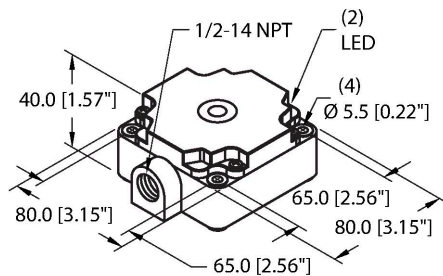


# BI40-CP80-FZ3X2/S10

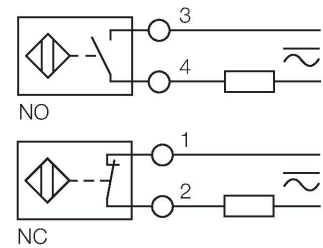
## Inductive Sensor



### Features

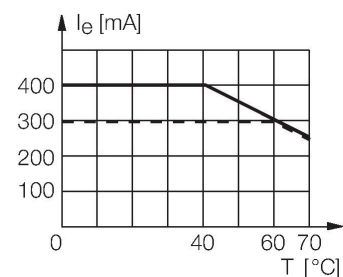
- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NC/NO programmable
- Terminal chamber

### 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	BI40-CP80-FZ3X2/S10
Ident. no.	1340401
Special version	S10 corresponds to: Mounting base with 1/2-14NPT thread
Rated switching distance	40 mm
Mounting conditions	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	$\leq 2$ % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	20...250 VAC
Operating voltage	10...300 VDC
DC rated operational current	$\leq 300$ mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	$\leq 1.7$ mA
Isolation test voltage	$\leq 1.5$ kV
Surge current	$\leq 8$ A ( $\leq 10$ ms max. 5 Hz)
Voltage drop at I <sub>o</sub>	$\leq 6$ V
Output function	2-wire, Connection programmable
Smallest operating current	$\geq 3$ mA
Switching frequency	0.01 kHz

Technical 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	≤ 2.5 mm <sup>2</sup>
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	Red

Mounting instructions

# Mounting instructions/Description

The image contains two technical diagrams illustrating the mounting of the CP80 sensor. The primary diagram shows a side view of the sensor (yellow) mounted on a wall (grey). It defines four key dimensions: B (width of the sensor), D (distance between the sensor and the wall), S (distance from the wall to the mounting bracket), and W (distance between the sensor and the mounting bracket). A secondary diagram shows a top-down view of the sensor (yellow) and its terminal chamber (grey), defining dimension G (distance between the sensor and the terminal chamber).

Distance D                    2 x B

Distance W                    3 x Sn

Distance S                    1 x B

Distance G                    6 x Sn

Width active area B        80 mm