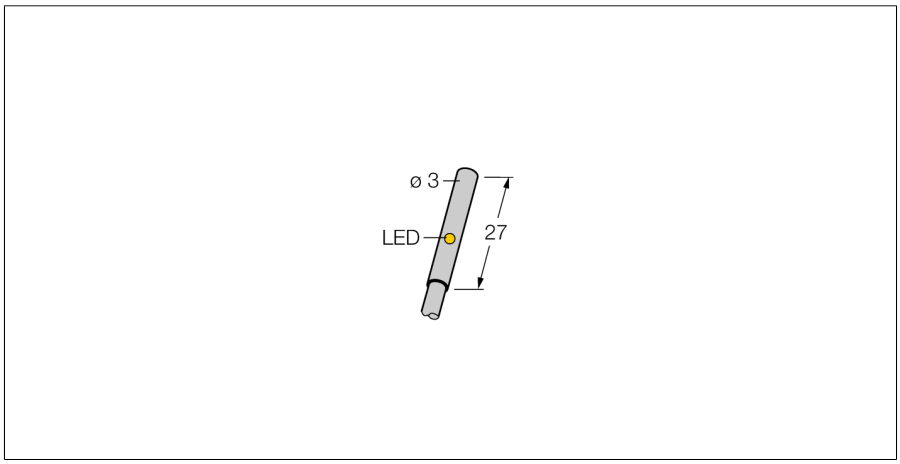
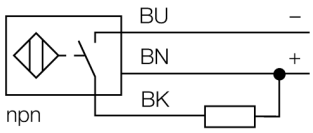
Inductive sensor
BI1-EH03-AN7X



- **Smooth barrel, Ø 3 mm**
- **Stainless steel 1.4301**
- **3-wire DC, 10…30 VDC**
- **NO contact, NPN output**
- **TTL compatible**
- **Cable connection**

Wiring diagram



Type code	BI1-EH03-AN7X
Ident no.	1619323
Rated operating distance Sn	1 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 5 % of full scale
Temperature drift	10 %
Hysteresis	3…20 %
Ambient temperature	-25…+70 °C
Operating voltage	10…30VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 100 mA
No-load current I_0	≤ 10 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.075 kV
Short-circuit protection	no
Voltage drop at I_e	≤ 1.5 V
Wire breakage / Reverse polarity protection	yes/ yes (voltage supply)
Output function	3-wire, NO contact, NPN
Switching frequency	5 kHz
Design	smooth barrel, 3 mm
Dimensions	27 mm
Housing material	metal, V2A (1.4301)
Material active area	Plastic, POM
Connection	cable
Cable quality	2.6 mm, LifYY-11Y, PUR, 2 m
Cable cross section	3 x 0.09 mm²
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 red

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.

We offer special versions for temperatures of -60 °C up to +250 °C.

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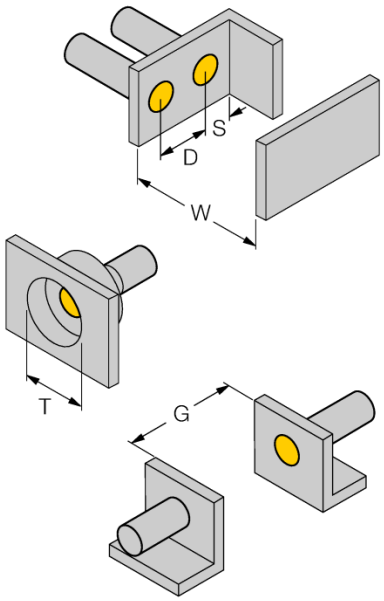
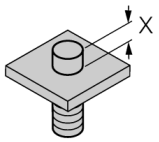
Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	9 x Sn

Diameter of the active area B	Ø 3 mm





The sensor can be flush-mounted in non-ferromagnetic material.
When mounted in ferromagnetic materials the distance X must be observed.

Distance X: 1,0 mm

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