


Installation and Operating Instructions 0158

0093.148.00

Lumistar luminaire ESL25LED-Ex

 II 2G Ex db IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db

• Important note:

Sight glass luminaires are intended for a specific purpose and are designed exclusively for mounting on or onto sight glass flange sockets. Under no circumstances may a sight glass lamp replace the mating flange or the complete sight glass flange socket or be used directly to cover a container opening. Luminaires for hazardous areas may only be installed, connected and maintained by specially trained and authorised personnel. It is essential to observe the data of the EU type-examination certificate!


Caution: Do not look into light – danger of impaired eyesight!

• General operating conditions:

- Independent of vessel internal pressure/vacuum – approved for use in Ex areas:
 Gas: Zones 1 and 2
 Dust: Zones 21 and 22
- Approved for use in ambient temperatures from -20°C up to +60°C or up to +50°C, depending on capacity

• Electrical data, general:

- Voltage, power, temperature class and degree of protection can be found on the nameplate.
- Ex approval according to EU type examination certificate:
 BVS 08 ATEX E 137

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• Mechanical installation:

The Lumistar luminaire ESL25LED-Ex is suitable for sight glasses in the following nominal sizes, using the appropriate mounting:

| Type of fitting | from DN | Hinged bracket | Flanged ad. collar |
|-----------------------------------------------------|---------|----------------|--------------------|
| Circular sight glass fitting DIN 28120 | 25 | yes | no |
| Circular sight glass fitting DIN 28121 | 40 | yes | no |
| Tubular sight glass fitt. | 50 | yes | no |
| Screw-type sight glass fitting similar to DIN 11851 | 65 | no | yes |
| | 80 | yes | yes |
| | 100 | yes | no |
| | 125 | yes | no |

• Parameters/Temperature classification:

| Item | ESL25LED-Ex | Variant with 2 m connection cable part no. | Variant with cable gland 7-12 mm part no. | Variant for sterile applic. with 2 m connection cable part no. | Ambient temperature range -20°C ≤ T _a ≤ +50°C | |
|------|----------------------|--------------------------------------------|-------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------|----------|
| | | | | | 2G T6 | 2D T80°C |
| 1 | 24 V AC/DC – 7.5 W | 3540.924.00 | 3540.949.00 | 3542.015.00 | 2G T6 | 2D T80°C |
| 2 | 110-230 V AC – 7.5 W | 3540.925.00 | 3540.950.00 | 3542.016.00 | 2G T6 | 2D T80°C |



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• Mounting by way of hinged bracket:

The hinged bracket is used to secure the luminaire to the mating flange of a circular sight glass fitting (also suitable for visual flow indicators). Alternatively, it can be attached to the slotted cover nut of screw-type sight glass fittings to DIN 11851. The hinged bracket is fixed in place by turning the supplied M8 bolt into a blind hole which has previously been tapped in the pitch circle of the mating flange face. An additional option is to weld on the bracket.

• Mounting by way of flanged adapter collar:

The flanged adapter collar fits between the glass disk and the slotted cover nut (DIN 11851):

- Position appropriate seal between glass face and the flanged adapter collar
- Tighten the slotted cover nuts
- Insert the luminaire into the flanged collar
- Please note: The Lumistar luminaire variant for sterile technology is slipped over the collar of the sterile technology flange
- Tighten the lateral retaining screws

• **Electrical connection:**

a) **ESL25LED-Ex with cable tail**

- The cable tail is already works-fitted in the luminaire and is ready for use.
- The external protective conductor terminal (pos. 2) must be connected to separate operating earth.
- The connecting cable must be intercepted after a maximum of 1 m.
- Attention! When replacing cables (e.g. other lengths), the inner connections must be loosened before unscrewing the cable entry.

Special operating conditions:

The Ex luminaires are manufactured with a permanently connected cable. The free ends of the connecting cable must be installed in a category 2G/2D enclosure if the connection is made in a potentially explosive atmosphere.

Before installing or repairing the luminaire, the luminaire and the area where it is to be installed must be cleaned of dust. The dismantled parts must be protected from contamination during installation or repair.

When closing the luminaire, make sure that the inside of the luminaire is free of dust. The connecting cable must be laid in such a way that static charging is ruled out.

b) **ESL25LED-Ex with cable gland 7-12 mm**

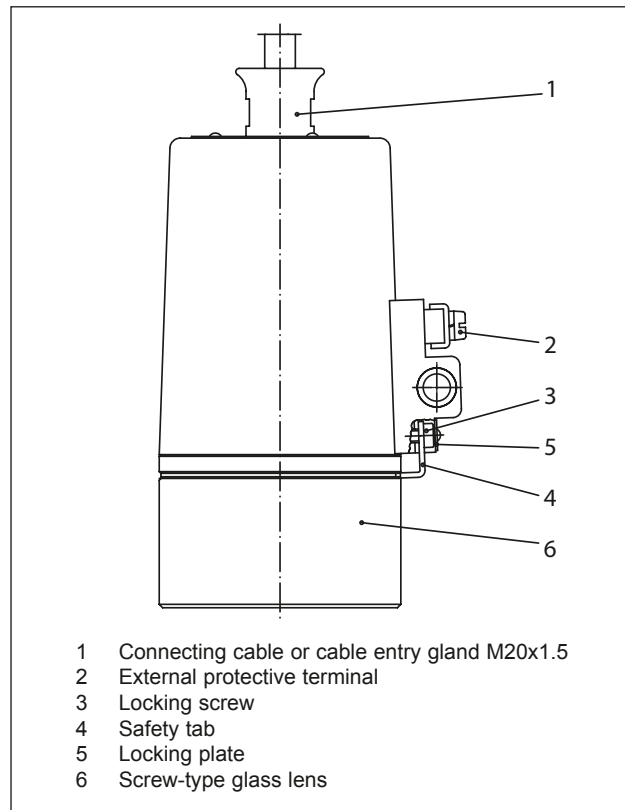
- Select connection cable suitable for cable entry M20x1.5
- The minimum temperature resistance of the connecting cable (if listed) can be found on the nameplate.

• **Module change:**

- Observe waiting time according to nameplate
- Loosen locking screw (pos. 3) for screwed glass (pos. 6); This releases the safety angle (pos. 4)
- Unscrew the screw glass (pos. 6) only with a mounting wrench
- Replace and connect the module
- Screw in the screw glass (pos. 6) again until it is tight. (pressure against the O-ring)
- Safety bracket (pos. 4) must engage in the groove provided so that the screw glass (pos. 6) is locked
- Tighten locking screw (pos. 3) again
- Apply voltage

• **Please note:**

Please order mounting parts and claw spanner separately if needed.



• **Replacement parts:**

| | Part no. |
|------------------------|-----------------|
| Screwed glass | 1774.129.00 |
| Screwed glass, sterile | 1774.134.00 |
| O-ring seal (Viton) | 0862.113.00 |
| Cable gland 7-12 mm | 9103.124.00 |

| | |
|---------------------------------|-------------|
| LED module 24 V AC/DC – 7.5 W | 3858.038.00 |
| LED module 110-230 V AC – 7.5 W | 3858.039.00 |

| | |
|-------------------------------------|-------------|
| Cable entry gland | |
| complete with 2 m connection cable | 1084.021.00 |
| complete with 10 m connection cable | 1084.024.00 |

• **Accessories:** Claw spanner 6816.001.00

• **Maintenance:**

- Keep luminaire clean
- Before closing the luminaire again, re-grease the threads in the glass lens (6) using e.g. AEMA-SOL 6B from A. E. Matthes
- Use only original replacement parts