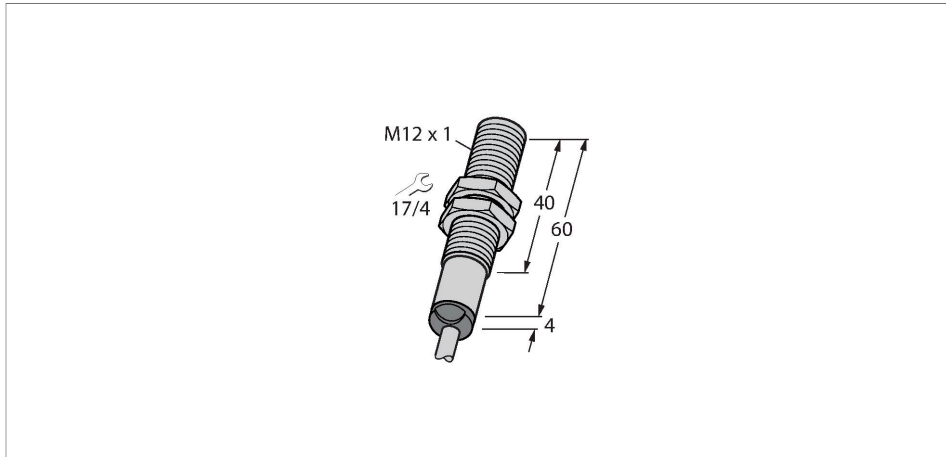


BIM-M12-Y0/S300

Magnetic Field Sensor – with extended temperature range



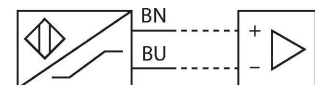
Technical data

Type	BIM-M12-Y0/S300
ID	1070021
Special version	S300 corresponds to: Max. ambient temperature = 130 °C, silicone cable, BIM version, including S235
General data	
Rated switching distance	90 mm
Repeat accuracy	≤ 0.3 % of full scale
Temperature drift	≤ ±15 %
Hysteresis	1...10 %
Electrical data	
Output function	2-wire, NAMUR
Switching frequency	1 kHz
Voltage	Nom. 8.2 VDC
Current consumption non-actuated	≤ 1.2 mA
Actuated current consumption	≥ 2.1 mA
Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	64 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT-GF30
End cap	Metal, CuZn
Max. tightening torque of housing nut	10 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, SiHSi, Silicone, 2 m

Features

- Threaded barrel, M12 x 1
- Chrome-plated brass
- For temperatures up to 130°C
- Magnet-inductive proximity sensor
- Rated switching distance 90 mm with DMR31-15-5 magnet
- DC 2-wire, nom. 8.2 VDC
- Output acc. to DIN EN 60947-5-6 (NAMUR)
- Cable connection

Wiring diagram

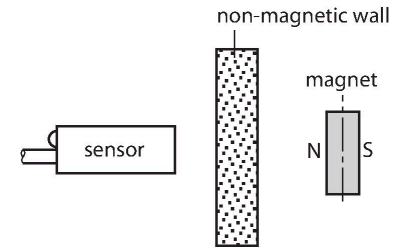


Functional principle

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 of the series M12 feature a nominal switching distance of 90 mm. Thus there are multiple detection possibilities, particularly if mounting space is limited or other difficult sensing conditions prevail.

Technical data

Core cross-section	2 x 0.5 mm ²
Environmental conditions	
Ambient temperature	0...+130 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)



Mounting instructions

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

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

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

MW-12 6945003

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