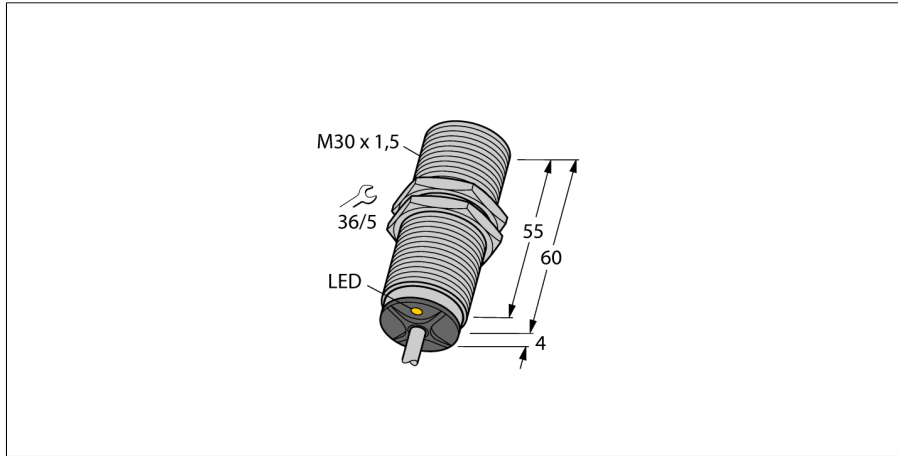
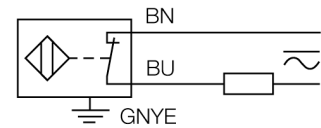


Inductive sensor
BI10-EM30-RZ3X 10M



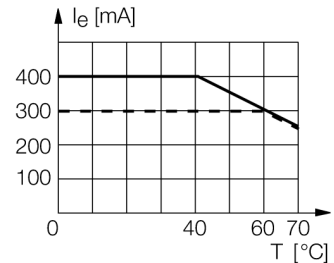
- M30 × 1.5 threaded tube
- Stainless steel, 1.4301
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NC contact
- Cable connection

Wiring Diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.



Type designation	BI10-EM30-RZ3X 10M
Ident-No.	4316601
Rated switching distance Sn	10 mm
Mounting conditions	Flush
Secured operating distance	≤ (0,81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	20...250VAC
Operating voltage	10...300 VDC
AC rated operational current	≤ 400 mA
DC rated operational current	≤ 300 mA
Frequency	≥ 50...≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Voltage drop at I _e	≤ 6 V
Output function	2-wire, NC contact
Smallest operating current I _m	≥ 3 mA
Switching frequency	0.02 kHz
Design	Threaded barrel, M30 × 1.5
Dimensions	64 mm
Housing material	Stainless steel, V2A (1.4301)
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Max. tightening torque housing nut	75 Nm
Electrical connection	Cables
Cable quality	5.2mm, LifYY, PVC, 10
Cable cross section	3 × 0.5 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	LED

Inductive sensor
BI10-EM30-RZ3X 10M

Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
<hr/>	
Diameter active area B	Ø 30 mm



Inductive sensor
BI10-EM30-RZ3X 10M

Accessories

Type code	Ident-No.	Description	
MW-30	6945005	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-30	6901319	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	