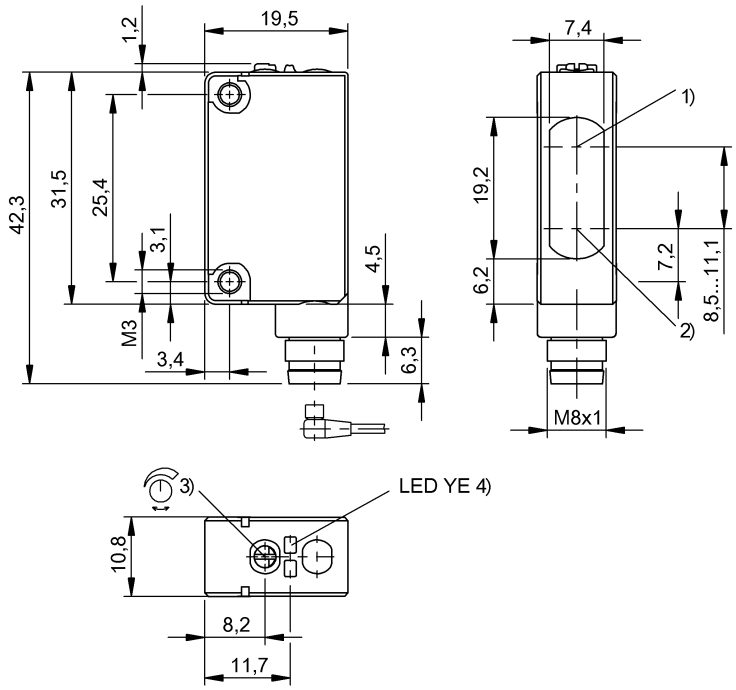
Photoelectric Sensors

BOS 5K-PS-RH12-S75
Order Code: BOS012A



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

IND. CONT. EQ 31MY for use in the secondary of a class 2 source of supply

Basic features

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

Display/Operation

Adjuster	6-turn potentiometer
Display	Output function- LED yellow
Setting	Rated switching distance (Sn)

Electrical connection

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

Electrical data

No-load current Io max. at Ue	30 mA
Operating voltage Ub	10...30 VDC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	100 ms
Ripple max. (% of Ue)	10 %
Switching frequency	500 Hz
Turn-off delay toff max.	1 ms
Turn-on delay ton max.	1 ms
Voltage drop Ud max. at Ie	2 V

Environmental conditions

Ambient temperature	-25...55 °C
EN 60068-2-27, Shock	Half-sinus, 50 gn, 11 ms, 3x10
EN 60068-2-6, Vibration	10…55 Hz, amplitude 0.75 mm, 3x20 min
Protection degree	IP67

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Functional safety

MTTF (40 °C)	21 a

Material

Housing material	PC PBT
Material sensing surface	PMMA

Mechanical data

Dimension	10.8 x 43.2 x 19.5 mm
Mounting	Screw M3

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Focus, typical at 60 mm
Light spot size	Ø 5 mm at 60 mm
Light type	LED, red light
Principle of optical operation	Diffuse sensor, triangulation
Special optical feature	Background suppression
Switching function, optical	Light-on
Wave length	660 nm

Output/Interface

Switching output	PNP normally open (NO) Pin 4

Range/Distance

Range	40...200 mm
Rated operating distance Sn	200 mm Adjustable

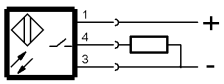
Remarks

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.
Reference object (target): gray card, 100 x 100, 90 % remission, axial approach.
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.

Connector Drawings

Wiring Diagrams



Opto Symbols