

#### 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	0.2 m
Connection	M12x1-Male, 4-pin, A-coded
Connection type	Cable with connector, 0.20 m, PUR
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

#### Electrical data

Limit frequency -3 dB	1000 Hz
Load resistance RL max.	500 Ohm
No-load current Io max. at Ue	15 mA
Operating voltage Ub	16...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 I	6.06 mA/mm

#### Environmental conditions

Ambient temperature	-40...80 °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	IP68

#### Functional safety

MTTF (40 °C)	533 a
--------------	-------

#### Interface

Analog output	Analog, current 0...20 mA
Output characteristic	falling on approach
Output current at SI max.	20 mA
Output current at SI min.	0 mA
Output current at Se	10 mA

#### Material

Housing material	Brass, Nickel-free coated
Material jacket	PUR
Material sensing surface	PBT

#### Mechanical data

Dimension	Ø 12 x 63 mm
Installation	for flush mounting
Mounting length	60.1 mm
Size	M12x1
Tightening torque	10 Nm

## Inductive Sensors

BAW M12MN-IAC35C-BP00,2-GS04

Order Code: BAW004F

**BALLUFF**

### Range/Distance

Linearity range SI 0.2...3.5 mm  
Measuring range 0.2...3.5 mm

Non-linearity max.  $\pm 53 \mu\text{m}$   
Repeat accuracy per BWN  $\pm 7 \mu\text{m}$   
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.

We recommend to connect the teach line to the negative lead (L-) when not in use.

The working range can be taught using the Teach line or the BAE PD-AW-008-S04 programmer (order code BAE00MP).

At temperatures below -25°C the cable must be fixed in place.

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

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

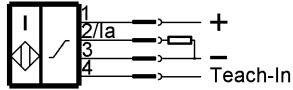
For more information about MTTF and B10d see MTTF / B10d Certificate

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

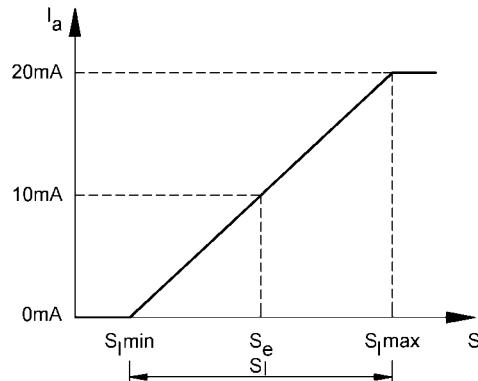


### Wiring Diagrams

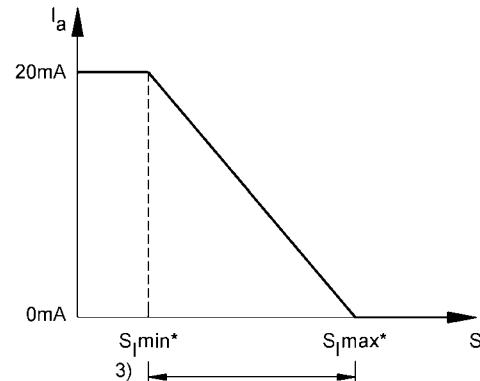


## Technical Drawings

1)



2)



1) Standard characteristic curve

2) Reduced measuring range

3) Minimum width  $SI/3$