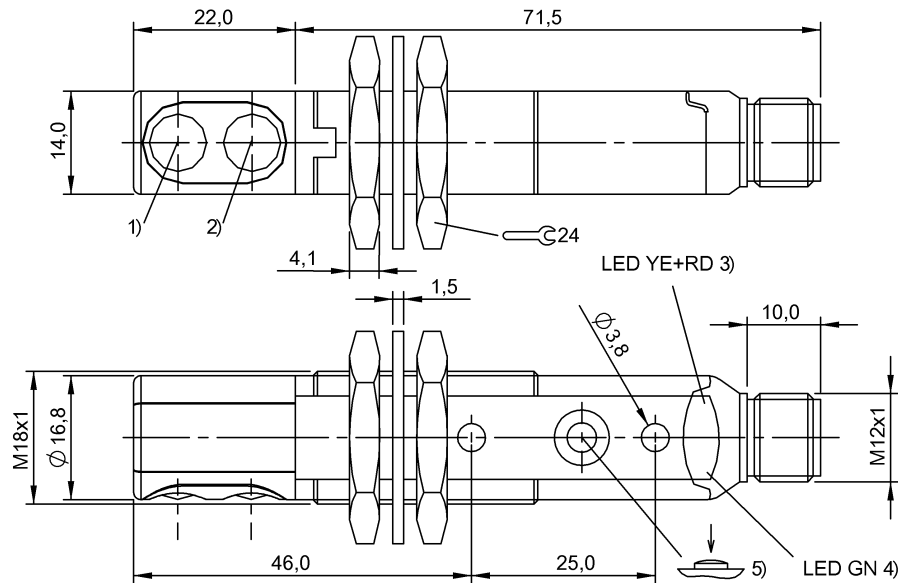




1) Optical axis emitter, 2) Optical axis receiver, 3) Output function, 4) stability/error, 5) Sn



Basic features

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

Display/Operation

|          |                                                                                     |
|----------|-------------------------------------------------------------------------------------|
| Adjuster | button                                                                              |
| Display  | Output function- LED yellow<br>Error - LED red+green, alt.<br>Stability - LED green |
| Setting  | Rated switching distance (Sn)                                                       |

Electrical connection

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

Electrical data

|                                     |             |
|-------------------------------------|-------------|
| No-load current $I_0$ 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                 | 500 Hz      |
| Turn-off delay $t_{off}$ max.       | 1 ms        |
| Turn-on delay $t_{on}$ max.         | 1 ms        |
| Voltage drop $U_d$ max. at $I_e$    | 2 V         |

Environmental conditions

|                         |                                        |
|-------------------------|----------------------------------------|
| Ambient temperature     | -25...55 °C                            |
| EN 60068-2-27, Shock    | Half-sinus, 30 $g_r$ , 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) | 426 a |
|--------------|-------|

Interface

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

Material

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

Mechanical data

|                        |                       |
|------------------------|-----------------------|
| Dimension              | Ø 18 x 93.5 mm        |
| Mounting part          | Screw M3<br>Nut M18x1 |
| Tightening torque max. | 1.5 Nm                |

Optical features

|                                |                               |
|--------------------------------|-------------------------------|
| Ambient light max.             | 5000 Lux                      |
| Light spot size                | Ø 10 mm at 100 mm             |
| Light type                     | LED, red light                |
| Principle of optical operation | Diffuse sensor, triangulation |
| Special optical feature        | Background suppression        |
| Switching function, optical    | Light/dark switching          |
| Wave length                    | 630 nm                        |

Range/Distance

|                             |                    |
|-----------------------------|--------------------|
| Range                       | 50...100 mm        |
| Rated operating distance Sn | 100 mm, Adjustable |

Remarks

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

Order accessories separately.

For additional information, refer to user's guide.

Do not press key using a pointed tool.

Reference object (target): gray card, 100 x 100, 90 % remission, axial approach.

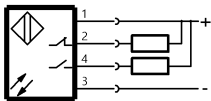
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

Connector Drawings



Wiring Diagrams (Schematic)



Opto Symbols

