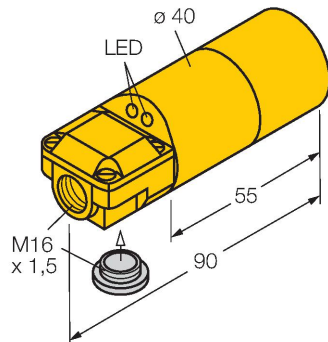


NI20-K40SR-VP4X2

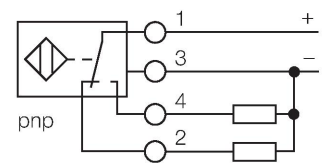
Inductive Sensor



Features

- 2 cable entries (axial, radial)
- Smooth barrel, Ø 40 mm
- Plastic, ABS
- DC 4-wire, 10...65 VDC
- Changeover 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.

Technical data

Type	NI20-K40SR-VP4X2
ID	15656
General data	
Rated switching distance	20 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 U_B	10...65 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	4-wire, Complementary contact, PNP
Switching frequency	0.1 kHz
Mechanical data	
Design	Smooth barrel, 40 mm
Dimensions	90 mm
Housing material	Plastic, ABS, Yellow

Technical data

Active area material	Plastic, ABS, yellow
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm²
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
Power-on indication	LED, Green
Switching state	LED, Yellow
Included in delivery	BS 40, cable gland, dummy plug

Mounting instructions

Mounting instructions/Description

The image contains three technical diagrams illustrating the mounting of a BS 40 cable gland. The top diagram is a side view showing the gland being mounted onto a cable. It labels dimensions: 'N' for the distance from the mounting surface to the center of the gland, 'S' for the distance from the mounting surface to the edge of the gland, 'D' for the distance between the two mounting holes, and 'W' for the width of the mounting plate. The bottom left diagram is a top view showing the gland's profile and labels dimension 'T' for the thickness of the mounting plate. The bottom right diagram is a side view showing the gland's profile and labels dimension 'G' for the distance from the mounting surface to the center of the gland.

Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 40 mm

Accessories

BS 40

69466

Fixing clamp; material mounting
block: PBT

