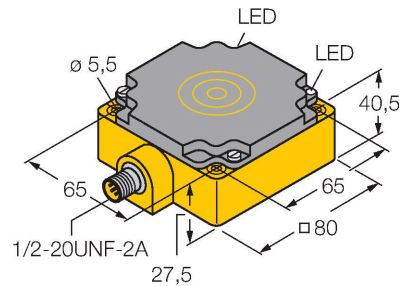


BI40-CP80-FZ3X2-B3131

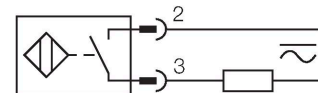
Inductive Sensor



Features

- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 1/2" male connector

Wiring diagram

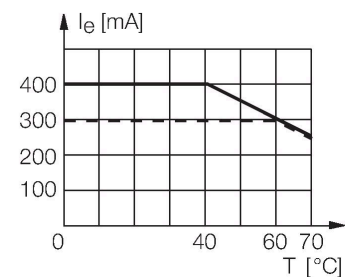


Technical data

Type	BI40-CP80-FZ3X2-B3131
Ident. no.	1340491
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
DC rated operational current	≤ 300 mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	≤ 1.7 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Voltage drop at I_e	≤ 6 V
Output function	2-wire, Connection programmable
Smallest operating current	≥ 3 mA
Switching frequency	0.01 kHz
Design	Rectangular, CP80
Dimensions	80 x 80 x 41 mm

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

Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Electrical connection	Connector, 1/2"
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 technical diagrams illustrating the mounting of a sensor. The left diagram is a side view showing two sensors mounted on a surface. It labels the width of the active area as 'B', the distance between the sensors as 'D', and the distance from the sensor to the mounting surface as 'S'. The right diagram is a top view showing a single sensor and its mounting surface, with 'G' indicating the distance from the sensor to the mounting surface.

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