

1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter



Basic features

| | |
|------------------------|--------------------------|
| Approval/Conformity | cULus CE WEEE |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Photoelectric sensor |
| Series | 6K |
| Style | Square Connection 90° |

Display/Operation

| | |
|----------|--|
| Adjuster | button |
| Display | Output function- LED yellow LED green: Power |
| Setting | Light-on/dark-on Rated switching distance (Sn) Teach mode Stand./Dvn./Obi. |

Electrical connection

| | |
|------------------------------------|-----------------------------|
| Connection | Connector, M8x1-Male, 4-pin |
| Polarity reversal protected | yes |
| Short-circuit protection | yes |

Electrical data

| | |
|--|---|
| Input function | Same function as button Key disable on/off |
| No-load current Io max. at Ue | 30 mA |
| Operating voltage Ub | 10...30 VDC |
| Protection class | II |
| Rated operating current le | 100 mA |
| Rated operating voltage Ue DC | 24 V |
| Ripple max. (% of Ue) | 12 % |
| Switching frequency | 1000 Hz |
| Turn-off delay $toff$ max. | 0.5 ms |
| Turn-on delay ton max. | 0.5 ms |
| Voltage drop Ud max. at le | 2.4 V |

Environmental conditions

| | |
|-------------------------|--|
| Ambient temperature | -20...60 °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 |
| IP rating per DIN 40050 | IP60K |

Functional safety

MTTF (40 °C) 499 a

Interface

Switching output NPN normally open/normally closed (NO/NC)

Material

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

Mechanical data

| | |
|---------------|---------------------|
| Dimension | 12 x 41.5 x 21.6 mm |
| Mounting part | Screw M3 |

Optical features

| | |
|--------------------------------|---------------------------|
| Ambient light max. | 5000 Lux |
| Beam characteristic | Divergent |
| Light spot size | 20 x 20 mm at 180 mm |
| Light type | LED, red light |
| Principle of optical operation | Diffuse sensor, energetic |
| Switching function, optical | Light/dark switching |
| Wave length | 660 nm |

Range/Distance

| | |
|-----------------------------|-------------------|
| Hysteresis H max. (% of Sr) | 10.0 % |
| Range | 0...800 mm |
| Rated operating distance Sn | 800 mm Adjustable |

Remarks

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

When using as a UL product the ambient temperature Ta max. must not exceed 50°C.

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.

For additional information, refer to user's guide.

Do not press key using a pointed tool.

Order accessories separately.

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

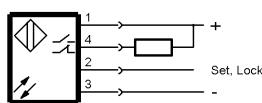
For more information about MTTF and B10d see MTTF / B10d Certificate

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

