

1) Optical axis, 2) Output function



Basic features

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|------------------------|-----------------------------|
| Approval/Conformity | cULus CE UKCA WEEE |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Photoelectric sensor |
| Reference reflector | BOS R-2 |
| Series | 08E |
| Style | Cylinder Straight optics |

Display/Operation

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| Display | Limit range - LED yellow, flashing LED yellow: Light received |
|---------|--|

Electrical connection

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|-----------------------------------|----------------------|
| Cable diameter D | 3.00 mm |
| Cable length L | 2 m |
| Conductor cross-section | 0.14 mm ² |
| Connection | Cable, 2.00 m, PUR |
| Number of conductors | 3 |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

Electrical data

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|--|-------------|
| Load capacitance max. at Ue | 0.5 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. | 20 ms |
| Ripple max. (% of U _e) | 10 % |
| Switching frequency | 500 Hz |
| Turn-off delay t _{off} max. | 1 ms |
| Turn-on delay t _{on} max. | 1 ms |
| Utilization category | DC-13 |
| Voltage drop U _d max. at I _e | 0.7 V |

Environmental conditions

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|-------------------------|---|
| Ambient temperature | -5...55 °C |
| EN 60068-2-27, Shock | Half-sinus, 30 g _n , 11 ms, 3x6 |
| EN 60068-2-6, Vibration | Half-sinus, 100 g _n , 2 ms, 3x8000 |
| | 10...2000 Hz, amplitude 1 mm, 30 g _n , 3x5 h |
| | 10...55 Hz, amplitude 1 mm, 3x30 min |
| IP rating | IP67 |

Functional safety

| | |
|--------------|--------|
| MTTF (40 °C) | 1559 a |
|--------------|--------|

Interface

Switching output PNP normally open (NO)

Material

Housing material Stainless steel
Material jacket PUR
Material sensing surface PMMA

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 3.0 mm Light exit
Light type LED, red light
Polarizing filter yes
Principle of optical operation Retroreflective sensor
Switching function, optical dark-on
Wave length 645 nm

Range/Distance

Rated operating distance Sn 1 m

Remarks

Order accessories separately.

For additional information, refer to user's guide.

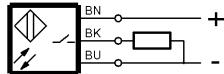
Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.

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.

Wiring Diagrams



Opto Symbols

