

1) Optical axis, 2) Output function, 3) stability/error, 4) Sn



Basic features

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

Display/Operation

| | |
|----------|---|
| Adjuster | button |
| Display | Output function- LED yellow Error - LED red+green, alt. Stability - LED green |
| Setting | Teach-in mode normal/fine Light-on/dark-on Contrast (switching point) |

Electrical connection

| | |
|-----------------------------|----------------------|
| Cable diameter D | 4.00 mm |
| Cable length L | 2 m |
| Conductor cross-section | 0.14 mm ² |
| Connection | Cable, 2.00 m, PVC |
| Number of conductors | 4 |
| Polarity reversal protected | yes |
| Short-circuit protection | yes |

Electrical data

| | |
|---|-------------|
| No-load current I _o max. at U _e | 25 mA |
| Operating voltage U _b | 10...30 VDC |
| Rated operating current I _e | 100 mA |
| Rated operating voltage U _e DC | 24 V |
| Ripple max. (% of U _e) | 8 % |
| Switching frequency | 5000 Hz |
| Turn-off delay t _{off} max. | 0.1 ms |
| Turn-on delay t _{on} max. | 0.1 ms |
| Voltage drop U _d max. at I _e | 2 V |

Environmental conditions

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|-------------------------|--|
| Ambient temperature | -25...70 °C |
| EN 60068-2-27, Shock | Half-sinus, 30 g _n , 11 ms, 3x6 |
| EN 60068-2-6, Vibration | 10...55 Hz, amplitude 1 mm, 3x30 min |
| IP rating | IP67 |

Functional safety

| | |
|--------------|--------|
| MTTF (40 °C) | 1025 a |
|--------------|--------|

Interface

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

Material

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

Mechanical data

| | |
|------------------------|-----------------------|
| Dimension | Ø 18 x 77 mm |
| Mounting part | Screw M3 Nut M18x1 |
| Tightening torque max. | 1.5 Nm |

Optical features

| | |
|--------------------------------|---------------------------------|
| Beam characteristic | Focused |
| Light spot size | Ø 4.5 mm at 10 mm |
| Light type | LED white light |
| Principle of optical operation | Diffuse sensor, focused |
| Switching function, optical | Light/dark switching dark-on |
| Wave length | 400...700 nm |

Range/Distance

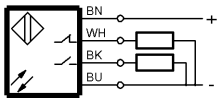
| | |
|-------|-----------|
| Range | 8...12 mm |
|-------|-----------|

Remarks

The sensor is functional again after the overload has been eliminated.
Reference object (target): Color bar card, 100 x 100, contrast yellow/white and blue/black, lateral approach of color bars.
For additional information, refer to user's guide.
Order accessories separately.
Do not press key using a pointed tool.
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

