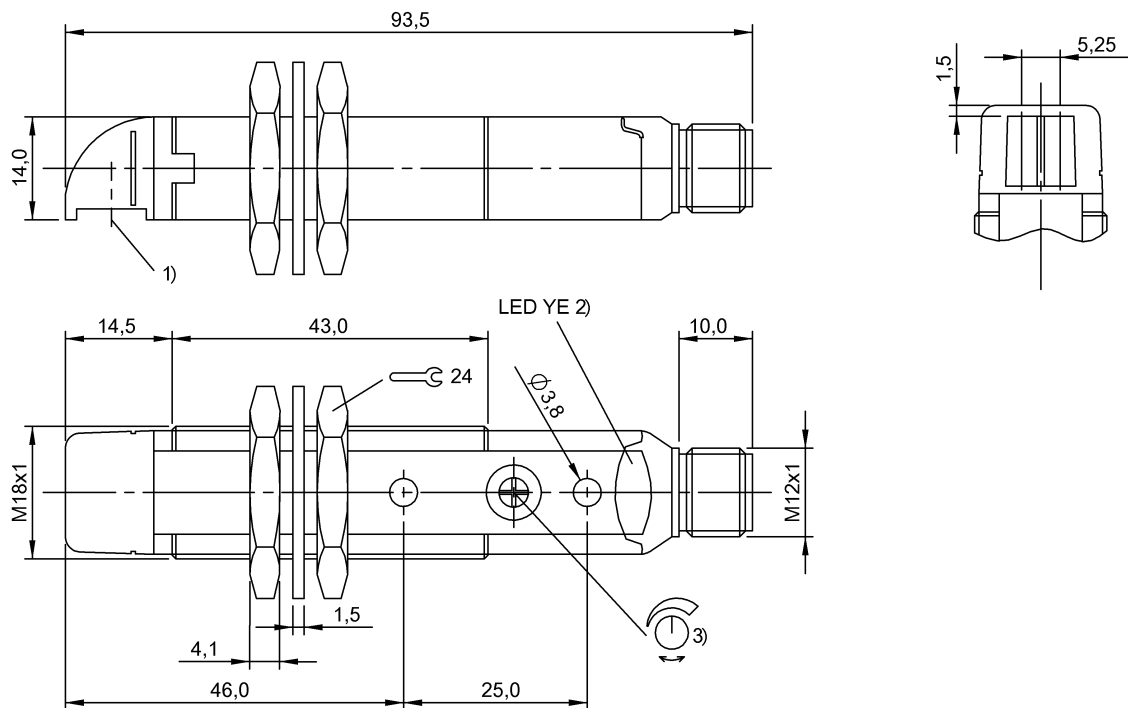




1) Output function, 1) Optical axis, 3) Sn



Basic features

|                        |                             |
|------------------------|-----------------------------|
| Approval/Conformity    | CE<br>cULus<br>EAC<br>WEEE  |
| Basic standard         | IEC 60947-5-2               |
| Principle of operation | Photoelectric sensor        |
| Reference emitter      | BLS 18KW-XX-1LT-..          |
| Series                 | 18KW                        |
| Style                  | Flat cylinder<br>Optics 90° |
| Trademark              | Global                      |

Display/Operation

|          |                             |
|----------|-----------------------------|
| Adjuster | Potentiometer 270°          |
| Display  | Output function- LED yellow |
| Setting  | Sensitivity (Sn)            |

Electrical connection

|                             |                              |
|-----------------------------|------------------------------|
| Connection                  | Connector, M12x1-Male, 4-pin |
| Polarity reversal protected | yes                          |
| Short-circuit protection    | yes                          |

Electrical data

|                                     |             |
|-------------------------------------|-------------|
| No-load current $I_o$ max. at $U_e$ | 30 mA       |
| Operating voltage $U_b$             | 10...30 VDC |
| Rated insulation voltage $U_i$      | 75 V DC     |
| Rated operating current $I_e$       | 100 mA      |
| Rated operating voltage $U_e$ DC    | 24 V        |
| Ripple max. (% of $U_e$ )           | 8 %         |
| Switching frequency                 | 1500 Hz     |
| Turn-off delay $t_{off}$ max.       | 0.33 ms     |
| Turn-on delay $t_{on}$ max.         | 0.33 ms     |
| Utilization category                | DC -13      |
| Voltage drop $U_d$ max. at $I_e$    | 2 V         |

Environmental conditions

|                         |                                            |
|-------------------------|--------------------------------------------|
| Ambient temperature     | -10...50 °C                                |
| EN 60068-2-27, Shock    | Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6 |
| EN 60068-2-6, Vibration | 10...55 Hz, amplitude 0.5 mm, 3x30 min     |
| IP rating               | IP67                                       |

Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 455 a |
|--------------|-------|

Interface

|                  |                                                             |
|------------------|-------------------------------------------------------------|
| Switching output | PNP normally closed (NC)<br>PNP normally open (NO) Pins 4-2 |
|------------------|-------------------------------------------------------------|

Material

|                          |      |
|--------------------------|------|
| Housing material         | PBT  |
| Material sensing surface | PMMA |

Remarks

The sensor is functional again after the overload has been eliminated.

Actuation object (target): gray card, 200 x 200, lateral approach.

For additional information, refer to user's guide.

Order accessories separately.

For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Mechanical data

|                        |                |
|------------------------|----------------|
| Dimension              | Ø 18 x 93.5 mm |
| Mounting part          | Nut M18x1      |
| Tightening torque max. | 1.5 Nm         |

Optical features

|                                |                                |
|--------------------------------|--------------------------------|
| Ambient light max.             | 5000 Lux                       |
| Light type                     | Red light                      |
| Principle of optical operation | Through-beam sensor (receiver) |
| Special optical feature        | Laser                          |
| Switching function, optical    | dark-on                        |

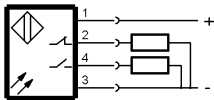
Range/Distance

|                             |                  |
|-----------------------------|------------------|
| Range                       | 0...50 m         |
| Rated operating distance Sn | 50 m, Adjustable |

Connector Drawings



Wiring Diagrams (Schematic)



Opto Symbols

