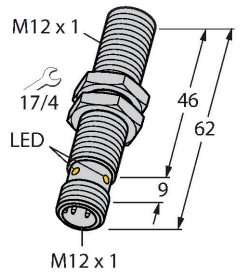
BIM-M12E-AP4X-H1141
Magnetic Field Sensor – Magnetic-inductive Proximity Sensor



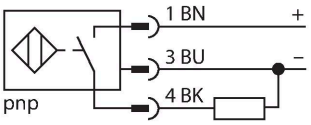
Technical data

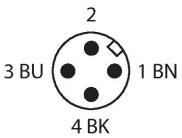
Type	BIM-M12E-AP4X-H1141
Ident. no.	1579913
Rated switching distance	90 mm
	In conjunction with magnet DMR31-15-5
Repeat accuracy	≤ 0.3 % of full scale
Temperature drift	≤ ± 15 %
Hysteresis	1…10 %
Ambient temperature	-25…+70 °C
Operating voltage	10…65 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz
Design	Threaded barrel, M12 × 1
Dimensions	62 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT-GF30
Max. tightening torque housing nut	10 Nm

Features

- Threaded barrel, M12 x 1
- Chrome-plated brass
- Rated operating distance 90 mm with DMR31-15-5 magnet
- DC 3-wire, 10…65 VDC
- NO contact, PNP output
- Male connector, M12 x 1

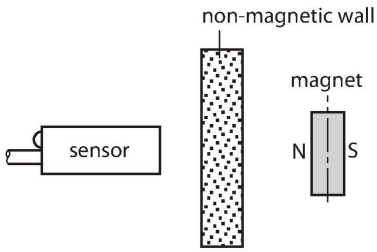
Wiring diagram





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

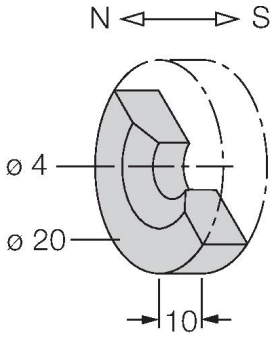
Electrical connection	Connector, M12 × 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description	
	Diameter active area Ø 12 mm B

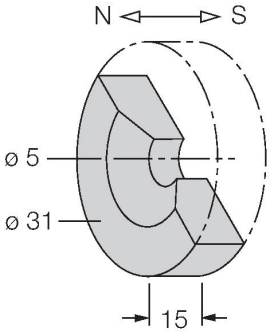
Accessories

DMR20-10-4 6900214



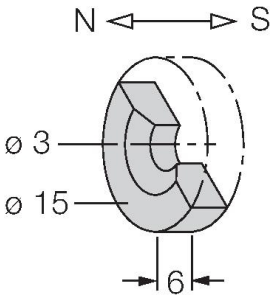
Actuation magnet; Ø 20 mm (Ø 4 mm), h: 10 mm; attainable switching distance 59 mm on BIM-(E)M12 magnetic field sensors or 50 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3…4 mm

DMR31-15-5 6900215



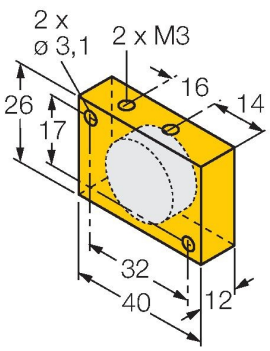
Actuation magnet, Ø 31 mm (Ø 5 mm), h: 15 mm; attainable switching distance 90 mm on BIM-(E)M12 magnetic field sensors or 78 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3…5 mm

DMR15-6-3 6900216



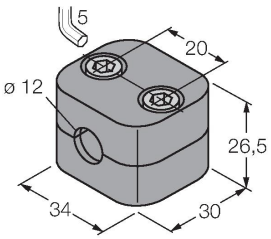
Actuation magnet, Ø 15 mm (Ø 3 mm), h: 6 mm; attainable switching distance 36 mm on BIM-(E)M12 magnetic field sensors or 32 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3…4 mm

DM-Q12 6900367



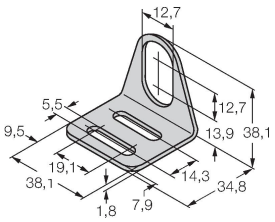
Actuator, rectangular, plastic, attainable switching distance 58 mm on BIM-(E)M12 magnetic field sensors or 49 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3…5 mm

BSS-12	6901321



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

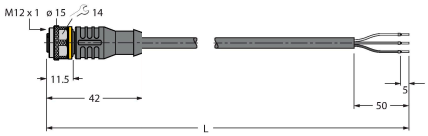
MW12	6945003



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

Wiring accessories

Dimension drawing	Type	Ident. no.	
	RKC4T-2/TEL	6625010	Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com



BIM-M12E-AP4X-H1141| 05/27/2020 12-56 | technical changes reserved