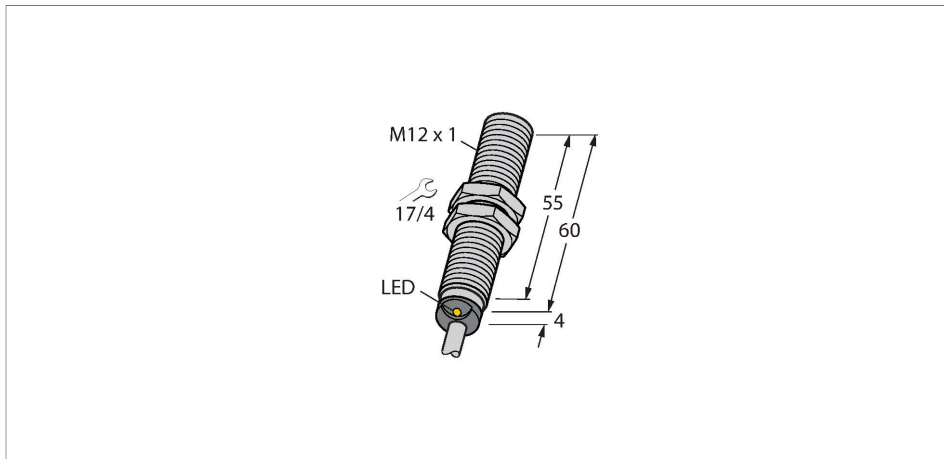


# BIM-M12E-AG4X

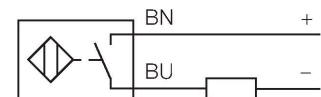
## Magnetic Field Sensor – Magnetic-inductive Proximity Sensor



### Features

- Threaded barrel, M12 x 1
- Chrome-plated brass
- Rated operating distance 90 mm with DMR31-15-5 magnet
- DC 2-wire, 10...65 VDC
- Polarized version
- NO contact
- Cable connection

### Wiring diagram

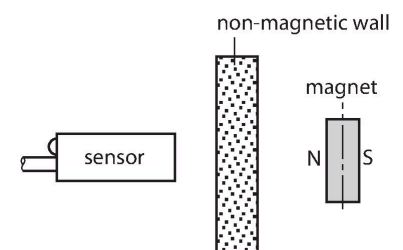


### Technical data

Type	BIM-M12E-AG4X
Ident. no.	4430200
Rated switching distance	90 mm
	In conjunction with magnet DMR31-15-5
Repeat accuracy	≤ 0.3 % of full scale
Temperature drift	≤ ± 15 %
Hysteresis	1...10 %
Ambient temperature	-25...+70 °C
Operating voltage	10...65 VDC
DC rated operational current	≤ 200 mA
Residual current	≤ 0.8 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I <sub>e</sub>	≤ 4.2 V
Wire breakage/Reverse polarity protection	no / Polarized
Output function	2-wire, NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	0.3 kHz
<b>Design</b>	<b>Threaded barrel, M12 × 1</b>
Dimensions	64 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT-GF30
End cap	Plastic, EPTR
Max. tightening torque housing nut	10 Nm

### Functional principle

Magnetic inductive proximity sensors are actuated by magnetic fields and are thus capable of detecting permanent magnets through non-ferromagnetic materials (e.g. wood, plastic, non-ferrous metals, aluminium, stainless steel). Thus it is possible to achieve large switching distances even with smaller housing styles. In combination with the actuation magnet DMR31-15-5 TURCK sensors feature a relatively high switching distance. Thus there are multiple detection possibilities, particularly if the mounting space is limited or other difficult sensing conditions prevail.



## Technical data

Electrical connection	Cable
Cable quality	Ø 5.2 mm, Gray, LifYY-11Y, PUR, 2 m
Core cross-section	2 x 0.34 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

## Mounting instructions

Mounting instructions/Description	Diameter active area Ø 12 mm B
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## Accessories

**DMR20-10-4** 6900214

Actuation magnet; Ø 20 mm (Ø 4 mm), h: 10 mm; attainable switching distance 59 mm on BIM-(E)M12 magnetic field sensors or 50 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3...4 mm

**DMR31-15-5** 6900215

Actuation magnet, Ø 31 mm (Ø 5 mm), h: 15 mm; attainable switching distance 90 mm on BIM-(E)M12 magnetic field sensors or 78 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3...5 mm

**DMR15-6-3** 6900216

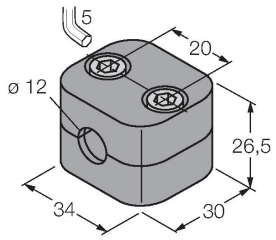
Actuation magnet, Ø 15 mm (Ø 3 mm), h: 6 mm; attainable switching distance 36 mm on BIM-(E)M12 magnetic field sensors or 32 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3...4 mm

**DM-Q12** 6900367

Actuator, rectangular, plastic, attainable switching distance 58 mm on BIM-(E)M12 magnetic field sensors or 49 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3...5 mm

BSS-12

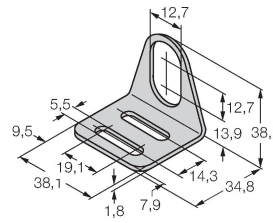
6901321



Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

MW12

6945003



Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)