

## Lumistar Luminaires ASL 55-LED and ESL 55-LED

### • For mounting on sight glass fittings

Sight glass luminaire for universal applications; ideally suited for sight glass and light port combinations (single-flange version) and for separate configurations (double-flange version).

### • The specific advantages of Lumiglas LED technology:

- Insensitive to vibration
- Long service life and high operational reliability
- Continuous operation for LED up to about 50,000 hours
- The ideal solution wherever fittings are difficult to access
- No heat radiation in the light port (cold light)
- No additional heat which would be undesirable for chemical and/or biological processes
- Extreme high-contrast lighting

### • Compact yet powerful:

Dazzle-free illumination; suitable for use with circular sight glass fittings to DIN 28120/DIN 28121 or similar, with screw-type sight glass fittings in compliance with DIN 11851, and in sight flow indicators.

### • Applications:

The optimum solution in the pharmaceutical and food processing industries, ideal for illuminating bioreactors, laboratory mixers and filters as well as the interiors of boilers, tanks, agitators, separators, pipes and other – usually sealed – vessels in operating environments that are not potentially explosive.

### • Type of protection:

Dust-tight and waterjet-proof, IP 65 acc. to EN 60529/ DIN VDE 0470, Part 1

### • Operating conditions:

Independent of the pressure/vacuum inside the vessel

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

### • Lumiglas lamps must never be used for sealing vessel openings in place of a suitable sight glass fitting.

### • Maximum permissible ambient temperature: 40°C

### • Two simple installation options are practice-proven:

- by means of a hinged mounting
- by fitting the luminaire over a special raised edge on the mating flange (ideal in aseptic and sterile areas)

### • Electrical data: The Lumistar luminaire is equipped with a factory-mounted screwed cable gland.

CE

3755.432 h



Lumistar luminaire ESL 55-LED with hinged bracket



Lumistar luminaire ASL 55-LED with hinged bracket

Type	Part no.	Voltage	LED	Wattage and beam angle	Luminous flux	Colour temperature
ASL 55-LED	3541.981.00	24 V ≈	4	11 W – 11° / 26°	630 lm / 520 lm	5700 K
	3541.991.00	24 V ≈	7	15 W – 11° / 26°	1100 lm / 930 lm	5700 K
ASL 55-LED	3541.982.00	120-230 V ≈	4	11 W – 11° / 26°	630 lm / 520 lm	5700 K
	3541.992.00	120-230 V ≈	7	15 W – 11° / 26°	1100 lm / 930 lm	5700 K
ESL 55-LED	3541.881.00	24 V ≈	4	11 W – 11° / 26°	630 lm / 520 lm	5700 K
	3541.891.00	24 V ≈	7	15 W – 11° / 26°	1100 lm / 930 lm	5700 K
ESL 55-LED	3541.882.00	120-230 V ≈	4	11 W – 11° / 26°	630 lm / 520 lm	5700 K
	3541.892.00	120-230 V ≈	7	15 W – 11° / 26°	1100 lm / 930 lm	5700 K

Note: The luminaires are also available with push button

• **Parts, design and materials:**

- Luminaire shell (4) and end cover (5):  
ASL 55-LED: corrosion-resistant aluminium alloy  
ESL 55-LED: stainless steel 1.4404
- Screwed cable gland M20x1.5 (1)
- Light port as a unit consisting of a ring (aluminium or stainless steel) and glass (6)
- Mounting with hinged bracket (7): stainless steel 1.4301 (to be ordered extra)

• **Weight:** ASL 55-LED: 1.6 kg; ESL 55-LED: 3.6 kg

• **Accessories** – to be ordered separately!

- Mounting hinged bracket, part no. 0354.025.00
- Mounting attachment flanged adapter collar for use with screw-type sight glass fittings (on request)
- Time slot modules, external, for time-dependent lighting
- Pushbutton or switch
- Optional 11° or 26° light aperture reflector

• **Mechanical installation:**

When installing the round sight glass fitting or the sight flow indicator, the luminaire is mounted on the mating flange with the hinged bracket. With the screw-type sight glass fitting, the lamp is mounted on the grooved nut or by means of a flange attachment – see d) below.

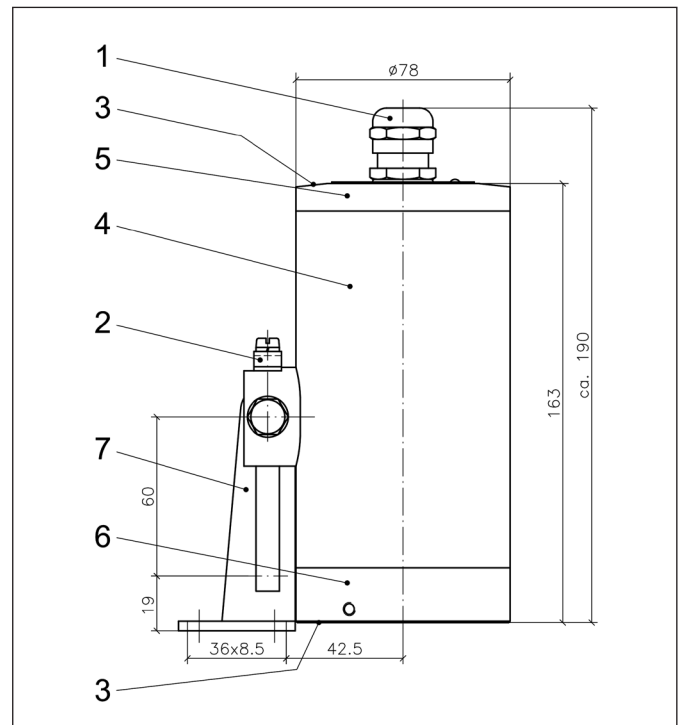
**The Lumistar luminaires ASL 55-LED and ESL 55-LED are compatible with the following nominal diameters:**

- Circular sight glass fitting according to DIN 28120: DN 40
- Circular sight glass fitting according to DIN 38121: DN 40
- Sight glasses in flow indicators: DN 50
- Screw-type sight glass fittings similar to DIN 11851:
  - from DN 80 up, the unit is secured by way of a separate flange attachment
  - from DN 80 up, the unit is secured using the hinged bracket

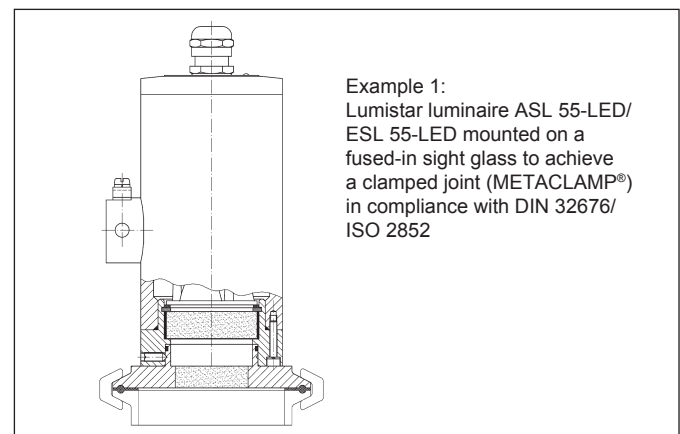
Lumistar luminaires ASL 55-LED and ESL 55-LED have a special adapter in the light port as a standard feature, making this type of lamp ideal for applications in aseptic and sterile environments. Excellent results are assured by using sight glasses fused to a metal frame (METAGLAS®) and with the BioControl (NEUMO) range of products. METAGLAS® combines optimally with clamp fittings (METACLAMP®) as well as with NA-Connect™ technology.

• **For Lumistar luminaires intended for sterile environments, the following installation and fastening method is practice-proven:**

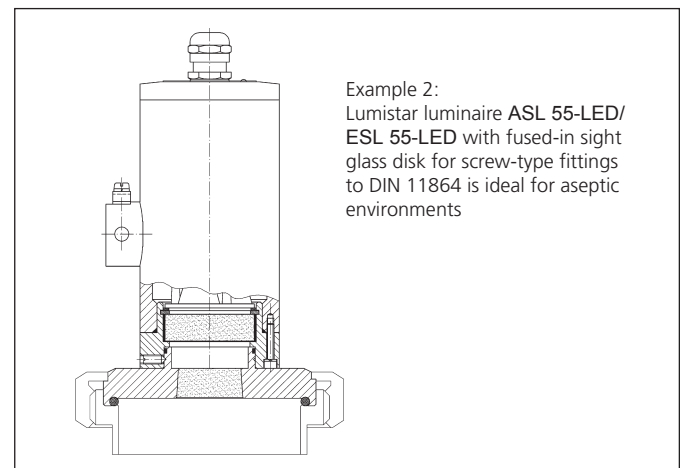
- The luminaire is fitted over the flared male upstand on the mating flange, where it is secured in place. An O-ring inserted between the two effectively seals the closure to the light port.
- An alternative is to mount the luminaire by means of an adapted clamped joint acc. to DIN 32676/ISO 2852.  
The mating flange to the clamped connection is a special annular construction with a fused-in sight glass (metal-glass fusion), see example 1.
- When used with screw-type sight glass fittings, this metal-glass ring is provided with a reinforced lip over which the Lumiglas luminaire is fitted. An O-ring is inserted to seal the joint; tightening the clamp then provides the necessary closing pressure, see example 2.



Dimensions for Lumistar luminaires  
ASL 55-LED and ESL 55-LED



Example 1:  
Lumistar luminaire ASL 55-LED/  
ESL 55-LED mounted on a  
fused-in sight glass to achieve  
a clamped joint (METACLAMP®)  
in compliance with DIN 32676/  
ISO 2852



Example 2:  
Lumistar luminaire ASL 55-LED/  
ESL 55-LED with fused-in sight  
glass disk for screw-type fittings  
to DIN 11864 is ideal for aseptic  
environments

Examples