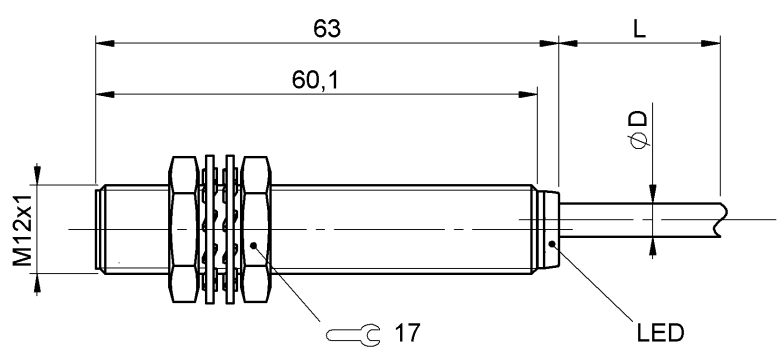


Inductive Sensors  
BAW M12MN-ICC35C-BP02  
Order Code: BAW0051



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	2 m
Conductor cross-section	0.25 mm <sup>2</sup>
Connection type	Cable, 2.00 m, PUR
Number of conductors	4
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	4.85 mA/mm

Environmental conditions

Ambient temperature	-40...80 °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	IP68

Functional safety

MTTF (40 °C)	533 a
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Interface

Analog output	Analog, current 4...20 mA
Output characteristic	falling on approach
Output current at SI max.	20 mA
Output current at SI min.	4 mA
Output current at Se	12 mA

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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

Range/Distance

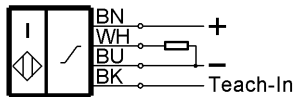
Linearity range SI	0.2...3.5 mm
Measuring range	0.2...3.5 mm
Non-linearity max.	±53 µm
Repeat accuracy per BWN	±7 µm
Temperature drift max. from end value	±5.0 %

Remarks

Values referenced to axial approach of St 37 target. For other materials correction factors are applied.  
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:  $T = (sl_{max} + sl_{min}) / 20 = \pm xx \text{ mm}$ .  
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.

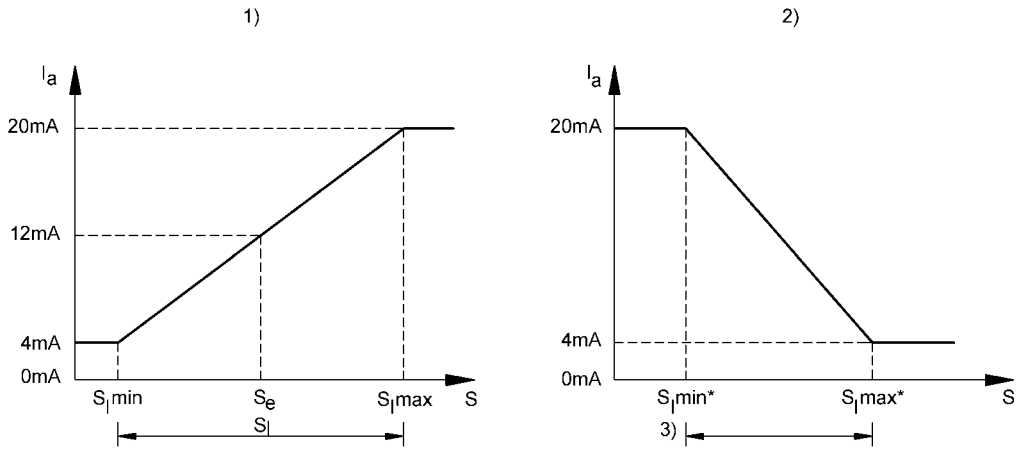
Wiring Diagrams



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Technical Drawings



- 1) Standard characteristic curve
- 2) Reduced measuring range
- 3) Minimum width  $S_I/3$