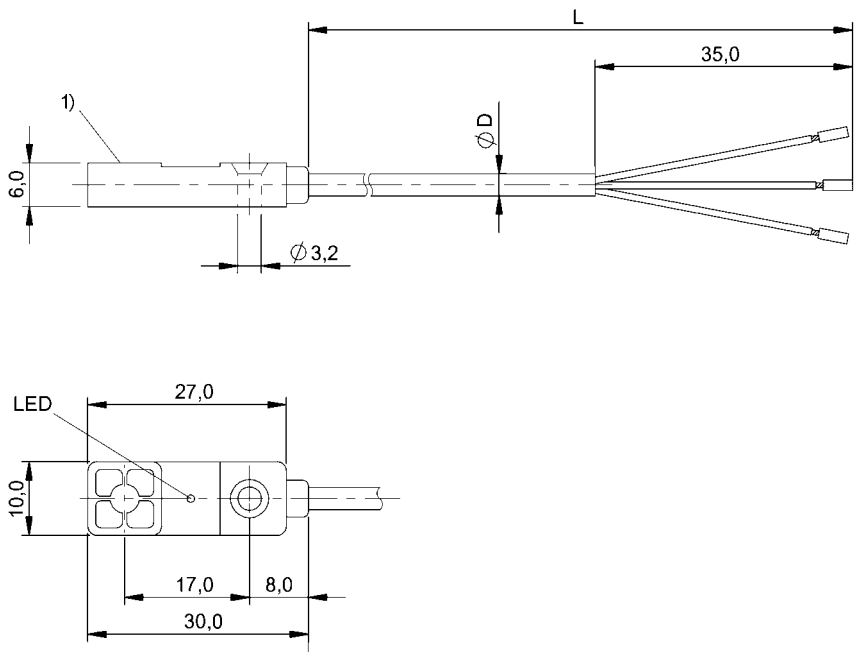


Inductive Sensors
BAW R03KC-UAA40B-BP03-505
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1) Sensing surface



Basic features	
Approval/Conformity	CE UKCA cULus WEEE
Base type deviation	Additional short circuit, reverse polarity and transposal protection
Basic standard	IEC 60947-5-2 IEC 60947-5-7
Display/Operation	
Function indicator	Adjustment indicator
Power indicator	no

Electrical connection	
Bending radius min., fixed cable	3 x D
Bending radius min., flexible cable	5 x D
Cable diameter D	2.85...3 mm
Cable length L	3 m
Conductor cross-section	0.14 mm ²
Connection type	Cable, 3.00 m, PUR
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

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Electrical data

Limit frequency -3 dB	1000 Hz
Load resistance RL	5...20 kOhm
Load resistance RL max.	20 kOhm
Load resistance RL min.	5 kOhm
No-load current I _o max. at U _e	15 mA
Operating voltage U _b	21.6...26.4 VDC
Rated insulation voltage U _i	75 V DC
Rated operating voltage U _e DC	24 V
Ripple max. (% of U _e)	10 %
Slope U	3.30 V/mm

Environmental conditions

Ambient temperature	0...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	550 a
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Interface

Analog output	Analog, voltage 0...10 V
Output characteristic	falling on approach
Output voltage at SI max.	10 V
Output voltage at SI min.	0 V
Output voltage at Se	5 V

Material

Cable shield	no
Housing material	PA 6, GF30
Material jacket	PUR
Material sensing surface	PA 6, GF30

Mechanical data

Dimension	10 x 6 x 30 mm
Installation	for flush mounting
Tightening torque	0.6 Nm

Range/Distance

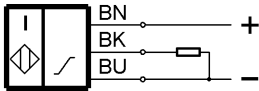
Linearity range SI	1...4 mm
Measuring range	1...4 mm
Non-linearity max.	±150 µm
Repeat accuracy per BWN	±35 µm
Temperature drift max. from end value	±5.0 %

Remarks

Technical data are valid after warmup time > 10 minutes
Flush mounting only in St37. For installation in other materials see 845223.
Values referenced to axial approach of St 37 target. For other materials correction factors are applied.
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



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BALLUFF

Technical Drawings

