

1) Optical axis, 2) Output function



Basic features

| | |
|------------------------|-----------------------------|
| Approval/Conformity | CE UKCA cULus WEEE |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Photoelectric sensor |
| Series | 08E |

Display/Operation

| | |
|---------|---|
| Display | Output function- LED yellow Limit range - LED yellow, flashing |
|---------|---|

Electrical connection

| | |
|-----------------------------|--|
| Cable diameter D | 3.00 mm |
| Cable length L | 0.2 m |
| Connection | Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR |
| Polarity reversal protected | yes |
| Short-circuit protection | yes |

Electrical data

| | |
|--|-------------|
| Load capacitance max. at Ue | 0.1 µF |
| No-load current I ₀ max. at Ue | 15 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 |
| Ready delay t _v max. | 30 ms |
| Ripple max. (% of U _e) | 5 % |
| Switching frequency | 450 Hz |
| Turn-off delay t _{off} max. | 1.11 ms |
| Turn-on delay t _{on} max. | 1.11 ms |
| Voltage drop U _d max. at I _e | 0.7 V |

Environmental conditions

| | |
|---------------------|------------|
| Ambient temperature | -5...55 °C |
| IP rating | IP67 |

Functional safety

| | |
|--------------|--------|
| MTTF (40 °C) | 75.9 a |
|--------------|--------|

Interface

| | |
|------------------|------------------------|
| Switching output | PNP normally open (NO) |
|------------------|------------------------|

Material

| | |
|--------------------------|-----------------|
| Housing material | Stainless steel |
| Material jacket | PUR |
| Material sensing surface | PMMA |

Photoelectric Sensors
BOS 08E-PS-KF20-00,2-S49
Order Code: BOS01H2



Mechanical data

| | |
|---------------|-------------|
| Dimension | Ø 8 x 40 mm |
| Mounting part | Nut M8x1 |

Optical features

| | |
|--------------------------------|-------------------------------|
| Beam characteristic | Divergent |
| LED group per IEC 62471 | Exempt Group |
| Light spot size | Ø 2.5 mm Light exit |
| Light type | LED, red light |
| Principle of optical operation | Diffuse sensor, triangulation |
| Special optical feature | Background suppression |
| Switching function, optical | Light-on |
| Wave length | 640 nm |

Range/Distance

| | |
|--|------------------|
| Distance deviation 18 % max. (% of Sr) | 5 % on 90 % rem. |
| Hysteresis H max. (% of Sr) | 10.0 % |
| Range | 20 mm |
| Rated operating distance Sn | 20 mm |
| Repeat accuracy max. (% of Sr) | 3.0 % |
| Temperature drift max. (% of Sr) | 10 % |

Remarks

Order accessories separately.

For additional information, refer to user's guide.

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.

Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.

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

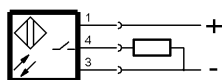
For more information about MTTF and B10d see MTTF / B10d Certificate

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

