

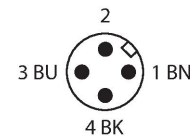
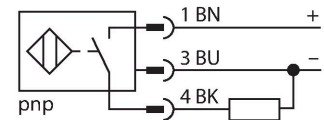
BIM-EM12EWD-AP6X-H1141

Magnetic Field Sensor – Magnetic-inductive Proximity Sensor

Features

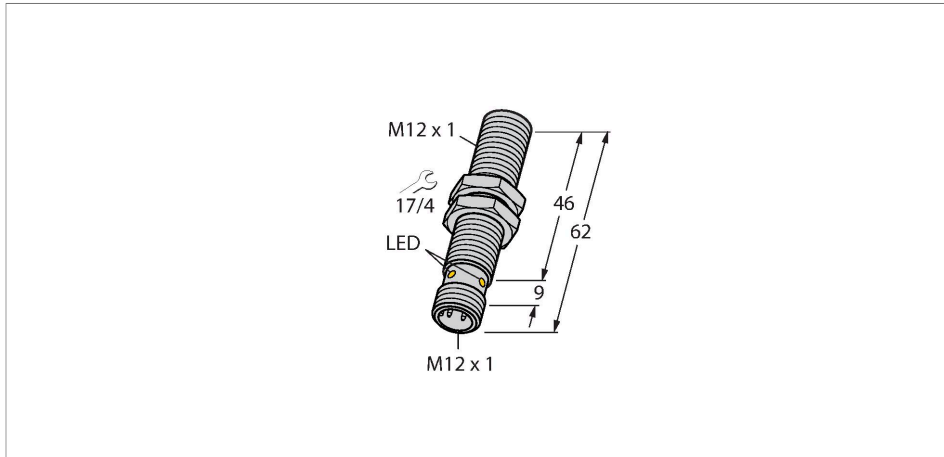
- M12 × 1 threaded barrel
- Stainless steel, 1.4404
- Rated switching distance 90 mm in conjunction with DMR31-15-5 magnet
- High protection class IP69K, for harsh environments
- Protection against all common acid and alkaline cleaning agents
- For the food industry
- DC 3-wire, 10...30 VDC
- NO contact, 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.

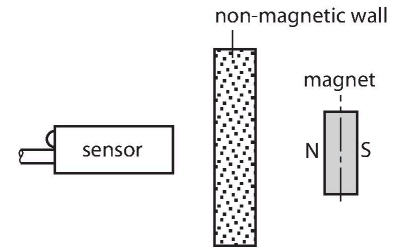


Technical data

Type	BIM-EM12EWD-AP6X-H1141
ID	100000496
General data	
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 %
Electrical data	
Operating voltage	10...30 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 _s	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	2 kHz
Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	62 mm
Housing material	Stainless steel, 1.4404 (AISI 316L)

Technical data

Active area material	Plastic, LCP, ecru
Admissible pressure on front cap	≤ 20 bar
Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 IP69K
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow



Mounting instructions

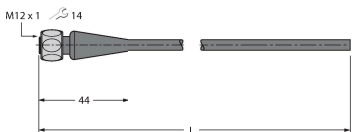
Mounting instructions/Description	Diameter active area B	Ø 12 mm
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Accessories

MW-12 6945003

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

Wiring accessories

Dimension drawing	Type	ID	
	RKH4-2/TFE	6935482	Connection cable, M12 female connector, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, gray; temperature range: -25...+80 °C

Dimension drawing

Type
RKH4-2/TFG

ID
6934384

Connection cable, M12 female connector, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: TPE, gray; temperature range: -40...+105 °C

