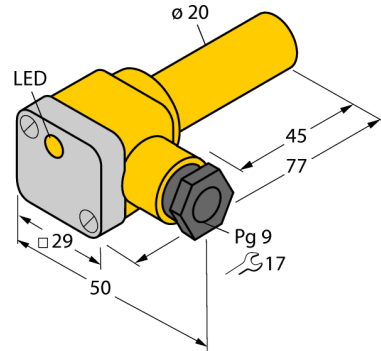
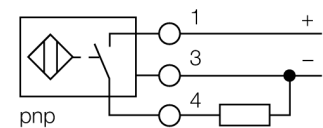


Inductive Sensor NI10-K20SK-AP6X



- Smooth barrel, Ø 20 mm
- Plastic, PBT-GF30-V0
- 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	NI10-K20SK-AP6X
ID	46646
General data	
Rated switching distance S_n	10 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U_{is}
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_L	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz
Mechanical data	
Design	Smooth barrel, 20 mm
Dimensions	77 mm
Housing material	Plastic, PBT-GF30-V0
Terminal chamber cover material	plastic, Ultem
Terminal chamber housing material	plastic, PA12-GF30
Active area material	Plastic, PBT-GF30-V0
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm ²
Cable external diameter	4.5...8mm

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	
Included in delivery	LED, Yellow BS20; cable gland; 2x plastic seals

Accessories

Type code	Ident no.		Dimension drawing
BS 20	69464	Fixing clamp; material mounting block: PBT	