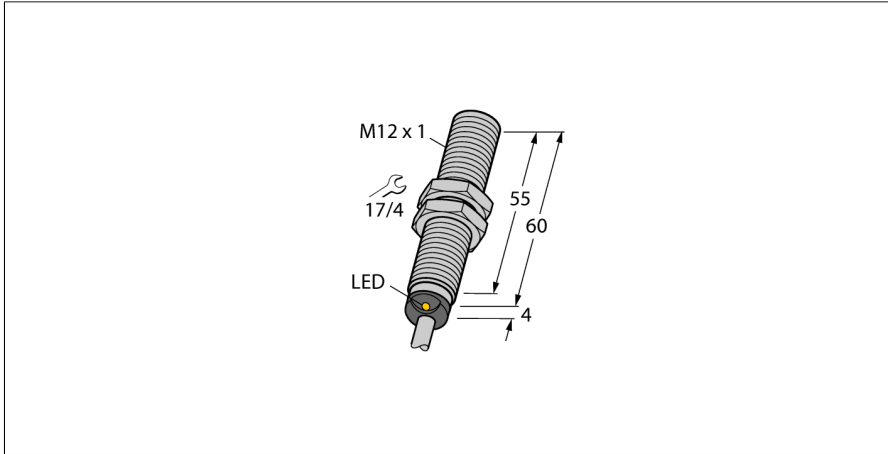


Magnetic Field Sensor Magnetic-inductive Proximity Sensor BIM-M12E-AG4X 7M



Type	BIM-M12E-AG4X 7M
ID	4430201

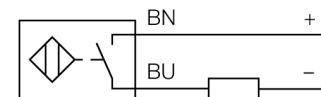
General data	
Rated switching distance S_n	90 mm In conjunction with magnet DMR31-15-5
Repeat accuracy	$\leq 0.3\%$ of full scale
Temperature drift	$\leq \pm 15\%$
Hysteresis	1...10 %

Electrical data	
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_n	≤ 4.2 V
Wire breakage/Reverse polarity protection	no/ Polarized
Output function	2-wire, NO contact, 2-wire
Smallest operating current I_m	≥ 3 mA
Switching frequency	0.3 kHz

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	Plastic, EPTR
Max. tightening torque of housing nut	10 Nm
Electrical connection	Cable
Cable quality	$\varnothing 5.2$ mm, Gray, LifYY-11Y, PUR, 7 m
Core cross-section	2 x 0.34 mm ²

- 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

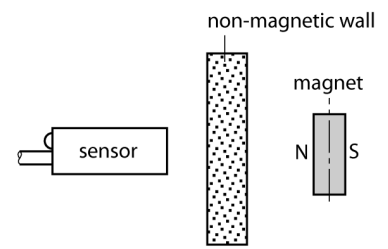


Functional principle

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.

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



Accessories

Type code	Ident no.		Dimension drawing
DMR20-10-4	6900214	Actuation magnet; \varnothing 20 mm (\varnothing 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, \varnothing 31 mm (\varnothing 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, \varnothing 15 mm (\varnothing 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	

Accessories

Type code	Ident no.		Dimension drawing
MW-12	6945003	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	