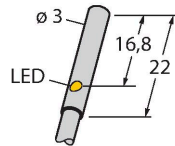


# BI1-EH03-AP6X Inductive Sensor



## Features

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

## Wiring diagram



## Technical data

Type	BI1-EH03-AP6X
ID	1619325
<b>General data</b>	
Rated switching distance	1 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × S <sub>n</sub> ) mm
Correction factors	St37 = 1; Al = 0.5; Cu=0.45; stainless steel = 0.8; Ms = 0.6
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	≤ 20 % U <sub>ss</sub>
DC rated operational current	≤ 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 <sub>o</sub>	≤ 2 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	3 kHz

## 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.

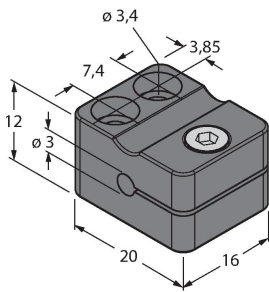
## Technical data

Mechanical data	
Design	Smooth barrel, 3 mm
Dimensions	22 mm
Housing material	Stainless steel, 1.4301 (AISI 304)
Active area material	Plastic, Polyester
Electrical connection	Cable
Cable quality	Ø 2.6 mm, LifY-11Y, PUR, 2 m
Core cross-section	3 x 0.055 mm <sup>2</sup>
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