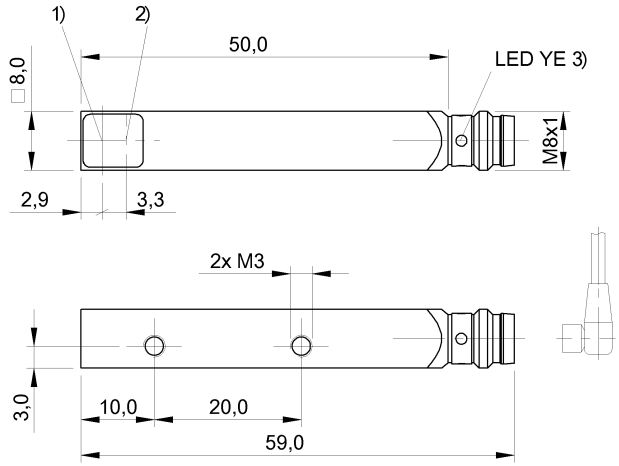
Photoelectric Sensors

BOS Q08M-PS-KD20-S49
Order Code: BOS01RJ



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

IND. CONT. EQ.
81U2
Class 2 Type 1

Basic features

Approval/Conformity	cULus CE EAC WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	Q08M
Style	Square Connection 90°

Display/Operation

Display	Limit range - LED yellow, flashing LED yellow: Light received

Electrical connection

Connection	Connector, M8x1-Male, 3-pin
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.5 µF
No-load current Io max. at Ue	15 mA
Operating voltage Ub	10...30 VDC
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	20 ms
Ripple max. (% of Ue)	10 %
Switching frequency	500 Hz
Turn-off delay toff max.	1 ms
Turn-on delay ton max.	1 ms
Utilization category	DC -13
Voltage drop Ud max. at Ie	0.7 V

Environmental conditions

Ambient temperature	-5...55 °C
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6 Half-sinus, 100 gn, 2 ms, 3x8000
EN 60068-2-6, Vibration	10…55 Hz, amplitude 1 mm, 3x30 min 10…2000 Hz, amplitude 1 mm, 30 gn, 3x5 h
Protection degree	IP67

Material

Housing material	Zinc, Die casting, nickel plated
Material sensing surface	PMMA
Surface protection	nickel plated

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Mechanical data

Dimension	8 x 59 x 8 mm
Mounting	Screw M3

Optical features

Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light spot size	Ø 3.0 mm Light exit
Light type	LED, red light
Principle of optical operation	Diffuse sensor, energetic
Switching function, optical	Light-on
Wave length	645 nm

Output/Interface

Switching output	PNP normally open (NO)

Range/Distance

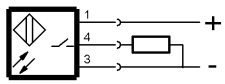
Range	1...60 mm
Rated operating distance Sn	60 mm

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.
Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.
The sensor is functional again after the overload has been eliminated.

Connector Drawings

Wiring Diagrams



Opto Symbols