

1) Operating voltage/Error, 2) Switchpoint Q2, 3) Switchpoint Q1, 4) Optical axis emitter, 5) Optical axis receiver, 6) Display and control panel



Basic features

Approval/Conformity	CE cULus EAC WEEE
Basic standard	IEC 60947-5-2, IEC 60947-5-7
Principle of operation	Photoelectric distance sensor
Series	37M
Style	Square Connection 90°

Display/Operation

Adjuster	Key (4x)
Display	LED green: Power Teach mode - LED yellow, flashing Object not in range - LED red
Setting	Factory setting (Reset) Switching distance, 2 values Switching output Q

Electrical connection

Connection	Connector, M12x1-Male, 5-pin
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.5 µF
Load resistance RL max. (Analog I)	500 ohms
No-load current Io max. at Ue	120 mA
Operating voltage Ub	19.2...28.8 VDC
Protection class	II
Rated insulation voltage Ui	500 V AC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Residual current Ir max.	400 µA
Switching frequency	15 Hz

Photoelectric Sensors
BOD 37M-LB01-S92
Order Code: BOD001W



Environmental conditions

Ambient temperature	-15...50 °C
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 0.5 mm, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	68 a
---------------------	------

Interface

Analog output	Analog, current 4...20 mA
Output characteristic	linear rising/falling
Switching output	2x PNP/NPN/push-pull NO/NC

Material

Housing material	Zinc, Die casting
Material sensing surface	PMMA

Mechanical data

Dimension	60 x 37 x 72.3 mm
Mounting part	Screw M4

Optical features

Ambient light max.	40000 Lux
Average power P_o max.	1 mW
Beam characteristic	Collimated
Laser class per IEC 60825-1	2
Light spot size	Ø 15 mm at 8 m
Light type	Laser red light
Principle of optical operation	Light time-of-flight
Pulse duration t max.	0.004 µs
Switching function, optical	Light/dark switching
Wave length	658 nm

Range/Distance

Accuracy	±0.1 % FS
Hysteresis H max. (% of Sr)	0.2 %
Range	200...10000 mm
Rated operating distance S_n	10 m Adjustable
Repeat accuracy	0.01 %FS
Resolution	≤ 1.0 mm

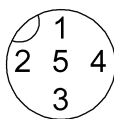
Remarks

For additional information, refer to user's guide.

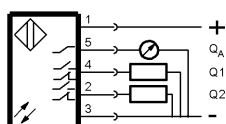
For more information about MTTF and B10d see MTTF / B10d Certificate

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



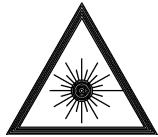
Wiring Diagrams



Opto Symbols



Warning Symbols



LASER BEAM - DO NOT STARE INTO THE LIGHT BEAM!

LASER CLASS 2 per IEC60825-1: 2003-10