

# Sight glass luminiare USL05-LED-Ex





# Applications:

- The illumination of the interior of boilers, tanks, silos, agitators and other closed containers and reactors as well as flowthrough sight glasses in areas at risk of explosion; gas: zone 1 and 2, dust: zone 21 and 22.
- · Also suitable for food processing plants

#### Operating conditions:

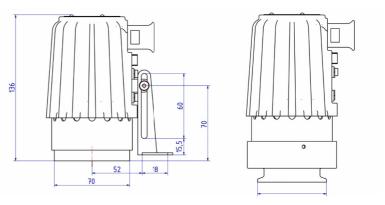
 independent of vessel internal pressure/ vacuum. Under no circumstances may a sight glass light replace the mating flange or the complete sight glass flange socket or be used directly to cover a vessel opening.

## Work tempereature

Lumistar luminaires of this type are approved for use in ambient temperatures of up to 60°C, depending on the LED equipment used.

#### Protection class

IP 65 und IP 67 nach DIN EN 60529



USL05 with hinged bracket

USL05 fitted on a Metaclamp\*

## Parts, design and materials:

#### Luminaire body:

- corrosion-resistant cast aluminium alloy, GK-ALSi10Mg Cable entry socket: with pressure-tight cast connection cable, 2 m, 5m or 10mSinotherm 110 H05GG-F 3G 1.5 mm2
- Protective conductor terminal: lamp interior already connected; additional protective conductor terminal on the outside of the housing
- · Mounting parts: see under accessories
- Weight: 0.9 kg

#### Advantages

- Small design, high light output:
   Glare-free illumination; suitable for round sightglass fittings to
   DIN28120/DIN 28121 or similar as well as for screwed sightglass fittings to DIN 11851 and flow-through sightglass fittings.
- · High light emission via optimally designed reflector

## Certification

- EU Type-Examination Certificate BVS 08 ATEX E 133
- II 2G Ex db IIC T6 Gb
- II 2D Ex tb IIIC T80°C Db

#### Operating voltage

24 V AC/DC – 7.5 W 110-230 V AC – 7.5 W Colour temperature: 6500 K

Luminous flux: 360-430 lm (depending on beam angle)

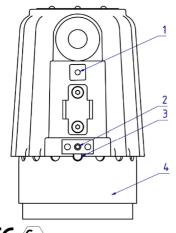
Beam angle: 12°, 25°, 38°

<sup>\*</sup>See data sheet Metalgas type 80.USL05

USL05-LED-Ex	.Ambient temp	-20°C ≤ Ta ≤ +50°C	-20°C ≤ Ta ≤ +60°C		
230 V AC-4 W			2G T6	2D T180°C	
24 V AC/DC - 7,5W	2G T6	2D T180°C			
110-230V AC - 7,5W	2G T4	2D T180°C			



# Installation and operating instruction



- 1. External protective conductor terminal
- 2. Locking screw
- 3. Safety tab
- 4. Screw-inn glass

# (£ (Ex)

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

#### Electrical connection

· Conditions: The Ex luminaire is 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 installation or repair, 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 interior of the luminaire is free of dust. The connection line for the pressure-tight cast connection line is already connected in the luminaire by the manufacturer and ready for operation. For an externally tested and approved cable entry (M20x1.5), the cable connection must be made in the luminaire. The external protective conductor terminal (pos. 1) must be connected to separate operating earth. The connecting cabl must be intercepted after a maximum of 1 m. Attention! When replacing cables (e.g. other lengths), the in connections must be loosened before unscrewing the cable entry. The connecting cable must be laid in such a way that static charging is excluded. Work tempereature Lumistar luminaires of this type are approved for use in ambient temperatures of up to 60°C, depending on the LED equipment used.

## Module change:

- · Make the luminaire voltage-free
- · Observe waiting time according to type plate
- Loosen locking screw (pos. 2) for screwed glass (pos. 4);loosen the locking tab (pos. 3)
- Unscrew the screw glass (pos. 4) with the assembly key
- Press LED briefly, turn and pull out Insert the spare bulb into the bayonet.
- · Press it on and lock it by turning it briefly. Pay attention to correct fit!
- · Before closing the lamp, regrease the thread of the screw-on
- glass (e.g. with AEMA-SOL 6 B, manufacturer A. E. Matthes)
- Screw in the screwed glass (pos. 4) until it is tight again (pressure against the O-ring)
- Safety tab (pos. 3) must engage in one of the notches so that the screwed glass (pos. 4) is locked
- Tighten the locking screw (pos. 2) again
- Apply voltage

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