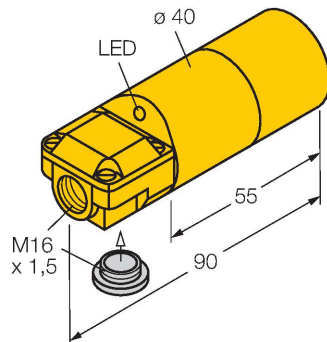


NI20-K40SR-AN6X

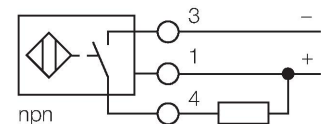
Inductive Sensor



Features

- 2 cable entries (axial, radial)
- Smooth barrel, Ø 40 mm
- Plastic, ABS
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Terminal chamber

Wiring diagram



Technical data

Type	NI20-K40SR-AN6X
ID	16226
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...30 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	3-wire, NO contact, NPN
Switching frequency	0.1 kHz
Mechanical data	
Design	Smooth barrel, 40 mm
Dimensions	90 mm
Housing material	Plastic, ABS, Yellow

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

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
Switching state	LED, Yellow
Included in delivery	BS40, cable gland, blanking plug

Mounting instructions

Mounting instructions/Description

The image contains three technical diagrams illustrating the mounting of the BS40 terminal block. The top diagram is a side view showing a block with two yellow pins. Dimensions N (pin spacing), S (pin diameter), D (block width), and W (mounting distance) are indicated. The middle diagram is a front view showing the block's profile with dimension T (mounting distance). The bottom diagram is a perspective view showing two blocks with dimension G (mounting distance).

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

