

#### 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	4.70 mm
Cable length L	1.5 m
Connection	M12x1-Male, 3-pin, A-coded
Connection type	Cable with connector, 1.50 m, PUR
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 I <sub>0</sub> max. at U <sub>e</sub>	10 mA
Operating voltage U <sub>b</sub>	15...30 VDC
Protection class	II
Rated insulation voltage U <sub>i</sub>	250 V AC
Rated operating voltage U <sub>e</sub> DC	24 V
Ripple max. (% of U <sub>e</sub> )	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 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
--------------	-------

#### Interface

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

#### Material

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

#### Mechanical data

Dimension	Ø 12 x 65 mm
Installation	non-flush
Mounting length	35.5 mm
Size	M12x1
Tightening torque	15 Nm

Inductive Sensors

BAW M12MF2-UAC40F-BP01,5-GS04

Order Code: BAW0016

**BALLUFF**

#### Range/Distance

Linearity range SI 1...4 mm  
Measuring range 1...4 mm

Non-linearity max.  $\pm 90 \mu\text{m}$   
Repeat accuracy per BWN  $\pm 10 \mu\text{m}$   
Temperature drift max. from end value  $\pm 5.0 \%$

#### Remarks

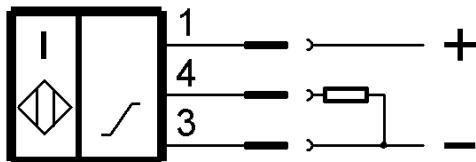
Values referenced to axial approach of St 37 target. For other materials correction factors are applied.  
Scattering (e.g. due to manufacturing tolerances) is described by the tolerance T at Se. This can be approximated using the formula:  $T = (\text{slmax} + \text{slmin}) / 20 = \pm xx \text{ mm}$ .  
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.

#### Connector Drawings



#### Wiring Diagrams



Technical Drawings

