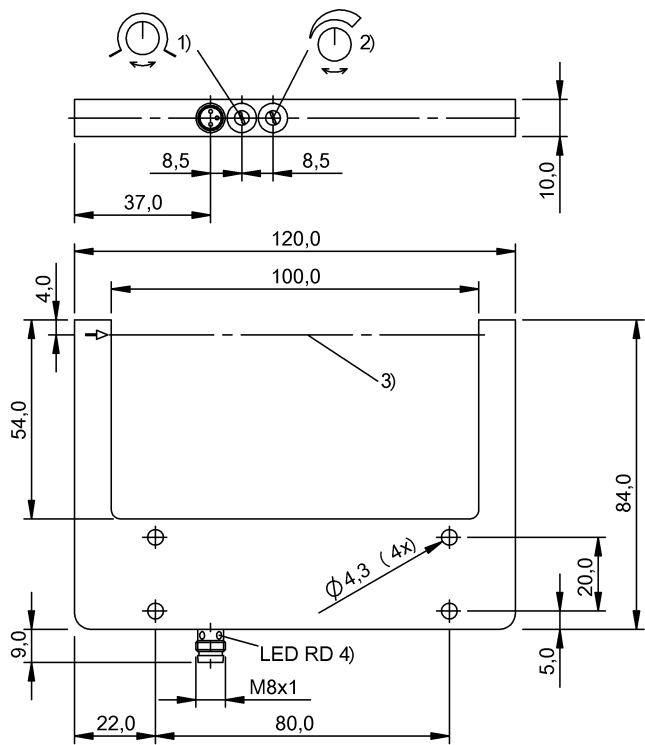




1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function



Basic features

|                        |                             |
|------------------------|-----------------------------|
| Approval/Conformity    | CE<br>UKCA<br>cULus<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                         |
| Protection against device mix-ups | yes                         |
| Short-circuit protection          | yes                         |

Display/Operation

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

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                                | 1500 Hz     |
| Turn-off delay t <sub>off</sub> max.               | 0.333 ms    |
| Turn-on delay t <sub>on</sub> max.                 | 0.333 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) | 307 a |
|--------------|-------|

Interface

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

Material

|                          |                     |
|--------------------------|---------------------|
| Housing material         | Aluminium, Anodized |
| Material sensing surface | Glass               |
| Surface protection       | Anodized            |

Mechanical data

|               |                  |
|---------------|------------------|
| Dimension     | 10 x 120 x 93 mm |
| Fork opening  | 100 mm           |
| Mounting part | Screw M4         |

Optical features

|                                |                     |
|--------------------------------|---------------------|
| Ambient light max.             | 5000 Lux            |
| Beam characteristic            | Divergent           |
| Light spot size                | Ø 1.2 mm Light exit |
| Light type                     | LED, red light      |
| Principle of optical operation | Through-beam sensor |
| Smallest part typ.             | 0.50 mm             |
| Switching function, optical    | dark-on/light-on    |
| Wave length                    | 640 nm              |

Range/Distance

|                              |        |
|------------------------------|--------|
| Hysteresis H max.            | 0.1 mm |
| Repeat accuracy lateral max. | 60 µm  |

Remarks

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.

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

Factory default setting for switching output: Normally open.

Reference object (target): Steel plate, 50 x 50, thickness 0.5 mm, lateral approach.

For additional information, refer to user's guide.

Order accessories separately.

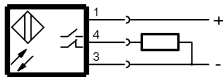
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

Connector Drawings



Wiring Diagrams



Opto Symbols

