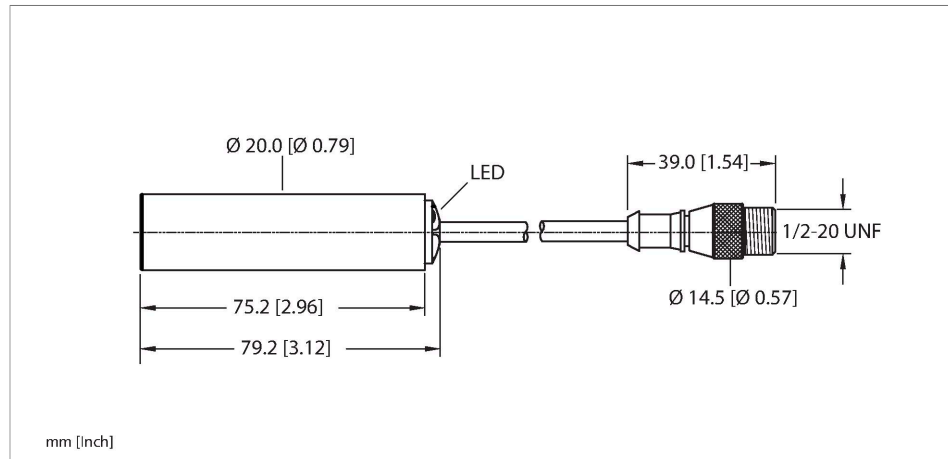


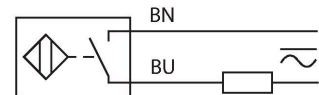
NI10-K20-AZ3X-0.2-SB3T Inductive Sensor



Features

- Smooth barrel, Ø 20 mm
- Plastic, PBT-GF30-V0
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO Contact
- Pigtail with male end 1/2"

Wiring diagram

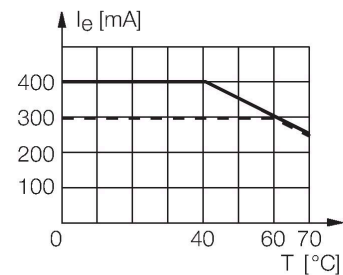


Technical data

Type	NI10-K20-AZ3X-0.2-SB3T
ID	4358591
General data	
Rated switching distance	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
Hysteresis	3...15 %
Electrical data	
Operating voltage U_b	20...250 VAC
Operating voltage U_b	10...300 VDC
AC rated operational current	≤ 400 mA
DC rated operating current I_o	≤ 300 mA
Frequency	$\geq 50 \dots \leq 60$ 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_o	≤ 6 V
Output function	2-wire, NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	0.02 kHz

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.



Technical data

Mechanical data	
Design	Smooth barrel, 20 mm
Dimensions	79 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	Plastic, PBT-GF30-V0
End cap	Plastic, EPTR
Electrical connection	Cable with connector, 1/2"
Cable quality	Ø 5.2 mm, LifYY, PVC, 0.2 m
Core cross-section	3 x 0.34 mm ²
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

Mounting instructions

Mounting instructions/Description

The image contains three isometric diagrams illustrating the mounting of the BS20 sensor. The top diagram shows a sensor with two yellow active areas being mounted onto a rectangular panel. Dimensions are labeled: N (distance between active areas), S (distance from active area to panel edge), D (distance between mounting holes), and W (distance from mounting hole to panel edge). The bottom left diagram shows a side view of the sensor with dimension T (thickness of the mounting plate). The bottom right diagram shows the sensor being inserted into a hole in a panel, with dimension G (distance from mounting hole to panel edge) indicated.

Distance D	$3 \times B$
Distance W	$3 \times S_n$
Distance T	$3 \times B$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$
Distance N	$2 \times S_n$
Diameter active area B	$\varnothing 20 \text{ mm}$

NI10-K20-AZ3X-0.2-SB3T| 02/21/2025 13-46 | technical changes reserved

Accessories

BS 20

69464

Fixing clamp; material mounting
block: PBT

