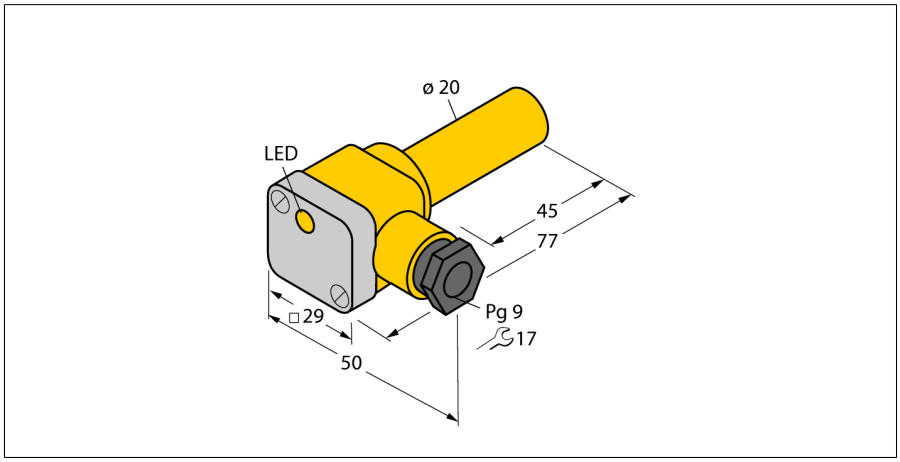
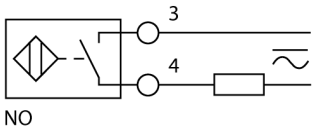
Inductive Sensor
NI10-K20SK-AZ3X



- Smooth barrel, Ø 20 mm
- Plastic, PBT-GF30-V0
- AC 2-wire, 20…250 VAC
- DC 2-wire, 10…300 VDC
- NO contact
- Terminal chamber

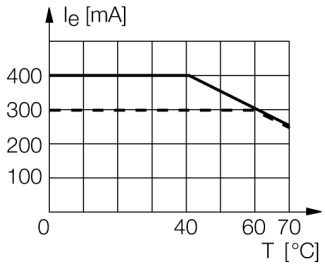
Wiring Diagram



Type	NI10-K20SK-AZ3X
ID	43591
General data	
Rated switching distance Sn	10 mm
Mounting conditions	Non-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	20…250VAC
Operating voltage	10…300 VDC
AC rated operational current	≤ 400 mA
DC rated operational current	≤ 300 mA
Frequency	≥ 50…≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Voltage drop at I_e	≤ 6 V
Output function	2-wire, NO contact, 2-wire
Smallest operating current I_m	≥ 3 mA
Switching frequency	0.02 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 mm²
Cable external diameter	4.5…8mm

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.



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

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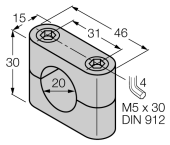
Accessories

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

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