

1) Optical axis receiver, 2) 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°

## Electrical data

Load capacitance max. at $U_e$	0.05 $\mu$ F
No-load current $I_o$ max. at $U_e$	10 mA
Operating voltage $U_b$	10...30 VDC
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.	20 ms
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 $I_e$	0.7 V

## Display/Operation

Display	Limit range - LED yellow, flashing LED yellow: Light received
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## Electrical connection

Cable diameter $D$	3.00 mm
Cable length $L$	2 m
Conductor cross-section	0.14 mm <sup>2</sup>
Connection	Cable, 2.00 m, PUR
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

## 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

Photoelectric Sensors  
**BOS Q08M-PS-KE21-02**  
Order Code: BOS01Y5

# BALLUFF

## Material

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

## Mechanical data

Dimension	8 x 44 x 8 mm
Mounting	Screw M3

## Optical features

Principle of optical operation	Through-beam sensor (receiver)
Switching function, optical	dark-on

## Output/Interface

Switching output	PNP normally open (NO)
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## Range/Distance

Range	0...2.2 m
Rated operating distance Sn	2.2 m

## Remarks

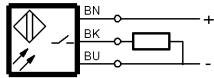
Order accessories separately.

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.

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

## Wiring Diagrams



## Opto Symbols

