

2.4

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

eLLK 92018/18 NE / eLLK 92036/36 NE / eLLM 92018/18 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 functions are monitored constantly by the micro-processor 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 optimized. 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.

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 flameproof 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.

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.

International certification

Special versions according to the NEC standards are available for use on the American market. CSA certification for the types of luminaires eLLK 92 NE 2217 (2 x 17 W) and eLLK 92 NE 4232 (2 x 32 W) allows their use there.






Other country-specific approvals, such as for Brazil or the new Eurasian Conformity (EAC) for placing them on the market in Russia, Belarus and Kazakhstan, are available.



Features

- Standard dual channel ballast with EOL monitoring
- Automatic weekly 5 minute function test
- Automatic quarterly partial duty cycle test
- LED 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
- Safety standard IP66

Ordering details

| Type | Content | Terminals | Through-wiring single-ended | Through-wiring twin-ended | Cable gland/thread | Threaded plug | Blanking plug | Order No. | Order No. | |
|--|----------------------|-----------|-----------------------------|---------------------------|--|---------------|---------------|-----------------------|-----------------------|-----------------|
| eLLK 92018/18 NE | | | | | | | | | for 120 - 254 V | |
|  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⁾ | | | | | | | | | for 120 - 254 V | |
|  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 | | | | | | | | | for 120 V | for 220 - 254 V |
|  eLLK 92036/36 NE (2 x 36 W) | 1/6-1K | 1 x 6 | x | – | 2 x M25, plastic | | 1 | 1 2261 885 401 | 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 885 403 | 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 885 409 | 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 885 411 | 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 | | |
| eLLK 92 NIB 2217 ³⁾ | | | | | | | | | for 120 V | for 220 - 254 V |
|  eLLK 92 NIB 2217/U240 (2 x 17 W) | 2/6-2M | 2 x 6 | – | x | 2 x 3/4" NPT Myers Hub Adapter, 2 x metal thread | 2 x M25 | | 1 2260 879 311 | | |
| eLLK 92 NIB 2217/U120 (2 x 17 W) | 2/6-2M | 2 x 6 | – | x | 2 x 3/4" NPT Myers Hub Adapter, 2 x M25 metal thread | 2 x M25 | | 1 2260 879 333 | | |
| eLLK 92 NIB 4232 ³⁾ | | | | | | | | | for 120 V | for 220 - 254 V |
|  eLLK 92 NIB 4232/U240 (2 x 32 W) | 2/6-2M | 2 x 6 | – | x | 2 x 3/4" NPT Myers Hub Adapter, 2 x M25 metal thread | 2 x M25 | | 1 2261 879 311 | | |
| eLLK 92 NIB 2432/U120 (2 x 32 W) | 2/6-2M | 2 x 6 | – | x | 2 x 3/4" NPT Myers Hub Adapter, 2 x M25 metal thread | 2 x M25 | | 1 2261 879 333 | | |

¹⁾ with metal thread, without cable gland; ²⁾ Pole mounting light fitting; ³⁾ for use according to NEC-standards
 Scope of delivery without lamp and fixing accessories
 Metal cable glands see catalogue part 2: 2.3.12 ff

Accessories

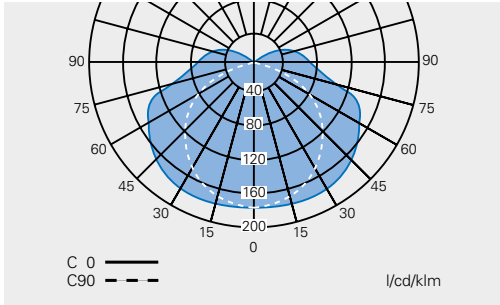
| Type | Application | Order No. |
|---|------------------------|-----------------------|
| Single sided through wiring 2/6 with 2 entries M25, incl. terminals and mounting material | for eLLM 92 018/18 NIB | 2 2218 602 000 |

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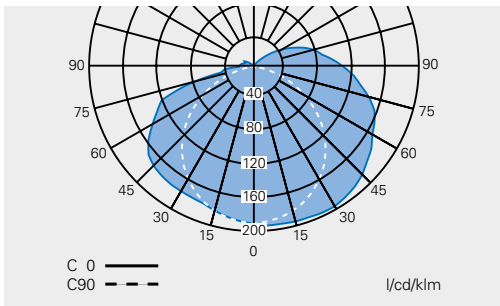
Dimension drawing / Polar curve

eLLK 92018/18 NE / eLLK 92036/36 NE / eLLM 92018/18 NE / eLLK 92 NIB 2217/ eLLK 92 NIB 4232

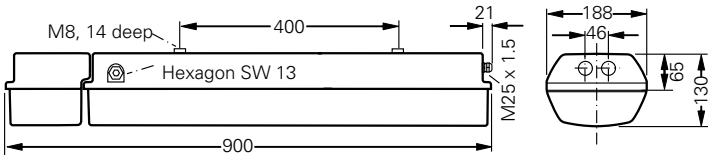
Polar curve eLLK 92018/18 NE / eLLK 92 NIB 2217 eLLK 92036/36 NE/ eLLK 92 NIB 4232



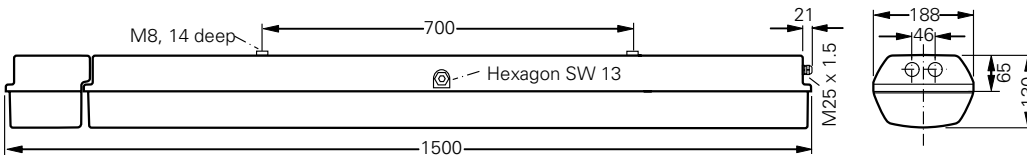
Polar curve eLLK/eLLM 920... NE / NIB in emergency operation



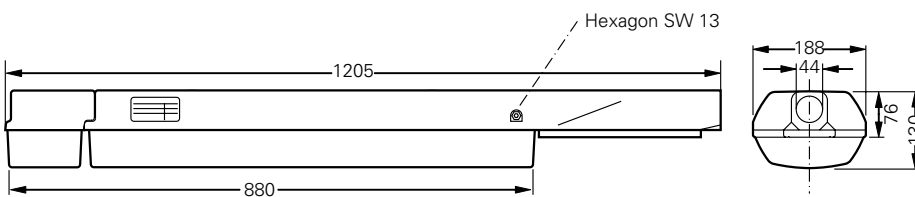
eLLK 92018/18 NE / eLLK 92 NIB 2217



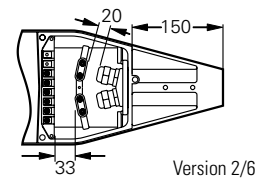
eLLK 92036/36 NE / eLLK 92 NIB 4232



eLLM 92018/18 NE



eLLM 92...



Dimensions in mm

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



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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 accd. to 94/9/EC | ⊕ 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 accd. 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 +50 °C (specified data: -5 °C up to +35 °C) | -20 °C up to +55 °C (specified data: -5 °C up to +35 °C) |
| IK-class according to EN 50102 | IK 10 ± 20 J | IK 10 ± 20 J |
| Rated voltage | 120 - 254 V AC | 220 - 254 V AC / optional 120 V AC |
| Rated current | 0.23 A | 0.4 A |
| Frequency | 50 - 60 Hz | 50 - 60 Hz |
| Charging duration | ≥ 14 h | ≥ 14 h |
| Power factor cos φ | ≥ 0.95 | ≥ 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. to IEC 60061-1 | G13 accd. to IEC 60061-1 |
| Light output ratio | 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), option: M20 x 1.5 metal thread ²⁾ | Ex-e cable glands M25 x 1.5 (plastic), 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 (2 x 18 W)

| | |
|---|--|
| EC-Type Examination Certificate | BVS 09 ATEX E 034 |
| IECEX Certificate of Conformity | IECEX BVS 09.0033 |
| Marking accd. to 94/9/EC | <ul style="list-style-type: none"> ⊕ II 2 G Ex de mb IIC T4 ⊕ II 2 D Ex tb IIIC T80 °C Db IP66 |
| Marking accd. to IECEX | <ul style="list-style-type: none"> Ex de mb ib IIC T4 Gb Ex tb IIIC T80 °C Db |
| Permissible ambient temperature | -20 °C up to +50 °C (specified data: -5 °C up to +35 °C) |
| IK-class according to EN 50102 | IK 10 Δ 20 J |
| Rated voltage | 120 - 254 V AC |
| Rated current | 0.23 A |
| Frequency | 50 - 60 Hz |
| Charging duration | \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 output ratio | 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 (single lamp) |
| 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 | Ex-e cable glands M25 x 1.5 (plastic), 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



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Technical data

| | eLLK 92 NIB 2217/U120/240 (2 x 17 W) | eLLK 92 NIB 4232/U120/240 (2 x 32 W) |
|---|---|---|
| Marking accd. to CEC 018 | Ex de ib m IIC T4 Class II Div. 1 Gr. E, F and G | Ex de ib m IIC T4 Class II Div. 1 Gr. E, F and G |
| Marking accd. to NEC 500/505 | Class I Zone 1 AEx de ib m IIC T4 Class I Div. 2 Gr. A, B, C, D Class II Div. 2 Gr. F and G | Class I Zone 1 AEx de ib m IIC T4 Class I Div. 2 Gr. A, B, C, D Class II Div. 2 Gr. F and G |
| Certificate of Compliance | CSA 10.2325079 | CSA 10.2325079 |
| Permissible ambient temperature | -20 °C up to +50 °C (specified data: -5 °C up to +35 °C) | -20 °C up to +50 °C (specified data: -5 °C up to +35 °C) |
| IK-class according to EN 50102 | IK 10 \pm 20 J | IK 10 \pm 20 J |
| Rated voltage | 120 V / 240 V AC | 120 V / 240 V AC |
| Rated current | 0.38 A / 0.18 A | 0.70 A / 0.34 A |
| Frequency | 50 - 60 Hz | 50 - 60 Hz |
| Charging duration | \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 F17 T8 | 2 x F32 T8 |
| Rated luminous flux | 2600 lm ¹⁾ | 6600 lm ¹⁾ |
| Lamp cap | G13 accd. to IEC 60061-1 | G13 accd. to IEC 60061-1 |
| Light output ratio | 78 % | 78 % |
| Luminous flux in emergency operation (1.5 h, one lamp) | 1170 lm (90 %) | 1485 lm (45 %) |
| Luminous flux in emergency operation (3 h, one lamp) | 585 lm (45 %) | 825 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 colour | RAL 7035 light grey | RAL 7035 light grey |
| Enclosure material | glass-fibre reinforced polyester | glass-fibre reinforced polyester |
| Weight | 10.2 kg | 12.2 kg |
| Cable glands / gland plates / enclosure drilling | 3/4" NPT metal thread with dustcover | 3/4" NPT metal thread with dustcover |
| Degree of protection accd. to EN 60529 | IP66 | IP66 |
| Protective cover / protective bowl | Polycarbonate | Polycarbonate |

¹⁾ depends on used lamps

