

1) Emitter



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



Basic features

Approval/Conformity	CE cULus EAC WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference receiver	BOS Q08M-...-LE21-..
Series	Q08M
Style	Square Connection 90°

Display/Operation

Adjuster	no
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Electrical connection

Cable diameter D	3.00 mm
Cable length L	2 m
Conductor cross-section	0.14 mm ²
Connection	Cable, 2.00 m, PUR
Number of conductors	3
Polarity reversal protected	yes

Electrical data

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 voltage U _e DC	24 V
Ripple max. (% of U _e)	15 %

Environmental conditions

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

Functional safety

MTTF (40 °C)	1579 a
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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

Average power P_o max.	390 μ W
Beam characteristic	Divergent
Laser class per IEC 60825-1	1
Light spot size	\varnothing 3.0 mm Light exit
Light type	Laser red light
Principle of optical operation	Through-beam sensor (Emitter)
Pulse duration t max.	6 μ s

Pulse frequency	8 kHz
Pulse power P_p max.	2 mW
Smallest part typ.	0.28 mm at 1 m. $R_0 = 3.0$ m
Wave length	650 nm

Range/Distance

Range	0...3 m
Rated operating distance S_n	3 m

Remarks

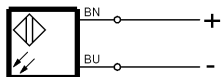
Order accessories separately.

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.

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.

Wiring Diagrams



Opto Symbols

