


Installation and Operating Instructions 0158

0093.059.00 a

Lumistar Luminaire ESL 27-Ex, Stainless Steel

 II 2G Ex d IIC T3/T4/T6 Gb
II 2D Ex tb IIIC T80/T130/T195°C Db

• Important, please note:


Sight glass luminaires are specifically designed and solely intended for mounting with or onto flanged sight glass fittings. Under no circumstances should sight glass luminaires be used as a substitute for the cover flange or to replace the complete sight/light port or as a lid or cover for vessel openings. Luminaires for use in potentially explosive environments must be mounted, installed and serviced by staff who have the relevant qualifications and have been properly trained for this type of work.

Please observe the data set out in the EC type-examination certificate!

• General operating conditions:

- Independent of pressure/vacuum in the vessel
- Approved for use in Ex environments:
Gas: Zones 1 and 2; dust: Zones 21 and 22
- **Approved for use in ambient temperatures of between -20°C and +40°C**

• Electrical data, general:

- Voltage, power, temperature class and protection rating are shown on the type plate.
- Ex approval acc. to EC type-examination certificate:
BVS 08 ATEX E 139
 II 2G Ex d IIC T3/T4/T6 Gb
II 2D Ex tb IIIC T80/T130/T195°C Db
- The variant with 20 VA built-in transformer is PTC-protected; no fuse replacement necessary.
- Variants with a 50 VA built-in transformer are protected by a micro-fuse (T0.315 A for 230 V/240 V; T0.630 A for 120 V).
- Power supply: AC or DC, depending on lamp fitted
- **Caution:** Only alternating current should be used for luminaires with integrated transformer.
- **Warning:** Over-voltage will cause premature lamp failure!
- 10% voltage tolerance is admissible.

• Mechanical installation:

The Lumistar luminaire ESL 27-Ex is suitable for the following nominal sizes together with the appropriate hinged bracket mounting attachment:

Type of unit	from DN
Circular sight glass fitting DIN 28120 DIN 28121	50
Visual flow indicator	50
Screw-type sight glass fitting DIN 11851	100

• Parameters/Temperature classification:

Type ESL 27-Ex Variant	Nominal Voltage	Ambient temperature range $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$	
(230 V/12 V) 20 W	230 ~	2G T6	2D T80°C
(24 V) 20 W	24 ≈	2G T6	2D T80°C
(230 V/12 V) 35 W	230 ~	2G T4	2D T130°C
(240 V/12 V) 35 W	240 ~	2G T4	2D T130°C
(12 V) 50 W	12 ≈	2G T4	2D T130°C
(24 V) 50 W	24 ≈	2G T4	2D T130°C
(120 V/12 V) 50 W	120 ~	2G T3	2D T195°C
(230 V/12 V) 50 W	230 ~	2G T4	2D T130°C
(240 V/12 V) 50 W	240 ~	2G T3	2D T195°C



Lumistar luminaire ESL 27-Ex with hinged bracket

• Mounting with hinged bracket:

The hinged bracket is used to secure the luminaire to the cover flange of a circular sight glass unit (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 cover flange face. Alternatively, the bracket can be welded on.

• Mounting with flanged adapter collar:

This Lumistar luminaire is fitted over the adapter collar of the special flange for sterile technology applications.

• **Electrical connection:**

ESL 27-Ex with connecting cable

- The connecting cable has already been works-fitted in the luminaire so that it is ready for use.
- The external protective conductor (2) must be connected to a separate operational earth.
- The cable needs to be secured after max. 1 metre.
- Caution! When replacing the cable (e. g. by one with a different length), the internal terminals must be loosened before the cable entry gland can be unscrewed.

• **Conditions/requirements:**

This Ex-type luminaire has been manufactured with a permanently connected cable. The free ends of this lead must be installed in a category 2G/2D enclosure if connection is to be carried out in a potentially explosive environment. The luminaire and the area around the place of installation should be cleared of dust prior to installation and in the course of maintenance work. The dismantled parts should be protected against dirt, dust and contamination during installation or servicing work. When closing the luminaire, special attention should be paid to ensure that the interior of the lamp is free of dust.

• **Replacing lamp:**

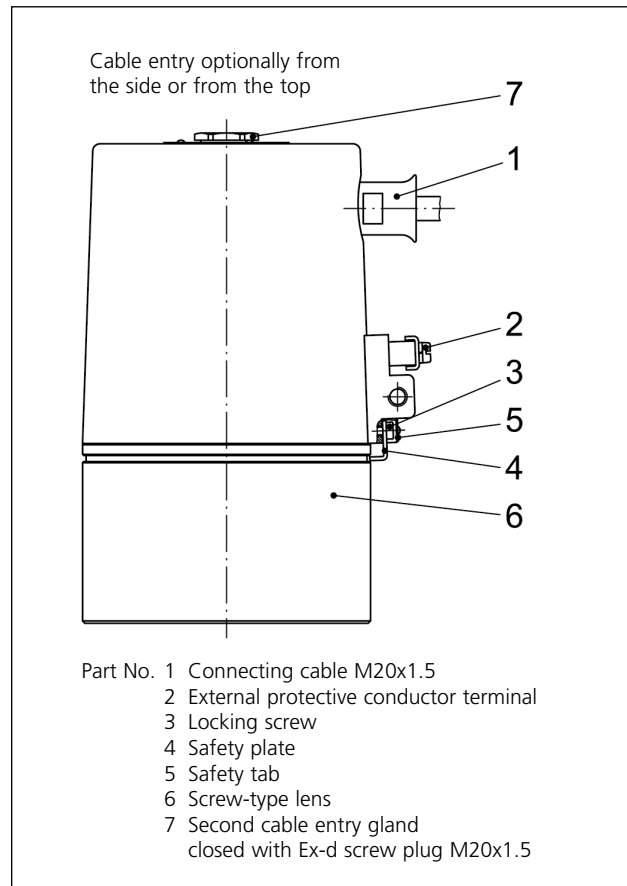
- Disconnect power to luminaire.
- Allow sufficient cooling-down time, see type plate.
- Undo locking screw (3) which releases the safety plate (4) for the screw-type glass lens (6).
- Unscrew glass lens (6) using only the special claw spanner.
- The defective lamp is then pulled out (2-pin type).
- Hold the new lamp bulb (original products only, please) using a protective cloth, taking care not to touch it with your bare fingers. Carefully insert the replacement 2-pin bulb into the socket, making sure the lamp is securely in position!
- Refit the glass lens (6) by screwing it into place until it is tight again (pressure on O-ring).
- The glass lens (6) is locked into position once the safety plate (4) engages in one of the notches.
- Retighten the locking screw (3).
- Switch on power again.

• **Warning:**

Do not look into light – danger of impaired eye-sight!
When replacing lamp bulbs, make sure that the light beam is evenly distributed over the glass lens as prescribed by the design. On no account should a "hot spot" be allowed to occur outside the luminaire (caused e. g. by the incorrect position of the lamp or the wrong lamp).

• **Please note:**

Please order fastening elements separately, if required.



• **Replacement parts:**

Screw-type lens (light aperture)	Part No. 1774.086.00
O-ring seal (Viton)	0862.079.00

Lamp socket, GY6.35 (2-pin)	1202.028.00
Lamp socket, G4 (2-pin)	1202.025.00

Halogen lamps:	
12 V/20 W	3232.240.00
12 V/35 W	3232.232.00
12 V/50 W	3232.238.00
24 V/20 W	3232.206.00
24 V/50 W	3232.242.00

Halogen lamps...	
complete with 2 m connecting cable	1084.021.00
complete with 10 m connecting cable	1084.024.00

• **Accessories:** Claw spanner 6816.002.00

• **Servicing:**

- Keep luminaire clean.
- After opening the luminaire, the thread of the glass lens (6) should be greased (e.g. with AEMA-SOL 6 B, from A. E. Matthes).
- Keep note of average lamp life.
- Please use original replacement parts only.