## Lumistar luminaires stainless steel USL 13 and USL 33 and (나)-listed types

USL 13: for general applications, mounted with hinged bracket
USL 33: special variant for sterile environments with adapter collar for fitting over flanges, etc.

- For mounting on sight glass fittings:

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

- Compact design, powerful light output: Glare-free illumination; suitable for circular sight glass fittings to DIN 28120/DIN 28121 or similar, for screw-type sight glass fittings in compliance with DIN 11851, and for METAGLAS® and BioControl fittings.
- Application in chemical, pharmaceutical, biogas and food processing industries: It is ideal for illuminating bioreactors, laboratory mixers and filters as well as the interiors of tanks, agitators, separators, pipelines and other, usually closed, vessels in non-explosive operating environments.
- Protection class: Dust- and waterjet proof, IP 65 according to EN 60529 / DIN VDE 0470, Part 1
- Operating conditions:

Independent of the internal pressure/vacuum in the vessel. Under no circumstances should a sight glass luminaire be used on its own to close a vessel port or as a replacement for the mating flange or the complete sight glass flange assembly.

- Max. admissible ambient temperature at the cable entry gland with halogen version: $90^{\circ} \mathrm{C}$; with LED version: $40^{\circ} \mathrm{C}$.
- Very easy to install using special mountings, ensuring convenience of use:
USL 13: The luminaire is attached to the mating flange of the circular sight glass fitting or the visual flow indicator with a hinged bracket, or fastened to the grooved nut on screw-type sight glass fittings.
USL 33: The luminaire is mounted over an adapter collar.
Caution: Do not look into light - Danger of impaired eyesight!
Lumistar luminaire USL 13 and USL 33 fit the following sizes:
a) Circular sight glass fitting acc. to DIN 28120: from DN 25
b) Circular sight glass fitting acc. to DIN 28121: from DN 40
c) Visual flow indicators: from DN 25
d) Screw-type sight glass fittings in compliance with DIN 11851: from DN 50
- Voltage type: AC/DC

Operating voltage: $12 \mathrm{~V}, 24 \mathrm{~V}, 120 \mathrm{~V}, 230 \mathrm{~V}$
Wattage: up to 50 W , depending on operating voltage

- Transformers:

Transformers for 12 V or 24 V secondary voltage can be supplied on request.

- Push-button:

50-watt luminaires should only be operated by push-button
(not in continuous mode). Should an integrated push-button not


Lumistar luminaire USL 13 with hinged bracket mounting


Lumistar luminaire USL 33
be included in the order/scope of supply, it is essential for an external momentary-contact push-button or a timer to be installed in the power supply line, outside the luminaire! Under no circumstances should the maximum temperatures specified for the luminaire be exceeded.

- Mounting parts for USL 13 :

The luminaire mounting (hinged bracket) is included in the scope of supply. The flange collar for mounting on screwtype sight glass fittings of DN 50/65 and greater should be ordered separately.

## Lumiglas

- Dimensions and electrical data for Lumistar luminaires USL 13 and USL 33 and (UL)-listed types:

- Components and materials:
- Luminaire body and cover: Stainless steel 1.4404
- Hinged bracket and flange collar for attachment to screwtype sight glass fitting DN 50/65): Stainless steel 1.4301
- Connecting cable: $3 \mathrm{~m}\left(3 \times 0.75 \mathrm{~mm}^{2}\right.$ ) works fitted - Weight: 0.58 kg
- Connection data (further versions on request):

| Item | $\begin{gathered} \text { Type } \\ \text { USL } 13 / 33 \end{gathered}$ | Nominal Voltage V | Pushbutton | Transformer | Socket | $\begin{aligned} & \text { USL } 13 \\ & \text { Part. no. } \end{aligned}$ | $\begin{aligned} & \text { USL } 33 \\ & \text { Part. no. } \end{aligned}$ | USL 13-UL Part. no. | $\begin{aligned} & \text { USL 33-UL } \\ & \text { Part. no. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | (12 V) 20 W | $12 \simeq$ | with | without | GY6.35 | 3540.206 .00 | 3540.341 .00 | - | - |
| 2 | $(12 \mathrm{~V}) 20 \mathrm{~W}$ | $12 \simeq$ | without | without | GY6.35 | 3540.207 .00 | 3540.342 .00 | - | - |
| 3 | (24V) 20 W | $24 \simeq$ | with | without | G4 | 3540.208 .00 | 3540.223 .00 | 3540.441 .00 | 3540.443 .00 |
| 4 | (24V) 20 W | $24 \simeq$ | without | without | G4 | 3540.209.00 | 3540.224 .00 | 3540.442 .00 | 3540.444 .00 |
| 5 | (120 V) 20 W | $120 \simeq$ | with | without | GY6.35 | 3540.210 .00 | 3540.212 .00 | - | - |
| 6 | (120 V) 20 W | $120 \sim$ | without | without | GY6.35 | 3540.211 .00 | 3540.21300 | - | - |
| 7 | $(120 \mathrm{~V}) 20 \mathrm{~W}$ | $120 \simeq$ | with | without | BA15d | - | - | 3540.593 .00 | 3540.595 .00 |
| 8 | (120 V) 20 W | $120 \simeq$ | without | without | BA15d | - | - | 3540.594 .00 | 3540.596 .00 |
| 9 | (230 V) 20 W | $230 \simeq$ | with | without | G9 | 3540.277 .00 | - | - | - |
| 10 | (12 V) 50 W | $12 \simeq$ | with | without | GY6.35 | 3540.215 .00 | 3540.216 .00 | - | - |
| 11 | (24V) 50 W | $24 \simeq$ | with | without | GY6.35 | 3540.217 .00 | 3540.218 .00 | 3540.975 .00 | 3540.977 .00 |
| 12 | (120 V) 50 W | $120 \simeq$ | with | without | BA15d | - | - | 3540.685 .00 | 3540.687 .00 |
| 13 | (120 V) 50 W | $120 \simeq$ | with | without | GY6.35 | 3540.219 .00 | 3540.221 .00 | - | - |
| 14 | (120 V) 50 W | $120 \simeq$ | without | without | GY6.35 | 3540.220 .00 | 3540.222 .00 | - | - |
| LED Versions |  |  |  |  |  |  |  |  |  |
| 15 | (24V) 2 W | $24 \simeq$ | with | coverter | GU4 | 3541.414 .00 | 3541.416 .00 | - | - |
| 16 | $(24 \mathrm{~V}) 2 \mathrm{~W}$ | $24 \simeq$ | without | converter | GU4 | 3541.415 .00 | 3541.417 .00 | - | - |
| 17 | (24 V) 2 W | $24 \simeq$ |  | with switch |  | 3541.410 .00 | 3541.412 .00 | - | - |

- Accessories (for USL 13 only):

| Item | Luminaire mounting | Part no. |
| :--- | :--- | :--- |
| 1 | Flange collar DN 50, stainless steel (no hinged mounting bracket required) | 1356.000004 |
| 2 | Flange collar DN 65, stainless steel (no hinged mounting bracket required) | 1356.030 .00 |

- Order data: e. g. Lumistar luminaire USL 13, 24 V/20 W, with push-button, part no. 3540.208.00

