

Installation and Operating Instructions 0158

0093.048.00 c

Lumistar Ex Combination Luminaire USL 46-Ex

 II 2G Ex de IIC 120°C Gb
II 2D Ex tb IIIC T120°C Db

Important, please note:

Sight glass luminaires are specifically designed and solely intended for mounting on vehicles, such as fork lift trucks, that operate in explosion hazardous areas.

Luminaires for use in potentially explosive environments must be mounted, installed and serviced by staff who hold 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:

- Approved for use in Ex-classified 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 135
II 2G Ex de IIC 120°C Gb
II 2D Ex tb IIIC T120°C Db
- Voltage: 12 V DC, or 24 V DC
- **Warning:** Over-voltage will cause premature lamp failure!
- 10% admissible voltage tolerance

Connecting cable:

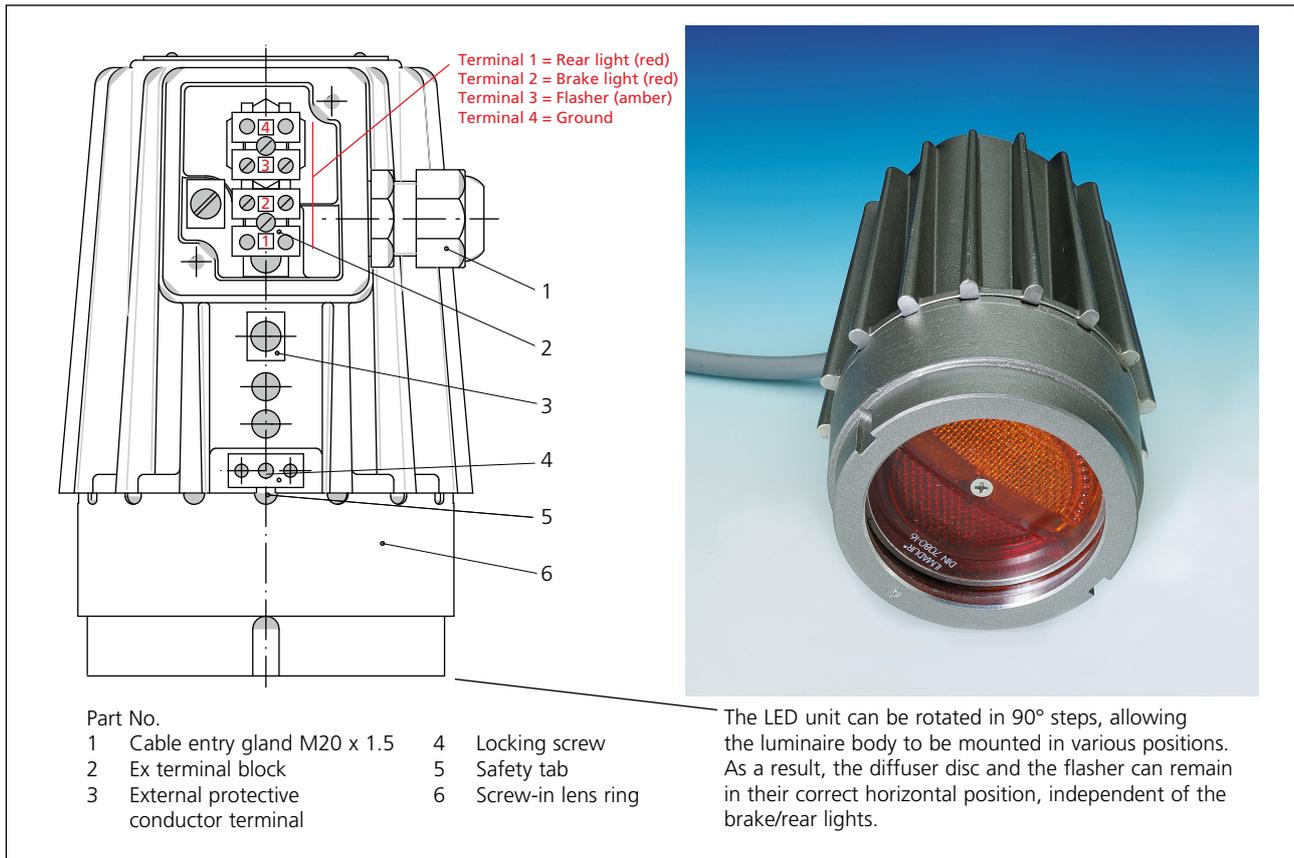
- An appropriate connecting cable (Ø 6-12 mm) should be selected which fits cable gland M20 x 1.5 and is suitable for the ambient temperature.

Parameters/Temperature classification:

Type USL 46-Ex Variant	Nom. Voltage	Ambient temperature range -20°C ≤ T _a ≤ +40°C	
		2G 120°C	2D T120°C
(12 V) LED	12 =	2G 120°C	2D T120°C
(24 V) LED	24 =	2G 120°C	2D T120°C



Lumistar Ex combination luminaire
USL 46-Ex with terminal box



Part No.		
1	Cable entry gland M20 x 1.5	4 Locking screw
2	Ex terminal block	5 Safety tab
3	External protective conductor terminal	6 Screw-in lens ring

• **Electrical connection:**

- Open the cover of the terminal box. Replace blanking plug with a suitable screwed gland that fits the cable entry
- Insert cable, tighten hexagonal cable entry gland
- Connect wires to numbered Ex terminals (2)
- The rated cross-section should not exceed 2.5 mm²
- See type plate for terminal connection diagram
- The external protective conductor terminal (3) must be connected to a separate operational earth
- Check that the gasket is properly positioned in the cover and adjust if necessary
- Close the lid with the seal in place

• **Replacing LED module:**

- Switch off power to luminaire
- Wait for unit to cool down (see type plate)
- Loosen the locking screw (4) for the lens ring (6), thus releasing the safety tab (5)
- Unscrew the lens ring (6) – it is essential to use the special claw spanner for this purpose
- Screw off the diffuser disc
- Unscrew the LED module, pull off cable connector
- Plug the cable connector into the new LED module and screw on the unit in its correct position
- Once the luminaire has been opened, the thread of the lens ring should be re-lubricated (using e. g. AEMA-SOL 6 B, made by A.E. Matthes).
- Screw the lens ring (6) on again until it is tight (pressure on O-ring)
- The glass lens (5) is locked into position once the safety tab (6) engages in one of the notches
- Retighten the locking screw (4)
- Switch on power again

• **Mechanical installation:**

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

1. The Lumistar Ex combination luminaire type USL 46-Ex is provided with three M6 threaded female insert nuts with a thread depth of 8 mm.
2. Mounting on hinged bracket:
The hinged bracket is attached to the designated fixation point by turning the supplied M8 bolt into a blind hole which has previously been tapped there.
Alternatively, the hinged bracket can be welded on.
The LED module can be rotated in 90-degree steps to correspond with the mounting position of the luminaire.

• **Replacement parts:**

Part No.	
1774.033.00	Screw-type lens SBB
1774.096.00	Screw-type lens LED ws
6558.000001	Diffuser disc SBB
3858.001.00	LED module 24 V
3858.003.00	LED module 12 V
3858.007.00	LED module 12 V ws/ge
9103.000108	Cable entry gland, M20 x 1.5
8257.000004	Blanking plug, M20 x 1.5
0854.038.00	Flat gasket for cover
0862.039.00	O-ring seal (Viton)

• **Accessories:**

6805.001.00	Claw spanner
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• **Servicing:**

- Keep luminaire clean
- Use only original spare parts