

Lumistar Luminaire ASL 55-LED-Ex, ESL 55-LED-Ex, Stainless Steel

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

For mounting on sight glass fittings:

This Ex-type sight glass luminaire is designed for universal applications and is ideal for use in combined sight and light ports (single-flange version) or with two separate ports (2-flange version).

The special advantages of Lumiglas LED technology:

- vibration-proof
- long service life and operational reliability
- continuous LED operation
- optimal for fittings that are difficult to access
- no heat radiation in the light aperture (cold light)
- no unwanted additional heat in chemical and/or biological processes
- extremely high-contrast illumination

Compact design, powerful light output:

Glare-free illumination; for use with circular weld-type sight glass fittings to DIN 28120 or similar, Flange Bolt-Ons, weld-neck type sight glass fittings MV to DIN 11851, Sanitary Clamp Connections and Visual Flow Indicators.

Application:

For illuminating visual flow indicators, pipelines, laboratory mixers, bio-reactors as well as the interior of tanks, hoppers, silos, agitators and other, normally closed, vessels and reactors in potentially explosive environments.

Gas: Zones 1 and 2, Dust: Zones 21 and 22.

Ideal for applications in sterile areas

Protection class: IP 65 and IP 67 acc. to DIN EN 60529

Operating conditions:

Independent of the internal pressure/vacuum in the vessel. On no account should a sight glass luminaire be used as a substitute for the cover flange or instead of the complete sight glass flange assembly or on its own to close a vessel port.

Lumistar luminaires of this type are approved for use in ambient temperatures between -20°C and +40°C.

Optional with 11° or 26° light aperture reflector

Technical data Ex protection

This luminaire meets the essential safety and health requirements by complying with the regulations for

a) Gas

EN 60079-0: 2012 + A11: 2013	General Requirements
EN 60079-1: 2014	Flame-proof Enclosures ,d'
Explosion group:	IIC (includes IIA and IIB)
Temperature class:	T6

a) Gas

EN 60079-0: 2012 + A11: 2013	General Requirements
EN 60079-31: 2014	Protection by Enclosures ,t'
Explosion group:	IIIC (includes IIIA and IIIB)
Temperature class:	T80°C



Lumistar luminaire ESL 55-LED-Ex

EU-Type Examination Certificate: BVS 09 ATEX E 170/169

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

Operating voltage:

24 V AC/DC - LED 11 W/15 W
120-230 V AC/DC - LED 11 W/15 W
Protected by 1A miniature fuse.
Equipped with 4 or 7 high-power LEDs.

Voltage: AC/DC

Simple electrical connection via integrated cable or via Ex d cable gland.

Electrical connection options:

- Factory mounted connection cable (2 m standard length), resin-cast in screwed cable gland for pressure-tight cable entry, temperature resistant up to 110°C. Other length available on request: 10 m
- By way of screwed cable gland acc. to EN 60079-14
- Other types of cable glands and cables are shown in the table overleaf.

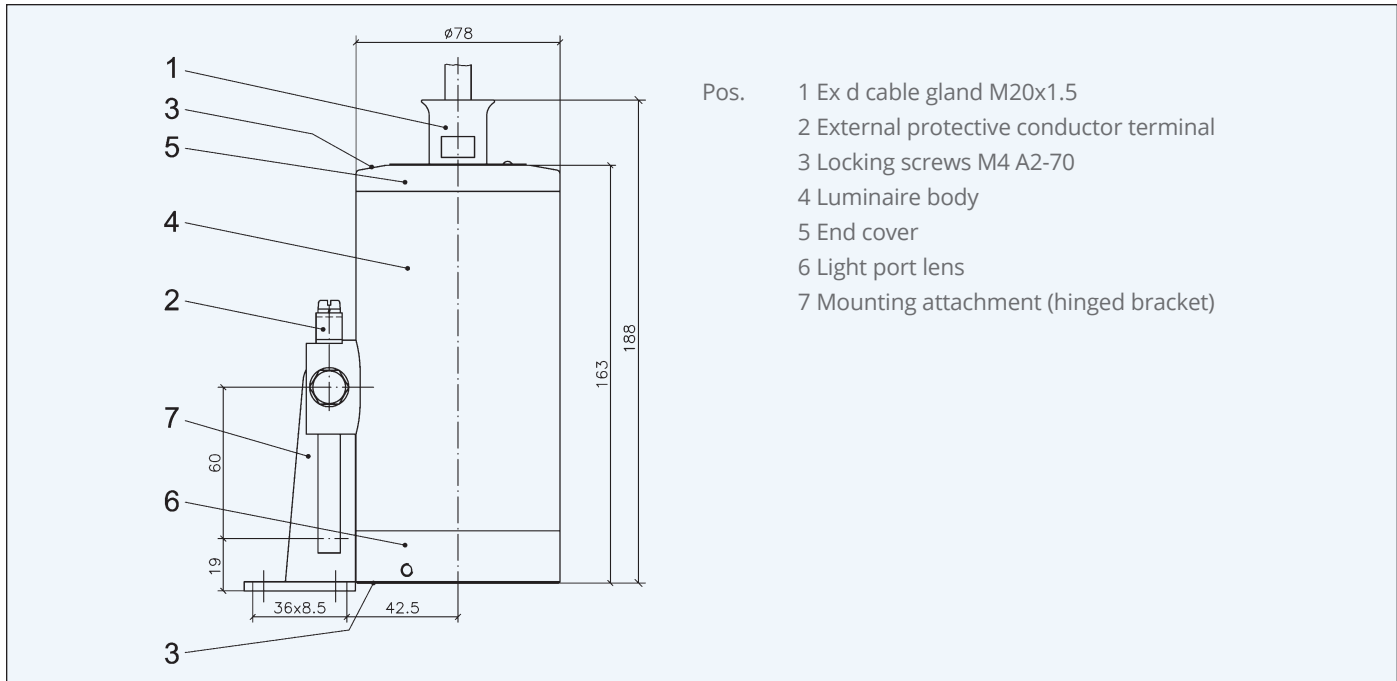
Fastening options:

Luminaires for sight glasses on circular fittings and visual flow indicators are mounted on the cover flange by means of the hinged bracket. With screw-type sight glass fittings, the luminaire is attached to the slotted cover nut.

The Lumistar luminaires ASL 55-LED-Ex and ESL 55-LED-Ex fits the following nominal sizes:

- Circular sight glass fittings to DIN 28120 size DN25 and larger
- ANSI/DIN Bolt-On size 2"/DN25 and larger
- Weld-Neck type MV (DIN11851) size DN65 and larger
- Sanitary Clamp Connection size 1" and larger
- Visual Flow Indicators size 1" and larger

Dimensions and electrical data for Lumistar luminaire ASL/ESL 55-LED-Ex:



Components and materials:

- Luminaire body (4) and end cover (5):
- ASL Aluminum alloy AlMgSi 0.5, paint finish RAL 9007, ESL stainless steel 1.4404, polished
- Light port lens (6): unit consisting of ring flange (ASL - Aluminum alloy AlMgSi 0.5, paint finish RAL 9007 /

ESL - stainless steel 1.4404, polished) and borosilicate glass

- Hinged mounting bracket (7): stainless steel 1.4301 (see accessories)
- Cable gland (1): M20x1.5
- ASL Weight (with 2 m connecting cable): 1.5 kg**
- ESL Weight (with 2 m connecting cable): 3.8 kg**

Connecting data: Temperature classification and electrical parameters (see also: Type-Examination Certificate)

No.	ASL/ESL 55-LED-Ex Variant	Luminous Flux (5700K Colour Temp)	Voltage Volt	Illuminant	Ambient temperature range -20° C ≤ T _a ≤ +40 °C	
1	(24 V) 11 W	630 lm (11°), 520 lm (26°)	24 ≈	4 LED	2G T6	2D T80°C
2	(120-230 V) 11 W	630 lm (11°), 520 lm (26°)	120-230 ≈	4 LED	2G T6	2D T80°C
3*	(24 V) 15 W	1100 lm (11°), 930 lm (26°)	24 ≈	7 LED	2G T6	2D T80°C
4*	(120-230 V) 15 W	1100 lm (11°), 930 lm (26°)	120-230 ≈	7 LED	2G T6	2D T80°C

* Versions possible: red, blue, ultra violet, infrared

Only combinations of the following cable entry glands and cables should be used:

Cable gland types	Cable types
HSK-M-Ex-d, M20x1.5, ASL - nickel plated brass (by Hummel)	EVA flexible sheathed cable, Sinotherm 110, Part No. 3403.017.00, 3x1.5 mm ² , Ø 8.5 mm
HSK-M-Ex-d, M20x1.5, ESL - 1.4404 (by Hummel)	Ölflex Heat 180, Part No. 3403.045.00, 3x1.5 mm ² , Ø 8.9 mm
KU1BPM20-Ex-d-Alpha X M20x1.5, ASL - nickel plated brass (by RST)	Ölflex Heat 180, Silflex UR-AWG18, Part No. 3403.044.00, 5x1.0 mm ² , Ø 10.3 mm
KU1BPM20-Ex-d-Alpha X M20x1.5, ESL - stainless steel (by RST)	Ölflex Classic 110 black, Part No. 3403.051.00, 3x1.5 mm ² , Ø 10.1 mm

Accessories:

No.	Component	Part No.
1	Luminaire mounting bracket (hinged)	0354.025.00
2	Luminaire mounting attachment, flanged adapter collar MV65	1356.039.00
3	Ex-timer switch	On request
4	Connecting cable	On request

Order data:

e.g. Lumistar luminaire ASL 55-LED-Ex and ESL 55-LED-Ex, (24 V) 11 W, Ex db IIC T6, 4 LED, with 2 m connecting cable

All dimensions in mm unless stated otherwise. Subject to change without prior notice. 10.15