

1) Emitter, 2) Receiver, 3) Status indicator, 4) Indicator object



Basic features

Approval/Conformity	CE WEEE EAC
Basic standard	IEC 60947-5-2
Principle of operation	Light array
Scope of delivery	Mounting bracket (2x), BAM0362 Connection cable (emitter - receiver) Manual
Series	C
Style	Square Straight connection

Display/Operation

Adjuster	Configuration via IO-Link
Display	LED green: Power Communication - Green LED, flashing Object in meas. field - LED orange
Setting	Normalize CCD signal Teach in objects (max. 6) Factory setting (Reset) Meas.field limits Object mode (digital values) Measurement mode (2 independent measurement values) Switching tol. $\pm 0.1...16$ mm Setting block Blanking Signal scaling Counter mode

Photoelectric Sensors  
**BLA 16C-002-00,25-S75**  
Order Code: BLA0007

**BALLUFF**

### Electrical connection

Cable diameter D	4.5...6 mm
Cable length L	250 mm
Connection	Cable with connector, M8x1-Male, 4-pin, 250 mm, PUR
Connection 2	M8x1-Female, 4-pin
Connection 3	M8x1-Male, 4-pin
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

No-load current I <sub>o</sub> max. at U <sub>e</sub>	100 mA
Operating voltage U <sub>b</sub>	18...30 VDC
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating voltage U <sub>e</sub> DC	24 V
Ready delay t <sub>v</sub> max.	300 ms
Ripple max. (% of U <sub>e</sub> )	10 %

### Environmental conditions

Ambient temperature	5...55 °C
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6
EN 60068-2-6, Vibration	30 g, 10...2000 Hz
IP rating	IP67

### Functional safety

MTTF (40 °C)	253 a
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### Material

Housing material	Aluminum, Anodized
Housing material, surface protection	Anodized
Material jacket	PUR
Material sensing surface	Glass
Surface protection	Anodized

### Remarks

Reference object (target): Steel cylinder diameter 8.0 mm.  
The sensor is functional again after the overload has been eliminated.  
Connection cable (emitter to receiver) and mounting bracket BAM0362 included, order other 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.

### Mechanical data

Dimension	38 x 20 x 68.3 mm
Mounting part	Screw M4

### Optical features

Ambient light max.	5000 Lux
Average power P <sub>o</sub> max.	150 µW
Beam characteristic	Collimated light strip, width 20 mm
Laser class per IEC 60825-1	1
Light type	Laser red light
Principle of optical operation	Through-beam sensor
Pulse frequency	0.01...1 kHz
Pulse power P <sub>p</sub> max.	0.3 mW
Smallest part typ.	Wire Ø 0.4 mm at R0 ≤ 0.25m Wire Ø 0.7 mm at R0 ≤ 1m Wire Ø 1.0 mm at R0 ≤ 2m
Special optical feature	CCD technology
Wave length	650 nm

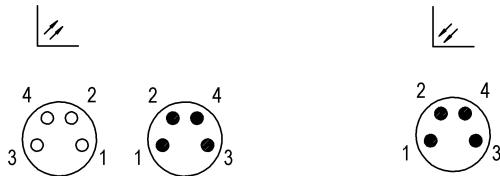
### Output/Interface

Baud rate	COM2 (38.4 kBaud)
Interface	IO-Link 1.1

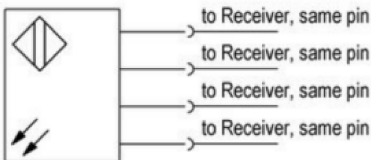
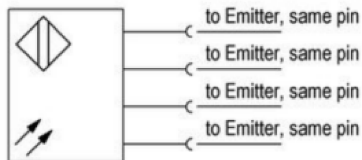
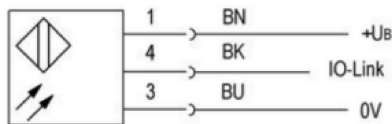
### Range/Distance

Accuracy	±20 µm (R0 ≤ 0.25m) 50 µm (R0 ≤ 1m) 100 µm (R0 ≤ 2m)
Active length AL 1	16 mm
Range	0...2 m
Rated operating distance S <sub>n</sub>	2 m
Repeat accuracy	10 µm (R0 ≤ 0.25 m) 20 µm (R0 ≤ 1 m) 70 µm (R0 ≤ 2 m)
Resolution	≤ 0.01 mm

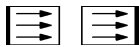
Connector Drawings



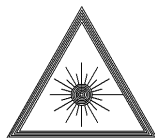
Wiring Diagrams



Opto Symbols



Warning Symbols



LASER CLASS 1 per IEC 60825-1