

### Basic features

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

### Display/Operation

Function indicator	Adjustment indicator
Power indicator	no

### Electrical connection

Cable diameter D	4.60 mm
Cable length L	5 m
Conductor cross-section	0.34 mm <sup>2</sup>
Connection type	Cable, 5.00 m, PUR
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

Limit frequency -3 dB	500 Hz
Load resistance RL min.	2000 Ohm
No-load current Io max. at Ue	10 mA
Operating voltage Ub	15...30 VDC
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating voltage Ue DC	24 V
Ripple max. (% of Ue)	15 %
Slope U	3.30 V/mm

### Environmental conditions

Ambient temperature	-10...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 gn, 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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### 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

Inductive Sensors  
**BAW M12MF2-UAC40F-BP05**  
Order Code: **BAW0018**

**BALLUFF**

**Material**

Housing material	Brass, nickel-plated
Material jacket	PUR
Material sensing surface	PBT

**Range/Distance**

Linearity range SI	1...4 mm
Measuring range	1...4 mm
Non-linearity max.	±90 µm
Repeat accuracy per BWN	±10 µm
Temperature drift max. from end value	±5.0 %

**Mechanical data**

Dimension	Ø 12 x 65 mm
Installation	non-flush
Size	M12x1
Tightening torque	15 Nm

**Remarks**

Values referenced to axial approach of St 37 target. For other materials correction factors are applied.

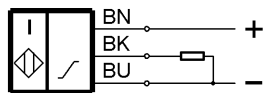
Scattering (e.g. due to manufacturing tolerances) is described by the tolerance T at Se. This can be approximated using the formula:  $T = (sl_{max} + sl_{min}) / 20 = \pm xx \text{ mm}$ .

UL-MARKINGS: - For use in NFPA 79 Applications only - Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.

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

