

1) Emitter, 2) Receiver, 3) LED function indicator



## Basic features

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

## Display/Operation

Adjuster	no
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 $U_e$	50 nF
No-load current $I_o$ max. at $U_e$	15 mA
Operating voltage $U_b$	10...30 VDC
Output resistance $R_a$	33.0 kOhm
Rated insulation voltage $U_i$	75 V DC
Rated operating current $I_e$	100 mA
Rated operating voltage $U_e$ DC	24 V
Ready delay $t_v$ max.	150 ms
Residual current $I_r$ max.	50 $\mu$ A
Ripple max. (% of $U_e$ )	10 %
Switching frequency	500 Hz
Turn-off delay $t_{off}$ max.	1 ms
Turn-on delay $t_{on}$ max.	1 ms
Utilization category	DC -13
Voltage drop $U_d$ max. at $I_e$	0.8 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...2000 Hz, amplitude 1 mm, 30 gn, 3x5 h 10...55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

## Functional safety

MTTF (40 °C)	360 a
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Photoelectric Sensors  
**BOS Q08M-PS-KF21-S49**  
**Order Code: BOS026T**



**Interface**

**Switching output** PNP normally open (NO)

**Material**

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

**Mechanical data**

**Dimension** 8 x 59 x 8 mm  
**Mounting part** Screw M3

**Optical features**

**Ambient light max.** 5000 Lux  
**Beam characteristic** Divergent  
**LED group per IEC 62471** Exempt Group  
**Light spot size** Ø 3 mm Light exit  
**Light type** LED, red light  
**Principle of optical operation** Diffuse sensor, triangulation  
**Special optical feature** Fixed background suppression  
**Switching function, optical** Light-on  
**Wave length** 650 nm

**Range/Distance**

**Distance deviation 18 % max. (% of Sr)** 10 %  
**Hysteresis H max. (% of Sr)** 10 %  
**Range** 5...30 mm  
**Rated operating distance Sn** 30 mm  
**Repeat accuracy max. (% of Sr)** 3 %  
**Temperature drift max. (% of Sr)** 10 %

**Remarks**

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

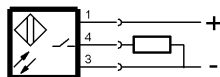
For more information about MTTF and B10d see MTTF / B10d Certificate

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

