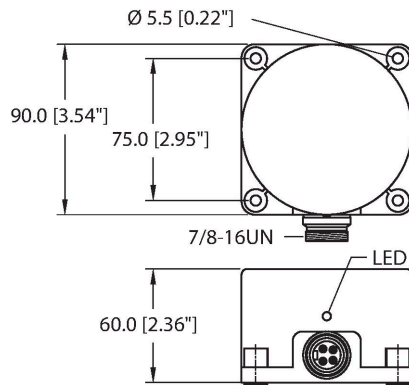


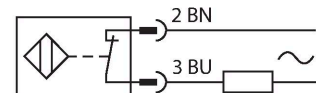
NI60-K90-RZ3X-B2131 Inductive Sensor



Features

- Rectangular, height 60 mm
- Plastic, PBT-GF30-V0
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NC contact
- 7/8" male connector

Wiring diagram

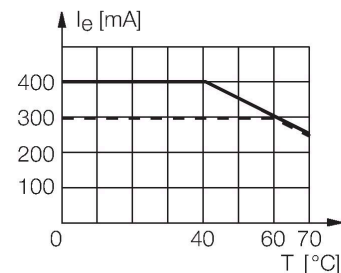


Technical data

Type	NI60-K90-RZ3X-B2131
ID	13538
General data	
Rated switching distance	60 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, NC 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.

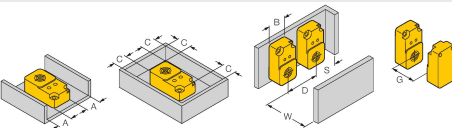


Technical data

Mechanical data	
Design	Rectangular, K90
Dimensions	103.7 x 75 x 60 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Electrical connection	Connector, 7/8"
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

Mounting instructions

Mounting instructions/Description

The image contains four technical diagrams illustrating the mounting of a yellow K90 sensor. 1. Top view: Shows the sensor in a grey U-shaped channel. Dimension A is the width of the channel, and dimension C is the distance from the channel edge to the sensor's center. 2. Side view: Shows the sensor's height B and the channel's height S. Dimension D is the distance between the sensor's base and the channel's bottom. 3. Detail view: Shows two sensors side-by-side with dimensions G (width), N (height), and Sn (width of individual sensor). 4. Isometric view: Shows two individual sensors with dimensions G (width) and Sn (height).

Distance D	3 x B
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Distance W	3 x Sn
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Distance S	1.5 x B
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Distance G	6 x Sn
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Distance N	2 x Sn
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Distance A	1 x Sn
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Distance C	2 x Sn
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Width active area B	90 mm
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NI60-K90-RZ3X-B2131 | 02/21/2025 13-34 | technical changes reserved