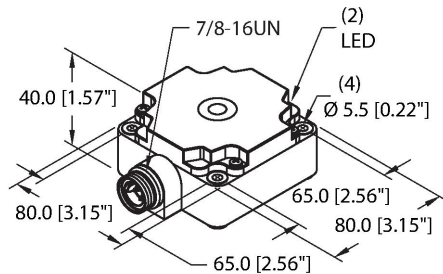


BI40-CP80-FZ3X2-B1131

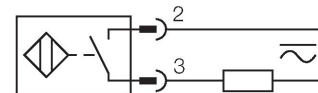
Inductive Sensor



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

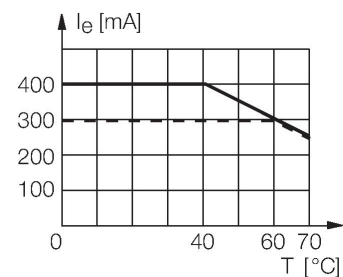


Technical data

Type	BI40-CP80-FZ3X2-B1131
Ident. no.	1340490
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	≤ 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
AC rated operational current	≤ 400 mA
DC rated operational current	≤ 300 mA
Frequency	$\geq 50... \leq 60$ Hz
Residual current	≤ 1.7 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Short-circuit protection	yes / Latching
Voltage drop at I_o	≤ 6 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	2-wire, Connection programmable
Smallest operating current	≥ 3 mA

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

Switching frequency	0.01 kHz
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"
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

Mounting instructions

Mounting instructions/Description

The image contains two technical diagrams illustrating the mounting of a CP80 sensor. The left diagram shows the sensor mounted on a wall. It labels the width of the sensor as 'B', the height of the sensor as 'D', the depth of the sensor from the wall as 'S', and the width of the mounting plate as 'W'. The right diagram shows the sensor with dimensions 'G' (height) and 'Sn' (width of the mounting plate).

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
---------------------	-------