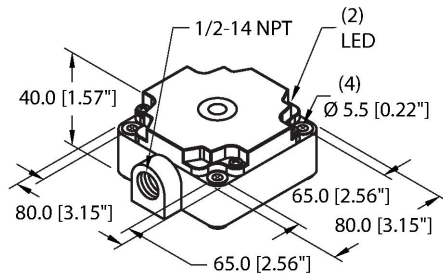


NI40-CP80-VP4X2/S10

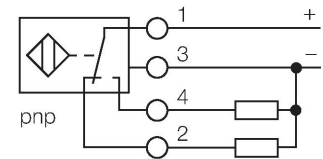
Inductive Sensor



Features

- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- 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	NI40-CP80-VP4X2/S10
ID	15015
Special version	S10 Corresponds to: Mounting base with 1/2-14NPT thread
General data	
Rated switching distance	40 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	10...65 VDC
Ripple U_{rs}	≤ 10 % U_{Bmax}
DC rated operating current I_B	≤ 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_B	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	4-wire, Complementary contact, PNP
Switching frequency	0.1 kHz

Technical data

Mechanical data	
Design	Rectangular, CP80
Dimensions	80 x 80 x 41 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Electrical connection	Terminal chamber
Clamping ability	$\leq 2.5 \text{ mm}^2$
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
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

The image contains two isometric diagrams illustrating the mounting of a sensor. The top diagram shows a sensor (yellow and grey) being inserted into a rectangular housing. Dimensions are labeled: A (distance from the front face of the housing to the front face of the sensor), B (width of the sensor), C (distance from the side face of the housing to the side face of the sensor), D (distance from the front face of the housing to the front face of the sensor), G (distance from the side face of the housing to the side face of the sensor), S (distance from the front face of the housing to the front face of the sensor), and W (width of the housing). The bottom diagram shows the sensor being inserted into a terminal block. Dimensions are labeled: B (width of the sensor), D (distance from the front face of the terminal block to the front face of the sensor), S (distance from the front face of the terminal block to the front face of the sensor), G (distance from the side face of the terminal block to the side face of the sensor), and W (width of the terminal block).

Distance D	3 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Distance A	1 x B
Distance C	1 x B
Width active area B	80 mm