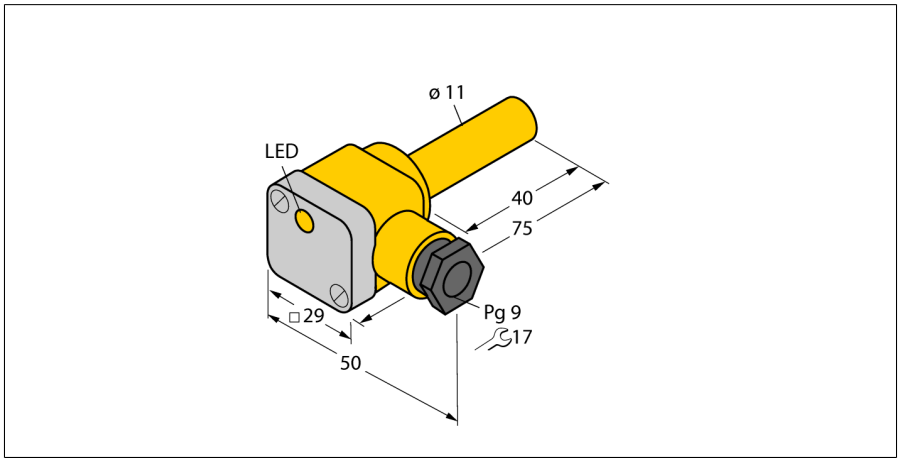
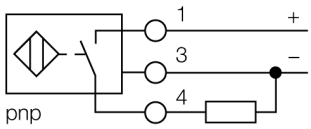
Inductive Sensor
BI2-K11SK-AP6X



- Smooth barrel, Ø 11 mm
- Plastic, PA12-GF30
- DC 3-wire, 10…30 VDC
- NO contact, PNP output
- Terminal chamber

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.

Type	BI2-K11SK-AP6X
ID	46615

General data	
Rated switching distance Sn	2 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
Hysteresis	3…15 %

Electrical data	
Operating voltage	10…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Switching frequency	2 kHz

Mechanical data	
Design	Smooth barrel, 11 mm
Dimensions	75 mm
Housing material	Plastic, PA12-GF30
Terminal chamber cover material	plastic, Ultem
Terminal chamber housing material	plastic, PA12-GF30
Active area material	Plastic, PA12-GF30
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm²
Cable external diameter	4.5…8mm

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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
Included in delivery	BS11; cable gland; 2x plastic seals

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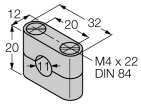
Accessories

Type code	Ident no.		Dimension drawing
BS 11	69462	Fixing clamp; material mounting block: PBT	

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