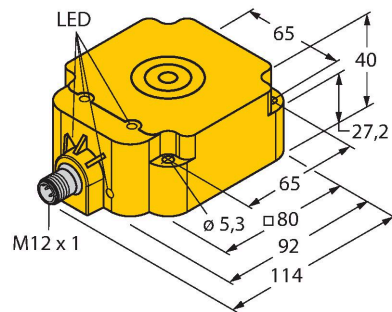


# BI50U-Q80-VP4X2-H1141

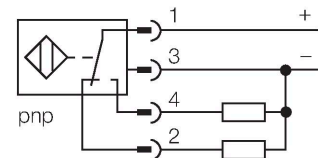
## Inductive Sensor – With Extended Switching Distance



### 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...65 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.

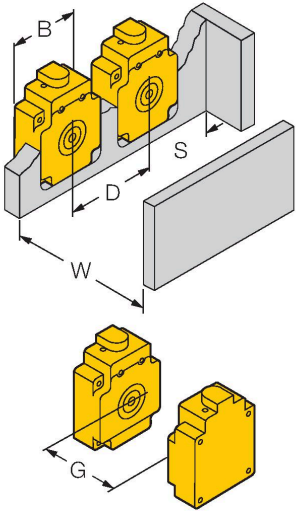
### Technical data

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Type                                   | BI50U-Q80-VP4X2-H1141              |
| ID                                     | 1562000                            |
| General data                           |                                    |
| Rated switching distance               | 50 mm                              |
| Mounting conditions                    | Flush                              |
| Secured operating distance             | $\leq (0.81 \times S_n)$ mm        |
| Repeat accuracy                        | $\leq 2 \%$ of full scale          |
| Temperature drift                      | $\leq \pm 10 \%$                   |
| Hysteresis                             | 1...15 %                           |
| Electrical data                        |                                    |
| Operating voltage $U_B$                | 10...65 VDC                        |
| Ripple $U_{ss}$                        | $\leq 10 \%$ $U_{Bmax}$            |
| DC rated operating current $I_e$       | $\leq 200$ mA                      |
| No-load current                        | $\leq 15$ mA                       |
| Residual current                       | $\leq 0.1$ mA                      |
| Isolation test voltage                 | 0.5 kV                             |
| Short-circuit protection               | yes/Cyclic                         |
| Voltage drop at $I_e$                  | $\leq 1.8$ V                       |
| Wire break/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                   |
| Dimensions                             | 92 x 80 x 40 mm                    |

Technical data

|                                |                                           |
|--------------------------------|-------------------------------------------|
| 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 |
|                                                                                     | B                 |
|                                                                                     | 80 mm             |

Accessories

| Dimension drawing                                                                   | Type          | ID      |                                                                                                                         |
|-------------------------------------------------------------------------------------|---------------|---------|-------------------------------------------------------------------------------------------------------------------------|
|  | RKC4.4T-2/TEL | 6625013 | Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval |
|                                                                                     |               |         |                                                                                                                         |