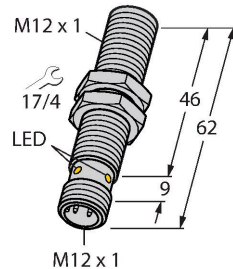


# BIM-M12E-AG4X-H1144

## Magnetic Field Sensor – Magnetic-inductive Proximity Sensor



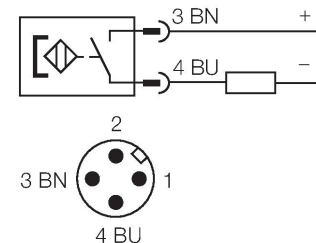
### Technical data

Type	BIM-M12E-AG4X-H1144
ID	1579910
<b>General data</b>	
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 %
<b>Electrical data</b>	
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>a</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>Mechanical data</b>	
Design	Threaded barrel, M12 x 1
Dimensions	62 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT-GF30
Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, M12 x 1

### 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
- Male connector M12 x 1

### Wiring diagram

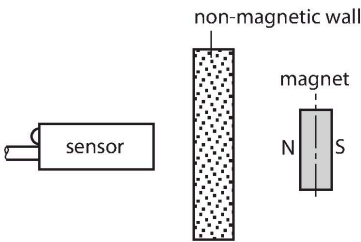


### Functional principle

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 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

Environmental conditions	
Ambient temperature	-25...+70 °C
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 B Ø 12 mm

Accessories

<b>DMR20-10-4</b> 	<b>6900214</b> 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	<b>DMR31-15-5</b> 	<b>6900215</b> 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
<b>DMR15-6-3</b> 	<b>6900216</b> 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	<b>DM-Q12</b> 	<b>6900367</b> 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
<b>BSS-12</b> 	<b>6901321</b> Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	<b>MW-12</b> 	<b>6945003</b> Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)