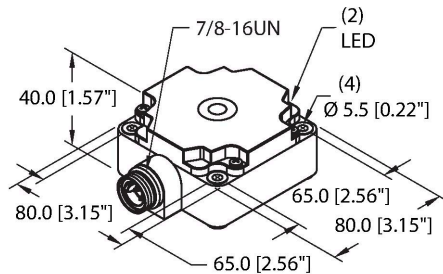


# BI40-CP80-FZ3X2-B1131

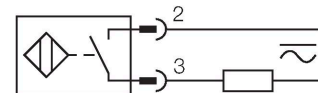
## Inductive Sensor



### Features

- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 7/8" connector

### Wiring diagram

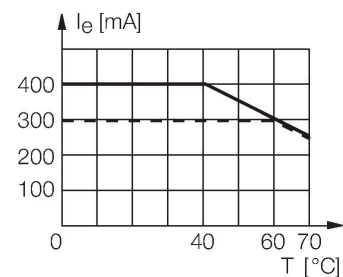


### Technical data

Type	BI40-CP80-FZ3X2-B1131
ID	1340490
General data	
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
Hysteresis	3...15 %
Electrical data	
Operating voltage $U_b$	20...250 VAC
Operating voltage $U_b$	10...300 VDC
AC rated operational current	$\leq 400$ mA
DC rated operating current $I_o$	$\leq 300$ mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	$\leq 1.7$ mA
Isolation test voltage	1.5 kV
Surge current	$\leq 8$ A ( $\leq 10$ ms max. 5 Hz)
Voltage drop at $I_o$	$\leq 6$ V
Output function	2-wire, Connection programmable, 2-wire
Smallest operating current	$\geq 3$ mA
Switching frequency	0.01 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, CP80
Dimensions	80 x 80 x 41 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
Power-on indication	LED, Green
Switching state	LED, Red

Mounting instructions

# Mounting instructions/Description

The image contains two technical diagrams for the CP80 sensor mounting. The primary diagram on the left shows a side view of the sensor (yellow) mounted on a wall (grey). It illustrates the horizontal spacing between three sensors, with dimension 'B' representing the width of one sensor, 'D' representing the distance between the centers of two sensors, and 'S' representing the distance from the wall to the center of the sensor. A secondary diagram on the right shows a front view of the sensor, with dimension 'G' indicating the distance from the mounting surface to the active area.

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

B140-CP80-FZ3X2-B1131| 02/21/2025 13-55 | technical changes reserved