



1) Optical axis receiver 2) Optical axis emitter 3) Sn 4) Output function 5) Stability

- Photoelectric sensor
- Series 5K
- LED, red light
- up to 5 m



General attributes

Adjuster Potentiometer 270° (1x)
 Approvals / Conformity cULus
 CE
 Basic standard IEC 60947-5-2
 Enclosure Type per IEC 60529 IP67
 Indicator Output function - LED YE 4
 Stability - LED GN 5
 Polarity reversal protected yes
 Reference reflector BOS R-9
 Series Series 5K
 Setting Sensitivity (Sn)
 Short circuit protected yes
 Trademark GLOBAL

Electrical attributes

Connection type Connector
 Eff. operating current I_e 100 mA
 Eff. operating voltage U_e DC 24.0 V
 Electrical version DC, direct current
 No-load current max. I_o at U_e 30 mA
 Operating voltage U_B max. DC [V] 30.0 V
 Operating voltage U_B min. DC [V] 10.0 V
 Ripple max. (% of U_e) 10 %
 Switching freq. f max. (at U_e) 500 Hz
 Switching function NO (pin 4)
 Switching output NPN (1x)
 Turn on time t_{on} max. 1.00 ms
 Voltage drop U_d max. (at I_e) 2.0 V

Mechanical attributes

Ambient temperature T_a max. 55 °C

Ambient temperature T_a min. -25 °C
 Connector type M8x1-S75
 Eff. operating distance S_r 4000 mm
 Housing material PC, PBT
 Length 1 10.8 mm
 Length 2 19.5 mm
 Length 3 43.5 mm
 Mounting type Screw M3
 Operating range R_o 0...4 m
 Range S_n S_n = 4 m, adjustable
 Sensing face material PMMA
 Style Block, 90° connection

Optical attributes

Light type LED, red light
 Polarizing filter yes
 Principle of optical operation Retro-reflective sensor
 Switching function, optical NO: dark-on
 Wavelength 660 nm

Additional text

Order accessories separately.
 For additional information, refer to user's guide.
 Only for NFPA 79 applications (machines with a supply voltage of maximum 600 volts).
 Device shall be connected only by using any R/C (CYJV2) cord, having suitable ratings.
 Polarizing filters prevent spurious switching due to reflecting and shiny parts.
 Operating object (test target): Gray card, 200 x 200, 90 % remission, lateral approach,

direction of movement vertical to plane of lens axes.
 The sensor is functional again after the overload has been eliminated.

Photoelectric sensor

BOS 5K-NS-RR10-S75
BOS011J

BALLUFF
sensors worldwide

