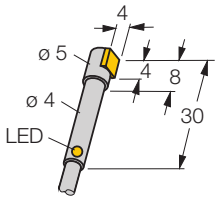
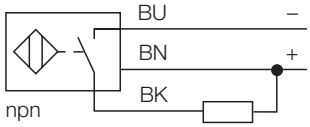
Inductive sensor
Bi1-HS540-AN6X

Industrial Automation



- **smooth barrel, 4mm diameter**
- **side active face**
- **stainless steel 1.4301**
- **3-wire DC, 10…30 VDC**
- **normally open npn output**
- **cable connection**

Wiring diagram



Type	Bi1-HS540-AN6X
Ident-No.	4604101
Rated operating distance Sn	1 mm
Mounting condition	flush
Assured sensing range	(0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	2 %
Temperature drift	± 10 %
Hysteresis	3… 15 %
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	15 mA
Residual current	0.1 mA
Rated insulation voltage	0.5 kV
Short-circuit protection	yes / cyclic
Voltage drop at I_e	1.8V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, npn
Switching frequency	3 kHz
Housing	smooth barrel, 4 mm
Dimensions	30 mm
Housing material	metal, AISI 316L
Material active face	plastic, PA12-GF30
Connection	cable
Cable quality	Ø 3, LifYY-11Y, PUR, 2 m
Cable cross section:	3 x 0.14mm^2
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
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. Conserning inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

• Edition: • 08.11.2008

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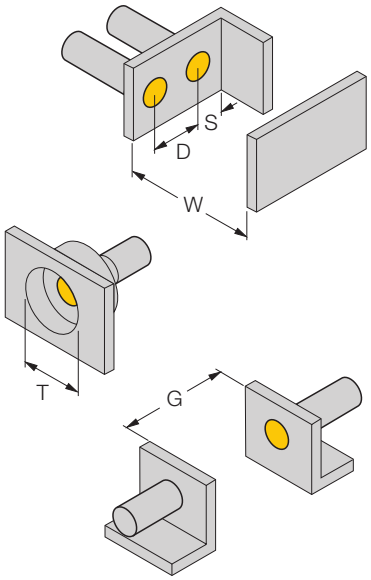
Inductive sensor
Bi1-HS540-AN6X

Mounting instructions	minimum distances
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
Diameter of the active area B	Ø 4 mm



Mounting of sensors of HS540 housing only with the mounting clips BS540 (Id.-No. 69475) or MBS40 (Id.-No. 69477) as well as similar wide area mounting options

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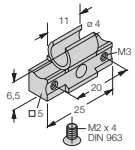
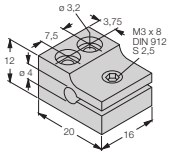
Accessories

Type code	Ident-No.	Short text	Dimension drawing
BS540	69475	fixing clamp; material mounting block: anodized aluminium; clamp sleeve: steel	
MBS40	69477	fixing clamp; material mounting block: anodized aluminium	

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