

Ex emergency light fittings with self-contained battery system for fluorescent lamps

eLLK 92018/18 NE / eLLK 92036/36 NE / eLLM 92018/18 NE
eLLS 08018/18 NE / eLLS 08036/36 NE (Zone 1, 2, 21, 22)

If you need a reliable and decentralized emergency lighting

Emergency lighting luminaires with a self-contained battery system provide a decentralised solution for the mandatory emergency lighting, independent of central systems. In large plants, in particular, these luminaires offer significant cost benefits.

More safety due to sophisticated micro-electronics

Thanks to a new charging and monitoring technology with intelligent micro-electronics, the NE emergency lighting luminaires provide reliable safety and reduced maintenance costs. A function test lasting 5 minutes, that is carried out automatically on a weekly basis, even during mains operation, and a quarterly, partial duty-cycle test provide additional safety and drastically reduce the necessary amount of manual tests. The charging and discharging func-

tions are monitored constantly by the microprocessor and are indicated via a diode display. Only the spent energy is recharged – therefore, overcharging is not possible. The so-called memory effect cannot occur – the service life of the battery is optimised. The need to replace a battery, a fault in the emergency lighting circuit or a faulty battery is indicated by the LED display. Due to a new type of battery connection, the battery can be replaced in the hazardous area. The emergency lighting cycle can be set locally for 1.5 or 3 hours. A remote switch inquiry is standard.

Automatic cycle test

An automatic cycle test optimises the battery life span. This process occurs when the eLLK...NE is operated for the first time and when the emergency lighting duration is less than 60 minutes. During this process the battery is discharged and charged (=cycle test) up to three times in in-

succession. Through this, the battery capacity is optimised and an emergency lighting function of one hour is ensured. The automatic cycle tests reduce manual testing efforts and provide more safety during operation.

Simple and cost-effective installation

In conjunction with the generously dimensioned terminal compartment, the standard single-ended through-wiring allows a cost-effective installation. The double-sided locking facility with 10 or 20 latch points allows the protective bowl to be hinged on both sides, meaning that the fitting can be mounted on either side.

Maintenance possible even in hazardous areas

The battery is installed in a separate, certified housing and Ex-d connectors link the battery unit and the luminaire. After loosening the locking screws, the battery can be

taken away, whereby the Ex-d switching contact in the flame-proof compartment is cut-off, thus disconnecting the battery circuit. As a result, the battery is cut off completely from the charging circuit of the luminaire and it can therefore, also be replaced in the hazardous area at every time. A detachable strap protects the insert from being dropped inadvertently.

Environmentally friendly and cost efficient

The power supply unit VE 12 of the eLLK 92...NE with self-contained battery system series has the integrated controlling electronics separately from the battery pack. Therefore, only the battery pack has to be removed during replacement. The robust electronics remain in the light fitting, thus it saves costs and protects the environment.



Features




- Standard dual channel ballast with EOL monitoring
- Automatic weekly 5 minute function test
- Automatic quarterly partial duty cycle test
- Automatic cycle test, which optimises battery life span
- Simplified 2LED diode display for indication of the charging, operation or fault status
- Capacity-dependent charging of the battery
- Easy replacement of battery, even in Ex-area
- Double-sided central locking facility
- Safety interlocking system due to an integrated forced isolating switch
- Housing consists of impact resistant polyester (eLLK...NE) or optionally of seawater-resistant stainless steel (eLLS 08...NE)
- High degree of protection IP66

Ordering details

eLLK 92018/18 NE / eLLK 92036/36 NE / eLLM 92018/18 NE

eLLS 08018/18 NE/ eLLS 08036/36 NE

Ordering details

Type	Content	Terminals	Single ended through wiring	Double-ended through wiring	Cable glands/ threads	Screw plugs	Plugs	Order-No.
eLLK 92018/18 NE								
 eLLK 92018/18 NE (2 x 18 W)	1/6-1K	1 x 6	x	–	2 x M25, Plastic		1	1 2260 885 101
eLLK 92018/18 NE (2 x 18 W)	2/6-2K	2 x 6	–	x	2 x M25, Plastic	2 x M25		1 2260 885 103
eLLK 92018/18 NE (2 x 18 W)	1/6-1M ¹⁾	1 x 6	x	–	2 x M20, Metal thread	1 x M20		1 2260 885 109
eLLK 92018/18 NE (2 x 18 W)	2/6-2M ¹⁾	2 x 6	–	x	4 x M20, Metal thread	3 x M20		1 2260 885 111
eLLK 92018/18 NE (2 x 18 W)	1/6-1M ¹⁾	1 x 6	x	–	2 x M25, Metal thread	2 x M25		1 2260 885 609
eLLK 92018/18 NE (2 x 18 W)	2/6-2M ¹⁾	2 x 6	–	x	4 x M25, Metal thread	4 x M25		1 2260 885 611
eLLM 92018/18 NE ²⁾								
 eLLM 92018/18 NE (2 x 18 W)	2/6-2K	1 x 8	–	–	2 x M25, Plastic		1	1 2273 885 101
eLLK 92036/36 NE (220 - 254 V AC)								
 eLLK 92036/36 NE (2 x 36 W)	1/6-1K	1 x 6	x	–	2 x M25, Plastic		1	1 2261 885 101
eLLK 92036/36 NE (2 x 36 W)	2/6-2K	2 x 6	–	x	2 x M25, Plastic	2 x M25		1 2261 885 103
eLLK 92036/36 NE (2 x 36 W)	1/6-1M ¹⁾	1 x 6	x	–	2 x M20, Metal thread	1 x M20		1 2261 885 109
eLLK 92036/36 NE (2 x 36 W)	2/6-2M ¹⁾	2 x 6	–	x	4 x M20, Metal thread	3 x M20		1 2261 885 111
eLLK 92036/36 NE (2 x 36 W)	1/6-1M ¹⁾	1 x 6	x	–	2 x M25, Metal thread	2 x M25		1 2261 885 609
eLLK 92036/36 NE (2 x 36 W)	2/6-2M ¹⁾	2 x 6	–	x	4 x M25, Metal thread	4 x M25		1 2261 885 611
eLLS 08018/18 NE								
 eLLS 08018/18 NE (2 x 18 W)	1/6-1K	1 x 6	x	–	2 x M25, Plastic	1 x M25	2	1 2225 885 101
eLLS 08018/18 NE (2 x 18 W)	2/6-2K	2 x 6	–	x	2 x M25, Plastic	2 x M25	2	1 2225 885 103
eLLS 08018/18 NE (2 x 18 W)	1/6-1M ¹⁾	1 x 6	x	–	2 x M20, Metal thread	1 x M20		1 2225 885 109
eLLS 08018/18 NE (2 x 18 W)	2/6-2M ¹⁾	2 x 6	–	x	4 x M20, Metal thread	3 x M20		1 2225 885 111
eLLS 08036/36 NE (220 - 254 V AC)								
 eLLS 08036/36 NE (2 x 36 W)	1/6-1K	1 x 6	x	–	2 x M25, Plastic		1	1 2226 885 101
eLLS 08036/36 NE (2 x 36 W)	2/6-2K	2 x 6	–	x	2 x M25, Plastic	2 x M25	2	1 2226 885 103
eLLS 08036/36 NE (2 x 36 W)	1/6-1M ¹⁾	1 x 6	x	–	2 x M20, Metal thread	1 x M20		1 2226 885 109
eLLS 08036/36 NE (2 x 36 W)	2/6-2M ¹⁾	2 x 6	–	x	4 x M20, Metal thread	3 x M20		1 2226 885 111

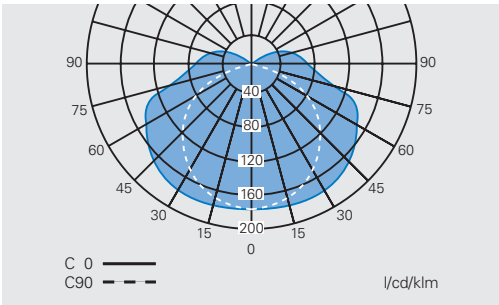
¹⁾ with metal thread, without cable gland²⁾ pole mounting light fitting

Delivery without lamp and fixing material / metal cable glands see catalogue part 2: 2.3.12 ff

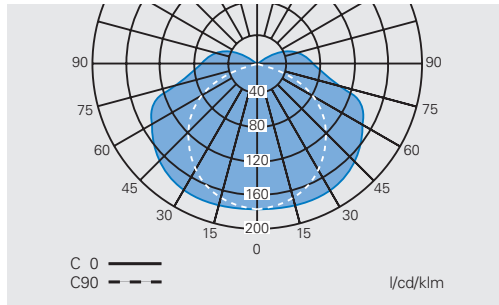
Dimension drawing / Polar curve

eLLK 92018/18 NE / eLLK 92036/36 NE / eLLM 92018/18 NE
 eLLS 08018/18 NE/ eLLS 08036/36 NE

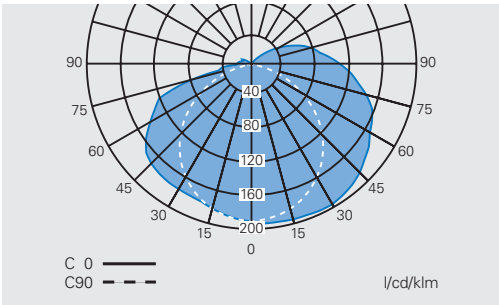
Polar curve eLLK/M 92018/18 NE / eLLK 92036/36 NE



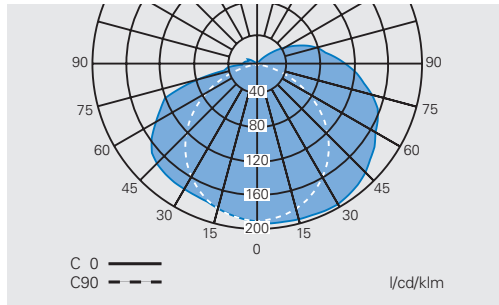
Polar curve eLLS 08018/18 NE / eLLS 08036/36 NE



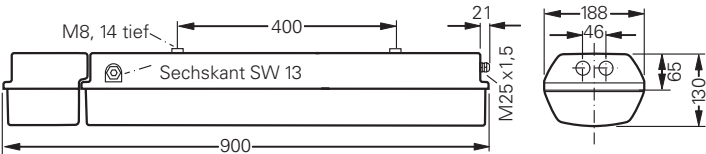
Polar curve eLLK/M 92018/18 NE / eLLK 92036/36 NE in emergency operation



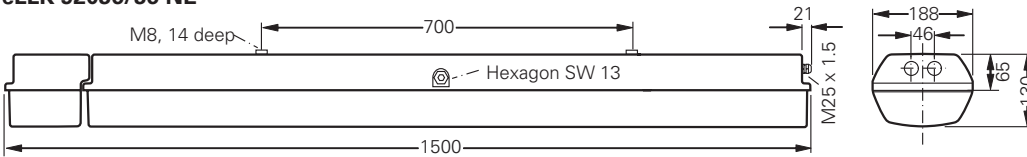
Polar curve eLLS 08018/18 NE / eLLS 08036/36 NE in emergency operation



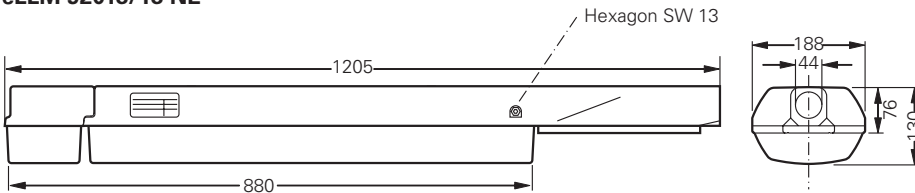
eLLK 92018/18 NE



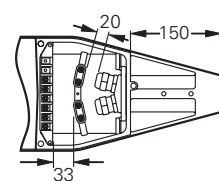
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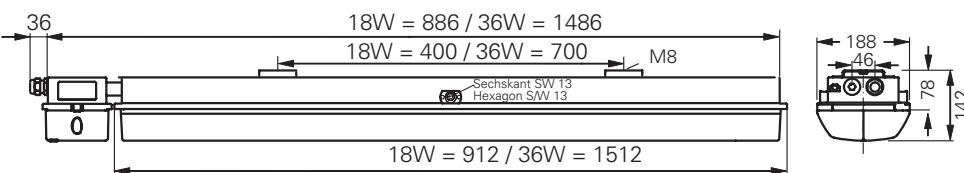
eLLM 92018/18 NE



eLLM 92...



eLLS 08018/18 NE / eLLS 08036/36 NE



Dimensions in mm

Technical data

eLLK 92018/18 NE (2 x 18 W) / eLLK 92036/36 NE (2 x 36 W)



Technical data

	eLLK 92018/18 NE (2 x 18 W)	eLLK 92036/36 NE (2 x 36 W)
EC-Type Examination Certificate	BVS 09 ATEX E 034	BVS 09 ATEX E 034
IECEX-Certificate of conformity	IECEX BVS 09.0033	IECEX BVS 09.0033
Marking to 94/9/EG	⊕ II 2 G Ex de mb ib IIC T4 Gb ⊕ II 2 D Ex tb IIIC T80 °C Db IP66	⊕ II 2 G Ex de mb ib IIC T4 Gb ⊕ II 2 D Ex tb IIIC T80 °C Db IP66
Marking to IECEx	Ex de mb ib IIC T4 Gb Ex tb IIIC T80 °C Db	Ex de mb ib IIC T4 Gb Ex tb IIIC T80 °C Db
Permissible ambient temperature	-20 °C up to +55 °C (specified data: -5 °C bis +35 °C)	-20 °C up to +55 °C (specified data: -5 °C bis +35 °C)
IK-class accd. EN 50102	IK 10 Δ 20 J	IK 10 Δ 20 J
Rated voltage	120 - 254 V AC	220 - 254 V AC / optional 120 V AC
Rated current	0.23 A (230 V AC)	0.4 A (230 V AC)
Frequency	50 - 60 Hz	50 - 60 Hz
Charging duration (cap. >90%)	\geq 14 h	\geq 14 h
Power factor cos	\geq 0,95	\geq 0,95
Circuit	EVG with emergency lighting supply	EVG with emergency lighting supply
Protection class	I	I
Lamp / Illuminant	2 x T26 / 18 W (T8)	1 x T26 / 36 W (T8)
Rated luminous flux	2700 lm ¹⁾	6700 lm ¹⁾
Lamp cap	G13 accd. IEC 60061-1	G13 accd. to IEC 60061-1
Light efficiency in operation	78 %	78 %
Luminous flux in emergency operation (1.5 h, one lamp)	1215 lm (90 %)	1507 lm (45 %)
Luminous flux in emergency operation (3 h, one lamp)	607 lm (45 %)	837 lm (25 %)
Rated emergency lighting duration	Lamps can be set on site for an emergency lighting duration of 1.5 or 3 hours (single lamp)	Lamps can be set on site for an emergency lighting duration of 1.5 or 3 hours (single lamp)
Dimensions (L x W x H)	900 x 188 x 130 mm	1500 x 188 x 130 mm
Connecting terminals	L1, L2, L3, L, N, PE; max. 2 x 6 mm ² per terminal	L1, L2, L3, L, N, PE; max. 2 x 6 mm ² per terminal
Enclosure colour	RAL 7035 light grey	RAL 7035 light grey
Enclosure material	glass-fibre reinforced polyester	glass-fibre reinforced polyester
Weight	8.8 kg	12 kg
Cable glands / gland plates / enclosure drilling	Ex-e cable glands M25 x 1.5 (plastic) for cables from \varnothing 8 - 17 mm, option: M20 x 1.5 metal thread ²⁾	Ex-e cable glands M25 x 1.5 (plastic) for cables from \varnothing 8 - 17 mm, option: M20 x 1.5 metal thread ²⁾
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	Polycarbonate	Polycarbonate

¹⁾ depends on used lamps

²⁾ with dustcover if entry/thread is not closed

Technical data

eLLM 92018/18 NE



Technical data

eLLM 92018/18 NE (2 x 18 W) ²⁾

EC-Type Examination Certificate	BVS 09 ATEX E 034
IECEX-Certificate of conformity	IECEX BVS 09.0033
Marking to 94/9/EG	⊕ II 2 G Ex de mb ib IIC T4 ⊕ II 2 D Ex tb IIIC T80 °C Db IP66
Marking to IECEx	Ex de mb ib IIC T4 Gb Ex tb IIIC T80 °C Db
Permissible ambient temperature	-20 °C up to +55 °C (specified data: -5 °C bis +35 °C)
IK-class accd. EN 50102	IK 10 Δ 20 J
Rated voltage	120 - 254 V AC
Rated current	0,23 A (230 V AC)
Frequency	50 - 60 Hz
Charging duration (cap. >90%)	\geq 14 h
Power factor cos φ	\geq 0,95
Circuit	EVG with emergency lighting supply
Protection class	I
Lamp / Illuminant	2 x T26 / 18 W (T8)
Rated luminous flux	2700 lm ¹⁾
Lamp cap	G13 accd. to IEC 60061-1
Light efficiency in operation	78 %
Luminous flux in emergency operation (1.5 h, one lamp)	1215 lm (90 %)
Luminous flux in emergency operation (3 h, one lamp)	607 lm (45 %)
Rated emergency lighting duration	Lamps can be set on site for an emergency lighting duration of 1.5 or 3 hours
Dimensions (L x W x H)	1205 x 188 x 130 mm
Connecting terminals	L1, L2, L3, L, N, PE; max. 2 x 6 mm ² per terminal
Enclosure colour	RAL 7035 light grey
Enclosure material	glass-fibre reinforced polyester
Weight	10.5 kg
Pole socket	\varnothing 44 x 150 mm
Cable glands / gland plates / enclosure drilling	x-e-cable glands M25 x 1,5 (Plastic) for cables from \varnothing 8 - 17 mm, option: M20 x 1,5 metal thread ²⁾
Degree of protection accd. to EN 60529	IP66
Protective cover / protective bowl	Polycarbonate

¹⁾ depends on used lamps

²⁾ pole mounting light fitting

Technical data

eLLS 08018/18 NE (2 x 18 W) / eLLS 08036/36 NE (2 x 36 W)



Technical data

	eLLS 08018/18 NE (2 x 18 W)	eLLS 08036/36 NE (2 x 36 W)
EC-Type Examination Certificate	BVS 09 ATEX E 034	BVS 09 ATEX E 034
IECEX-Certificate of conformity	IECEX BVS 09.0033	IECEX BVS 09.0033
Marking to 94/9/EG	⊕ II 2 G Ex de mb ib IIC T4 Gb ⊕ II 2 D Ex tb IIIC T80 °C Db	⊕ II 2 G Ex de mb ib IIC T4 Gb ⊕ II 2 D Ex tb IIIC T80 °C Db
Marking to IECEx	Ex de mb ib IIC T4 Gb Ex tb IIIC T80 °C Db IP66	Ex de mb ib IIC T4 Gb Ex tb IIIC T80 °C Db IP66
Permissible ambient temperature	-25 °C up to +55 °C	-25 °C up to +55 °C
IK-class accd. EN 50102	IK 10 Δ 20 J	IK 10 Δ 20 J
Rated voltage	120 - 254 V AC	220 - 254 V AC / optional 120 V AC
Rated current	0,23 A (230 V AC)	0,40 (230 V AC)
Frequency	50 - 60 Hz	50 - 60 Hz
Charging duration (cap. >90%)	\geq 14 h	\geq 14 h
Power factor cos φ	\geq 0,95	\geq 0,95
Circuit	EVG with emergency lighting supply	EVG with emergency lighting supply
Protection class	I	I
Lamp / Illuminant	2 x T26 / 18 W (T8)	2 x T26 / 36 W (T8)
Rated luminous flux	2700 lm ¹⁾	6700 lm ¹⁾
Lamp cap	G13 accd. to IEC 60061-1	G13 accd. to IEC 60061-1
Light efficiency in operation	78 %	78 %
Luminous flux in emergency operation (1.5 h, one lamp)	1215 lm (90 %)	1507 lm (45 %)
Luminous flux in emergency operation (3 h, one lamp)	607 lm (45 %)	837 lm (25 %)
Rated emergency lighting duration	Lamps can be set on site for an emergency lighting duration of 1.5 or 3 hours	Lamps can be set on site for an emergency lighting duration of 1.5 or 3 hours
Dimensions (L x W x H)	900 x 188 x 130 mm	1500 x 188 x 130 mm
Connecting terminals	L1, L2, L3, L, N, PE; max. 2 x 6 mm ² per terminal	L1, L2, L3, L, N, PE; max. 2 x 6 mm ² per terminal
Enclosure material	Stainless steel 316 Ti (1.4571)	Stainless steel 316 Ti (1.4571)
Weight	10.4 kg	14.0 kg
Cable glands / gland plates / enclosure drilling	Ex-e-cable glands M25 x 1,5 (Plastic) for cables from \varnothing 8 - 17 mm, option: M20 x 1,5 metal thread ²⁾	Ex-e-cable glands M25 x 1,5 (Plastic) for cables from \varnothing 8 - 17 mm, option: M20 x 1,5 metal thread ²⁾
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	Polycarbonate	Polycarbonate

¹⁾ depends on used lamps

²⁾ with dustcover if entry/thread is not closed



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