
20	235 166 36	LED

### Recessed single-sided version



DV	• Dimensions (mm) •	Source
	L B H	
20	235 135 15	LED

### Wall single-sided version



DV	• Dimensions (mm) •	Source
	L B H	
20	235 135 38	LED

### ACCESSORIES: PROVIDED WITH

Code	Description
—	screen LEFT/RIGHT/DOWN

### ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>19380</b>	brackets 250 mm Indica DF
<b>19381</b>	brackets 500 mm Indica DF
<b>19382</b>	brackets 1000 mm Indica DF
<b>19383</b>	Indica DF 2 m wire suspension
<b>19384</b>	20 m false ceiling recessed bracket

**[LOGICA]**

### Double-sided version

W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption WKg	Pckg / pcs
2.1	<b>19305</b>	Indica LED DF20M LG SA/PS 1/2/3H	SA/PS	1 / 2 / 3 h	NiMH 7.2 V 0.6 Ah	32 Pcs	192 / 96 / 64 lm	115 lm	3.5 W 0.52	6

\* Minimum flow guaranteed according to EN 60598-2-22

**[LOGICA]** *fm*

### Double-sided version

W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA*	Absorption WKg	Pckg / pcs
2.1	<b>19307</b>	Indica LED DF20M LGFM SA/PS 1/2/3H	SA/PS	1 / 2 / 3 h	NiMH 7.2 V 0.6 Ah	32 Pcs	192 / 96 / 64 lm	115 lm	3.5 W 0.52	6

\* Minimum flow guaranteed according to EN 60598-2-22

## WALL DOUBLE-SIDED MOUNTING



## CEILING DOUBLE-SIDED MOUNTING



## HANGING DOUBLE-SIDED MOUNTING



**19383** wire suspension max 100, to be ordered separately

## CEILING DOUBLE-SIDED MOUNTING WITH BRACKETS



**19380** brackets 250 mm Indica DF, to be ordered separately

**19381** brackets 500 mm Indica DF, to be ordered separately

**19382** brackets 1000 mm Indica DF, to be ordered separately

## FALSE CEILING RECESSED DOUBLE-SIDED MOUNTING



Recessed hole dimensions:  
297 × 43 mm

**19384** 20 m false ceiling recessed bracket, to be ordered separately


**[LOGICA]**

Single-sided version

W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA* Absorption WKg	Pckg/ pcs
1	<b>19315</b>	Indica LED SF20M LG SAPS 1/2/3H	SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	16 Pcs	96/96/55 lm	68 lm 2.6 W 0.65	6

\* Minimum flow guaranteed according to EN 60598-2-22

**[LOGICA]***fm*

Single-sided version 

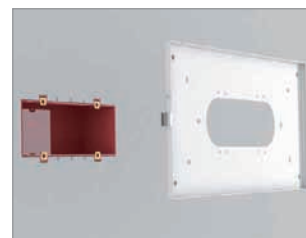
W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA* Absorption WKg	Pckg/ pcs
1	<b>19317</b>	Indica LED SF20M LGFM SAPS 1/2/3H	SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	16 Pcs	96/96/55 lm	68 lm 2.6 W 0.65	6

\* Minimum flow guaranteed according to EN 60598-2-22

## WALL MOUNTING



## RECESSED WALL MOUNTING WITH RECESSED BOX





**New**

## Indica LED 30m

Emergency LED luminaire with exit sign and new optical system Back Light with high efficiency. The device is versatile due to universal bracket that allows for several types of installation. Moreover, it is available in single-sided version for installation above door. The luminaire is equipped with exit sign opal pane and ensures high luminosity (more than 500 cd/m<sup>2</sup>). The luminaire is capable of performing self-control autotests or to be managed by Logica control unit. Duration 1–2–3 hrs.

Symbols see page 134

### Technical data

Mounting: on wall or ceiling with bracket, recessed mounting into the wall, suspended mounting on wire or tube pendants

Body: aluminium frame and polycarbonate bracket RAL 7035

New optical system with high efficiency

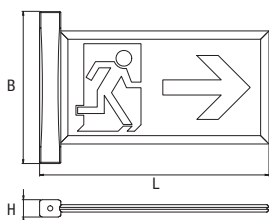
Degree of protection: IP 42

Rated voltage: 230 V/50 Hz

Specification: available in SA (Maintained) / PS (with reduced light output)

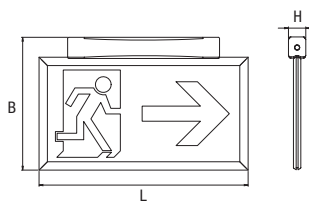


### Wall double-sided version



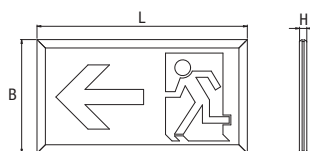
DV	• Dimensions (mm) •			Source
	L	B	H	
30	366	252	36	LED

### Ceiling double-sided version



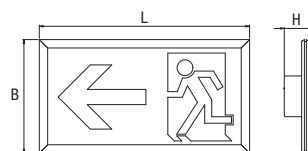
DV	• Dimensions (mm) •			Source
	L	B	H	
30	335	216	36	LED

### Recessed single-sided version



DV	• Dimensions (mm) •			Source
	L	B	H	
30	335	185	15	LED

### Wall single-sided version



DV	• Dimensions (mm) •			Source
	L	B	H	
30	335	185	38	LED

### ACCESSORIES: PROVIDED WITH

Code	Description
—	screen LEFT/RIGHT/DOWN

### ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>19380</b>	brackets 250 mm Indica DF
<b>19381</b>	brackets 500 mm Indica DF
<b>19382</b>	brackets 1000 mm Indica DF
<b>19383</b>	Indica DF 2 m wire suspension
<b>19386</b>	30 m false ceiling recessed bracket

**[LOGICA]**

Double-sided version

W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA* Absorption WKg	Pckg/ pcs
3.2	<b>19304</b>	Indica LED DF30M LG SA/PS 1/2/3H	SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	48 Pcs	288/288/160 lm	205 lm 4.2 W 0.8	6

\* Minimum flow guaranteed according to EN 60598-2-22

**[LOGICA]***fm*

Double-sided version

W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA* Absorption WKg	Pckg/ pcs
3.2	<b>19306</b>	Indica LED DF30M LGFM SA/PS 1/2/3H	SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	48 Pcs	288/288/160 lm	205 lm 4.2 W 0.8	6

\* Minimum flow guaranteed according to EN 60598-2-22



## WALL DOUBLE-SIDED MOUNTING



## CEILING DOUBLE-SIDED MOUNTING



## HANGING DOUBLE-SIDED MOUNTING



**19383** wire suspension max 100, to be ordered separately



## CEILING DOUBLE-SIDED MOUNTING WITH BRACKETS



**19380** brackets 250 mm Indica DF, to be ordered separately

**19381** brackets 500 mm Indica DF, to be ordered separately

**19382** brackets 1000 mm Indica DF, to be ordered separately



## FALSE CEILING RECESSED DOUBLE-SIDED MOUNTING



**19386** 30 m false ceiling recessed bracket, to be ordered separately




**[LOGICA]**

Single-sided version

W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA* Absorption WKg	Pckg/ pcs
1.6	<b>19314</b>	Indica LED SF30M LG SAPS 1/2/3H	SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	24 Pcs	288/288/160 lm	205 lm 3 W 1.1	6

\* Minimum flow guaranteed according to EN 60598-2-22

**[LOGICA]***fm*

Single-sided version 

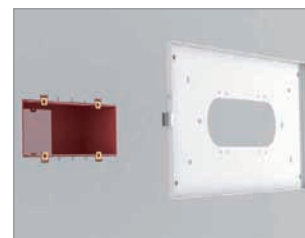
W	Code	Type	Version	Duration	Battery	LED	Luminous flux SE*	Luminous flux SA* Absorption WKg	Pckg/ pcs
1.6	<b>19316</b>	Indica LED SF30M LGFM SAPS 1/2/3H	SA/PS	1/2/3 h	NiMH 7.2 V 1.2 Ah	24 Pcs	288/288/160 lm	205 lm 3 W 1.1	6

\* Minimum flow guaranteed according to EN 60598-2-22

## WALL MOUNTING



## RECESSED WALL MOUNTING WITH RECESSED BOX



# Maxima



Exit sign luminaire in functional design with body and panes in oval form. Choice of single sided (wall mounting) or double sided (ceiling, pendant suspended and bracket mounting) exit sign. Luminaires are supplied with 4 exit sign films, adaptor for ceiling mounting and bracket for wall mounting. Special features: Attractive aesthetics, sleek body, long distance visibility, easy installation with quick-adaptor. The luminaire is capable of performing self-control autotests or to be managed by Logica control unit. Duration 1hr or 3hrs using built-in connection terminals.

Symbols see page 134

## Technical data

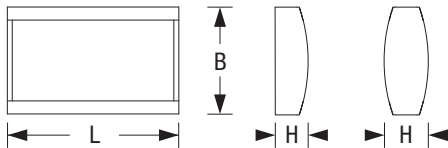
Mounting: on ceiling or wall, suspended on pendants or bracket mounting

Material: polycarbonate

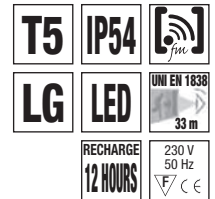
Rated voltage: 198–254 V/50 Hz

Ambient temperature:  $t_a$  0–40 °C

Specification: available in SA (Maintained) and SE (Non maintained)



W	• Dimensions (mm) •			Source	Socket	Version
	L	B	H			
8	350	227	79.3	T5/LED	G5	single-sided
2 x 1	350	227	90	T5/LED	G5	double-sided



## ACCESSORIES: PROVIDED WITH

Code	Description
<b>FB16910</b>	exit signs (set with all 4 films)
<b>F95505</b>	adaptor for ceiling mounting
<b>F95506</b>	bracket for wall mounting

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>FB3723</b>	adaptor for wire or chain suspension
<b>F95510</b>	suspension profile 500 mm
<b>F95511</b>	suspension profile 1000 mm
<b>F95512</b>	suspension profile 1500 mm
<b>F95032</b>	protective grid (for single-sided version only)



W	Code	Duration	Battery	Ballast lumen factor	Kg	Pckg / pcs
<b>Single-sided version</b>						
8	<b>N90360L</b>	1/3 h	NiMH 7.2 V 1.7 Ah	91 % / 38 %	2.0	1
2× 1	<b>N90360L-LED</b>	1/3 h	NiMH 7.2 V 1.7 Ah	120 lm / 70 lm	2.0	1
2× 1	<b>N90364L-LED</b>	8 h	NiMH 7.2 V 2.2 Ah	78 lm	2.0	1
<b>Double-sided version</b>						
8	<b>N90362L</b>	1/3 h	NiMH 7.2 V 1.7 Ah	91 % / 38 %	2.0	1
2× 1	<b>N90362L-LED</b>	1/3 h	NiMH 7.2 V 1.7 Ah	120 lm / 70 lm	2.0	1
2× 1	<b>N90365L-LED</b>	8 h	NiMH 7.2 V 2.2 Ah	78 lm	2.0	1

In order to transform this product into LOGICA FM, it is necessary to order the product 12130 (FB16304).



# Kubus IP65



Emergency luminaire and exit sign luminaire consisting of flat sections with folded corners. Available in 8 W fluorescent lamp or 4 W and 5 W LED. Due to the high degree of protection IP65 luminaire is suitable for all kinds of indoor and outdoor applications. Mounting on ceiling (double-sided) or wall (single-sided) in white color or stainless steel version. The luminaire is capable of performing self-control autotests or to be managed by Logica control unit. Duration 1hr or 3hrs using built-in connection terminals.

Symbols see page 134

## Technical data

Mounting: on ceiling or wall

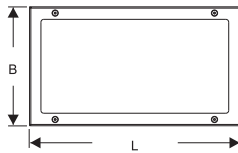
Body: steel sheet in white color RAL 9003, stainless steel on request

Reflector: aluminium

Diffuser: plastic with longitudinal breakdown

Rated voltage: 198–254 V/50 Hz

Specification: available in SA (Maintained) and SE (Non maintained)



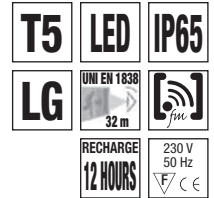
Single-sided version



Double-sided version



W	• Dimensions (mm) •			Source	Socket	Version
	L	B	H			
8	370	209	63.5	T5	G5	single-sided
5	370	209	63.5	LED	–	single-sided
8	370	209	70	T5	G5	double-sided
4	370	209	70	LED	–	double-sided



## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>E16700</b>	exit sign pane (set of 3 films) for single-sided version
<b>E16701</b>	exit sign pane (set of 5 films) for double-sided version

White	Stainless	
<b>F95603</b>	<b>F95608</b>	suspension profile 100 mm
<b>F95604</b>	<b>F95609</b>	suspension profile 500 mm
<b>F95605</b>	<b>F95610</b>	suspension profile 1 000 mm
<b>F95606</b>	<b>F95611</b>	bracket for wall mounting
<b>F95612</b>	<b>F95613</b>	adaptor for ceiling mounting
<b>F95607</b>	<b>F95607</b>	protective grid



W	Code	Type	Color	Version	Duration	Battery	Ballast lumen factor	Kg	Pckg/ pcs
<b>Single-sided version</b>									
8	<b>NM90720L</b>	Kubus IP65 8 W	white	SE/SA	1/3 h	NiMH 7.2 V 1.7 Ah	91 %/38 %	3.0	1
8	<b>NM90722L</b>	Kubus IP65 8 W	stainless	SE/SA	1/3 h	NiMH 7.2 V 1.7 Ah	91 %/38 %	3.2	1
5× 1	<b>NM90720L-LED</b>	Kubus IP65 LED	white	SE/SA	1/3 h	NiMH 7.2 V 1.7 Ah	500 lm/295 lm	3.0	1
5× 1	<b>NM90722L-LED</b>	Kubus IP65 LED	stainless	SE/SA	1/3 h	NiMH 7.2 V 1.7 Ah	500 lm/295 lm	3.2	1
<b>Double-sided version</b>									
8	<b>NM90721L</b>	Kubus IP65 8 W	white	SE/SA	1/3 h	NiMH 7.2 V 1.7 Ah	91 %/38 %	3.1	1
8	<b>NM90723L</b>	Kubus IP65 8 W	stainless	SE/SA	1/3 h	NiMH 7.2 V 1.7 Ah	91 %/38 %	3.3	1
4× 1	<b>NM90721L-LED</b>	Kubus IP65 LED	white	SE/SA	1/3 h	NiMH 7.2 V 1.7 Ah	500 lm/295 lm	3.1	1
4× 1	<b>NM90723L-LED</b>	Kubus IP65 LED	stainless	SE/SA	1/3 h	NiMH 7.2 V 1.7 Ah	500 lm/295 lm	3.3	1

In order to transform this product into LOGICA FM, it is necessary to order the product 12130 (FB16304).



# Quader



Illustration image

Exit sign luminaire consisting of a square base and a cuboid transparent diffuser. Three sided exit route sign (ceiling mounting). Luminaire supplied with three exit sign films. Three sided exit route sign for large sized areas.

Symbols see page 134

## Technical data

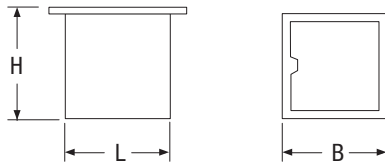
Mounting: ceiling or  
pendant suspended  
mounting

Body: polypropylene

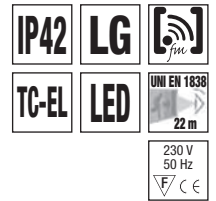
Cover: opal acrylate

Rated voltage:  
198–254 V/50 Hz

Specification: available in  
SA (Maintained) and SE  
(Non maintained)



W	• Dimensions (mm) •			Source	Socket
	L	B	H		
9	239	248	274	TC-EL	2G7
3× 1	239	248	274	LED	–



## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>F15330N</b>	diffuser with exit sign DOWN
<b>F15331N</b>	diffuser with exit sign RIGHT
<b>F15332N</b>	diffuser with exit sign LEFT
<b>F95600</b>	pendant rod 250 mm
<b>F95601</b>	pendant rod 500 mm
<b>F95602</b>	pendant rod 1 000 mm
<b>F95400</b>	pendant rod
<b>F95401</b>	wire suspension kit
<b>F95210</b>	adaptor for pendant suspended mounting
<b>F95406</b>	adaptor for wire or chain suspension

**LOGICA**

W	Code	Type	Version	Duration	Battery	Ballast lumen factor	Kg	Pckg/ pcs
9	<b>N90480L</b>	QUADER LOGICA 9 W	SA/SE	1/3 h	NiMH 7.2 V 1.7 Ah	82%/34%	2.3	1
3× 1	<b>N90480L-LED</b>	QUADER LOGICA LED	SA/SE	1/3 h	NiMH 7.2 V 1.7 Ah	300 lm/178 lm	2.3	1

In order to transform this product into LOGICA FM, it is necessary to order the product 12130 (FB16304).



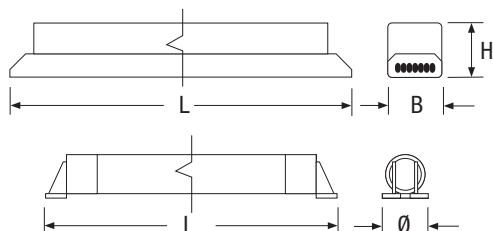
# Electroinverter Logica

Electronic ballast for emergency luminaires fitted with T8 and T5 fluorescent and compact fluorescent bulbs. Duration may be selected as 1 or 3 three hours, irrespective of the luminaire. Luminous flow optimised based on the selected duration. Operation at constant power. Lamp start-up with cathode pre-heating and cathode heat control to guarantee a long tube lifetime.

12-hour quick recharging system. Suitable for hospitals in the 3h configurations. EN 61347-1, EN 61347-2-7

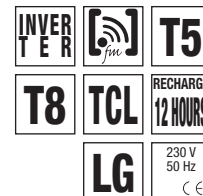
Symbols see page 134

Note on installation: The FM version is not suitable for luminaires with IP65 metal housings.



Ord. code	• Dimensions (mm) •		
	L	B	H
Inverter			
<b>12126</b>	330	30	30

• Dimensions (mm) •	
L	Ø
Battery	
335	30



Battery NiCd 7.2 V 2.2 Ah		Duration 1 h		Duration 3 h	
		Battery current	1.7 A	0.6 A	
Source	Socket	Power lamp	Luminous flow	Luminous flow	
T8	G13	18	48%	15%	
		36	24%	6%	
		58	14%	3%	
T5	G5 FH	14	65%	22%	
		21	42%	15%	
		28	28%	–	
		35	21%	–	
T5	G5 FQ	24	41%	10%	
		39	25%	–	
		49	15%	–	
		54	13%	–	
		80	8%	–	
TC-L	2G11	24	41%	10%	
		36	24%	6%	
		40	19%	5%	
		55	9%	–	
TCD*, TCE TCTE  *only 4 PIN socket with separated starter		13			
		18			
		26			
		32			
		42			

**[LOGICA]**

W	Code	Type	Version	Duration	Battery	Kg	Pckg / pcs
18-58	<b>12126 (VB16309)</b>	ELETT 935 2 LG 14-80SA	SA	1/3 h	NiCd 7.2 V 2.2 Ah	0.72	12

**[LOGICA]**<sub>fm</sub>

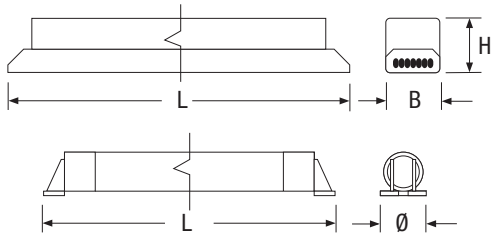
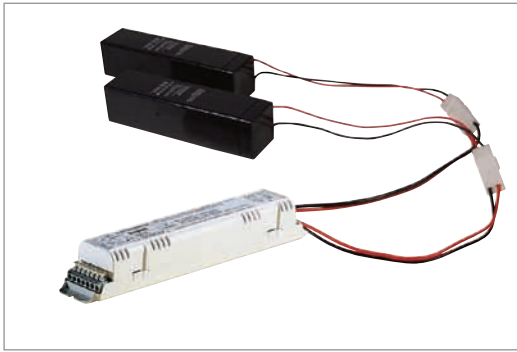


W	Code	Type	Version	Duration	Battery	Kg	Pckg / pcs
18-58	<b>12126FM</b>	ELETT 935 2 LG FM 14-80SA	SA	1/2.20 h	NiCd 7.2 V 2.2 Ah	0.82	12

# Halogen Kit Logica

Electronic ballast for halogen luminaires used in emergency lighting systems.

Symbols see page 134



Code	• Dimensions (mm) •		
	L	B	H
Inverter	232	40	36

Code	• Dimensions (mm) •		
	L	B	H
Battery	200	45	45



W	Lumen factor	Duration
10	100 %	1 h
2× 10	60 %	1 h
20	62 %	1 h
2× 20	7.5 %	1 h
35	13 %	1 h
50	5 %	1 h



W	Code	Type	Version	Duration	Battery	Kg	Pckg / pcs
10-50	<b>12129</b>	HALOGENKIT LG 12 V 50 W	SE/SA	1/3 h	Pb 2× 6 V 4 Ah	0.8	6

For information on product availability, please contact the Beghelli-Elplast sales department.



W	Code	Type	Version	Duration	Battery	Kg	Pckg / pcs
10-50	<b>12129FM</b>	HALOGENKIT LG FM 12 V 50 W	SE/SA	1/3 h	Pb 2× 6 V 4 Ah	0.8	6

For information on product availability, please contact the Beghelli-Elplast sales department.





# Power Pack NVG

Power pack to operate 1 or 2 luminaires with incandescent lamp, electronic ballast and ferromagnetic ballast. Designed with separate electronics and battery compartment. Installation: remote from luminaire(s). Max distance between power pack and luminaire = 500 m. Use of general lighting luminaires as emergency luminaires. Emergency Luminaires switchable from non-maintained to maintained mode via mains switches of the general lighting installation.

Note: Electronic gear must be suitable for DC and AC operation and for use in emergency lighting installations. Luminaires with magnetic gear must have low power factor circuits.

## Technical data

Mounting: wall mounting

Body: ABS plastic

Rated voltage:  
198–254 V/50 Hz

Output: 230 V AC or DC

Specification: available in  
SA (Maintained) and SE  
(Non maintained)



Source / Watt	FLUX 1 h	DC / AC 3 h	V90800L		V90801L		V90802L		V90803L	
			1 h	3 h	1 h	3 h	1 h	3 h	1 h	3 h
Incandescent lamp			up to 20 W	–	up to 60 W	up to 20 W	up to 100 W (Incandescent lamp, T26)	up to 40 W	up to 120 W	up to 70 W (Incandescent lamp, T26)
compact electronic fluorescent lamps (suitable for DC operation only)	100 %	DC			up to 55 W (T16, TC)		up to 80 W (T16, TC)			up to 55 W (T16, TC)
Ferromagnetic Cu-Fe Ballast (CELMA CLASS B1, B2, C)	75 %	AC	1×9, 1×10, 1×11, 1×13, 1×18 W		1×24, 1×26, 1×36, 1×58 W	1×9, 1×10, 1×11, 1×13, 1×18 W	1×70, 2×36 W	1×24, 1×26 W	2×58, 3×36 W	1×36, 1×58 W



Code	Type	Duration	Battery	Pckg / pcs
<b>V90800L</b>	POWERPACK NVG LOGICA	1 / 3 h	6.5 Ah	6
<b>V90801L</b>	POWERPACK NVG LOGICA	1 / 3 h	13 Ah	6
<b>V90802L</b>	POWERPACK NVG LOGICA	1 / 3 h	24 Ah	6
<b>V90803L</b>	POWERPACK NVG LOGICA	1 / 3 h	40 Ah	6

# References

Shopping center GRAND MALL in Bulgaria – Logica system

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The main building of the Czech Radio in Prague – Logica system



Ice-hockey Arena in Karlovy Vary





KOMBI CONTROL 82



Monitoring software LOGICA-Visual 83



Central battery systems 84



Group battery systems 94



Compact emerg. lighting syst. NGBVE-K 101



Monitoring and control components 106



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Formula65 118



Pluraluce LED 119



Pluraluce downlight LED 121



Pluraluce-Module 122



Kubus IP65 123



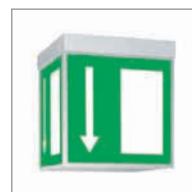
Maxima 124



Granluce LED 125



Aestetica 126



Quader 127

# **CENTRAL AND GROUP BATTERY SYSTEM**

**Beghelli**



# Central and group battery systems

The NZBVA and NZBVE central battery systems and the NGBVA and NGBVE group battery systems enable the installation of emergency lighting systems in medium and large-scale facilities. Both ranges are based on identical components. They only differ in the design of the cabinets:

- NZBVA and NGBVA: Control cabinets with a large inspection pane and detachable frame to accommodate 19" rack inserts.
- NZBVE and NGBVE: Control cabinets with a small inspection pane and fixed frame to accommodate 19" rack inserts.
- NZBVA and NZBVE: Use of a 216 V battery with a lifetime expectation of 10+ years.
- NGBVA and NGBVE: Use of a 24 V battery with a lifetime expectation of 5+ years.

## Special features:

- Control and monitoring by the SleblOGICA- or Auto- LOGICA-system
- Luminaire operation in:
  - Maintained mode
  - Non maintained mode
  - Non maintained mode with selective switching to maintained mode via external light switches
  - Non maintained mode with selective switching in case of partial mains incidents/switching via external mains monitoring modules
- Combination of all options in a single circuit
- Permanent check of the general lighting switches or of the mains monitoring modules via control inputs within the luminaire or system
- Allocation of control information to different luminaires and circuits without limitation
- No manual addressing of the luminaire number at the control and monitoring module within the luminaire required
- No manual coding of the control input at the control and monitoring module within the luminaire required
- Automatic allocation of the required circuits and detection of luminaires
- Individual monitoring of 20 (32) luminaires in a circuit with or without selective irregularity report
- Automatic triggering of function and duration tests
- Automatic reporting to a test journal
- Centralised input and output of all parameters and data
- Operates luminaires with:
  - Incandescent lamps
  - Fluorescent tubes with electronic or magnetic ballast
  - HID lamps with electronic or magnetic ballast

## Monitoring of emergency luminaires

The automatic test equipment of NGBVA, NGBVE, NZBVA and NZBVE systems monitors all exit signs and emergency luminaires. There are 2 options available:

- Individual monitoring with selective irregularity report enables immediate identification of a defective luminaire. The switching and monitoring modules SLEB or ALOG check during the functional test lamps and ballasts and report the result to the central station. An eventual defect is being indicated and printed by giving details which circuit and which luminaire is not working properly. The modules SLEB and ALOG are also available with integrated HF-ballast. The operation and monitoring modules to be used are AK...EÜ type.
- Individual monitoring without selective irregularity report does not enable immediate identification of a defective luminaire. There is just a comparison between the rated power of a circuit and the measured power during the functional test. An eventual defect is being indicated and printed by giving details which circuit is not working properly. The operation and monitoring modules to be used are AK...SÜ type.

Individual monitoring with selective irregularity report in a circuit with luminaires with different operation modes



# Monitoring and control systems SlebLOGICA and AutoLOGICA

SlebLOGICA and AutoLOGICA enable all NGBVA, NGBVE, NZBVA and NZBVE emergency lighting systems to operate luminaires in one single circuit in different operation modes:

- Maintained mode.
- Non maintained mode.
- Switching from non maintained to maintained mode depending on the on/off position of the light switches. Either via SlebLOGICA or AutoLOGICA modules in the emergency luminaires or via a centrally placed LSSA module.
- Automatically switching on of all or of selected emergency luminaires in non maintained mode in case of partial mains failures. Either via SlebLOGICA or AutoLOGICA modules in the emergency luminaires or via a centrally placed LSSA module.
- Automatically switching off of all or of selected emergency luminaires in non maintained mode in case of return of mains voltage. Either with or without time delay.
- Manually switching off of all or of selected emergency luminaires in non maintained mode in case of return of mains voltage. Either via SlebLOGICA or AutoLOGICA modules in the emergency luminaires or via a centrally placed LSSA module.
- On/off switching of emergency luminaires in maintained mode either manually or via time switch.
- Allocation of operating modes to circuits and luminaires without limitation.
- Allocation of commands of control modules to circuits and luminaires without limitation.
- No manual coding of the control input at the modules in the luminaire is required.
- AutoLOGICA system offers the automatic identification of the luminaire address, no manual operation is required.

## Advantages:

- Reduction of the number of circuits and wiring.
- Smaller dimensions of the control cabinets.
- Reduction of the quantity of inflammable items.
- Reduction of installation cost.
- Simplification of the design.
- Increased flexibility during installation.
- Increased flexibility in case of changes.

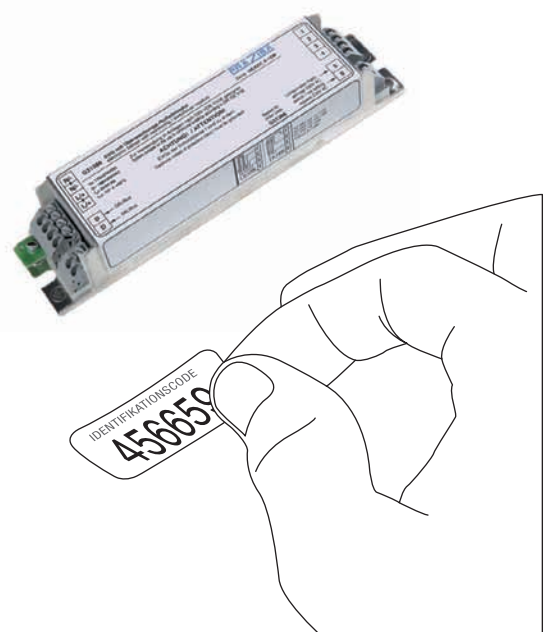
SlebLOGICA and AutoLOGICA systems offer control and switching but also monitoring of the function of emergency luminaires. All these actions can be triggered from the central cabinet.

SlebLOGICA and AutoLOGICA modules are either available as single modules that switch and monitor the lamp and ballast of the luminaire (type SLEB or ALOG) or combined with a HF-ballast (type ECSL or ECAL).

## Additional advantages of the AutoLOGICA system

- Every module and every luminaire is equipped with an identification code. There is no manual addressing required.
- The AutoLOGICA system does not request wrong or double addressing. Consequently there is no time consuming troubleshooting necessary.
- The unconditional colour of the cabinets set a new trend in the industry.

All modules of the AutoLOGICA range are fitted with a self adhesive label showing the identification code.





# Monitoring software LOGICA-Visual

Software for centralised monitoring and controlling of emergency lighting systems of the series NZBVE, NZBVA, NGBVE and NGBVA.

## Connection of the PC with the central unit:

- Interface USB/RS485
- TCP/IP – Ethernet adaptor
- GSM Interface via the telecommunication network

## Input/output of monitoring and control data:

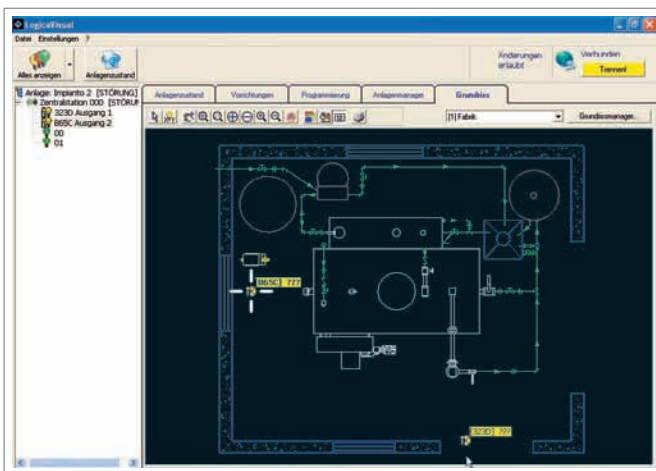
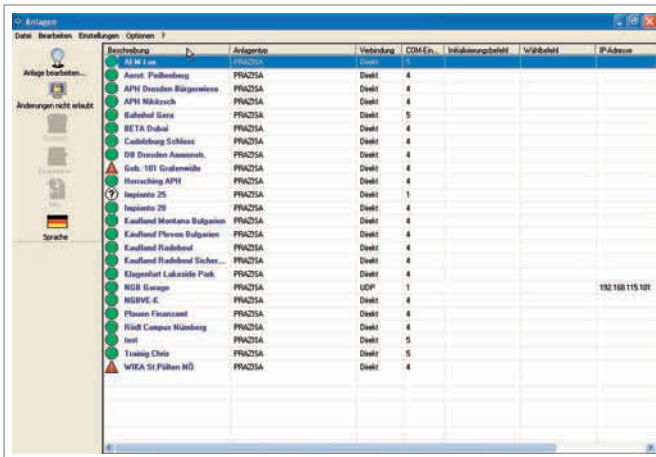
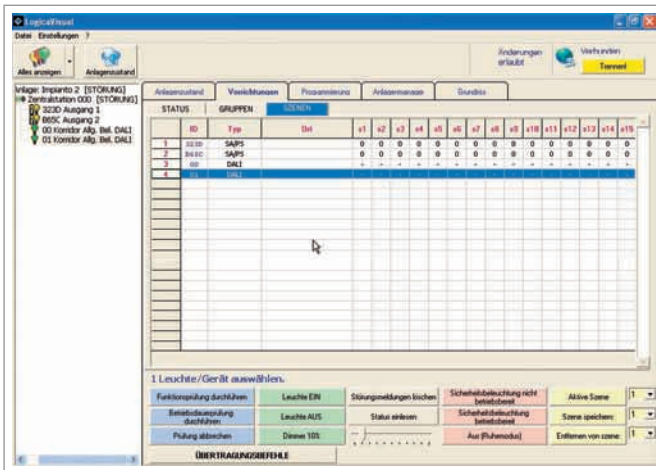
- Numerical and graphical allocation of emergency lighting luminaires to the location in the building plans or in the luminaire list.
- Import of building plans as dxf or dwg data.
- Programming of emergency lighting duration for every single luminaire or every circuit.
- Programming of emergency lighting mode for every single luminaire or every circuit.
- Programming of data for the functional tests and duration tests.
- Programming of the parameters of the LSSA inputs.
- Automatic printing of protocols for the configuration of the system and for failures.
- Clear visualisation of the test results.
- Manual triggering of functional and duration tests.
- Manual suppression of the emergency operation.

## Visualisation during online mode:

- Numerical and graphical visualisation of the status of all emergency luminaires and allocation to the building plans (dxf or dwg format) and the luminaire list.
- Status of the luminaires.
- Mode of emergency operation.
- Stand by modus.
- Irregularities within the system.
- Tests and results.

Hardware requirements (recommendation): IBM compatible PC with Pentium 4 processor 2 GHz, 512 MB-RAM, 3 GB free store capacity.

Software requirements (recommendation): Windows 98 or any Windows of a later edition.



# CENTRAL BATTERY SYSTEMS



**Beghelli**



# Design and configuration of NZBVA and NZBVE

**The central battery systems NZBVA and NZBVE can be designed according to the instructions below:**

1. Determine from the customer's specifications:
    - Quantity and technical details of the exit sign and emergency luminaires to be supplied (lamp type, lamp power, ballast lumen factor and gear)
    - Quantity and technical details of the circuits (maintained mode, non-maintained mode, selectively switchable non maintained mode, selectively switching-on non-maintained mode)
    - Type of luminaire monitoring
  2. Power consumption in mains and battery mode (lamp and gear manufacturer data)<sup>1)</sup>
  3. Charging unit
  4. Battery
  5. Operation and monitoring modules for the central station (system spreadsheet)
  6. Options for the central station (system spreadsheet)
  7. Output(s) to sub-station(s) if required
  8. Central station (system spreadsheet)
- Type: Identification of the central station:

NZBVA-Z

230/\_\_\_/\_\_\_/\_\_\_/\_\_\_/\_\_\_

NZBVE-Z

Rack compartment MULTI CONTROL-I

(0 = no, 1 = yes)

Duration (h) (1=1 h/3=3 h/8 = 8 h)

Rack compartments needed for operation and monitoring modules

Battery capacity (Ah)

Charge current (A)

9. Operation and monitoring modules for the sub-station(s) (system spreadsheet)
  10. Options for the sub-station(s) (system spreadsheet)
  11. Sub-station(s) (system spreadsheet)
- Type: Identification of the sub-station:

NZBVA-UV

/\_\_\_ -

NZBVE-UV

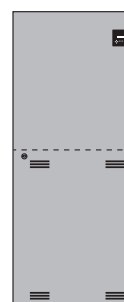
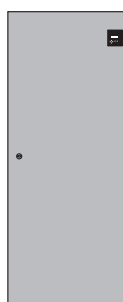
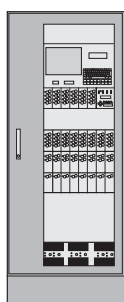
Maintaining fire protection 30 min.(-30)

Rack compartments needed for operation and monitoring modules

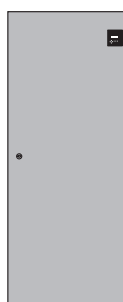
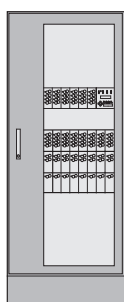
Mounting (S = floor standing/W = wall mounting)

1) Power consumption of the ECSL, ECKC and EC modules on request.

# System spreadsheet NZBVA and NZBVE

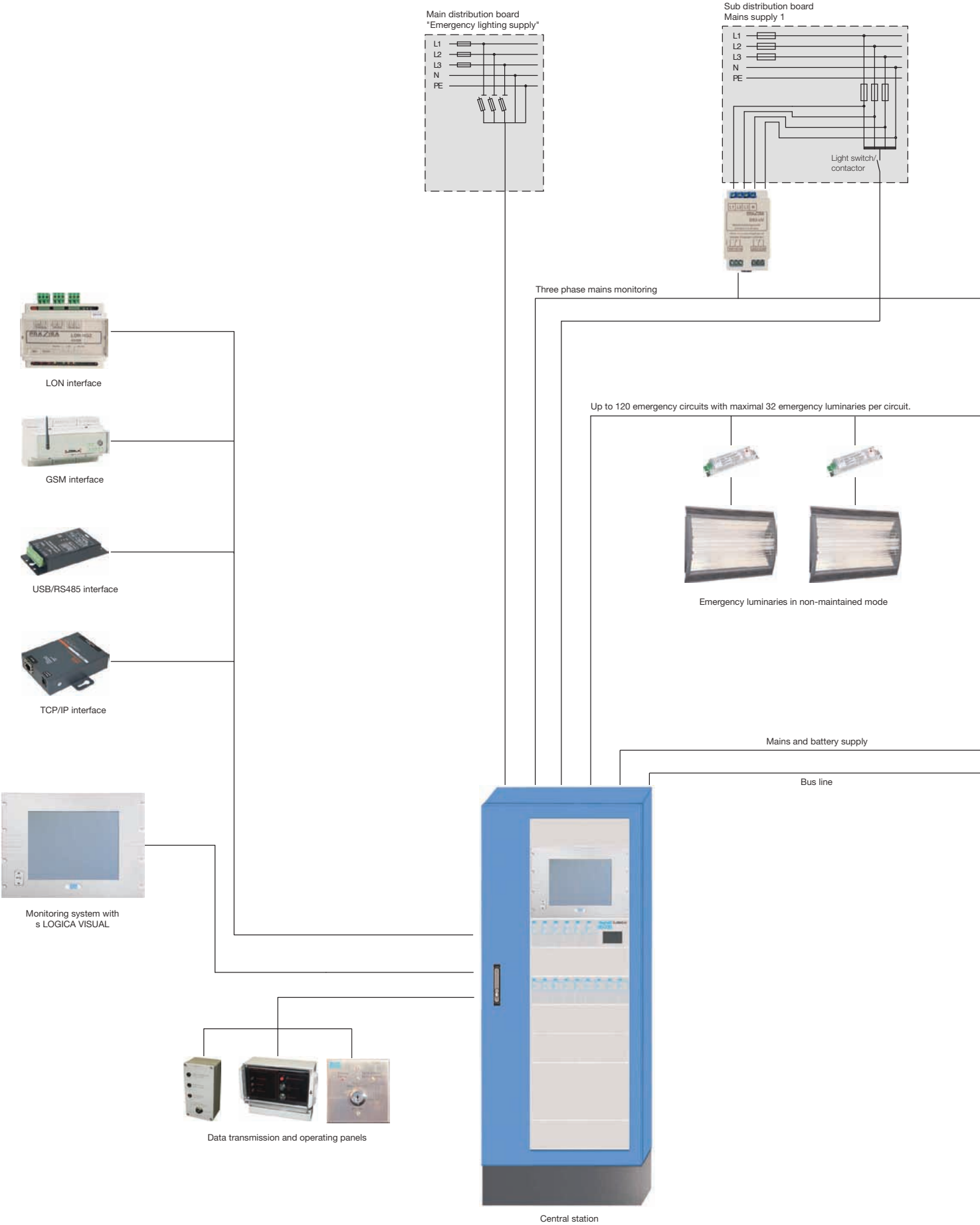


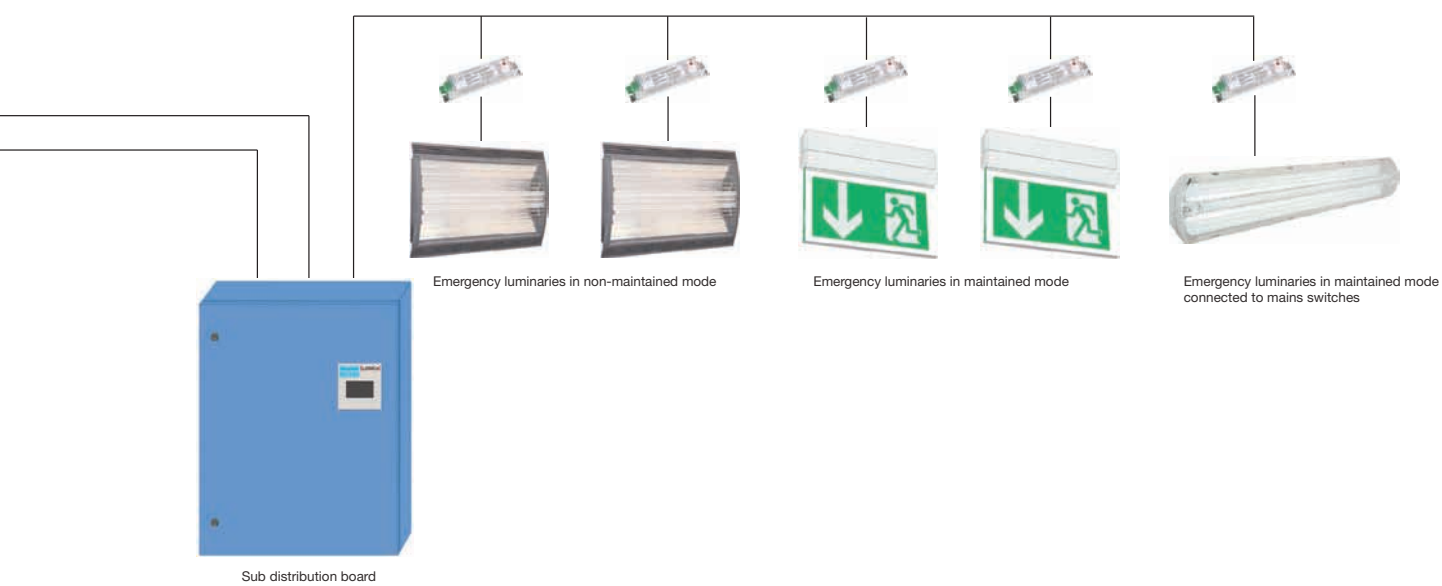
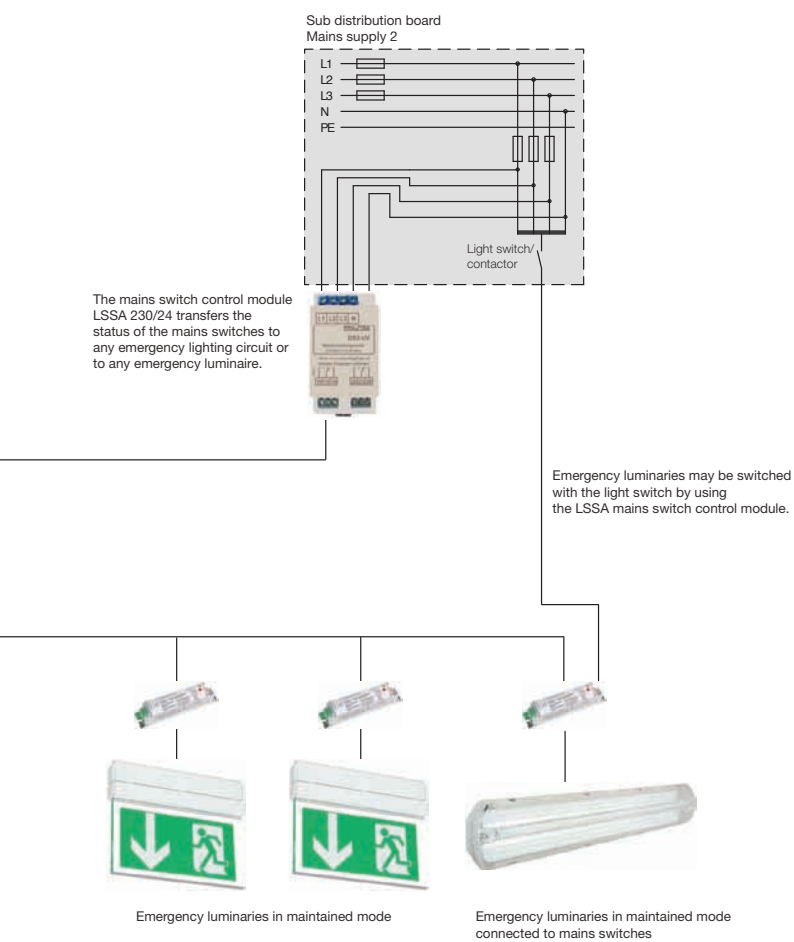
Typ	NZBVA-Z 230/_/_/6 NZBVA-Z 230/_/_/14 NZBVA-Z 230/_/_/22 NZBVA-Z 230/_/_/30	NZBVE-Z/S 230/_/_/6 NZBVE-Z/S 230/_/_/14 NZBVE-Z/S 230/_/_/22 NZBVE-Z/S 230/_/_/30	NZBVE-Z/A 230/_/_/6 NZBVE-Z/A 230/_/_/14	NZBVE-Z/K 230/_/_/6 NZBVE-Z/K 230/_/_/14
Charging unit L230/1.8	max. 6	max. 6	max. 6	max. 6
Batteries with a lifetime expectation of 10 years	33 to 760 Ah	33 to 200 Ah	33 to 200 Ah	33 to 96 Ah
Control and monitoring unit KOMBI CONTROL	integrated	integrated	integrated	integrated
Built-in printer ED	optional	optional	optional	optional
LON-BUS interface	optional	optional	optional	optional
Monitoring system LOGICA-Visual	optional	optional	optional	optional
USB interface	optional (max. 1)	optional (max. 1)	optional (max. 1)	optional (max. 1)
TCP/IP interface				
GSM interface				
Mains switch/contactor dependent control module LSSA 230/24	optional (max. 8) (max. 8) (max. 8) (max. 8)	optional (max. 8) (max. 8) (max. 8) (max. 8)	optional (max. 1) (max. 2)	optional (max. 4) (max. 4)
Operation and monitoring modules AK 1× 32 EÜ AK 2× 32 EÜ AK 4× 32 EÜ	Rack compartments (max. 6) (max. 14) (max. 22) (max. 30)	Rack compartments (max. 6) (max. 14) (max. 22) (max. 30)	Rack compartments (max. 6) (max. 14)	Rack compartments (max. 6) (max. 14)
Operation and monitoring modules AK 1× 32 SÜ AK 2× 32 SÜ AK 4× 32 SÜ				
Operation and monitoring module AK 32-SÜ-AC				
Design	Floor standing cabinets (electronics and battery)	Floor standing cabinets (electronics and battery)	Wall-mounted cabinet (electronics) Floor standing cabinet (battery)	Floor standing combined cabinet (electronics and battery)
Dimensions (H × W × D)	2000 × 800 × 600 mm	2000 × 800 × 400 mm	890 × 800 × 400 mm	2000 × 800 × 600 mm



Typ	NZBVA-U/S 6 NZBVA-U/S 14 NZBVA-U/S 22 NZBVA-U/S 30	NZBVE-U/S 6 NZBVE-U/S 14 NZBVE-U/S 22 NZBVE-U/S 30	NZBVA-U/A 6 NZBVA-U/A 14 NZBVE-U/A 6 NZBVE-U/A 14	NZBVA-U/A 6-30 NZBVA-U/A 14-30 NZBVE-U/A 6-30 NZBVE-U/A 14-30
Charging unit L230/1.8	–	–	–	–
Batteries with a lifetime expectation of 10 years	–	–	–	–
Control and monitoring unit KOMBI CONTROL	integrated	integrated	integrated	integrated
Built-in printer ED	–	–	–	–
LON-BUS interface	–	–	–	–
Monitoring system LOGICA-Visual	No	No	No	No
USB interface	–	–	–	–
TCP/IP interface				
GSM interface				
Mains switch/contactor dependent control module LSSA 230/24	optional (max. 8) (max. 8) (max. 8) (max. 8)	optional (max. 8) (max. 8) (max. 8) (max. 8)	optional (max. 1) (max. 2)	optional (max. 4) (max. 4)
Operation and monitoring modules AK 1× 32 EÜ AK 2× 32 EÜ AK 4× 32 EÜ	Rack compartments (max. 6) (max. 14) (max. 22) (max. 30)	Rack compartments (max. 6) (max. 14) (max. 22) (max. 30)	Rack compartments (max. 6) (max. 14)	Rack compartments (max. 6) (max. 14)
Operation and monitoring modules AK 1× 32 SÜ AK 2× 32 SÜ AK 4× 32 SÜ				
Operation and monitoring module AK 32-SÜ-AC				
Design	Floor standing cabinet	Floor standing cabinet	Wall-mounted cabinet	Wall-mounted cabinet
Dimensions (H × W × D)	2000 × 800 × 600 mm 2000 × 800 × 600 mm 2000 × 800 × 600 mm 2000 × 800 × 600 mm	2000 × 800 × 400 mm 2000 × 800 × 400 mm 2000 × 800 × 400 mm 2000 × 800 × 400 mm	380 × 600 × 350 mm 760 × 600 × 350 mm	949 × 608 × 324 mm 1149 × 608 × 324 mm

# System spreadsheet NZBVA and NZBVE





## Central station for NZBVA



Central station NZBVA-Z acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- 6 rack compartments for charging unit L230/1.8
- Switching device to maintained mode
- Switching device to non-maintained mode
- Internal mains monitoring device for maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 6, 14, 22, or 30 rack compartments for operation and monitoring modules

Control cabinet including a lockable door with inspection pane and detachable frame. Modules for 19" rack technology. Battery cabinet with lockable door and ventilating apertures.

### Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
U: 230 V (+6%/-10)  
3 ~ N PE 50/60 Hz  
U: 400 V (+6%/-10)

Battery supply: U = 216 V

Fuses and terminal blocks according to technical specification

SlebLOGICA system:

Cabinet colour: light grey RAL 7035

Colour of modules: black/red

Cable entry: from bottom

Cabinet: Steel sheet

Mounting: Floor standing

Degree of protection: IP 54

Electrical class: I

Rated ambient temperature: -5 °C to +35 °C

AutoLOGICA system:

Cabinet colour: brilliant blue RAL 5007

or

light grey RAL 7035

Colour of modules: grey/blue



## Central station for NZBVE KOMBI



Central station NZBVE KOMBI acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- 6 rack compartments for charging unit L230/1.8
- Switching device to maintained mode
- Switching device to non-maintained mode
- Internal mains monitoring device for maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 6, 14, 22, or 30 rack compartments for operation and monitoring modules (with separate control cabinet)

Control cabinet with lockable door and inspection pane. Modules for 19" rack technology. Battery cabinet with lockable door and ventilating apertures.

### Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
U: 230 V (+6%/-10)  
3 ~ N PE 50/60 Hz  
U: 400 V (+6%/-10)

Battery supply: U = 216 V

Fuses and terminal blocks according to technical specification

SlebLOGICA system:

Cabinet colour: light grey RAL 7035

Colour of modules: black/red

Cable entry: from top

Cabinet: Steel sheet

Mounting: Floor standing

Degree of protection: IP 21

Electrical class: I

Rated ambient temperature: -5 °C to +35 °C

AutoLOGICA system:

Cabinet colour: brilliant blue RAL 5007

or

light grey RAL 7035

Colour of modules: grey/blue





## Central station for NZBVE



Central station NZBVE-Z acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- 6 rack compartments for charging unit L230/1.8
- Switching device to maintained mode
- Switching device to non-maintained mode
- Internal mains monitoring device for maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 6 or 14 rack compartments for operation and monitoring modules (with combined control and battery cabinet)
- 6, 14, 22, or 30 rack compartments for operation and monitoring modules (with separate control cabinet)

Control cabinet with lockable door and inspection pane. Modules for 19" rack technology. Battery cabinet with lockable door and ventilating apertures.

### Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
U: 230 V (+6%/-10)  
3 ~ N PE 50/60 Hz  
U: 400 V (+6%/-10)

Battery supply: U = 216 V

Fuses and terminal blocks according to technical specification

SlebLOGICA system:

Cabinet colour: light grey RAL 7035

Colour of modules: black/red

Cable entry: from top

Cabinet: Steel sheet

Mounting: Floor standing

Degree of protection: IP 21

Electrical class: I

Rated ambient temperature: -5 °C to +35 °C

AutoLOGICA system:

Cabinet colour: brilliant blue RAL 5007

or

light grey RAL 7035

Colour of modules: grey/blue



## Charging unit for NZBVA and NZBVE

### Charging unit L230/1.8

Temperature-controlled charging based on IU characteristic with charging mode-dependent switching from charging to maintaining battery charging (float charging). When multiple charging units are used, each of them is independent from the other.

### Technical data

Charge voltage: 244 V

Charge current: 1.8 A

Design: 19" rack insert  
(1 rack compartment)

Type: L230/1.8

Order no.: G32893-SL

Colour of modules: black/red

Order no.: G32893-AL

Colour of modules: grey/blue



## Batteries for NZBVA and NZBVE

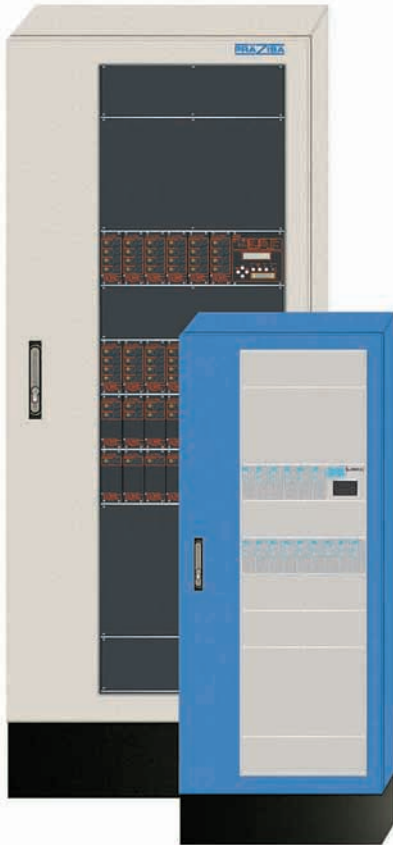
### Batteries

Sealed lead-acid battery with a lifetime expectation of 10+ years at an ambient temperature of 20 °C acc. to EN 50171.  
Battery capacity 33 Ah up to 760 Ah.

Further information about battery details available on request.



## Sub-station for NZBVA (floor standing)



Sub-station NZBVA-U/S acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- Switching device to maintained mode
- Switching device to non-maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 6, 14, 22, or 30 rack compartments for operation and monitoring modules

Cabinet with lockable door, inspection pane and detachable frame. Modules for 19" rack technology.

### Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
U: 230 V (+6%/-10)  
3 ~ N PE 50/60 Hz  
U: 400 V (+6%/-10)

Battery supply: U = 216 V

Fuses and terminal blocks according to technical specification

SlebLOGICA system:

Cabinet colour: light grey RAL 7035

Colour of modules: black/red

Cable entry: from bottom

Cabinet: Steel sheet

Mounting: Floor standing

Degree of protection: IP 54

Electrical class: I

Rated ambient temperature: -5 °C to +35 °C

AutoLOGICA system:

Cabinet colour: brilliant blue RAL 5007  
or

light grey RAL 7035

Colour of modules: grey/blue



## Sub-station for NZBVE (floor standing)



Sub-station NZBVE-U/S acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- Switching device to maintained mode
- Switching device to non-maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 6, 14, 22, or 30 rack compartments for operation and monitoring modules (system with separate control cabinet)

Cabinet with lockable door and inspection pane. Modules for 19" rack technology.

### Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
U: 230 V (+6%/-10)  
3 ~ N PE 50/60 Hz  
U: 400 V (+6%/-10)

Battery supply: U = 216 V

Fuses and terminal blocks according to technical specification

SlebLOGICA system:

Cabinet colour: light grey RAL 7035

Colour of modules: black/red

Cable entry: from bottom

Cabinet: Steel sheet

Mounting: Floor standing

Degree of protection: IP 54

Electrical class: I

Rated ambient temperature: -5 °C to +35 °C

AutoLOGICA system:

Cabinet colour: brilliant blue RAL 5007  
or

light grey RAL 7035

Colour of modules: grey/blue



## Sub-station for NZBVA and NZBVE (wall mounting)



Sub-station NZBVA-U/A or NZBVE-U/A acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- Switching device to maintained mode
- Switching device to non-maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 6 or 14 rack compartments for operation and monitoring modules

Cabinet with lockable door and inspection pane. Modules for 19" rack technology.

### Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
U: 230 V (+6%/-10)  
3 ~ N PE 50/60 Hz  
U: 400 V (+6%/-10)

Battery supply: U = 216 V

Fuses and terminal blocks according to technical specification

SlebLOGICA system:

Cabinet colour: light grey RAL 7035

Colour of modules: black/red

Cable entry: from top

Cabinet: Steel sheet

Mounting: Wall mounting

Degree of protection: IP 54

Electrical class: I

Rated ambient temperature: -5 °C to +35 °C

AutoLOGICA system:

Cabinet colour: brilliant blue RAL 5007  
or

light grey RAL 7035

Colour of modules: grey/blue



## Sub-station with 30 minutes rated fire protection for NZBVA and NZBVE (wall mounting)



Sub-station NZBVA-U/A-30 or NZBVE-U/A-30 acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- Switching device to maintained mode
- Switching device to non-maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 6 or 14 rack compartments for operation and monitoring modules

Cabinet with maintaining fire protection of 30 minutes following DIN 4102-2 with lockable door. Modules for 19" rack technology.

### Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
U: 230 V (+6%/-10)  
3 ~ N PE 50/60 Hz  
U: 400 V (+6%/-10)

Battery supply: U = 216 V

Cable entry: From top via a fitted cable entry to which a fire protected cable duct can be tightly connected.

Body: Highly compressed fire protection panels

Surface coating: Sprela, grey (similar to RAL 7035)

Mounting: Wall mounting

Degree of protection: IP 54

Electrical class: I

Rated ambient temperature: -5 °C to +35 °C

Fuses and terminal blocks according to technical specification

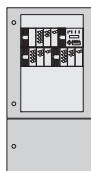
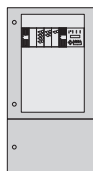


# GROUP BATTERY SYSTEMS



**Beghelli**

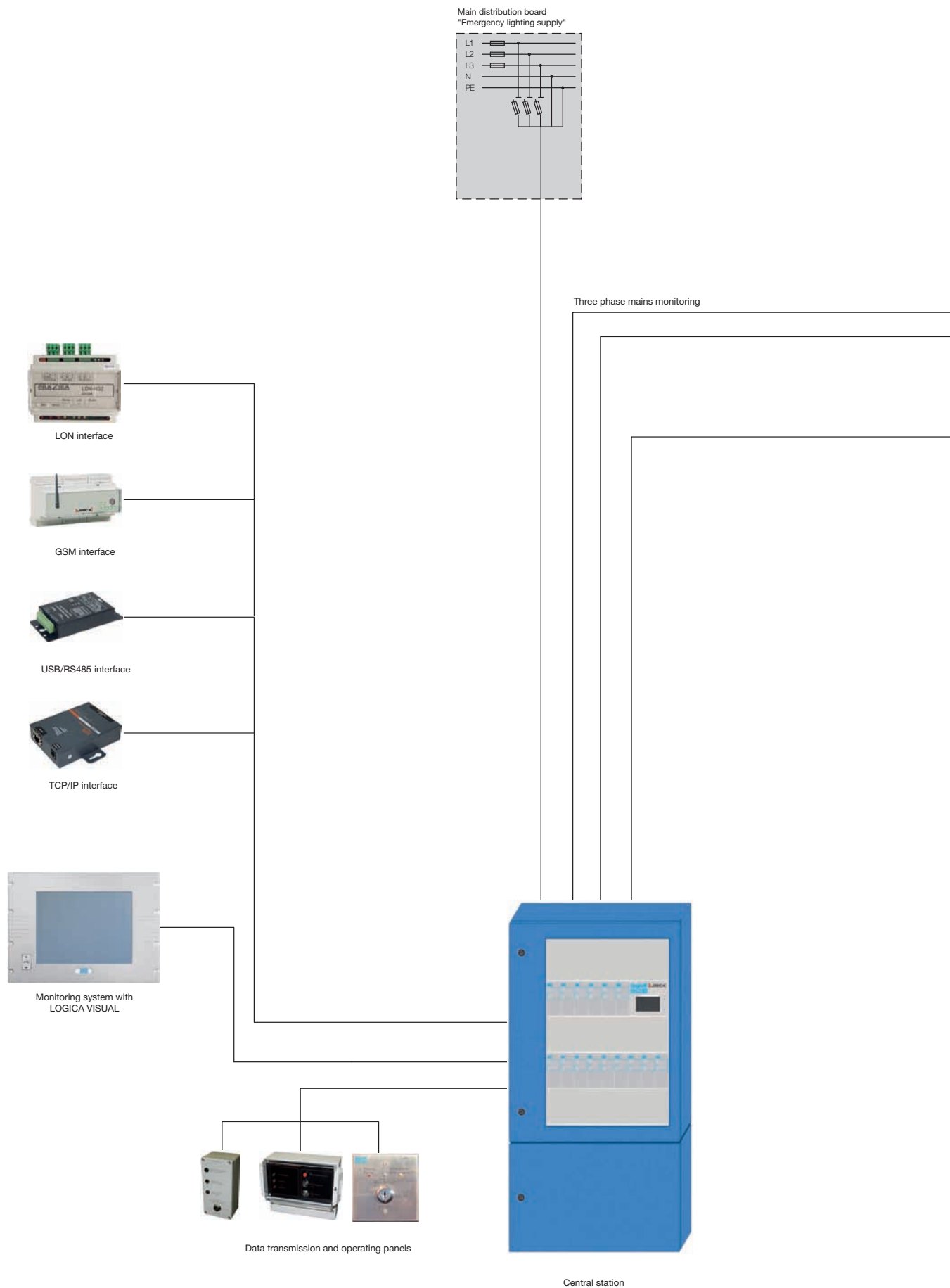
# System spreadsheet NGBVA and NGBVE

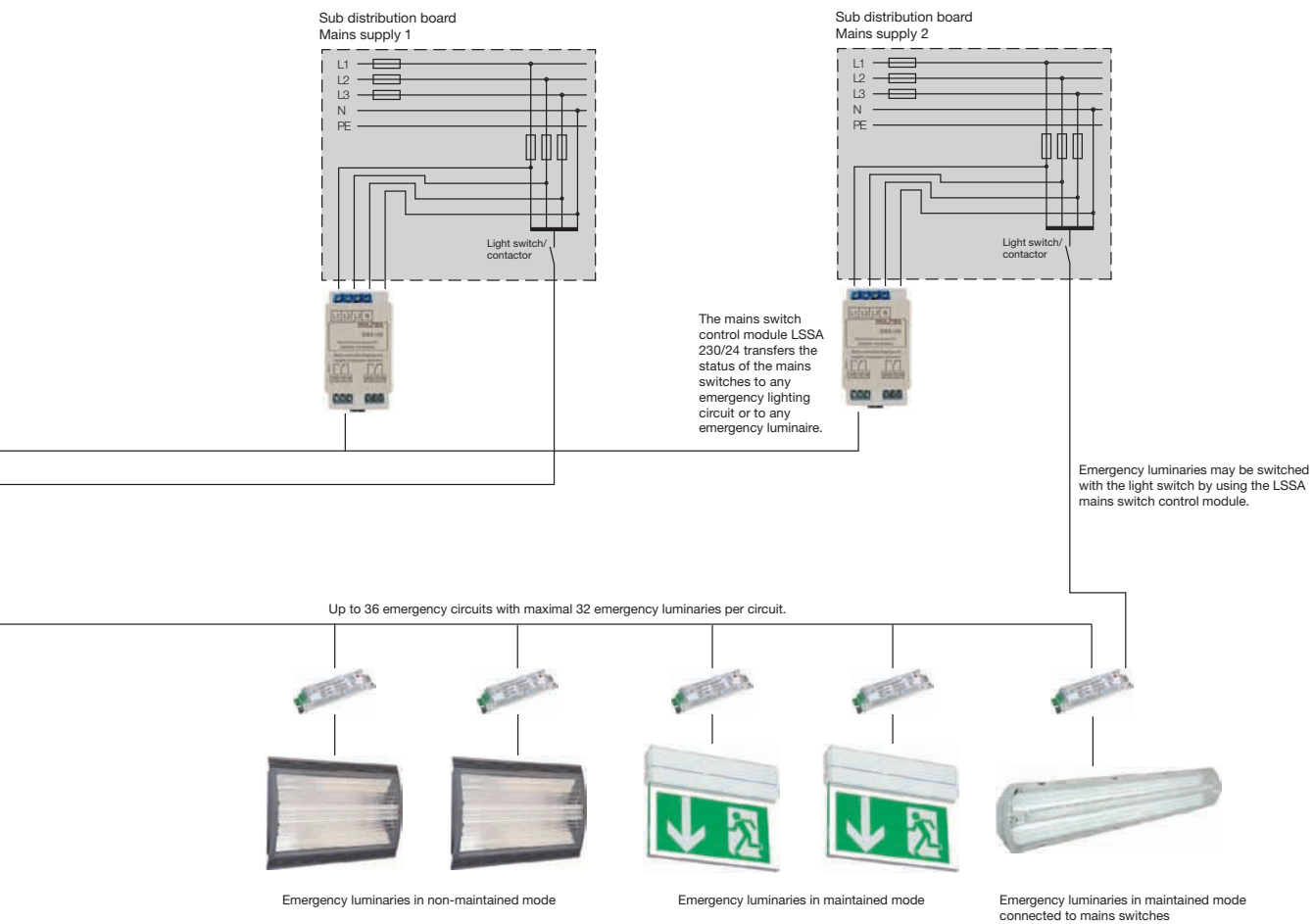


Typ	NGBVA 24/6/_/1/3	NGBVA 24/6/_/3/9	NGBVE 24/6/_/1/3	NGBVE 24/6/_/3/9
Charging unit L24/6	integrated	integrated	integrated	integrated
Batteries with a lifetime expectation of 5 years	10 to 115 Ah	10 to 115 Ah	10 to 115 Ah	10 to 115 Ah
Transformers WLG	max. 1× WLG 400 or 1× WLG 750	max. 1× WLG 750 + 2× WLG 400 or 3× WLG 400	max. 1× WLG 400 or 1× WLG 750	max. 1× WLG 750 + 2× WLG 400 or 3× WLG 400
Control and monitoring unit KOMBI CONTROL	integrated	integrated	integrated	integrated
Built-in printer ED	optional	optional	optional	optional
LON-BUS interface	optional	optional	optional	optional
Monitoring system LOGICA-Visual	optional	optional	optional	optional
USB interface	optional (max. 1)	optional (max. 1)	optional (max. 1)	optional (max. 1)
TCP/IP interface				
GSM interface				
Mains switch/contactors dependent control module LSSA 230	optional (max. 1)	optional (max. 1)	optional (max. 1)	optional (max. 1)
Mains switch/contactors dependent control module LSSA 24				
Staircase mains-/emergency lighting control module TSZ 230				
Operation and monitoring modules AK 1× 32 EÜ AK 2× 32 EÜ AK 4× 32 EÜ	Rack compartments (max. 3)	Rack compartments (max. 9)	Rack compartments (max. 3)	Rack compartments (max. 9)
Operation and monitoring modules AK 1× 32 SÜ AK 2× 32 SÜ AK 4× 32 SÜ				
Operation and monitoring module AK 32-SÜ-AC				
Design	Wall-mounted combined cabinet (electronics and battery)	Wall-mounted combined cabinet (electronics and battery)	Wall-mounted combined cabinet (electronics and battery)	Wall-mounted combined cabinet (electronics and battery)
Dimensions (H × W × D)	1140 × 600 × 350 mm	1140 × 600 × 350 mm	1140 × 600 × 350 mm	1140 × 600 × 350 mm

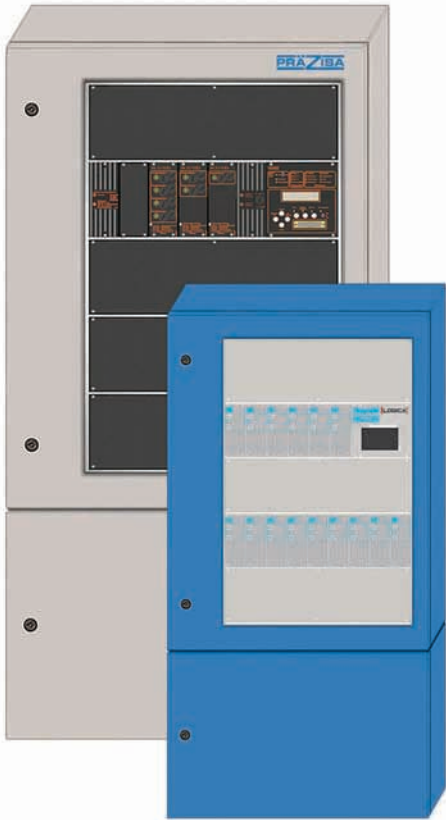


# System spreadsheet NGBVA and NGBVE





## Group battery system NGBVA



Group battery system NGBVA acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- Charging unit L24/6
- Switching device to maintained mode
- Switching device to non-maintained mode
- Internal mains monitoring device for maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 1 or 3 rack compartments for transformers
- 3 or 9 rack compartments for operation and monitoring modules

Control cabinet including a lockable door with inspection pane and detachable frame. Modules for 19" rack technology. Battery cabinet with lockable door and ventilating apertures.

### Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
U: 230 V (+6%/-10)  
3 ~ N PE 50/60 Hz  
U: 400 V (+6%/-10)  
Fuse: 25 A, 3-pole  
Terminals: 10 mm<sup>2</sup>  
Battery supply: U = 24 V  
Fuse: max. 80 A, 2-pole

Terminals: 25 mm<sup>2</sup>  
Cable entry: from top  
Cabinet: Steel sheet  
Mounting: Wall mounting  
Degree of protection: IP 54/IP 32  
Electrical class: I  
Rated ambient temperature: 20 °C

SlebLOGICA system:  
Cabinet colour: light grey RAL 7035  
Colour of modules: black/red

AutoLOGICA system:  
Cabinet colour: brilliant blue RAL 5007  
or  
light grey RAL 7035  
Colour of modules: grey/blue



## Group battery system NGBVE



Group battery system NGBVE acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- Charging unit L24/6
- Switching device to maintained mode
- Switching device to non-maintained mode
- Internal mains monitoring device for maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 1 or 3 rack compartments for transformers
- 3 or 9 rack compartments for operation and monitoring modules

Control cabinet with lockable door and inspection pane. Modules for 19" rack technology. Battery cabinet with lockable door and ventilating apertures.

### Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
U: 230 V (+6%/-10)  
3 ~ N PE 50/60 Hz  
U: 400 V (+6%/-10)  
Fuse: 25 A, 3-pole  
Terminals: 10 mm<sup>2</sup>  
Battery supply: U = 24 V  
Fuse: max. 80 A, 2-pole

Terminals: 25 mm<sup>2</sup>  
Cable entry: from top  
Cabinet: Steel sheet  
Mounting: Wall mounting  
Degree of protection: IP 54/IP 32  
Electrical class: I  
Rated ambient temperature: 20 °C

SlebLOGICA system:  
Cabinet colour: light grey RAL 7035  
Colour of modules: black/red

AutoLOGICA system:  
Cabinet colour: brilliant blue RAL 5007  
or  
light grey RAL 7035  
Colour of modules: grey/blue



# Charging unit for NGBVA and NGBVE



## Charging unit L24/6

Temperature-controlled charging based on IU characteristic with charging mode-dependent switching from charging to maintaining battery charging (float charging).

### Technical data

Charge voltage: 27 V

Charge current: 6 A

Design: 19" rack insert  
(1 rack compartment)

Type: L24/6

Order no.: G32547-SL

Order no.: G32547-AL

Colour of modules: black/red

Colour of modules: grey/blue



# Batteries for NGBVA and NGBVE



Sealed lead-acid battery with a lifetime expectation of 5+ years at an ambient temperature of 20 °C acc. to EN 50171.

### Technical data

Battery capacity (Ah)		24	40	65	85	115
Battery voltage (V)		24				
Battery current (A)	1 h	14.8	23.7	35.5	50.3	62.5
Maximum load (W)		355	568	852	1207	1500
Battery current (A)	3 h	5.7	9.1	13.6	19.5	20.8
Maximum load (W)		136	218	327	468	500

### Battery capacity and maximum permissible load

# Transformer modules for NGBVA and NGBVE



## Transformers WL4

Unit for the conversion of 24V input D.C. voltage (battery) to 230V output D.C. voltage. One transformer supplies up to three operation and monitoring modules in battery mode.

### Technical data

Power: 400 W

Power: 750 W

Design: 19" rack insert  
(1 rack compartment)

Design: 19" rack insert  
(1 rack compartment)

Type: WL4 400

Type: WL4 750

Colour of modules: black/red

Colour of modules: grey/blue

Order no.: G32812-SL

Order no.: G32811-SL



Order no.: G32812-AL

Order no.: G32811-AL



System equipment:

NGBVA/NGBVE 24/6/\_\_\_/1/3: 1x WL4 400 or 1x WL4 750

NGBVA/NGBVE 24/6/\_\_\_/3/9: 2x WL4 400 + 1x WL4 750 or 3x WL4 400

# Design and configuration of NGBVA and NGBVE

**The group battery systems NGBVA and NGBVE can be designed according to the instructions below:**

1. Determine from the customer's specifications:
  - Quantity and technical details of the exit sign and emergency luminaires to be supplied (lamp type, lamp power, ballast lumen factor and gear)
  - Quantity and technical details of the circuits (maintained mode, non-maintained mode, selectively switchable non-maintained mode, selectively switching-on non-maintained mode)
  - Type of luminaire monitoring
2. Power consumption in mains and battery mode (lamp and gear manufacturer data )<sup>1)</sup>
3. Charging unit
4. Battery
5. Transformer(s) (system spreadsheet)
6. Operation and monitoring module (system spreadsheet)
7. Options (system spreadsheet)

Type: Defining the group battery system:

NGBVA

24/6/\_\_\_/\_\_\_/\_\_\_/\_\_\_/

NGBVE

Duration (h) (1=1 h/3=3 h)

Rack compartments needed for operation  
and monitoring modules

Rack compartments needed for transformers

Battery capacity (Ah) (see above)

Charge current (A)

1) Power consumption of the ECSL, ECKC and EC modules on request.



# **COMPACT EMERGENCY LIGHTING SYSTEMS NGBVE-K**

**Beghelli**



# Compact emergency lighting systems NGBVE-K

The compact emergency lighting systems NGBVE-K offer a combination of decentralised power supply and centralised monitoring. Taking advantage from both self-contained and central battery systems these installations provide safety at its highest level. Depending on national regulations, these include:

- Decentralised supply of exit sign and emergency luminaires per building, section or fire protection zone
- Centralised monitoring of the complete emergency lighting installation
- Lower number of cables and distribution boards
- Minimised fire load in corridors and staircases
- Simplified battery replacement

## **Special features:**

- Control and monitoring by the SuperLOGICA system
- Luminaire operation in:
  - Maintained mode
  - Non-maintained mode
  - Non-maintained mode with selective switching to maintained mode via external general lighting switches
  - Non-maintained mode with selective switching in case of partial mains incidents/failures via external mains monitoring modules
- Combination of all options in a single circuit
- Permanent check of the general lighting switches or of the mains monitoring modules via control inputs within the luminaire or system
- Allocation of control information to different luminaires and circuits without limitation
- No manual addressing of the luminaire number at the control and monitoring module within the luminaire required
- No manual coding of the control input at the control and monitoring module within the luminaire required
- Automatic allocation of the required circuits and detection of luminaires
- Individual monitoring of 20 luminaires in a circuit with or without selective irregularity report
- Automatic triggering of function and duration tests
- Automatic reporting to a test journal
- Centralised input and output of all parameters and data
- Operates luminaires with:
  - Incandescent lamps
  - Fluorescent tubes with electronic ballast

# System spreadsheet NGBVE-K



Typ	NGBVE-K 24/3/_/1/1-3	NGBVE-K 24/3/_/2/1-3	NGBVE-K 24/3/_/1/1-3	NGBVE-K 24/3/_/2/1-3
Charging unit L24/3	integrated	integrated	integrated	integrated
Batteries with a lifetime expectation of 5 years	24 to 65 Ah	24 to 65 Ah	24 to 65 Ah	24 to 65 Ah
Transformers WLG 400	integrated	integrated	integrated	integrated
Control and monitoring unit KOMBI CONTROL	integrated	integrated	integrated	integrated
Signalling and switching module MSM	optional	optional	optional	optional
Monitoring software LOGICA-Visual	optional	optional	optional	optional
USB interface	Choice of 1 only	Choice of 1 only	Choice of 1 only	Choice of 1 only
GSM interface				
TCP/IP interface				
Mains monitoring module DS 3 UV	optional	optional	optional	optional
Mains switch/contactors dependent control module LSSA 230	integrated (4)	integrated (4)	integrated (4)	integrated (4)
Mains switch/contactors dependent control module LSSA	integrated (4)	integrated (4)	integrated (4)	integrated (4)
Operation and monitoring modules AK 4× 32 EÜ	Rack compartment (1)	Rack compartment (2)	Rack compartment (1)	Rack compartment (2)
Operation and monitoring modules AK 4× 32 SÜ				
<b>Design</b>	Wall-mounted combi cabinet (electronics and battery)	Wall-mounted combi cabinet (electronics and battery)	Wall-mounted combi cabinet (electronics and battery)	Wall-mounted combi cabinet (electronics and battery)
<b>Dimensions (H × W × D)</b>	600 × 420 × 250 mm	600 × 420 × 250 mm	950 × 480 × 250 mm	950 × 480 × 250 mm

# Compact emergency lighting system NGBVE-K



Compact emergency lighting system NGBVE-K acc. to EN 50171 with:

- Control and monitoring system KOMBI CONTROL
- Charging unit L24/3
- Switching device to maintained mode
- Switching device to non-maintained mode
- Internal mains monitoring device for maintained mode
- Control input for external mains monitoring devices for non-maintained mode
- 4 or 8 luminaire circuits
- for individual monitoring without selective irregularity report
- for individual monitoring with selective irregularity report
- 4 control inputs to switch selectively emergency lighting luminaire circuits from non-maintained to maintained mode depending on the general lighting. (control: 230V AC or DC)
- 4 control inputs switch individual emergency lighting luminaire circuits from non-maintained to maintained mode depending on partial incidents or failures of the general lighting. (control: isolated contact)
- Cabinet with separate electronics and battery compartments, lockable door with inspection pane and ventilation apertures in the battery compartment

## Technical data

Mains supply: 1 ~ N PE 50/60 Hz  
 U: 230 V (+6%/-10)  
 3 ~ N PE 50/60 Hz  
 U: 400 V (+6%/-10)  
 Fuse: 20 A, 3-pole  
 Terminals: 6 mm<sup>2</sup>  
 Battery supply: U = 24 V  
 Fuse: max. 50 A, 2-pole

Cabinet: Steel sheet, grey  
 Mounting: Wall mounting  
 Degree of protection: IP 54/IP 32  
 Electrical class: I  
 Rated ambient temperature  
 - electronics: -5 °C to +35 °C  
 - battery: 20 °C

SlebLOGICA system:

Cabinet colour: light grey RAL 7035  
 Colour of modules: black/red

AutoLOGICA system:

Cabinet colour: brilliant blue RAL 5007  
 or  
 light grey RAL 7035  
 Colour of modules: grey/blue



# Batteries for NGBVE-K



Sealed lead-acid battery with a lifetime expectation of 5+ years at an ambient temperature of 20°C acc. to EN 50171.

## Technical data

Battery capacity (Ah)		24	40	65
Maximum load (W)	1 h	355	–	–
Maximum load (W)	3 h	136	218	327

**Battery capacity and maximum permissible load**

# Design and configuration of NGBVE-K

**The compact emergency lighting systems NGBVE-K can be designed according to the instructions below:**

1. Determine the following from the customer's specifications:
    - Quantity and technical details of the exit sign and emergency luminaires to be supplied (lamp type, lamp power, ballast lumen factor and gear)
    - Quantity and technical details of the circuits (maintained mode, non-maintained mode, selectively switchable non-maintained mode, selectively switching-on non-maintained mode)
    - Type of luminaire monitoring
  2. Power consumption in battery mode (lamp and gear manufacturer data)<sup>1)</sup>
  3. Battery (table 1)
  4. Operation and monitoring module (system spreadsheet)
  5. Options (system spreadsheet)
- Type: NGBVE-K 24/3/\_\_\_/\_/1-3
- Charge voltage
  - Charge current
  - Battery capacity
  - Operation and monitoring modules
  - Operation duration

1) Power consumption of the ECSL, ECKC and EC modules on request.

Battery capacity (Ah)		24	40	65
Maximum load (W)	1 h	355	–	–
Maximum load (W)	3 h	136	218	327

Note:

When using modules from the SLEB and KCE range consider a power consumption of 1W per module. Consider 10 W power consumption for every transformer.

## **MONITORING AND CONTROL COMPONENTS**



**Beghelli**

# Monitoring system LOGICA-Visual



Panel PC  
Processor: Pentium IV, 1.0 GHz  
15" touch screen  
80 GB hard disk  
512 MB-RAM  
WinXP and LOGICA-Visual pre-installed

## **Technical data**

Design: 19" rack insert  
Type: LOGICA-Visual  
Order code: **F90210**

## Interface modules for LOGICA-Visual

### **USB 2.0/RS485 interface**

Module used to interface a group or central battery system with a PC running the monitoring software LOGICA-Visual.

## **Technical data**

Mounting: Module for DIN rail  
Body: Metal  
Type: USB 2.0/RS485-NGZ  
Order code: **FB16319**

### **GSM interface**

Module used to interface a group or central battery system with a PC running the monitoring software LOGICA-Visual via the GSM network.

## **Technical data**

Mounting: Module for DIN rail  
Body: Plastic  
Type: GSM interface  
Order code: **FB16306-NZ**

### **TCP/IP interface**

Module used to interface a group or central battery system with a PC running the monitoring software LOGICA-Visual via Ethernet.

## **Technical data**

Mounting: Module for DIN rail  
Body: Metal  
Type: TCP/IP-NGZ  
Order code: **G31209**





# LON bus interface for NGBVA, NGBVE, NZBVA a NZBVE

## LON bus interface LON-NGZ

Module for communication with a building management system via LON bus.

- Control of: Maintained mode ON/OFF, function test and insulation test triggering
- Signalling of: Emergency mode suppression ON/OFF, mains mode, battery mode, mains failure on main distribution board (phase L1, L2, and L3), mains failure on sub distribution board, group fault, charge fault, battery fault, luminaire fault, bus fault, deep discharge

### Technical data

Mounting:	DIN rail	Type:	LON-NGZ
Body:	Plastic	Order code:	G31206



# Signalling and switching module for NGBVA, NGBVE, NZBVA and NZBVE

## Signalling and switching module MSM

- Display of: - Emergency mode suppression  
- Operating mode  
- Group fault
- Control of: - Maintained mode ON/OFF

### Technical data

Mounting:	Wall mounting	Electrical class:	II
Body:	Plastic	Type:	MSM
Dimensions (H x W x D):	160 x 80 x 60 mm	Order code:	G31015
Degree of protection:	IP 65		



## Signalling and switching module MSM

- Display of: - Emergency mode suppression  
- Operating mode  
- Group fault
- Control of: - Maintained mode ON/OFF

### Technical data

Mounting:	Recessed wall mounting	Electrical class:	I
Body:	Metal	Type:	MSM
Dimensions (H x W x D):	186 x 86 x 53 mm	Order code:	G31045
Degree of protection:	IP 20		



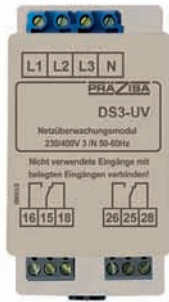
## Signalling and switching module MSM

- Display of: - Emergency mode suppression  
- Operating mode  
- Group fault
- Control of: - Maintained mode ON/OFF  
- Stand by operation ON/OFF  
- Stand by operation with reduced light output (e.g. for cinemas)

### Technical data

Mounting:	Wall mounting	Electrical class:	II
Body:	Plastic	Type:	MSM
Dimensions (H x W x D):	185 x 245 x 107 mm	Order code:	G31044
Degree of protection:	IP 65		

# Mains monitoring module for NGBVA, 77 NGBVE, NZBVA and NZBVE



## Mains monitoring module DS 3 UV

Module used in sub distribution boards to monitor the mains supply for general lighting.

Mains input: 3-phase

Control output: 2 change-over contacts, isolated (230V/3A)

### Technical data

Mounting:	DIN rail	Electrical class:	I
Body:	Plastic	Type:	DS 3 UV
Dimensions (H x W x D):	95 x 48 x 42 mm	Order code:	<b>G31020A</b>
Degree of protection:	IP 20		

# Switching modules for NGBVA, NGBVE, NZBVA and NZBVE



## Mains switch/contact dependent control module LSSA 230

Module for selective switching of individual emergency lighting luminaire circuits from non-maintained to maintained mode depending on the general lighting. Allocation of control channels to the luminaire circuits without limitation.

### Technical data

Control channels:	8	Body:	Plastic
Control:	230 V AC or DC	Type:	LSSA 230
Mounting:	DIN rail	Order code:	<b>G31204</b>



## Mains switch/contact dependent control module LSSA 24

Module used to selectively switch individual emergency lighting luminaire circuits from non-maintained to maintained mode depending on partial incidents or failures of the general lighting. Allocation of control channels to the luminaire circuits without limitation.

### Technical data

Control channels:	8	Body:	Plastic
Control:	switching contact, isolated	Type:	LSSA 24
Mounting:	DIN rail	Order code:	<b>G31207</b>



## Staircase general/emergency lighting control module TSZ 230

Module used to time-dependent control individual luminaire circuits of emergency and general lighting via push buttons of the general lighting system acc. to DIN VDE 0108-4, section 6.2 and DIN VDE 0108-5, section 6.2. Allocation of control channels to the luminaire circuits without limitation.

### Technical data

Control channels:	4	Body:	Steel sheet
Control:	Push button	Type:	TSZ 230
Mounting:	DIN rail	Order code:	<b>G31198</b>

# Printer for NGBVA, NGBVE, NZBVA and NZBVE



## Printer ED

### Technical data

Paper type:	Thermal paper	Type:	ED
Paper width:	80 mm	Order code:	<b>M10053A</b>
Design:	19" rack insert	Printer paper	
		Order code:	<b>H14146</b>

# Operation and monitoring module for NGBVA, NGBVE, NZBVA and NZBVE



## Operation and monitoring module AK 1 × 32 EÜ

- Modules for one luminaire circuit to operate 1 × 20 (32) luminaires with:
  - Incandescent lamps
  - Halogen lamps + electronic transformer
  - Fluorescent tubes + electronic ballast
- Monitoring: - Individual monitoring with selective irregularity report

### Technical data

Maximum load:	1 × 1 380 W	Design:	19" rack insert (1 rack compartment)
Inrush current load:	1 × 42 500 W <sup>1)</sup>	Type:	AK 1 × 32 EÜ
Colour of modules:	black/red	Colour of modules:	grey/blue
Order code:	<b>G32754-SL</b>	Order code:	<b>G32100</b>



## Operation and monitoring module AK 2 × 32 EÜ

- Modules for 2 luminaire circuits to operate 2 × 20 (32) luminaires with:
  - Incandescent lamps
  - Halogen lamps + electronic transformer
  - Fluorescent tubes + electronic ballast
- Monitoring: - Individual monitoring with selective irregularity report

### Technical data

Maximum load:	2 × 690 W	Design:	19" rack insert (1 rack compartment)
Inrush current load:	2 × 35 000 W <sup>1)</sup>	Type:	AK 2 × 32 EÜ
Colour of modules:	black/red	Colour of modules:	grey/blue
Order code:	<b>G32818-SL</b>	Order code:	<b>G32101</b>



## Operation and monitoring module AK 4 × 32 EÜ

- Modules for 4 luminaire circuits to operate 4 × 12 (20) luminaires with:
  - Incandescent lamps
  - Halogen lamps + electronic transformer
  - Fluorescent tubes + electronic ballast
- Monitoring: - Individual monitoring with selective irregularity report

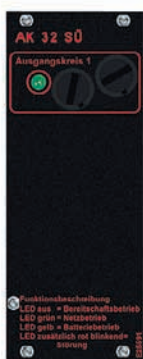
### Technical data

Maximum load:	4 × 345 W	Design:	19" rack insert (1 rack compartment)
Inrush current load:	4 × 27 500 W <sup>1)</sup>	Type:	AK 4 × 32 EÜ
Colour of modules:	black/red	Colour of modules:	grey/blue
Order code:	<b>G32824-SL</b>	Order code:	<b>G32102</b>



1) Max. power for 1 ms

# Operation and monitoring module for NGBVA, 79 NGBVE, NZBVA and NZBVE



## Operation and monitoring module AK 1 x 32 SÜ

- Modules for one luminaire circuit to operate 1 x 20 (32) luminaires with:
  - Incandescent lamps
  - Halogen lamps + electronic transformer
  - Fluorescent tubes + electronic ballast
- Monitoring: - Individual monitoring without selective irregularity report

### Technical data

Maximum load:	1 x 1 380 W	Design:	19" rack insert (1 rack compartment)
Inrush current load:	1 x 42 500 W <sup>1)</sup>	Type:	AK 1 x 32 SÜ
Colour of modules:	black/red	Colour of modules:	grey/blue
Order code:	<b>G32797S</b>	Order code:	<b>G32103</b>



## Operation and monitoring module AK 2 x 32 SÜ

- Modules for 2 luminaire circuits to operate 2 x 20 (32) luminaires with:
  - Incandescent lamps
  - Halogen lamps + electronic transformer
  - Fluorescent tubes + electronic ballast
- Monitoring: - Individual monitoring without selective irregularity report

### Technical data

Maximum load:	2 x 690 W	Design:	19" rack insert (1 rack compartment)
Inrush current load:	2 x 35 000 W <sup>1)</sup>	Type:	AK 2 x 32 SÜ
Colour of modules:	black/red	Colour of modules:	grey/blue
Order code:	<b>G32815S</b>	Order code:	<b>G32104</b>

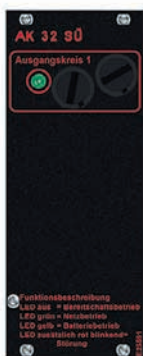


## Operation and monitoring module AK 4 x 32 SÜ

- Modules for 4 luminaire circuits to operate 4 x 20 (32) luminaires with:
  - Incandescent lamps
  - Halogen lamps + electronic transformer
  - Fluorescent tubes + electronic ballast
- Monitoring: - Individual monitoring without selective irregularity report

### Technical data

Maximum load:	4 x 345 W	Design:	19" rack insert (1 rack compartment)
Inrush current load:	4 x 27 500 W <sup>1)</sup>	Type:	AK 4 x 32 SÜ
Colour of modules:	black/red	Colour of modules:	grey/blue
Order code:	<b>G32820S</b>	Order code:	<b>G32105</b>

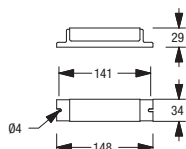


## Operation and monitoring module AK 4 x 32 SÜ-AC

- Modules for one luminaire circuit to operate 1 x 20 (32) luminaires with:
  - Halogen lamps + magnetic transformer
  - Fluorescent tubes + magnetic ballast (LPF circuit, non-compensated)
- Monitoring: - Individual monitoring without selective irregularity report

### Technical data

Maximum load:	575 VA/400 W	Design:	19" rack insert (1 rack compartment)
Rated frequency:	50 Hz (square wave)	Type:	AK 4 x 32 SÜ-AC
Colour of modules:	black/red	Colour of modules:	grey/blue
Order code:	<b>G32857</b>	Order code:	<b>G32106</b>



## Monitoring and switching module ALOG

Module in SuperLOGICA technology with following functions:

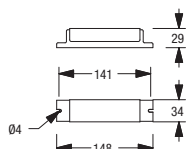
- Luminaire monitoring (lamp + gear) with selective irregularity report
- Luminaire allocation to modes:
- Non-maintained mode/maintained mode/non-maintained mode, selectively switchable via internal LSSA control input or external LSSA control module
- Transmission of the control information from an internal LSSA control input to further luminaires within the same or other luminaire circuits
- No need to manually encode the luminaire address at the module
- No need for the manual coding of the LSSA control input at the module

Every module and every luminaire is equipped with an identification code. There is no manual addressing required.

### Technical data

Lamp or system power: 5 to 120 W  
Mains voltage: 198 to 254 V  
Mains frequency: 50 Hz  
Battery voltage: 176 to 254 V  
Rated ambient temperature: -10 to +50 °C

Mounting: to be installed in luminaires  
Body: Metal  
Degree of protection: IP 20  
Electrical class: I  
Type: ALOG  
Order code: **G31351**

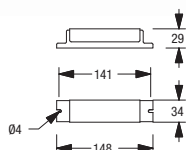


## Monitoring and switching module ALOG-DALI

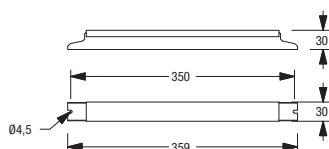
Module with the same functions as the module ALOG, but with DALI control input to connect with luminaires featuring a DALI control unit.

### Technical data

Type: ALOG-DALI  
Order code: **G31354**



G313xx



G313xx

## Monitoring and switching module with HF-ballast

Module is a combination of a HF-ballast type EC and the ALOG monitoring and switching unit.

- HF-ballast available with fixed or variable ballast lumen factor

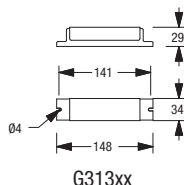
### Technical data

Mains voltage: 198 to 254 V  
Battery voltage: 176 to 254 V  
Mains frequency: 50 Hz  
Rated ambient temperature: -10 to +50 °C

Mounting: to be installed in luminaires  
Body: Metal  
Degree of protection: IP 20  
Electrical class: I

Order code	Source	Ballast lumen factor
<b>G31352</b>	T16-Lp 4-13 W	75 %
	TC-Lp 5-11 W	75 %
<b>G31353</b>	T16-Lp 14-21 W	10-100 %
	T26-Lp 18 W	10-100 %
	TC-Lp 13-26 W	10-100 %
<b>G31357</b>	T16-Lp 28-80 W	10-100 %
	T26-Lp 36-58 W	10-100 %
	TC-Lp 32-55 W	10-100 %





G313xx

## Monitoring and switching module with 81 LED ballast

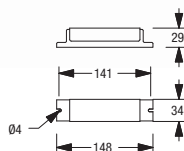
Module is a combination of a operation unit for LEDs and the ALOG monitoring and switching unit.

### Technical data

Output voltage: 15–22.5 V to  
operate 2–5 pcs  
Power LEDs (serial  
connection)

LED current: 400 mA

Order code	Source	Ballast lumen factor
<b>G31355</b>	2–4 PowerLEDs	100 %
<b>G31356</b>	3–5 PowerLEDs	100 %



## Monitoring and switching module SLEB

Module in SuperLOGICA technology with following functions:

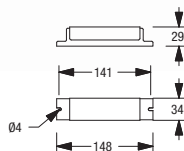
- Luminaire monitoring (lamp + gear) with selective irregularity report
  - Luminaire allocation to modes:
    - Non-maintained mode/maintained mode/non-maintained mode, selectively switchable via internal LSSA control input or external LSSA control module
    - Transmission of the control information from an internal LSSA control input to further luminaires within the same or other luminaire circuits
  - No need to manually encode the luminaire address at the module
  - No need for the manual coding of the LSSA control input at the module
- Every module and every luminaire is equipped with an identification code. There is no manual addressing required.

### Technical data

Lamp or system power: 5 to 120 W  
Mains voltage: 198 to 254 V  
Mains frequency: 50 Hz  
Battery voltage: 176 to 254 V  
Rated ambient temperature: -10 to +50 °C

Mounting: to be installed in luminaires

Body: Metal  
Degree of protection: IP 20  
Electrical class: I  
Type: ALOG  
Order code: **G31371**



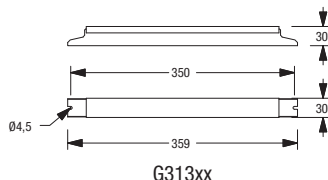
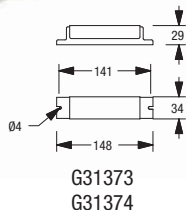
## Monitoring and switching module SLEB-DALI

Module with the same functions as the module SLEB, but with DALI control input to connect with luminaires featuring a DALI control unit.

### Technical data

Type: SLEB-DALI  
Order code: **G31372**





## Monitoring and switching module with HF-ballast

Module is a combination of a HF-ballast type EC and the SLEB monitoring and switching unit.

- HF-ballast available with fixed or variable ballast lumen factor

### Technical data

Mains voltage: 198 to 254 V

Battery voltage: 176 to 254 V

Mains frequency: 50 Hz

Rated ambient temperature:

-10 to + 50 °C

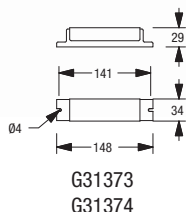
Mounting: to be installed in luminaires

Body: Metal

Degree of protection: IP 20

Electrical class: I

Order code	Source	Ballast lumen factor
<b>G31373</b>	T16-Lp 4–13 W	75 %
	TC-Lp 5–11 W	75 %
<b>G31374</b>	T16-Lp 14–21 W	10–100 %
	T26-Lp 18 W	10–100 %
	TC-Lp 13–26 W	10–100 %



## Monitoring and switching module with LED ballast

Module is a combination of a operation unit for LEDs and the SLEB monitoring and switching unit.

### Technical data

Output voltage: 15–22.5 V to operate 2–5 Power LEDs (serial connection)

LED current: 400 mA

Order code	Source	Ballast lumen factor
<b>G31360</b>	2–4 PowerLEDs	100 %
<b>G31361</b>	3–5 PowerLEDs	100 %



## **EXIT SIGN AND EMERGENCY LUMINAIRES FOR CENTRAL AND GROUP BATTERY SYSTEMS**

**Beghelli**

# Logica/Logica LED



**New**

## Technical data

Mounting: surface mounting  
on wall or ceiling, recessed  
mounting into the wall or  
ceiling

Material: polycarbonate  
gray RAL 7035

Reflector: polished  
aluminium

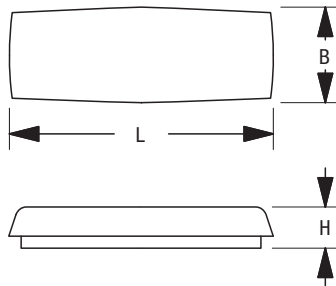
Diffuser: polycarbonate

Rated voltage:  
198–254 V/50 Hz

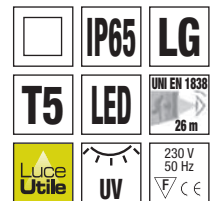
Battery supply:  
176–254 V

Ambient temperature:  
-10 °C to +40 °C (T5),  
-20 °C to +40 °C (LED)

Symbols see page 134



W	• Dimensions (mm) •			• Recessed box (mm)	Source	Socket
L	B	H				
8	406	147	63	440 × 170	T5	G5
30× 0.2	406	147	63	440 × 170	LED	–



## ACCESSORIES: PROVIDED WITH

8 W	Description	Pcs
	exit sign (set of 3 signs)	1
<b>FB12198</b>	box for recessed mounting	1

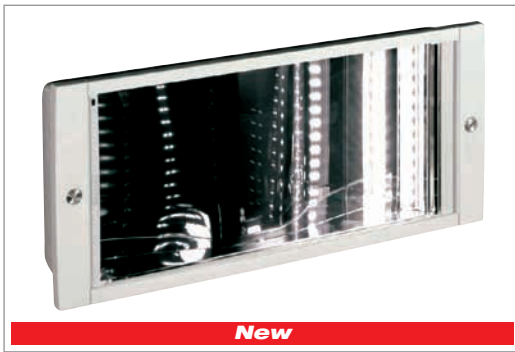
## ACCESSORIES: TO BE ORDERED SEPARATELY

8 W	Description	Pcs
<b>FB12193</b>	Kit for recessed mounting in plasterboard	1
<b>FB12194</b>	Protective grille (on wall and ceiling mounting only)	1



W	Code	Power		EVG	Ballast lumen factor		
		AC	DC		Sleb	Alog	NEA
8	<b>TB16400</b>	13.2 VA	6.8 W	100 %			
8	<b>TB16401</b>	13.2 VA	6.8 W		75 %		
8	<b>TB16406</b>	13.2 VA	6.8 W			75 %	
8	<b>TB16407</b>	13.2 VA	6.8 W				100 %
30× 0.2	<b>TB16032</b>	6.0 VA	3.5 W	600 lm			
30× 0.2	<b>TB16033</b>	6.0 VA	4.5 W		600 lm		
30× 0.2	<b>TB16034</b>	6.0 VA	4.5 W			600 lm	

# Acciaio LED



## Technical data

Mounting: on wall or ceiling,  
recessed mounting with  
recessed box

Body: die-cast aluminium

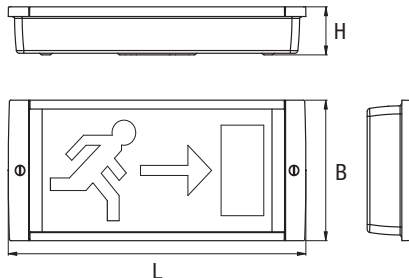
Reflector: special optical  
system made of aluminium  
99.99%

Diffuser: semi-matted  
polycarbonate

Rated voltage:  
198–254 V/50 Hz

Battery supply:  
176–254 V

Ambient temperature:  
-20 °C to +40 °C



Emergency system LED luminaire (also with exit sign) with high degree of protection IP 66 is designed for particularly demanding applications in high-risk areas. The diecast aluminium housing and glass screen have an excellent mechanical strength (IK09) and resist well to aggressive chemical agents. In industrial applications, the fixture is ideal for installation in areas with explosive atmospheres caused by gaseous alterations or airborne combustible dust (as indicated in the ATEX Directive 94/9/EC). The dual series of high-performance LEDs has a special extra lens, to make screen illumination even more uniform. The range also includes a number of measures for easier installation, such as: an incorporated bubble level, a quick-fit system, feed through wiring, dual wire entry for each terminal, wide-head screws.

Symbols see page 134

W	• Dimensions (mm) •			Source
	L	B	H	
24x 0.2	391	174	59.5	LED



## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
E16019	adhesive legend DOWN	1
E16017	adhesive legend RIGHT	1
E16018	adhesive legend LEFT	1
FB15012	false ceiling / recessed bracket	1
FB15016	bracket for flag installation on wall	1
FB15017	ATEX kit	1



W	Code	Power		Ballast lumen factor		
		AC	DC	EVG	Sleb	Alog
24x 0.2	<b>TB16020</b>	7.0 VA	5.4 W	224 lm		
24x 0.2	<b>TB16021</b>	7.0 VA	6.4 W		224 lm	
24x 0.2	<b>TB16022</b>	7.0 VA	6.4 W			224 lm



# Formula65 / Formula65 LED

Emergency system luminaire (also with exit sign screen) in an elegant design suitable for recessed, ceiling and wall mounting. Available in LED or with T5 fluorescent lamp. Symmetrical plastic reflector provides uniform distribution of luminous flux. Due to high protection IP 65 and durable polycarbonate construction.

Formula65 is suitable for use in demanding operating conditions.

Symbols see page 134



W	• Dimensions (mm) •			Source	Socket
	L	B	H		
8	354	152	48.5	T5	G5
32× 0.2	354	152	48.5	LED	—



## ACCESSORIES: PROVIDED WITH

Code	Description	Pcs
<b>FB19040</b>	recessed box with frame	1

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>FB19041</b>	false ceiling brackets
<b>FB19044</b>	adhesive legends LEFT / RIGHT / DOWN
<b>FB19045</b>	bracket for flag installation on wall
<b>E16041N-Kit-F65</b>	exit sign pane DOWN
<b>E16040N-Kit-F65</b>	exit sign pane LEFT / RIGHT
<b>FB12194</b>	protective grille

## Technical data

Mounting: on wall or ceiling, recessed mounting with recessed box

Body: self-snuffing plastic (standard EN 60598-1, UL 94)

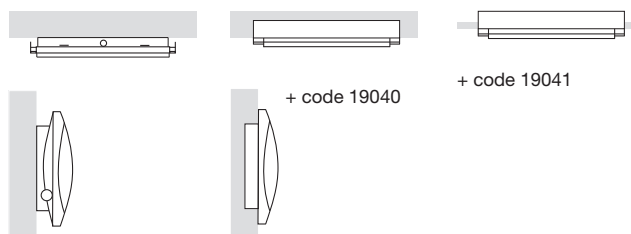
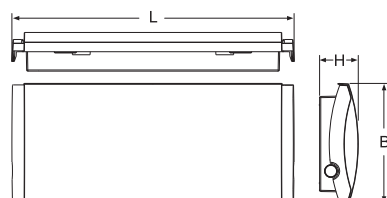
Reflector: plastic, symmetric

Diffuser: polycarbonate

Rated voltage: 198–254 V/50 Hz

Battery supply: 176–254 V

Ambient temperature: -10 °C to +40 °C (T5), -20 °C to +40 °C (LED)



W	Code	Power		EVG	Ballast lumen factor		
		AC	DC		Sleb	Alog	NEA
32× 0.2	<b>TB16023</b>	7.0 VA	5.4 W	224 lm			
32× 0.2	<b>TB16024</b>	7.0 VA	6.4 W		224 lm		
32× 0.2	<b>TB16025</b>	7.0 VA	6.4 W			224 lm	
8	<b>TB92405</b> <sup>1)</sup>	13.2 VA	6.8 W <sup>2)</sup>	100 %	75 %	75 %	100 %

- 1) Order code with suffix E: Luminaire with HF ballast without monitoring modules  
 Order code with suffix S: Luminaire with HF ballast with monitoring module, manual coding  
 Order code with suffix A: Luminaire with HF ballast with monitoring module, automatic coding  
 Order code with suffix N: Luminaire with HF ballast suitable for LOGICA-NEA emergency lighting systems  
 2) It is necessary to add 1.5 W during operation for version with Sleb or Alog.

# Pluraluce LED 20m/30m



**New**

Emergency system LED luminaire with exit sign and new optical system Back Light with high efficiency. The device is versatile due to universal bracket that allows for several types of installation. Moreover, it is available in single-sided version for installation above door. The luminaire is equipped with exit sign opal pane and ensures high luminosity (more than 500 cd/m<sup>2</sup>). Distance visibility is 20 m or 30 m.

Symbols see page 134

## Technical data

*Mounting:* surfaced on wall or ceiling, recessed into the wall or ceiling, on wire or tube pendants, mounting with bracket

*Body:* steel sheet in gray color RAL 7035 (wall installation), polycarbonate in gray color RAL 7035 (ceiling/pendant/bracket installation)

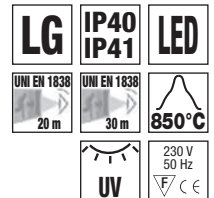
*Frame:* anodized aluminium

*Degree of protection:* IP 40 (wall installation) IP 41 (ceiling/pendant/bracket installation)

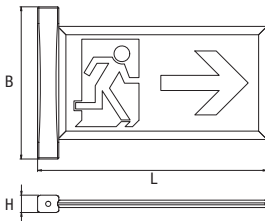
*Rated voltage:* 198–254 V/50 Hz

*Battery supply:* 176–254 V

*Ambient temperature:* -20 °C to +40 °C



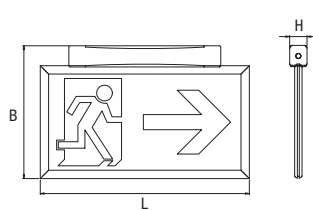
### Wall double-sided version



DV	• Dimensions (mm) •			Source
	L	B	H	
20	266	252	36	LED

DV	• Dimensions (mm) •		
	L	B	H
30	366	252	36

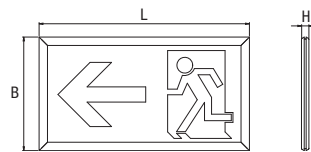
### Ceiling double-sided version



DV	• Dimensions (mm) •			Source
	L	B	H	
20	235	166	36	LED

DV	• Dimensions (mm) •		
	L	B	H
30	335	216	36

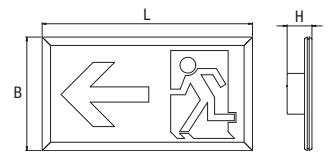
### Recessed single-sided version



DV	• Dimensions (mm) •			Source
	L	B	H	
20	235	135	15	LED

DV	• Dimensions (mm) •		
	L	B	H
30	335	185	15

### Wall single-sided version



DV	• Dimensions (mm) •			Source
	L	B	H	
20	235	135	38	LED

DV	• Dimensions (mm) •		
	L	B	H
30	335	185	38

### ACCESSORIES: PROVIDED WITH

20 m	30 m	Description
<b>E16770</b>	<b>E16779</b>	Exit sign panes (single-sided set of 3 signs left/right/down)
<b>E16771</b>	<b>E16780</b>	Exit sign panes (double-sided set of 3 signs left/right/down)

### ACCESSORIES: TO BE ORDERED SEPARATELY

20 m	30 m	Description
<b>FB19384</b>	<b>FB19386</b>	Kit for recessed mounting into ceiling
<b>FB19380</b>	<b>FB19380</b>	Tube pendant 250 mm
<b>FB19381</b>	<b>FB19381</b>	Tube pendant 500 mm
<b>FB19382</b>	<b>FB19382</b>	Tube pendant 1 000 mm
<b>FB19383</b>	<b>FB19383</b>	Wire pendant 2 000 mm
<b>FB19385</b>	<b>FB19387</b>	Ceiling box for concrete
<b>E16772</b>	<b>E16781</b>	Exit sign pane, down
<b>E16773</b>	<b>E16782</b>	Exit sign pane, left down
<b>E16774</b>	<b>E16783</b>	Exit sign pane, right up
<b>E16775</b>	<b>E16784</b>	Exit sign pane, left up
<b>E16776</b>	<b>E16785</b>	EXIT Exit sign pane, EXIT right
<b>E16777</b>	<b>E16786</b>	EXIT Exit sign pane, EXIT left
<b>E16778</b>	<b>E16787</b>	EXIT Exit sign pane, EXIT



W	Code	Power		EVG	Ballast lumen factor	
		AC	DC		Sleb	Alog
Version for mounting on wall a recessed into the wall (single-sided)						
1.0 (16)	TB16723	4.5 VA	2.1 W	96 lm	—	—
1.0 (16)	TB16729	4.5 VA	3.1 W	—	96 lm	—
1.0 (16)	TB16731	4.5 VA	3.1 W	—	—	96 lm
1.6 (32)	TB16722	5.0 VA	2.8 W	144 lm	—	—
1.6 (32)	TB16728	5.0 VA	3.8 W	—	144 lm	—
1.6 (32)	TB16730	5.0 VA	3.8 W	—	—	144 lm
Version for mounting on ceiling, recessed into ceiling, pendant mounting and mounting on bracket (double-sided) <sup>1)</sup>						
2.1 (24)	TB16713	6.0 VA	3.5 W	192 lm	—	—
2.1 (24)	TB16719	6.0 VA	4.5 W	—	192 lm	—
2.1 (24)	TB16721	6.0 VA	4.5 W	—	—	192 lm
3.2 (48)	TB16712	7.0 VA	5.4 W	288 lm	—	—
3.2 (48)	TB16718	7.0 VA	6.4 W	—	288 lm	—
3.2 (48)	TB16720	7.0 VA	6.4 W	—	—	288 lm

1) Additionally, the required accessories for ceiling mounting and pendant mounting can be purchased separately.



# Pluraluce LED

Emergency system luminaire LED designed for surface or recessed mounting. Due to its small size, luminaire can be incorporated into the architecture of the considered room. A set of special optical systems can be used for various types of illuminated space.

Symbols see page 134

## Recessed version

W	A	B	• Dimensions (mm) • C	L	G	H	Source
1 × 2.4	120	28	80–100	204	64	46	LED

## Surfaced version

W	• Dimensions (mm) • L	B	H	Source
1 × 2.4	137	137	32	LED



## Technical data

Mounting: on wall or ceiling, recessed into the wall or ceiling

Body: aluminium profile (surfaced version), steel/aluminium sheet (recessed version)

Cover: polycarbonate in white color RAL 9010<sup>1)</sup>

Degree of protection: IP 42 (surfaced version) IP 43 (recessed version)

Rated voltage: 198–254 V/50 Hz

Battery supply: 176–254 V

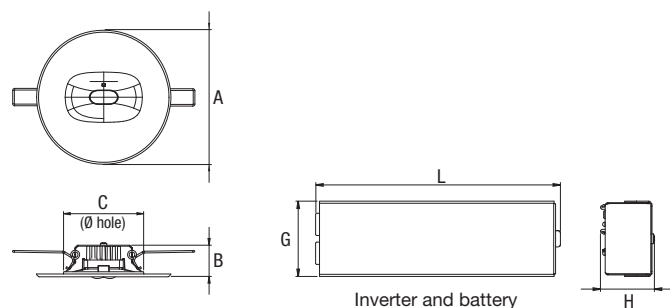
Ambient temperature: -20 °C to +40 °C

1) Cover in a different color from the color of accessories

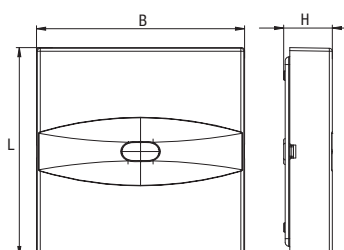
## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>F95802</b>	optics for the version mounted on the wall

## Recessed version



## Surfaced version



W	Code	Power		Ballast lumen factor		
		AC	DC	EVG	Sleb	Alog
Version for surface mounting on the ceiling for emergency lighting of escape routes						
1× 2.4	TB16739	6.0 VA	5.0 W	180 lm	—	—
1× 2.4	TB16745	6.0 VA	6.0 W	—	180 lm	—
1× 2.4	TB16747	6.0 VA	6.0 W	—	—	180 lm
Version for surface mounting on the ceiling with two interchangeable lenses for anti-panic illumination						
1× 2.4	TB16738	6.0 VA	5.0 W	180 lm	—	—
1× 2.4	TB16744	6.0 VA	6.0 W	—	180 lm	—
1× 2.4	TB16746	6.0 VA	6.0 W	—	—	180 lm
Version for recessed ceiling installation for emergency lighting of escape routes						
1× 2.4	TB16755	6.0 VA	5.0 W	180 lm	—	—
1× 2.4	TB16761	6.0 VA	6.0 W	—	180 lm	—
1× 2.4	TB16763	6.0 VA	6.0 W	—	—	180 lm
Version for recessed ceiling installation with two interchangeable lenses for anti-panic illumination						
1× 2.4	TB16754	6.0 VA	5.0 W	180 lm	—	—
1× 2.4	TB16760	6.0 VA	6.0 W	—	180 lm	—
1× 2.4	TB16762	6.0 VA	6.0 W	—	—	180 lm

# Pluraluce-Module



**New**

Emergency LED module for Central Battery System (CBS) intended for standard luminaires of general lighting. Quick and easy installation with clamp (mounting directly to the light source) or by screw (eg. connection to the reflector).

Symbols see page 134

## Technical data

Mounting: universal  
mounting into fittings with  
grille (T5 and T8 tubes)

Body: aluminium in white  
color RAL 9010

Cover: polycarbonate in  
white color RAL 9010

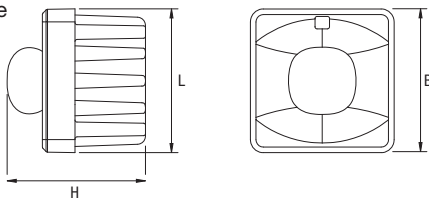
Rated voltage:  
198–254 V/50 Hz

Battery supply:  
176–254 V

Ambient temperature:  
-20 °C to +40 °C

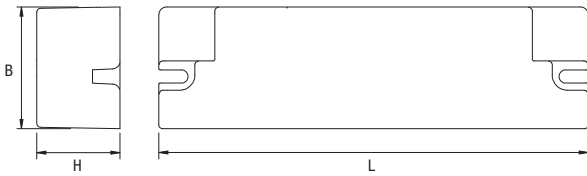


LED module

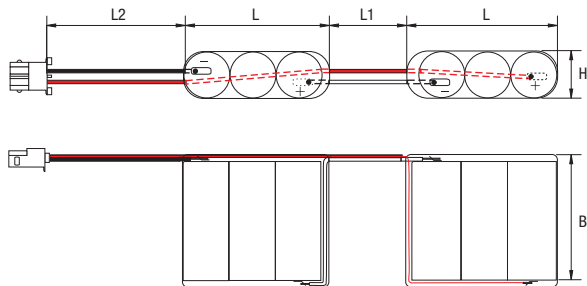


	W	• Dimensions (mm) •				
		L	L1	L2	B	H
LED module with lens	T8, T5	35	–	–	35	33
Inverter	–	114	–	–	32	22
Battery	–	44	70	80	50	14.5

Inverter



Battery



W	Code	Power		Ballast lumen factor		
		AC	DC	EVG	Sleb	Alog
Escape routes or lighting space with 3 interchangeable lenses						
1× 2.4	TB16764	6.0 VA	5.0 W	180 lm	—	—
1× 2.4	TB16767	6.0 VA	6.0 W	—	180 lm	—
1× 2.4	TB16769	6.0 VA	6.0 W	—	—	180 lm



**New**

# Kubus IP65

Emergency system luminaire and emergency system luminaire with exit sign consisting of flat sections with folded corners in high protection IP 65. Available in 8 W fluorescent lamp or 4 W and 5 W LED. Due to the high degree of protection IP65 luminaire is suitable for all kinds of indoor and outdoor applications. Mounting on ceiling (double-sided) or wall (single-sided) in white color or stainless steel version.

Symbols see page 134

## Technical data

Mounting: on wall or ceiling

Body: steel sheet in white color RAL 9003, stainless steel upon request

Reflector: aluminium

Diffuser: hardened glass

Rated voltage:

198–254 V/50 Hz

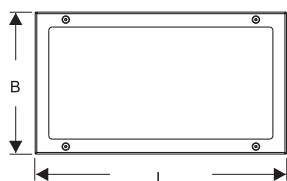
Battery supply:

176–254 V

Ambient temperature:

-10 °C to +40 °C (T5)

-20 °C to +40 °C (LED)



Single-sided



Double-sided



W	• Dimensions (mm) •	Source	Socket	Version
	L B H			
8	370 209 63.5	T5	G5	single-sided
8	370 209 70	T5	G5	double-sided
5	370 209 63.5	LED	–	single-sided
4	370 209 70	LED	–	double-sided



## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>E16700</b>	Exit sign pane (set of 3 films) for single-sided version
<b>E16701</b>	Exit sign pane (set of 5 films) for double-sided version
White Stainless	
<b>F95603</b>	<b>F95608</b> Suspension profile 100 mm
<b>F95604</b>	<b>F95609</b> Suspension profile 500 mm
<b>F95605</b>	<b>F95610</b> Suspension profile 1 000 mm
<b>F95606</b>	<b>F95611</b> Bracket for wall mounting
<b>F95612</b>	<b>F95613</b> Adapter for ceiling mounting
<b>F95607</b>	<b>F95607</b> Protective grid



W	Code	Color	AC	Power	DC <sup>2)</sup>	EVG	Ballast lumen factor	Sleb	Alog	NEA
<b>Single-sided</b>										
8	<b>TM92720_</b> <sup>1)</sup>	white	13.2 VA	6.8 W		100 %	75 %	75 %	100 %	
8	<b>TM92723_</b> <sup>1)</sup>	stainless	13.2 VA	6.8 W		100 %	75 %	75 %	100 %	
5× 1	<b>TM92720_</b> <sup>1)</sup> -LED	white	14.5 VA	6.8 W		500 lm	500 lm	500 lm	500 lm	
5× 1	<b>TM92722_</b> <sup>1)</sup> -LED	stainless	14.5 VA	6.8 W		500 lm	500 lm	500 lm	500 lm	
<b>Double-sided</b>										
8	<b>TM92721_</b> <sup>1)</sup>	white	13.2 VA	6.8 W		100 %	75 %	75 %	100 %	
8	<b>TM92723_</b> <sup>1)</sup>	stainless	13.2 VA	6.8 W		100 %	75 %	75 %	100 %	
4× 1	<b>TM92721_</b> <sup>1)</sup> -LED	white	14.5 VA	6.8 W		500 lm	500 lm	500 lm	500 lm	
4× 1	<b>TM92723_</b> <sup>1)</sup> -LED	stainless	14.5 VA	6.8 W		500 lm	500 lm	500 lm	500 lm	

1) Order code with suffix E: Luminaire with HF ballast without monitoring modules  
Order code with suffix S: Luminaire with HF ballast with monitoring module, manual coding  
Order code with suffix A: Luminaire with HF ballast with monitoring module, automatic coding  
Order code with suffix N: Luminaire with HF ballast suitable for LOGICA-NEA emergency lighting systems  
2) It is necessary to add 1.5 W during operation for version with Sleb or Alog.

# Maxima



Emergency system luminaire with exit sign in oval shape with a high degree of protection IP 54. Choice between T5 fluorescent lamp and LED source. Available in single-sided (wall mounting) or double-sided version (mounting on ceiling, suspended or mounting on cantilever). Due to its high IP 54 protection fixture is suitable for all kinds of indoor and outdoor applications, minimal maintenance costs thanks to long life LED source, easy handling.

Symbols see page 134

## Technical data

Mounting: on wall or ceiling,  
pendant mounting or  
installation on cantilever

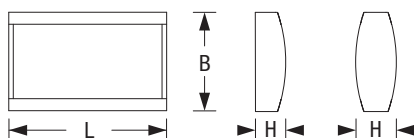
Body: polycarbonate gray  
RAL 7035, polyester gray  
RAL 7035

Diffuser: clear  
polycarbonate

Rated voltage:  
198–254 V/50 Hz

Battery supply:  
176–254 V

Ambient temperature:  
-10 °C to +40 °C (T5),  
-20 °C to +40 °C (LED)



W	• Dimensions (mm) •			Source	Socket	Version
	L	B	H			
8	350	227	80	T5	G5	single-sided
8	350	227	90	T5	G5	double-sided
2x 1	350	227	80	LED	–	single-sided
2x 1	350	227	90	LED	–	double-sided



## ACCESSORIES: PROVIDED WITH

Code	Description
<b>FB16910</b>	Exit signs (set with all 4 films)
<b>F95505</b>	Adaptor for ceiling mounting
<b>F95506</b>	Bracket for wall mounting

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>F95510</b>	Suspension profile 500 mm
<b>F95511</b>	Suspension profile 1 000 mm
<b>F95512</b>	Suspension profile 1 500 mm
<b>FB3723</b>	Adaptor for wire or chain suspension
<b>F95032</b>	Protective grid (for single-sided version only)



W	Code	Power		EVG	Ballast lumen factor		
		AC	DC <sup>2)</sup>		Sleb	Alog	NEA
Version for wall mounting (single-sided)							
8	T92360 <sup>1)</sup>	13.2 VA	6.8 W	100 %	75 %	75 %	100 %
2× 1	T92360 <sup>1)</sup> -LED	7.5 VA	3.4 W	120 lm	120 lm	120 lm	120 lm
Version for surface and suspended mounting, and mounting on cantilever (double-sided) <sup>3)</sup>							
8	T92362 <sup>1)</sup>	13.2 VA	6.8 W	100 %	75 %	75 %	100 %
2× 1	T92362 <sup>1)</sup> -LED	7.5 VA	3.4 W	120 lm	120 lm	120 lm	120 lm

- 1) Order code with suffix E: Luminaire with HF ballast without monitoring modules  
 Order code with suffix S: Luminaire with HF ballast with monitoring module, manual coding  
 Order code with suffix A: Luminaire with HF ballast with monitoring module, automatic coding  
 Order code with suffix N: Luminaire with HF ballast suitable for LOGICA-NEA emergency lighting systems  
 2) It is necessary to add 1.5 W during operation for version with Sleb or Alog.  
 3) Accessories for surface and suspended mounting and mounting on cantilever must be ordered separately

# Granluce LED



Emergency system luminaire with LED and high degree of protection IP 65. Maintenance-free due to a long-life of LED light source. Luminaires are suitable for areas where it is difficult to change lamps. Surface mounted on wall or ceiling.

Symbols see page 134

## Technical data

Mounting: surfaced on wall or ceiling, recessed mounting

Body: polycarbonate white RAL 9010

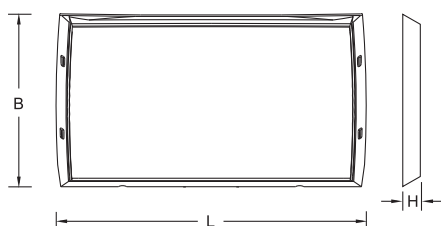
Reflector: polycarbonate asymmetric

Diffuser: clear plastic

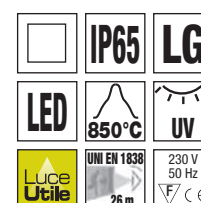
Rated voltage: 230 V/50 Hz

Battery supply: 176–254 V

Ambient temperature: -20 °C to +40 °C



W	• Dimensions (mm) •			Source
	L	B	H	
2x 1	355	179	58	LED



## ACCESSORIES: PROVIDED WITH

Code	Description
<b>FB16914</b>	Exit sign (left, right, down)

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description
<b>FB12943</b>	Kit for recessed mounting
<b>FB3908</b>	Protective grille (wall mounting only)



W	Code	Power		EVG	Ballast lumen factor		
		AC	DC		Sleb	Alog	NEA
2x 1	<b>TB16104</b>	7.5 VA	3.4 W	142 lm			
2x 1	<b>TB16106</b>	7.5 VA	4.4 W		142 lm		
2x 1	<b>TB16107</b>	7.5 VA	4.4 W			142 lm	
2x 1	<b>TB16108</b>	7.5 VA	4.4 W				142 lm



# Aestetica

Emergency system luminaire and emergency system luminaire with exit sign supplied in IP 40 protection suitable for indoor use buildings. Body with reflector is made of polycarbonate and designed for installation on wall or ceiling.

Symbols see page 134

## Technical data

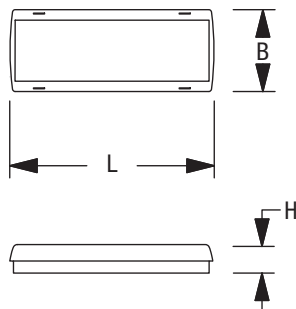
Mounting: on wall or ceiling  
Body: polycarbonate white  
RAL 9003

Reflector: polycarbonate  
Diffuser: highly transparent  
with longitudinal prisms

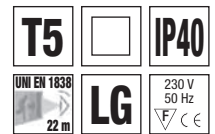
Rated voltage:  
198–254 V/50Hz

Battery supply:  
176–254 V

Ambient temperature:  
-10 °C to +40 °C



W	• Dimensions (mm) •			Source	Socket
	L	B	H		
8	336	135	47	T5	G5



## ACCESSORIES: PROVIDED WITH

Code	Description
<b>FB16905</b>	Exit sign (set of 3 films)

## ACCESSORIES: TO BE ORDERED SEPARATELY

Code	Description	Pcs
<b>E16041N-Kit-Aestetica</b>	Diffuser with exit sign down	1
<b>E16040N-Kit-Aestetica</b>	Diffuser with exit sign left, right	1
<b>FB3908</b>	Protective grille (wall mounting only)	1



W	Code	Power		EVG	Ballast lumen factor		
		AC	DC <sup>1)</sup>		Sleb	Alog	NEA
8	<b>TB16203</b>	13.2 VA	6.8 W	100 %			
8	<b>TB16204</b>	13.2 VA	6.8 W		75 %		
8	<b>TB16210</b>	13.2 VA	6.8 W			75 %	
8	<b>TB16211</b>	13.2 VA	6.8 W				100 %

1) It is necessary to add 1.5 W during operation for version with Sleb or Alog.

# Quader



Illustration image

Emergency system luminaire with exit sign with a higher degree of protection IP 42. Body consists of a square base with transparent diffuser. Choice between compact fluorescent lamp and LED source. Equipped with a triangular pictogram for lighting of escape routes (surface mounted or pendant mounting). It provides an ideal solution for lighting of escape routes for a large area (eg. supermarkets) where you can clearly identify nodal points of escape routes.

Symbols see page 134

## Technical data

Mounting: surfaced on ceiling or suspended installation

Body: polypropylene white RAL 9003

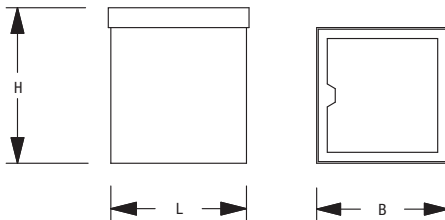
Diffuser: plastic PMMA

Rated voltage: 198–254 V/50 Hz

Battery supply: 176–254 V

Ambient temperature: -10 °C to +40 °C (TC-EL)  
-20 °C to +40 °C (LED)

W	• Dimensions (mm) •			Source	Socket
	L	B	H		
9	239	248	274	TC-EL	2G7
3× 1	239	248	274	LED	



## ACCESSORIES: TO BE ORDERED SEPARATELY

44 m	Description
<b>F15330N</b>	Diffuser with exit sign DOWN
<b>F15331N</b>	Diffuser with exit sign RIGHT
<b>F15332N</b>	Diffuser with exit sign LEFT
<b>F95210</b>	Adapter for suspended mounting
<b>F95600</b>	Pendant rod 250 mm
<b>F95601</b>	Pendant rod 500 mm
<b>F95602</b>	Pendant rod 1 000 mm
<b>F95401</b>	Wire suspension, max. 1 200 mm
<b>F95400</b>	Pendant rod – rounded 500 mm
<b>F95406</b>	Adapter for wire or chain hinge



W	Code	Power		EVG	Ballast lumen factor		
		AC	DC <sup>2)</sup>		Sleb	Alog	NEA
		Version for surface mounting and suspension (triangular pictogram) <sup>3)</sup>					
9	<b>T92480</b> <sub>—</sub> <sup>1)</sup>	13.2 VA	6.8 W	100 %	75 %	75 %	100 %
3× 1	<b>T92480</b> <sub>—</sub> <sup>1)</sup> —LED	14.5 VA	6.8 W	300 lm	300 lm	300 lm	300 lm

- 1) Order code with suffix E: Luminaire with HF ballast without monitoring modules  
Order code with suffix S: Luminaire with HF ballast with monitoring module, manual coding  
Order code with suffix A: Luminaire with HF ballast with monitoring module, automatic coding  
Order code with suffix N: Luminaire with HF ballast suitable for LOGICA-NEA emergency lighting systems  
2) It is necessary to add 1.5 W during operation for version with Sleb or Alog.  
3) Accessories for surface mounting and suspension to be ordered separately

# References

Munich International Airport



Vaňkovka Gallery in Brno

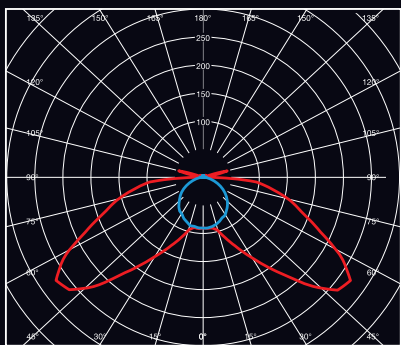


BMW Museum in Munich



Mercedes building in Prague





**PHOTOMETRIC  
DIAGRAMS AND  
LUCE UTILE  
SYMBOLS  
BUSINESS  
TERMS & CONDITIONS  
INDEX**

**Beghelli**



# Photometric diagrams and Luce Utile

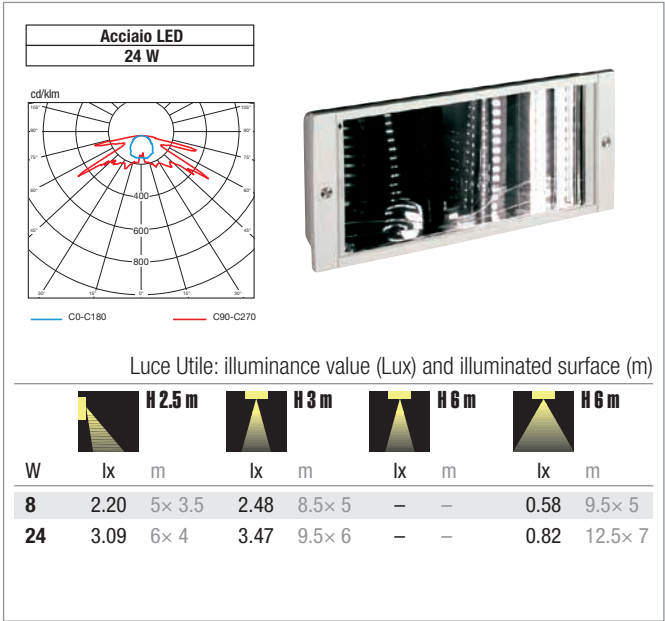


The figure in lux refers to the illuminance value at ground level which the fixture can reach, with an established installation height. The figure in metres corresponds instead to the surface area (side x side) which the fixture illuminates with the minimum value indicated in EN 1838.

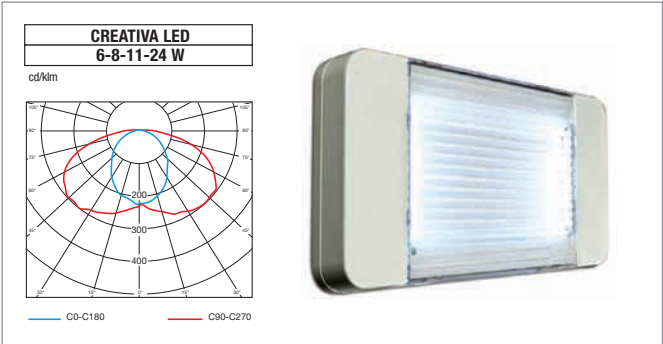
By combining the two data, elements are provided for the immediate evaluation of the lighting characteristics of an emergency luminaire.

Symbols and description of the Luce Utile project page 133

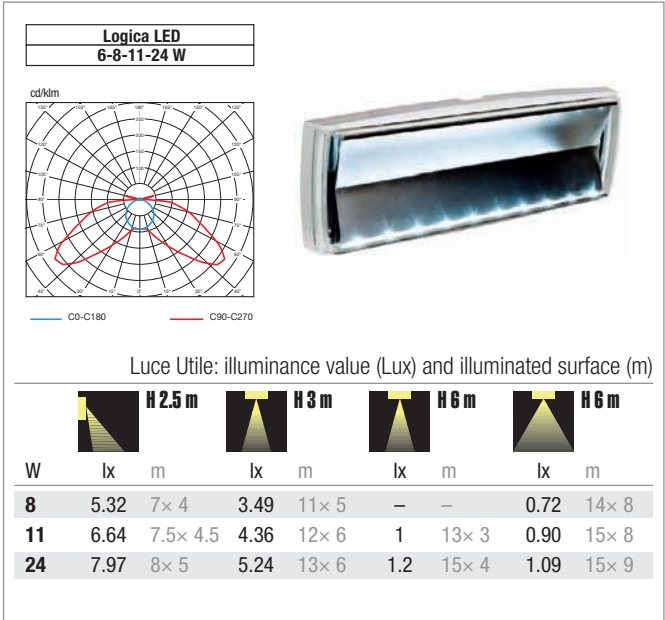
## Acciaio LED



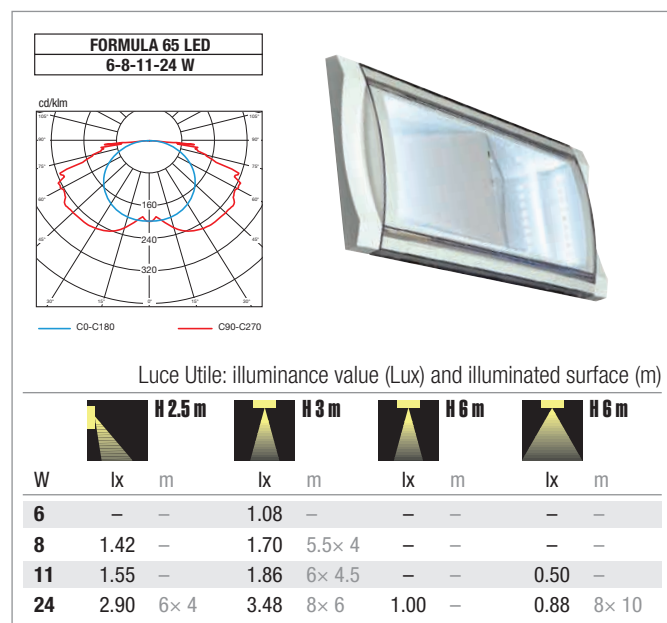
## Creativa LED



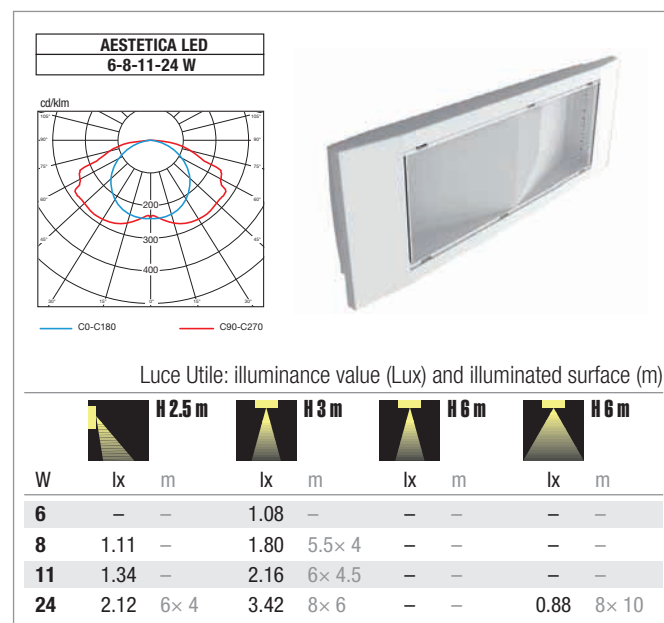
## Logica LED



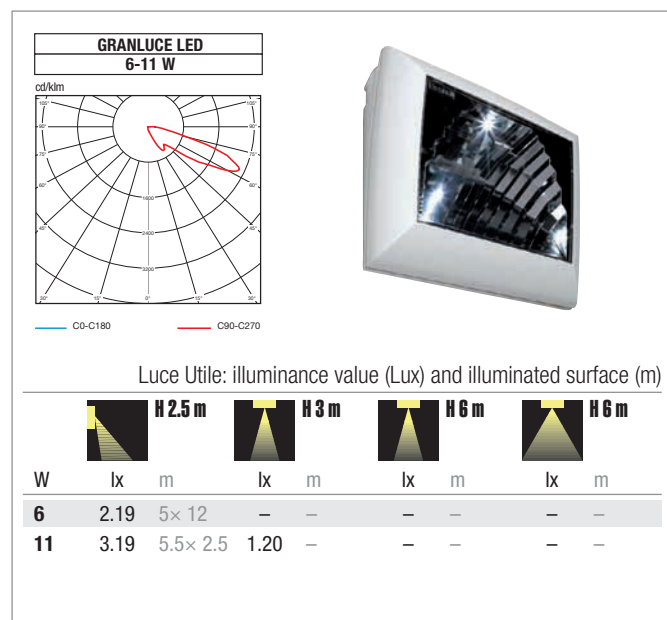
## Formula 65 LED



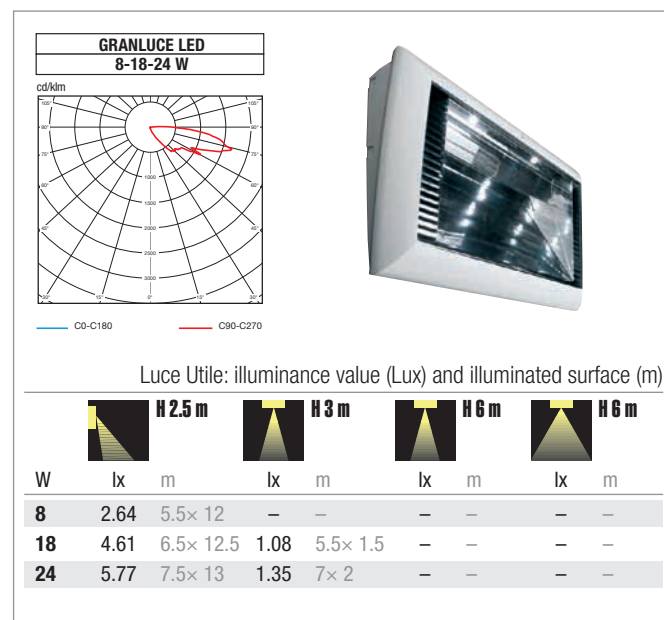
## Aestetica LED



## Granluce LED

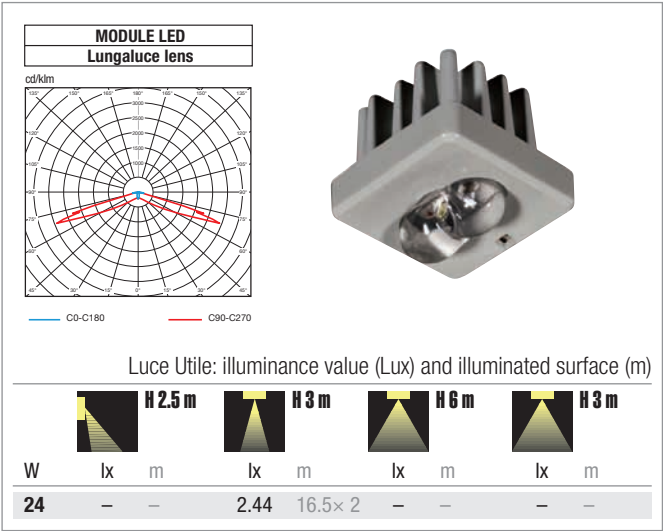


## Granluce LED

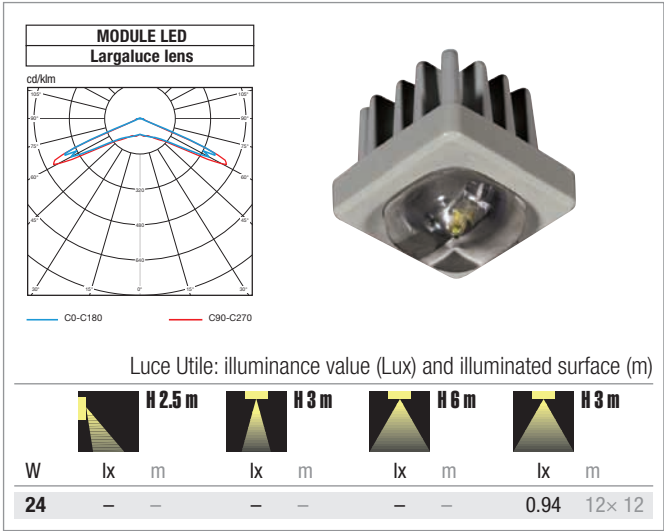




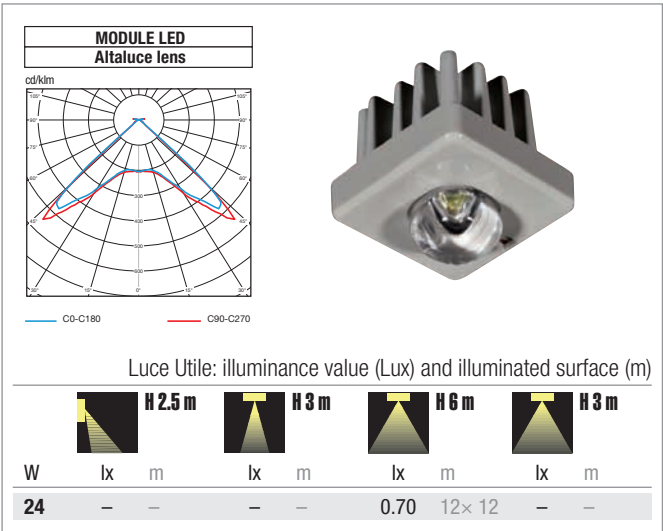
Module LED



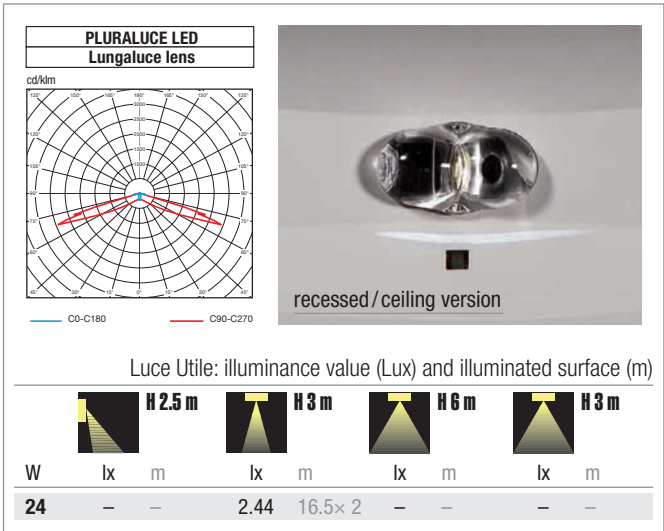
Module LED



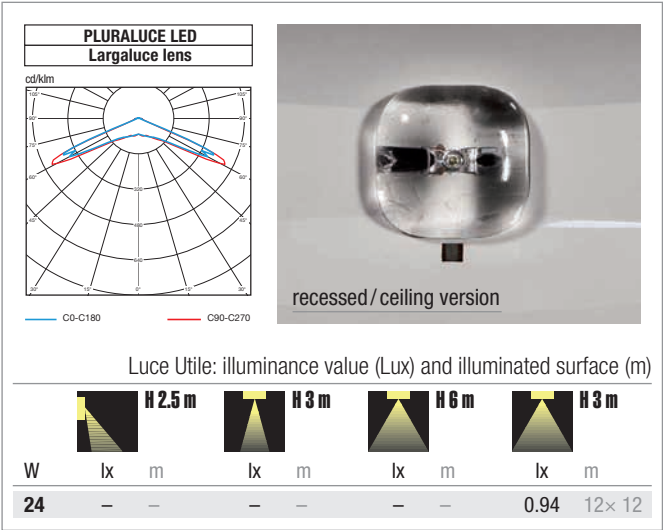
Module LED



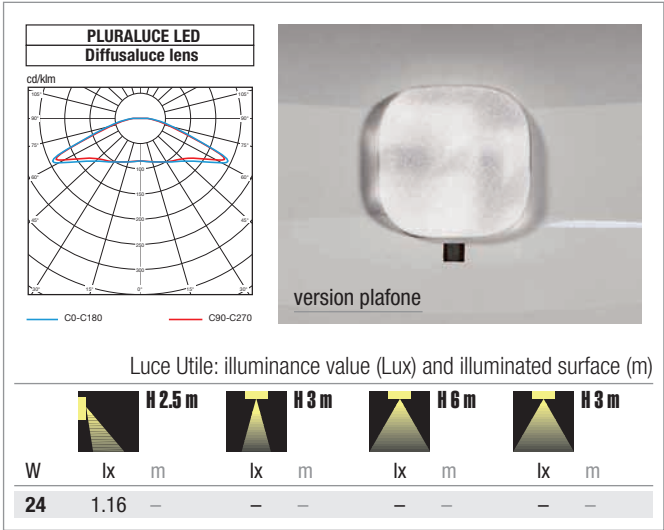
Pluraluce LED



Pluraluce LED



Pluraluce LED





Useful light fixtures, based on Beghelli standards, deliver specific illuminance (Lx) on the ground, if installed at the distance indicated in the Luce Utile project, and indicated alongside the icon which specifies the direction and amplitude of the light beam. The definition of the lighting characteristics of a fixture may be simplified, using the only item of data useful for design purposes: ground illuminance expressed in Lux. To ensure this data, some typical installation situations need to be sized, cataloguing each product not on light flow, but on the basis of various lighting data in different conditions of use for which the fixture is intended. This data is available for some products only, in the technical attachment on page 130.

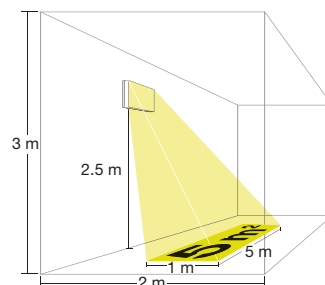


H 2.5 m

## Wall mounting of escape routes

Configuration chosen: Undefined corridor length, width 2 m, height 3 m. Installation height 2.5 m. Horizontal WALL mounting. The area in which the portion of illuminance can be calculated is along an escape route, as defined by EN 1838, measuring 5 m<sup>2</sup> in total. The chosen configuration is attributable to the majority of escape route wall installations. The calculations refer to the ground and do not account for reflections, with a maintenance factor of 0.8.

EN 1838: minimum 1 lx along the central line.

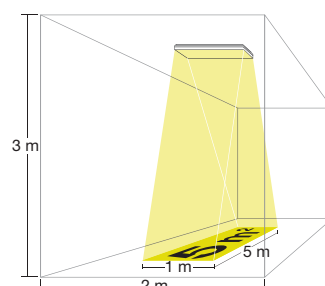


H 3 m

## Escape routes ceiling mounting

Configuration chosen: Undefined corridor length, width 2 m, height 3 m. Installation height 3 m. CEILING mounted fixture, with main axis transversal to the greater axis of the room. The area in which the portion of illuminance can be calculated is along an escape route, as defined by EN 1838, measuring 5 m<sup>2</sup> in total. The chosen configuration is attributable to the majority of escape route ceiling installations. The calculations refer to the ground and do not account for reflections, with a maintenance factor of 0.8.

EN 1838: minimum 1 lx along the central line.

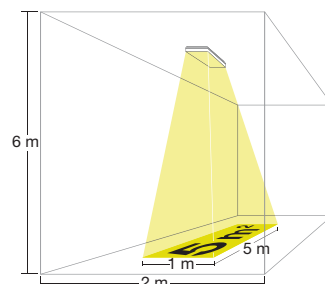


H 6 m

## Escape routes ceiling mounting

Configuration chosen: Undefined corridor length, width 2 m, height 6.5 m. Installation height 6 m. CEILING mounted fixture, with main axis parallel to the greater axis of the room. The area in which the portion of illuminance can be calculated is along an escape route, as defined by EN 1838, measuring 5 m<sup>2</sup> in total. The chosen configuration is attributable to the majority of escape route ceiling installations with a height of 6 m. The calculations refer to the ground and do not account for reflections, with a maintenance factor of 0.8.

EN 1838: minimum 1 lx along the central line.

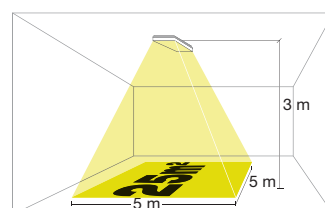


H 3 m

## Ceiling assembly, large areas

The area in which the portion of illuminance which can be used in safety lighting for large areas as emergency lighting, is calculated as an area of an indefinite width and length, 3 metres high, with products installed at a height of 3 metres. The area in which useful lighting is defined is 25 m<sup>2</sup> below the product. The calculations refer to the ground and do not account for reflections, with a maintenance factor of 0.8.

EN 1838: minimum 0.5 lx of the entire area.

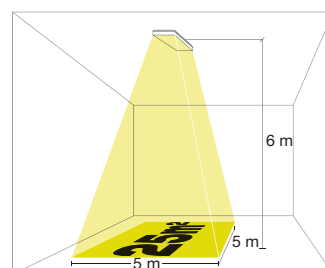


H 6 m

## Ceiling assembly, large areas

The area in which the portion of illuminance which can be used in safety lighting for large areas as emergency lighting, is calculated as an area of an indefinite width and length, 6.5 metres high, with products installed at a height of 6 metres. The area in which useful lighting is defined is 25 m<sup>2</sup> below the product. The configuration chosen is attributable to most installations in large areas. The calculations refer to the ground and do not account for reflections, with a maintenance factor of 0.8.

EN 1838: minimum 0.5 lx of the entire area.



# Symbols

Appliances conform to CE Directives



Fixtures suitable for installation on normally flammable surfaces



Fixtures characterised by special resistance to UV rays and mineral oils



Fixture equipped with magnetic sensor to execute a functional test. The system provides a REED ampoule inside the product and included magnet to activate the test



Appliances with Class II insulation level  
Appliances without this symbol are to be regarded as Class I appliances



Certificate ENEC 03 (IMQ Italy)



Degree of protection against external factors  
(According to IEC EN 60598-1)



Fixtures characterised by special resistance to UV rays



Indicates the temperature of the incandescent wire  
(EN 60598-1)



Fixture to be used in areas subject to explosion due to the presence of explosive substances or dust according to the ATEX Directive



Protection Rating relative to knocks to the appliance in conformity to the test procedures  
(in accordance with EN 50102)



Fixtures suitable for installation in high-risk areas



Self-contained AutoTest emergency fixture



Linear fluorescent lamp T5 Ø 16 mm



Linear fluorescent lamp T8 Ø 26 mm



Reflector lamp G4



Compact fluorescent lamp 2G11



Compact fluorescent lamp 2G7



Compact fluorescent lamp G24q-1



Electroinverter



LED light source



Emergency fixture equipped with battery which grant 1 hour autonomy after 12 hours of recharge



Maximum visibility distance (VD) of safety signs according to UNI EN 1838



Self-contained Logica FM emergency fixture



Self-contained Logica emergency fixture



Emergency fixtures belonging to the Logica series



Emergency fixtures belonging to the Logica FM series



AutoLogica



SLEBLogica



Logica NEA-System

# Business Terms & Conditions

## I. General Provisions

These General Terms and Conditions of Sale (hereinafter "Terms") govern relations between BEGHELLI-ELPLAST, a.s. (hereinafter "Beghelli-Elplast"), as the seller, and its customers (hereinafter "Buyer"), in selling/purchasing of products, goods, and services provided by Beghelli-Elplast (hereinafter "Products").

## II. Sequence of Documents

In case of a divergence between provisions of various documents regulating relations between Beghelli-Elplast and the Buyer, in the sense and in the extent in which they are in contradiction, the sequence of their obligatory force is as follows:

1. Single-purpose conditions agreed upon individually for a specific business transaction and confirmed in writing by both parties in a relevant commercial document (inquiry, offer, order, order acknowledgement, invoice).
2. Contract of purchase or a general contract of purchase, if such is entered into between Beghelli-Elplast and the Buyer.
3. Special commercial terms and conditions, which are part of the contract of purchase or the general contracts of purchase between Beghelli-Elplast and the Buyer.
4. These Terms.

## III. Ordering Procedure

The Buyer submits its purchase orders in writing via electronic mail or by fax. The order shall include, among others, unambiguous specification and quantity of Products and the required delivery term. By its receipt by Beghelli-Elplast the purchase order becomes binding. Unless expressly agreed between Beghelli-Elplast and the Buyer in writing in documents specified in the Article II. Par. 1 of these Terms, any part of the Buyer's purchase order which is in contradiction or anyway inconsistent with these Terms, will be ignored and not applied to the concerned business transaction.

Beghelli-Elplast shall acknowledge the purchase order in writing via electronic mail or by fax, specifying the delivery time or the currently available quantity. In case Beghelli-Elplast cannot confirm the delivery time of some or all items of the order within 48 (forty eight) hours, it shall confirm to the Buyer at least the fact of the order receipt including information on the supposed term of sending the final order acknowledgment.

In no event shall Beghelli-Elplast be liable for consequences of an eventually denied order or of any part of it. If within 7 (seven) calendar days after receipt of the order acknowledgement by the Buyer, or within a shorter term in respect of the supposed delivery term, the Buyer does not raise in writing via electronic mail or by fax any objection against the supposed delivery time or against other terms of the order acknowledgement, the order acknowledgement becomes the only binding and final document superior to the Buyer's order. Any changes of the order so acknowledged are possible only in very exceptional cases and only after a prior written agreement of Beghelli-Elplast by cancellation of the concerned item in the original order and issuance of a new one.

In case meeting of a delivery time confirmed in the order acknowledgement appears unfeasible, Beghelli-Elplast shall inform the Buyer not later than 1 (one) day prior the supposed delivery term and indicate a substitutive delivery time.

In no event shall Beghelli-Elplast be liable for loss of profit, operational loss, specific, subsequent, incidental or criminal damages or damages of any other kind due to its failure to meet the delivery times confirmed in an order acknowledgement.

## IV. Delivery/Takeover of Products

Unless stipulated otherwise in the documents specified in the Article II. Par. 1 of these Terms, the delivery terms are EXW Brno (place of the distribution warehouse or production plant of Beghelli-Elplast). Transfer of the costs and risks from Beghelli-Elplast to the Buyer is governed by the corresponding provisions of Incoterms 2000. Upon takeover of the Products, at the moment and at the location pursuant to the applied delivery terms, the Buyer is obliged to examine conformity of the Products or cause them to be examined in respect

of their specification, quantity, completeness, and external damage. If within 7 (seven) calendar days from the date of the takeover the Buyer does not raise any claim of nonconformity, using the appropriate procedure on the Beghelli-Elplast's website, via electronic mail, or by fax, the risk of a lack of quantity, incompleteness or external damage of the Products passes to the Buyer – except when the proper examination cannot be done without unpacking of the single Product. In such case the period for raising a claim for Products nonconformity is extended until the proper examination can be first done, however not longer than for 14 (fourteen) calendar days from the Products takeover.

## V. Payment

The Buyer shall pay for the supplied Products within the period, in the currency and on the bank account indicated in the Beghelli-Elplast's invoice. The due day is the day when the Beghelli-Elplast's account is credited.

Should the Buyer is in delay with the payment, Beghelli-Elplast may require a delay interest of 0,1 % on the unpaid amount for each day of the delay. Paying off such delay interests by the Buyer does not affect Beghelli-Elplast's right to indemnity for eventual other damages related to the delayed payment.

In case the Buyer's delay with payment becomes substantial, Beghelli-Elplast has the right to suspend or cancel all remaining orders of the Buyer and require an immediate payment for all its issued invoices regardless of their maturity. Such measure does not affect Beghelli-Elplast's right to indemnity for eventual other damages related to the delayed payment.

## VI. Reserve of Property Right

The property right to the Products passes over to the Buyer not until it pays to Beghelli-Elplast the purchase price in the full amount. In case of a payment delay, Beghelli-Elplast may prohibit the Buyer from using the delivered Products or may apply its right to the Products return. For the whole such time, the Buyer is responsible for all risks relating to the delivered Products.

Until the property right passes over from Beghelli-Elplast to the Buyer, the Buyer cannot transfer it to any third person. In case of breach of this property reserve by the Buyer in consequence of which a third party would attain in good faith the property right to the Products, Beghelli-Elplast would become entitled to a contractual penalty amounting up to the price of the so concerned Products, which the Buyer is obliged to pay within by Beghelli-Elplast requested time. Paying off such a penalty by the Buyer does not affect Beghelli-Elplast's right to indemnity for eventual other related damages.

Further sale of the Products, to which the Beghelli-Elplast's reserve of property applies, to a third party is possible only on the condition that the Buyer reserves its right of property for at least the period until it fully pays to Beghelli-Elplast for the concerned Products.

On the reserved Products no lien may be imposed nor may the Products be used by anybody as a security for any kind of liability.

Eventual return of the Products as a consequence of its failure to pay does not deprive the Buyer of its obligation to pay for the Products which were not returned, to compensate the derogated value of the Products that were not returned in the quality in which they had been supplied, or to pay off the whole delay interest to which Beghelli-Elplast is entitled.

## VII. Price and Terms Modification

Prices or other terms and conditions stated in Beghelli-Elplast's general pricelists, promotional or other commercial materials have an informative character only and in no way constitute the Buyer's right to obtain them. The prices in Beghelli-Elplast's pricelists exclude VAT, recycling fee and other charges, taxes or duties of any kind, which, in case they are applicable to the Products according to the local law and Beghelli-Elplast is obliged to pay them, will be re-invoiced to the Buyer separately from the selling price.

In the event of unforeseen sudden changes of material, energy or other subsupply prices, other costs and circumstances which Beghelli-Elplast cannot influence nor put off, Beghelli-Elplast reserves

the right to modify prices, payment, delivery and other terms and conditions with an immediate effect. Such modified prices or terms and conditions shall be applicable to all Products previously ordered by the Buyer and acknowledged by Beghelli-Elplast upon receipt of a written Beghelli-Elplast's notice by the Buyer via electronic mail or by fax. In such case the Buyer has the right to withdraw from all so affected and so far not delivered orders or from their parts.

### **VIII. Changes of Products**

Beghelli-Elplast reserves the right at its own discretion to change or modify technical specification of the Products or to alter the range of the Products by withdrawing or changing of the existing Products or adding new ones, provided such change does not substantially affect functional properties in a negative way, dimensions or service life of the concerned Products.

### **IX. Warranty**

With exceptions pursuant to Article VII. of these Terms, Beghelli-Elplast guarantees that the Products shall be of identical type and properties referred to in its technical documentation and free of defects in material and workmanship for a period of – if not stated otherwise in the accompanying documents of the particular Products or in other Beghelli-Elplast documentation – 24 (twenty four) months from the day of the Beghelli-Elplast's invoice to the Buyer (hereinafter "Warranty Period"). After expiry of such Warranty Period, the Buyer may not enforce its right to indemnity for any damage due to such nonconformities.

In case a nonconformity of the supplied Products occurs during the Warranty Period, the Buyer is obliged to inform Beghelli-Elplast using the appropriate procedure on Beghelli-Elplast's website or via electronic mail or by fax, not later than within 3 (three) working days from discovery of this fact and to provide Beghelli-Elplast with information and collaboration it may require, including obtaining samples of the Products under the claim and dispatching them to Beghelli-Elplast headquarters.

In case Beghelli-Elplast acknowledges justification of the claim, it provides the Buyer with a remedy in the form and in the sequence as stated below:

- defective Product repair or replacement of its defective parts;
- replacement of the defective Product with a defect-free one;
- compensation of the purchase price.

The decision on form of the remedy is in Beghelli-Elplast's sole discretion dependent on the technical, logistic, and other circumstances. Beghelli-Elplast may also grant to the Buyer a reasonable discount on the price, if the Buyer agrees.

Without a prior written consent of Beghelli-Elplast, the Buyer may neither dispatch the Products under the claim to Beghelli-Elplast, nor delay, nor fully or partially suspend payment for the concerned Products.

Shipment with defective goods must be clearly marked by assigned claim number. The address for sending complaints is: Rybářská 3, 603 16 Brno – Czech Republic. Defective goods can not be sent cash on delivery or at the expense of the company Beghelli-Elplast.

This warranty does not cover any faults caused by normal deterioration; accelerated deterioration caused by specific physical, chemical or electrochemical conditions; insufficient maintenance or incorrect repair; failure to observe storage, user and operating instructions; use of unsuitable materials, parts and tools; as well as any fault due to circumstances beyond Beghelli-Elplast reasonable control.

There are no other warranties, expressed or implied, direct or indirect, beyond those expressly set forth herein. In no event shall Beghelli-Elplast be liable for loss of profit, operational loss, specific, subsequent, incidental or criminal damages or damages of any other kind based on a nonconformity claim or otherwise related to the Products supplied by Beghelli-Elplast pursuant to these Terms or to particular business transactions complying with these Terms.

No claim of any kind, where as to Products delivered or for failure to deliver, and whether or not based on negligence, shall be greater in amount than the selling price of the Products with respect to which such claim is made.

The Buyer shall not provide any guarantee, expressed or implied, direct or indirect, relating to any Product, which would differ from the warranties provided by Beghelli-Elplast for such Product.

### **X. Force Majeure**

Beghelli-Elplast shall not be liable for a partial or entire failure to meet its obligations pursuant to these Terms, especially for suspension, delay or cancellation of the Buyer's orders, even if previously acknowledged, in cases beyond its reasonable control, including but without limitation:

- intervention of force majeure, war, revolt, civil riots, embargo, interference of civil or military authorities;
- changes relating to administrative, hygienic, and medical laws or regulations;
- strikes, operational or other production disruptions;
- interruption of or hindrance in transport;
- fire, floods, other climate extremes and natural hazard events.

In such events the Buyer has no right to indemnity for any damages, penalties, nor any other indemnification, direct or indirect.

Similar events entitle the Buyer not to take the ordered Products, even already manufactured; however none of these entitles the Buyer not to fulfill its liabilities related to the Products delivered previously, especially to pay the purchase price at the full amount and in the agreed term.

In case of impossibility to meet their obligations for such reasons, Beghelli-Elplast or the Buyer are obliged to advise without unnecessary delay the other party of this fact and its reasons, as well as of ceasing of their effects once it comes on.

### **XI. Governing Law – Jurisdiction**

Relations not expressly regulated by these Terms, nor by other documents as specified in the Article II. Par. 1 of these Terms, are governed by United Nations Convention on contracts for the international sale of goods, Vienna, 1980/04/11.

All disputes arisen between Beghelli-Elplast and the Buyer in connection to these Terms which could not be settled by their mutual conciliation shall be submitted to a sole arbitrator. The arbitrator shall be appointed by the Chairman of Committee of International Arbitration of the National Committee of International Chamber of Commerce of the Czech Republic.

#### **Note:**

These General Terms and Conditions of Sale are regularly updated and in this catalogue they are for information only. Binding and up to date General Terms and Conditions of Sale will be sent to you together with Sales Documentation or Contract or if need be on request.

BEGHELLI-ELPLAST, a.s.

Poříčí 3A, 603 16 Brno – Czech Republic

tel.: +420 531 014 111, fax: +420 531 014 210

e-mail: beghelli@beghelli.cz, www.beghelli.cz





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