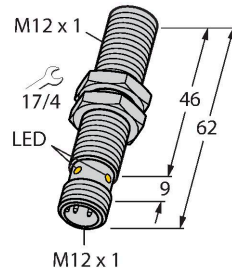


BIM-EM12EWD-AP6X-H1141

Magnetic Field Sensor – Magnetic-inductive Proximity Sensor



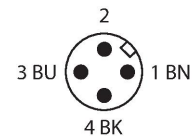
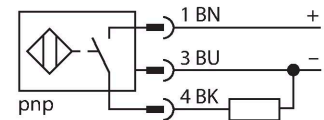
Features

- 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

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 U_B	10...30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_B	≤ 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_B	≤ 1.8 V
Wire break/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)

Wiring diagram

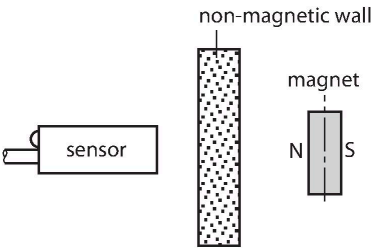


Functional principle

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

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

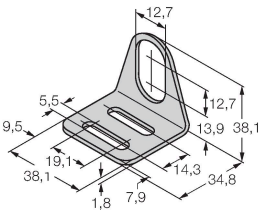


Mounting instructions

Mounting instructions/Description	
Diameter active area B	Ø 12 mm

Accessories

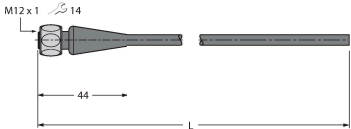
MW12	6945003
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Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

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	ID	
	RKH4-2/TFG	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

