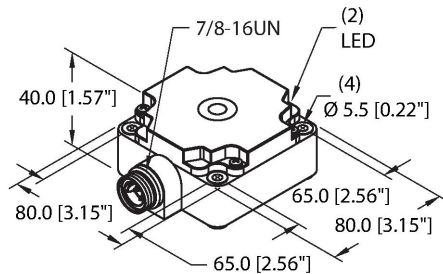


BI40-CP80-VP4X2-B1141

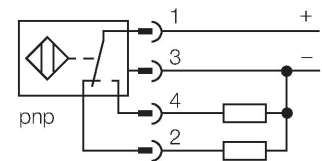
Inductive Sensor



Features

- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- 7/8" male connector

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-VP4X2-B1141
Ident. no.	1569890
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	10...65 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 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_o	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
Switching frequency	0.1 kHz
Design	Rectangular, CP80
Dimensions	80 x 80 x 41 mm

Technical data

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
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

The image contains two technical diagrams illustrating the mounting of the BI40-CP80-VP4X2-B1141 sensor. The left diagram is a side view showing the sensor (yellow) mounted on a surface (grey). It indicates the width of the active area (B), the distance from the mounting surface to the sensor (D), the distance from the sensor to the mounting surface (S), and the distance from the sensor to the mounting surface (W). The right diagram is a top view showing the sensor (yellow) and its mounting bracket (grey). It indicates the distance from the sensor to the mounting bracket (G).

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