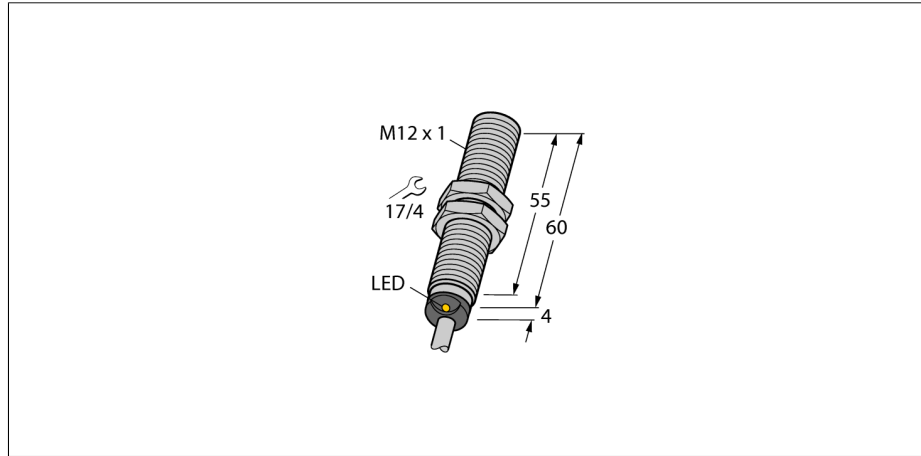
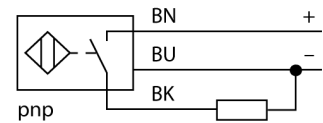


**Magnetic field sensor
magnet-inductive proximity sensor
BIM-EM12E-AP4X**



- Threaded barrel, M12 x 1
- Stainless steel, 1.4301
- Rated operating distance 90 mm with DMR31-15-5 magnet
- DC 3-wire, 10...65 VDC
- NO contact, PNP output
- Cable connection

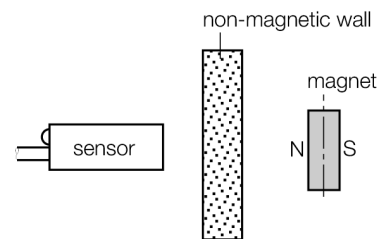
Wiring diagram



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.



Type code	BIM-EM12E-AP4X
Ident no.	1579918
Rated operating distance Sn	90 mm
Repeatability	in conjunction with magnet DMR31-15-5 ≤ 0.3 % of full scale
Temperaturdrift	15 %
Hysteresis	1...10 %
Ambient temperature	-25...+70 °C
Operating voltage	10...65VDC
Residual ripple	≤ 10 % U _{in}
DC rated operational current	≤ 200 mA
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I ₀	≤ 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 x 1
Dimensions	64 mm
Housing material	Metal, V2A (1.4301)
Material active face	Plastic, POM
End cap	Plastic, EPTR
Max. tightening torque housing nut	10 Nm
Connection	cable
Cable quality	5.2 mm, LifYY, PVC, 2 m
Cable cross section	3 x 0.34 mm ²
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	• yellow
Diameter of the active area B	Ø 12 mm

**Magnetic field sensor
magnet-inductive proximity sensor
BIM-EM12E-AP4X**

Accessories

Type code	Ident no.	Description	Dimension drawing
DMR20-10-4	6900214	Actuation magnet; \varnothing 20 mm (\varnothing 4 mm), h: 10 mm; sensing range 59 mm on BIM-(E)M12 sensors resp. 50 mm on BIM-EG08 sensors; in combination with Q25L: Recommended distance between sensor and magnet: 3 ... 4 mm	
DMR31-15-5	6900215	Actuation magnet, \varnothing 31 mm (\varnothing 5 mm), h: 15 mm; sensing range 90 mm on BIM-(E)M12 sensors resp. 78 mm on BIM-EG08 sensors; in combination with Q25L: Recommended distance between sensor and magnet: 3 ... 5 mm	
DMR15-6-3	6900216	Actuation magnet, \varnothing 15 mm (\varnothing 3 mm), h: 6 mm; sensing range 36 mm on BIM-(E)M12 sensors resp. 32 mm on BIM-EG08 sensors; in combination with Q25L: Recommended distance between sensor and magnet: 3 ... 4 mm	
DM-Q12	6900367	Actuation magnet; cuboid-shaped plastic; sensing range 58 mm on BIM-(E)M12 sensors resp. 49 mm on BIM-EG08 sensors; in combination with Q25: Recommended distance between sensor and magnet: 3 ... 5 mm	
BSS-12	6901321	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	

**Magnetic field sensor
magnet-inductive proximity sensor
BIM-EM12E-AP4X**

Accessories

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