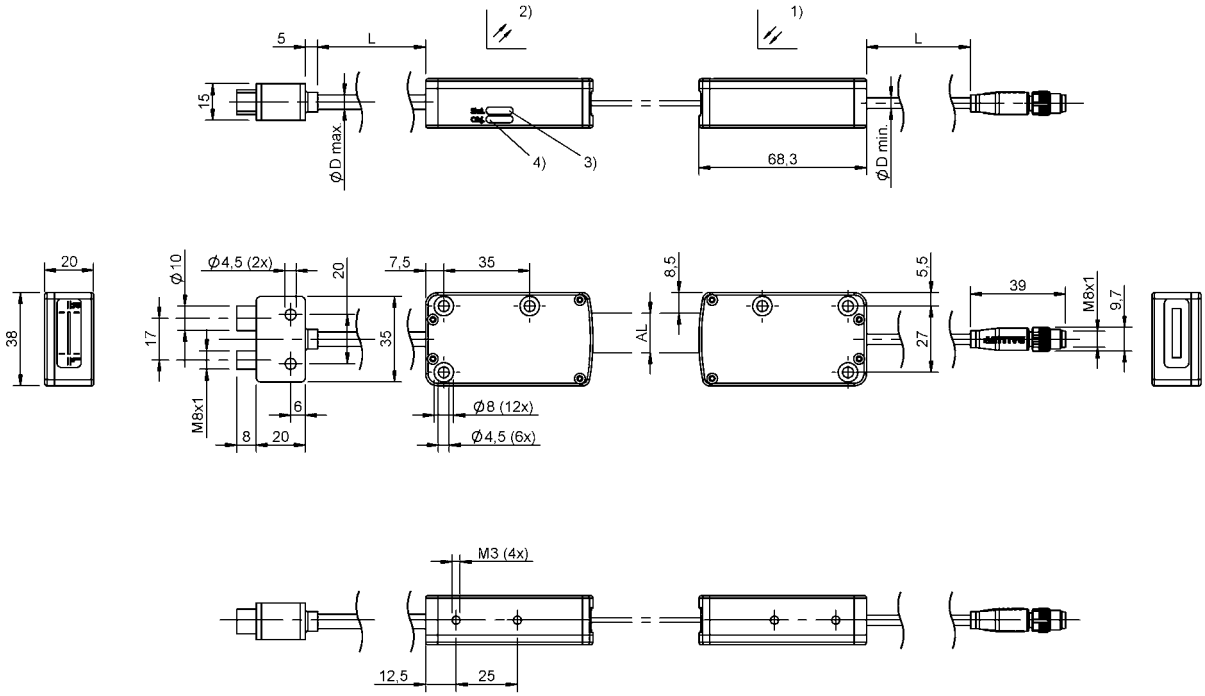
Photoelectric Sensors

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



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

Basic features

Approval/Conformity	CE UKCA WEEE cULus
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. ± 0.1...16 mm Setting block Blanking Signal scaling Counter mode

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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 Io max. at Ue	100 mA
Operating voltage Ub	18...30 VDC
Rated insulation voltage Ui	75 V DC
Rated operating voltage Ue DC	24 V
Ready delay tv max.	300 ms
Ripple max. (% of Ue)	10 %

Environmental conditions

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

Functional safety

MTTF (40 °C)	253 a

IO-Link

IO-Link Profil IDs	N/A

Interface

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

Material

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

Mechanical data

Dimension	38 x 20 x 68.3 mm
Mounting part	Screw M4

Optical features

Ambient light max.	5000 Lux
Average power Po 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 Pp 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

Range/Distance

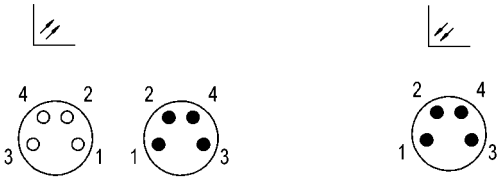
Accuracy	±20 µm (R0 ≤0.25m) 50 µm (R0 ≤1m) 100 µm (R0 ≤2m)
Active length AL 1	16 mm
Range	0...2 m
Rated operating distance Sn	2 m
Repeat accuracy	10 µm (R0 ≤ 0.25 m) 20 µm (R0 ≤ 1 m) 70 µm (R0 ≤ 2 m)
Resolution	≤ 0.01 mm

Remarks

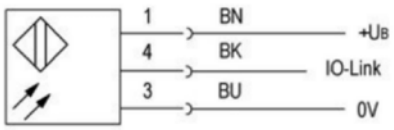
Reference object (target): Steel cylinder diameter 8.0 mm.
The sensor is functional again after the overload has been eliminated.
Connection cable (emitter to receiver) and mounting bracket BAM0362 included, order other accessories separately.
For additional information, refer to user's guide.
For more information about MTTF and B10d see MTTF / B10d Certificate

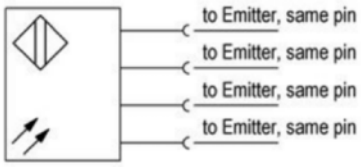
Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

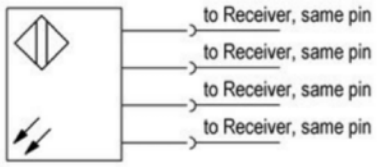
Connector Drawings



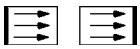
Wiring Diagrams



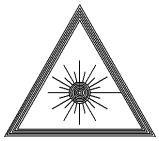




Opto Symbols



Warning Symbols



LASER CLASS 1 per IEC 60825-1