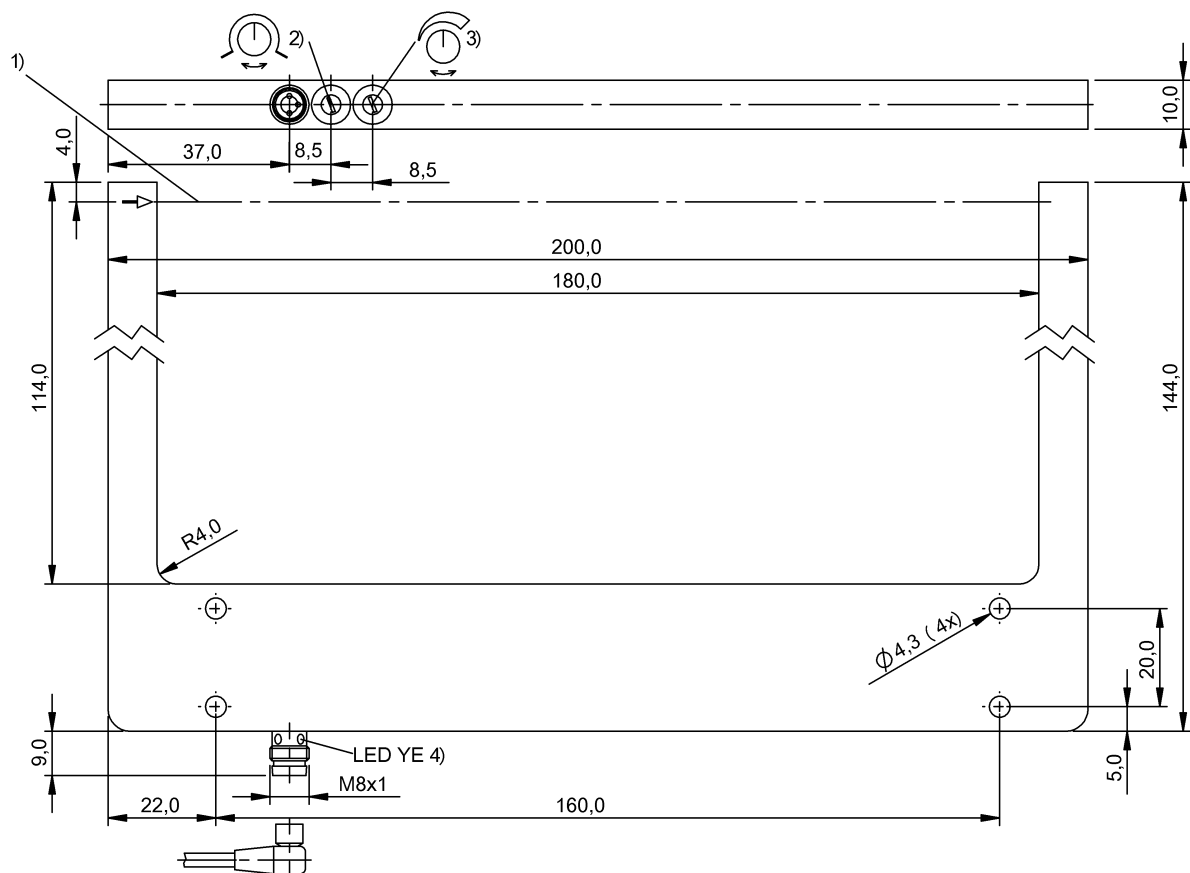




1) Optical axis, 2) Sensitivity, 3) Light-on/dark-on, 4) Output function



Basic features

|                        |                             |
|------------------------|-----------------------------|
| Approval/Conformity    | cULus<br>CE<br>UKCA<br>WEEE |
| Basic standard         | IEC 60947-5-2               |
| Principle of operation | Fork sensor                 |
| Series                 | A                           |
| Style                  | Fork<br>Straight connection |

Electrical connection

|                             |                             |
|-----------------------------|-----------------------------|
| Connection                  | Connector, M8x1-Male, 3-pin |
| Contact, surface protection | Gold plated                 |
| Polarity reversal protected | yes                         |
| Short-circuit protection    | yes                         |

Display/Operation

|          |                                 |
|----------|---------------------------------|
| Adjuster | Potentiometer 270° (2x)         |
| Display  | Output function- LED yellow     |
| Setting  | Light-on/dark-on<br>Sensitivity |

Electrical data

|                                                    |             |
|----------------------------------------------------|-------------|
| Load capacitance max. at Ue                        | 0.5 µF      |
| No-load current I <sub>o</sub> max. at Ue          | 35 mA       |
| Operating voltage U <sub>b</sub>                   | 10...30 VDC |
| Rated insulation voltage U <sub>i</sub>            | 75 V DC     |
| Rated operating current I <sub>e</sub>             | 200 mA      |
| Rated operating voltage U <sub>e</sub> DC          | 24 V        |
| Ready delay t <sub>v</sub> max.                    | 200 ms      |
| Residual current I <sub>r</sub> max.               | 50 µA       |
| Ripple max. (% of U <sub>e</sub> )                 | 10 %        |
| Switching frequency                                | 5000 Hz     |
| Turn-off delay t <sub>off</sub> max.               | 0.1 ms      |
| Turn-on delay t <sub>on</sub> max.                 | 0.1 ms      |
| Utilization category                               | DC -13      |
| Voltage drop U <sub>d</sub> max. at I <sub>e</sub> | 3 V         |

Environmental conditions

|                         |                                            |
|-------------------------|--------------------------------------------|
| Ambient temperature     | -10...60 °C                                |
| EN 60068-2-27, Shock    | Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6 |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min            |
| IP rating               | IP67                                       |

Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 300 a |
|--------------|-------|

Interface

|                  |                                           |
|------------------|-------------------------------------------|
| Switching output | PNP normally open/normally closed (NO/NC) |
|------------------|-------------------------------------------|

Material

|                          |                            |
|--------------------------|----------------------------|
| Housing material         | Zinc, Die casting, Painted |
| Material sensing surface | Glass                      |
| Surface protection       | Painted                    |

Mechanical data

|               |                   |
|---------------|-------------------|
| Dimension     | 10 x 200 x 153 mm |
| Fork opening  | 180 mm            |
| Mounting part | Screw M4          |

Optical features

|                                |                         |
|--------------------------------|-------------------------|
| Ambient light max.             | 5000 Lux                |
| Beam characteristic            | Divergent               |
| Light spot size                | Ø 2.5 mm Light exit     |
| Light type                     | microSPOT-LED red light |
| Principle of optical operation | Through-beam sensor     |
| Smallest part typ.             | 0.60 mm                 |
| Switching function, optical    | dark-on/light-on        |
| Wave length                    | 640 nm                  |

Range/Distance

|                              |        |
|------------------------------|--------|
| Hysteresis H max.            | 0.2 mm |
| Repeat accuracy lateral max. | 60 µm  |

Remarks

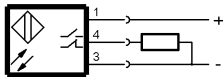
Order accessories separately.  
For additional information, refer to user's guide.  
Factory default setting for switching output: Normally open.  
Reference object (target): Steel plate, 50 x 50, thickness 0.5 mm, lateral approach.  
The sensor is functional again after the overload has been eliminated.  
Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.  
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



Opto Symbols

