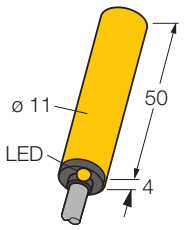
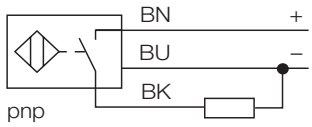
Inductive sensor
Bi2-K11-AP6X

Industrial Automation



- **smooth barrel, 11 mm diameter**
- **plastic, PA12-GF30**
- **3-wire DC, 10…30 VDC**
- **normally open, pnp output**
- **cable connection**

Wiring diagram



Type	Bi2-K11-AP6X
Ident-No.	46609
Rated operating distance Sn	2 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	200 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, pnp
Switching frequency	2 kHz
Housing	smooth barrel, 11 mm
Dimensions	54 mm
Housing material	plastic, PA12-GF30
Material active face	plastic, PA12-GF30
Connection	cable
Cable quality	Ø 5.2, LifYY, PVC, 2 m
Cable cross section:	3 x 0.34mm^2
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
Display switch state	LED yellow
Included in scope of supply	BS11

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.

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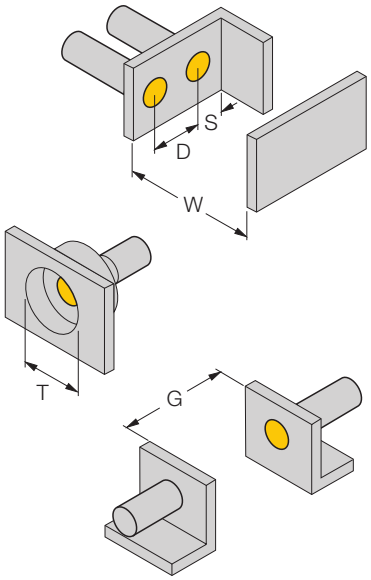
Inductive sensor
Bi2-K11-AP6X

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 11 mm



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Accessories

Type code	Ident-No.	Short text	Dimension drawing
BS11	69462	fixing clamp; material mounting block: PBT	

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