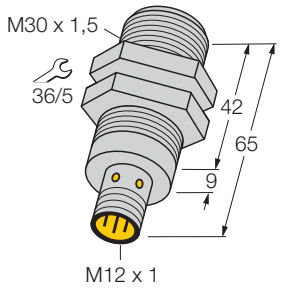
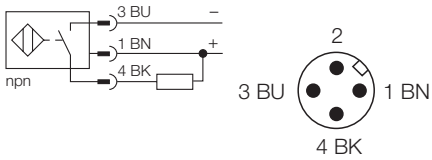
inductive sensor
with stainless steel front cap
Bi10-EM30F-AN6X-H1141

Industrial Automation



- **threaded barrel, M30x1**
- **stainless steel, 1.4404**
- **3-wire DC, 10…30 VDC**
- **normally open npn output**
- **connector, M12 x 1**

Wiring diagram



Type	Bi10-EM30F-AN6X-H1141
Ident-No.	4614576
Rated operating distance Sn	10 mm
Mounting condition	flush
Assured switching distance	≤ (0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Temperature drift	≤ ± 10 %
Hysteresis	3… 15 %
Repeatability	≤ 2 %
Ambient temperature	-25…+ 80 °C
Operating voltage	10… 30 VDC
Residual ripple	≤ 10 % U_{ss}
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 dip at I_e	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, npn
Switching frequency	≤ 0.18 kHz
Housing	threaded barrel, M30 x 1.5
Dimensions	63 x 30 mm
Housing material	metal, AISI 316L
Material active area	metal, A4 1.4404 (AISI 316L)
Admissible pressure on front cap	≤ 10 bar
Tightening torque of housing nut	75 Nm
Connection	Connector, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP68 / IP69K
Display switch state	LED yellow

Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. With inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

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