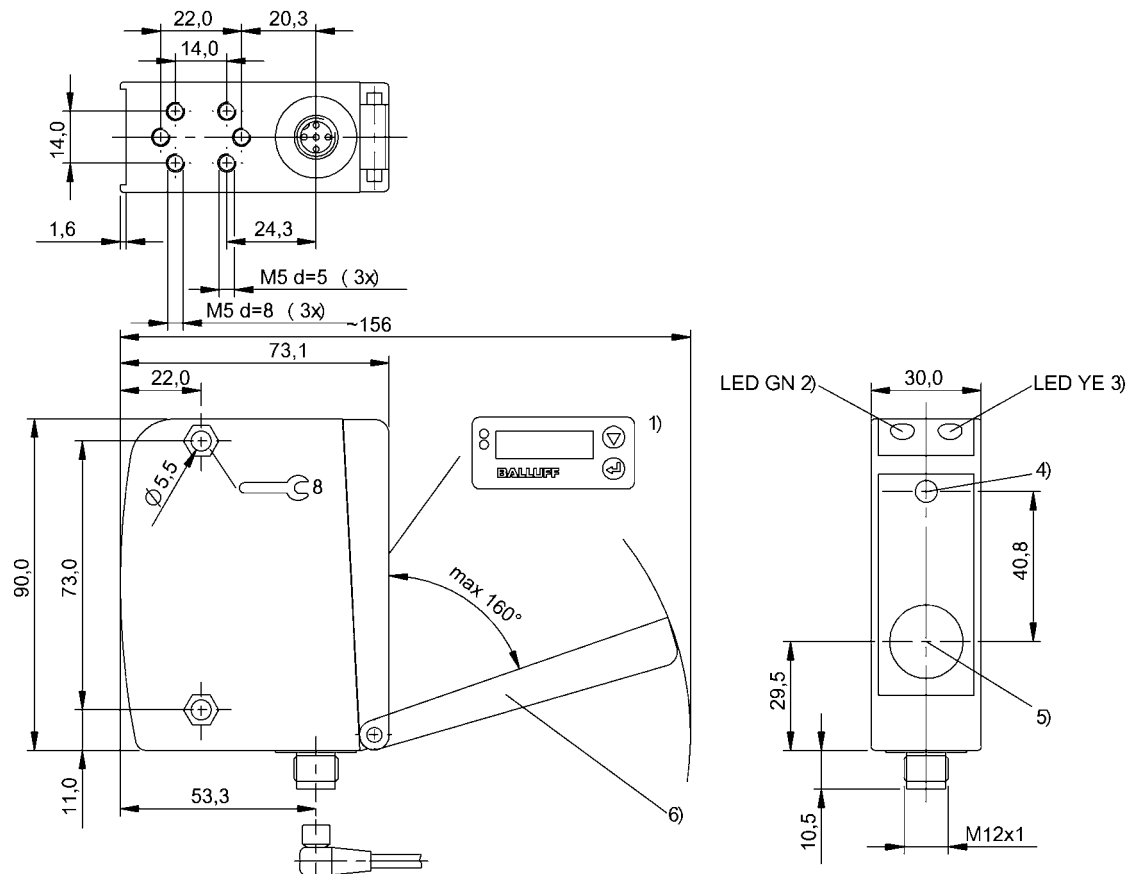


Photoelectric Sensors  
BOD 66M-LA12-S92  
Order Code: BOD001J

**BALLUFF**



1) Display and keypad, 2) Operating voltage, 3) Output function, 4) Optical axis emitter, 5) Optical axis receiver, 6) Removable cover



### Basic features

Application	Distance measurement
Approval/Conformity	CE WEEE
Basic standard	IEC 60947-5-2, IEC 60947-5-7
Principle of operation	Photoelectric distance sensor
Series	66M
Style	Square Connection 90°

### Display/Operation

Adjuster	Key (2x)
Display	Output function- LED yellow Ready - LED green Teach mode - LED yellow, flashing Error - LED green, flashing Output curve rising / falling Analog value output mode Working range Factory setting (Reset) Light-on/dark-on Rated switching distance (Sn)
Setting	

### Electrical connection

Connection	Connector, M12x1-Male, 5-pin
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Input function	Emitter on/off
Load resistance RL min. (Analog V)	2 kOhm
No-load current Io max. at Ue	150 mA
Operating voltage Ub	18...30 VDC
Protection class	III
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	300 ms
Switching frequency	1000 Hz
Turn-off delay toff max.	5 ms
Turn-on delay ton max.	5 ms
Voltage drop Ud max. at Ie	2 V

Environmental conditions

Ambient temperature	-20...50 °C
IP rating	IP65

Functional safety

MTTF (40 °C)	49 a
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Interface

Analog output	Analog, voltage 1...10 V
Output characteristic	linear rising/falling
Switching output	PNP/NPN NO/NC push-pull

Material

Housing material	Zinc, Die casting, Painted
Material sensing surface	Glass
Surface protection	Painted

Mechanical data

Dimension	30 x 100.5 x 73.2 mm
Mounting part	Screw M5

Optical features

Ambient light max.	5000 Lux
Average power Po max.	1 mW
Beam characteristic	Divergent
Laser class per IEC 60825-1	2
Light spot size	Ø 1 mm at 800 mm
Light type	Laser red light
Principle of optical operation	Triangulation
Switching function, optical	Light/dark switching
Wave length	655 nm

Range/Distance

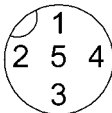
Accuracy	±1.5 % FS
Distance deviation 18 % max. (% of Sr)	1 %
Range	150...800 mm
Rated operating distance Sn	800 mm Adjustable
Repeat accuracy	0.5 %FS
Repeat accuracy max. (% of Sr)	1.0 %
Reproducibility	±0.5 % FS
Resolution	100...800 µm

Remarks

Order accessories separately.  
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.

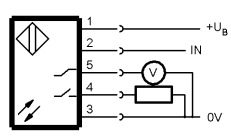
Connector Drawings



Photoelectric Sensors  
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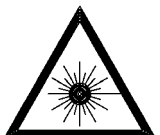
Wiring Diagrams



Opto Symbols



Warning Symbols



LASER BEAM - DO NOT STARE INTO THE LIGHT BEAM!

LASER CLASS 2 per IEC60825-1: 2003-10