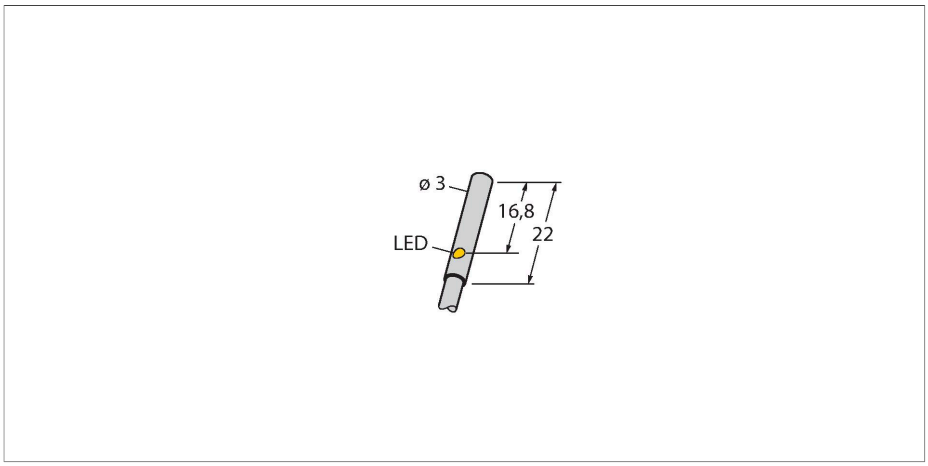
BI1-EH03-AP6X
Inductive Sensor



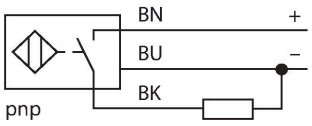
Technical data

Type	BI1-EH03-AP6X
ID	1619325
General data	
Rated switching distance	1 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.5; Cu=0.45; stainless steel = 0.8; Ms = 0.6
Repeat accuracy	≤ 2 % of full scale
Hysteresis	3…15 %
Electrical data	
Operating voltage U_B	10…30 VDC
Ripple U_{ss}	≤ 20 % U_{Bmax}
DC rated operating current I_e	≤ 100 mA
No-load current	≤ 10 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_e	≤ 2 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	3 kHz
Mechanical data	
Design	Smooth barrel, 3 mm
Dimensions	22 mm
Housing material	Stainless steel, 1.4301 (AISI 304)
Active area material	Plastic, Polyester

Features

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

Wiring diagram



Functional principle

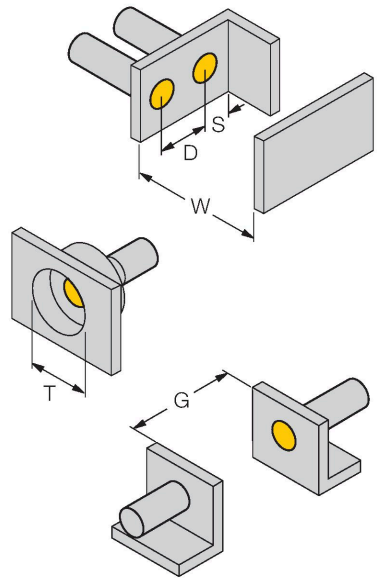
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

Electrical connection	Cable
Cable quality	Ø 2.6 mm, LifY-11Y, PUR, 2 m
Core cross-section	3 x 0.055 mm²
Environmental conditions	
Ambient temperature	-25…+70 °C
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, Yellow, Flashes within the limits (>0.8 Sn)

Mounting instructions

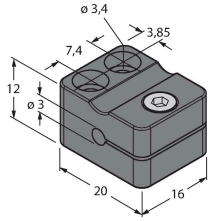
Mounting instructions/Description



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 active area B	Ø 3 mm

Accessories

MBS30	6948000



Fixing clamp; material mounting block: plastic