

1) Sensing surface



**Basic features**

Approval/Conformity	CE cULus EAC WEEE
Basic standard	IEC 60947-5-2 IEC 60947-5-7

**Display/Operation**

Power indicator	no
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**Electrical connection**

Cable diameter D	3.50 mm
Cable length L	5 m
Conductor cross-section	0.14 mm <sup>2</sup>
Connection type	Cable, 5.00 m, PUR
Number of conductors	4
Polarity reversal protected	yes
Protection against device mix-ups	no
Short-circuit protection	yes

**Electrical data**

Limit frequency -3 dB	200 Hz
Load resistance RL min.	2000 Ohm
Load resistance RT min.	2000 Ohm
No-load current I <sub>o</sub> max. at U <sub>e</sub>	12 mA
Operating voltage U <sub>b</sub>	15...30 VDC
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating voltage U <sub>e</sub> DC	24 V
Ripple max. (% of U <sub>e</sub> )	15 %
Slope U	2.50 V/mm
Temperature output	-9 mV/°C

**Environmental conditions**

Ambient temperature	10...60 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

**Functional safety**

MTTF (40 °C)	640 a
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**Material**

Housing material	Aluminum, Anodized
Material jacket	PUR
Material sensing surface	PA 12

Inductive Sensors  
**BAW Z01AC-UAD50B-DP05-K**  
**Order Code: BAW003F**



**Mechanical data**

Dimension	38.5 x 30 x 17 mm
Installation	non-flush

**Output/Interface**

Analogue output	Analog, voltage 0...10 V Analog, temperature
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

**Range/Distance**

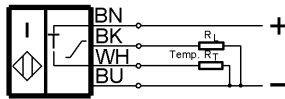
Linearity range SI	1...5 mm
Measuring range	1...5 mm
Non-linearity max.	±120 µm
Repeat accuracy per BWN	±10 µm
Temperature drift max. from end value	±5.0 %

**Remarks**

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**



**Technical Drawings**

