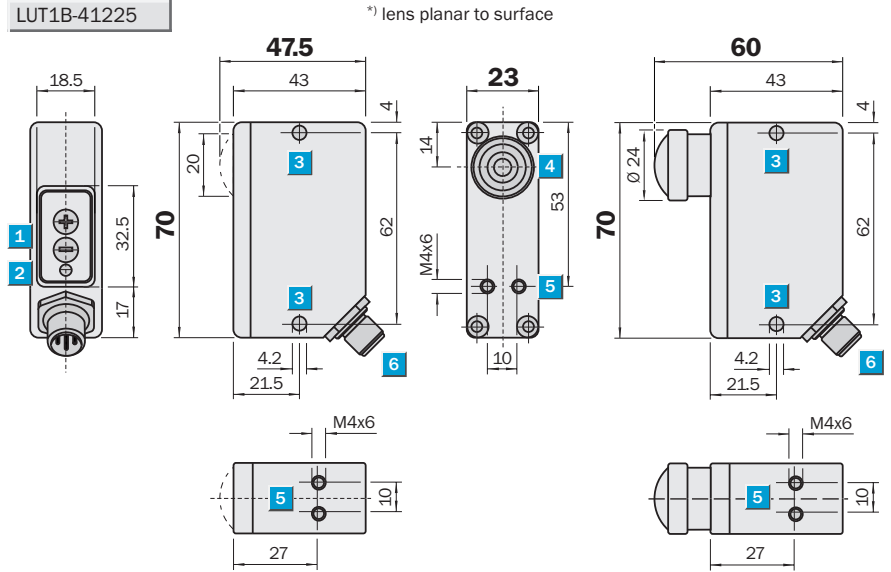


|                              |  |
|------------------------------|--|
|                              | <b>Scanning distance</b><br><b>50 ... 150 mm</b> |
| <b>Luminescence scanners</b> |  |

- Stepless control of switching threshold via film keypad
- Switching frequency up to 6,000 Hz
- Large scanning distances
- High sensitivity with red luminescent materials
- Simple alignment aid thanks to visible light spot

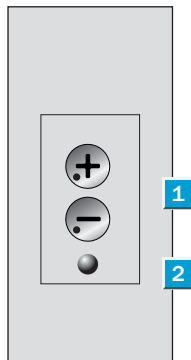


| Dimensional drawing       |             |
|---------------------------|-------------|
| LUT1B-11325               | LUT1U-11331 |
| LUT1B-12205 <sup>*)</sup> | LUT1U-31231 |
| LUT1B-31325               | LUT1B-41235 |
| LUT1B-41225               |             |



### Adjustment possible

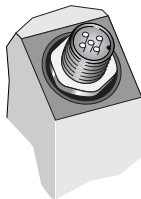
All types



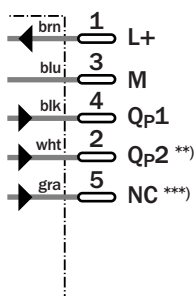
- 1** Control switches
- 2** LED signal strength indicator
- 3** Mounting hole
- 4** Optical axis
- 5** Threaded mounting hole
- 6** M12 plug, 5-pin

### Connection type

All types



5-pin, M12



<sup>\*\*) Q<sub>p</sub>2 or control output</sup>

<sup>\*\*\*) NC or analogue output</sup>



### Accessories

- Connectors
- Mounting systems
- Lenses

| Technical data                              |   | LUT1 | U-11331 | B-11325 | B-12205 | U-31231 | B-31325 | B-41225 | B-41235 |  |  |  |
|---|---|------|---------|---------|---------|---------|---------|---------|---------|--|--|--|
| <b>Scanning distance<sup>1)</sup></b>       | 50 mm                                     |      |         |         |         |         |         |         |         |  |  |  |
|   | 80 mm                                     |      |         |         |         |         |         |         |         |  |  |  |
|   | 150 mm                                    |      |         |         |         |         |         |         |         |  |  |  |
| <b>Light source<sup>2)/light type</sup></b> | UV-LED, wave length 370 nm                |      |         |         |         |         |         |         |         |  |  |  |
|   | Blue LED, wave length 480 nm              |      |         |         |         |         |         |         |         |  |  |  |
| <b>Receiver filtering</b>                   | OG 590                                    |      |         |         |         |         |         |         |         |  |  |  |
| <b>Light spot diameter</b>                  | 5 mm                                      |      |         |         |         |         |         |         |         |  |  |  |
|   | 12 mm                                     |      |         |         |         |         |         |         |         |  |  |  |
| Light spot                                  | 10 x 70 mm                                |      |         |         |         |         |         |         |         |  |  |  |
| <b>Supply voltage <math>V_s</math></b>      | 10 ... 30 V DC <sup>3)</sup>              |      |         |         |         |         |         |         |         |  |  |  |
| Ripple <sup>4)</sup>                        | < 5 V <sub>PP</sub>                       |      |         |         |         |         |         |         |         |  |  |  |
| Current consumption <sup>5)</sup>           | < 40 mA                                   |      |         |         |         |         |         |         |         |  |  |  |
| <b>Switching outputs Q1 and Q2</b>          | PNP light-/dark-switching                 |      |         |         |         |         |         |         |         |  |  |  |
|   | PNP light-switching + control output      |      |         |         |         |         |         |         |         |  |  |  |
|   | PNP light-switching + NPN light-switching |      |         |         |         |         |         |         |         |  |  |  |
| Analogue output $Q_A$                       | 0.5 ... 10 mA                             |      |         |         |         |         |         |         |         |  |  |  |
| Output current $I_A$ max.                   | 200 mA                                    |      |         |         |         |         |         |         |         |  |  |  |
| Response time max. <sup>6)</sup>            | 100 $\mu$ s                               |      |         |         |         |         |         |         |         |  |  |  |
|   | 750 $\mu$ s                               |      |         |         |         |         |         |         |         |  |  |  |
| Switching frequency <sup>7)</sup>           | 600/s                                     |      |         |         |         |         |         |         |         |  |  |  |
|   | 6,000/s                                   |      |         |         |         |         |         |         |         |  |  |  |
| <b>Connection types</b>                     | Plug, M12, 5-pin                          |      |         |         |         |         |         |         |         |  |  |  |
| <b>VDE protection class<sup>8)</sup></b>    | ◆◆  |      |         |         |         |         |         |         |         |  |  |  |
| <b>Circuit protection<sup>9)</sup></b>      | A, B, C                                   |      |         |         |         |         |         |         |         |  |  |  |
| <b>Enclosure rating</b>                     | IP 67                                     |      |         |         |         |         |         |         |         |  |  |  |
| <b>Ambient temperature</b>                  | Operation -20 °C ... +60 °C               |      |         |         |         |         |         |         |         |  |  |  |
|   | Storage -40 °C ... +70 °C                 |      |         |         |         |         |         |         |         |  |  |  |
| <b>Weight</b>                               | Approx. 240 g                             |      |         |         |         |         |         |         |         |  |  |  |
| <b>Housing material</b>                     | Zinc die-cast housing                     |      |         |         |         |         |         |         |         |  |  |  |

- <sup>1)</sup> From front edge of lens  
<sup>2)</sup> Average service life 100,000 h at  $T_A = +25$  °C  
<sup>3)</sup> Limit values  
<sup>4)</sup> May not exceed or fall short of  $V_s$  tolerances

- <sup>5)</sup> Without load  
<sup>6)</sup> Signal transit time with resistive load  
<sup>7)</sup> With light/dark ratio 1:1  
<sup>8)</sup> Reference voltage 50 V DC

- <sup>9)</sup> A =  $V_s$  connections reverse-polarity protected  
 B = Outputs short-circuit protected  
 C = Interference pulse suppression

### Switching threshold

Stepless control via film keypad: Maximum (+) to Minimum (-).

### Order information

| Type        | Order no. |
|-------------|-----------|
| LUT1B-41225 | 1024125   |
| LUT1B-41235 | 1024126   |
| LUT1B-11325 | 1024127   |
| LUT1U-11331 | 1024128   |
| LUT1U-31231 | 1028075   |
| LUT1B-31325 | 1027593   |
| LUT1B-12205 | 1027497   |