

1) Optical axis, 2) Output function, 3) Stability, 4) Sn



Basic features

| | |
|-------------------------------|----------------------------------|
| Approval/Conformity | CE cULus WEEE |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Photoelectric sensor |
| Series | 18KF |
| Style | Flat cylinder Straight optics |
| Trademark | Global |

Display/Operation

| | |
|-----------------|--|
| Adjuster | Potentiometer 270° |
| Display | Output function- LED yellow 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 | 35 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 | 1000 Hz |
| Turn-off delay t_{off} max. | 0.5 ms |
| Turn-on delay t_{on} max. | 0.5 ms |
| Voltage drop U_d max. at I_e | 2 V |

Photoelectric Sensors
BOS 18KF-NA-1PE-S4-C
Order Code: BOS00J5

BALLUFF

Environmental conditions

| | |
|-------------------------|--|
| Ambient temperature | -25...55 °C |
| EN 60068-2-27, Shock | Half-sinus, 30 g _n , 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) | 774 a |
|--------------|-------|

Interface

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

Material

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

Mechanical data

| | |
|------------------------|-----------------------|
| Dimension | Ø 18 x 81.5 mm |
| Mounting part | Screw M3 Nut M18x1 |
| Tightening torque max. | 1.5 Nm |

Optical features

| | |
|--------------------------------|---------------------------|
| Ambient light max. | 5000 Lux |
| Beam characteristic | Divergent |
| Light type | LED infrared |
| Principle of optical operation | Diffuse sensor, energetic |
| Switching function, optical | Light-on |
| Wave length | 880 nm |

Range/Distance

| | |
|---|-------------------|
| Range | 0...700 mm |
| Rated operating distance S _n | 700 mm Adjustable |

Remarks

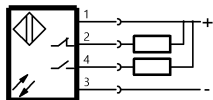
The sensor is functional again after the overload has been eliminated.
Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.
For additional information, refer to user's guide.
Order accessories separately.
For more information about MTTF and B10d see MTTF / B10d Certificate

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

