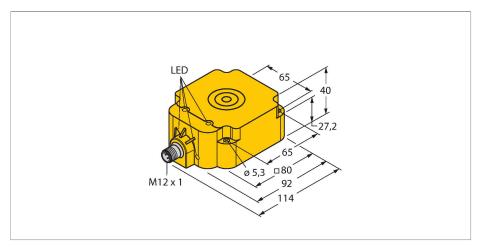


# BI50U-Q80-VP6X2-H1141 Inductive Sensor – With Extended Switching Distance



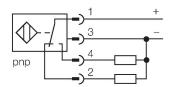
#### Technical data

| Туре                                      | BI50U-Q80-VP6X2-H1141              |
|---|------------------------------------|
| ID  | 1562007                            |
| General data                              |                                    |
| Rated switching distance                  | 50 mm                              |
| Mounting conditions                       | Flush                              |
| Secured operating distance                | ≤ (0.81 × Sn) mm                   |
| Repeat accuracy                           | ≤ 2 % of full scale                |
| Temperature drift                         | ≤ ±10 %                            |
| Hysteresis                                | 115 %                              |
| Electrical data                           |                                    |
| Operating voltage                         | 1030 VDC                           |
| Residual ripple                           | ≤ 10 % U <sub>ss</sub>             |
| 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 <sub>e</sub>            | ≤ 1.8 V                            |
| Wire breakage/Reverse polarity protection | yes / Complete                     |
| Output function                           | 4-wire, Complementary contact, PNP |
| DC field stability                        | 300 mT                             |
| AC field stability                        | 300 mT <sub>ss</sub>               |
| Insulation class                          |                                    |
| Switching frequency                       | 0.25 kHz                           |
| Mechanical data                           |                                    |
| Design                                    | Rectangular, Q80                   |
|   |                                    |

#### **Features**

- Rectangular, height 40 mm
- Active face on top
- ■Plastic, PBT-GF30-V0
- Factor 1 for all metals
- ■Increased switching distance
- Protection class IP68
- Resistant to magnetic fields
- ■DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- ■M12 x 1 male connector

#### Wiring diagram





#### Functional principle

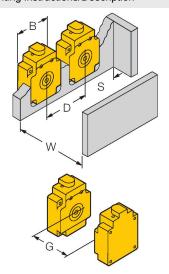
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

### Technical data

| Dimensions                     | 92 x 80 x 40 mm                           |
|--------------------------------|---|
| Housing material               | Plastic, PBT-GF30-V0, Yellow              |
| Active area material           | PBT-GF30-V0, yellow                       |
| Tightening torque fixing screw | 4 Nm                                      |
| Electrical connection          | Connector, M12 × 1                        |
| Environmental conditions       |   |
| Ambient temperature            | -25+70 °C                                 |
| Vibration resistance           | 55 Hz (1 mm)                              |
| Shock resistance               | 30 g (11 ms)                              |
| Protection class               | IP68                                      |
| MTTF                           | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication            | LED, Green                                |
| Switching state                | LED, Yellow                               |
|                                |   |

## Mounting instructions

#### Mounting instructions/Description



| Distance D             | 240 mm |
|------------------------|--------|
| Distance W             | 150 mm |
| Distance S             | 80 mm  |
| Distance G             | 300 mm |
| Width active area<br>B | 80 mm  |