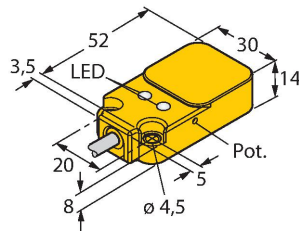


# BC10-Q14-VP4X2

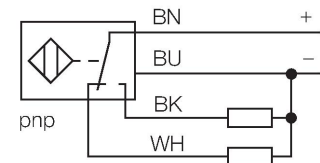
## Capacitive Sensor



### Features

- Rectangular, height 14mm
- Active face on top
- Plastic, PBT-GF30-V0
- Fine adjustment via potentiometer
- DC 4-wire, 10...65 VDC
- Complementary contact, PNP output
- Cable connection

### Wiring diagram



### Functional principle

Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

### Technical data

|                                        |                                                           |
|----------------------------------------|-----------------------------------------------------------|
| Type                                   | BC10-Q14-VP4X2                                            |
| ID                                     | 2530020                                                   |
| Rated switching distance (flush)       | 10 mm                                                     |
| Rated switching distance (non-flush)   | 10 mm                                                     |
| Secured operating distance             | $\leq (0.72 \times S_n) \text{ mm}$                       |
| Hysteresis                             | 1...20 %                                                  |
| Temperature drift                      | Typical 20 %                                              |
| Repeat accuracy                        | $\leq 2 \%$ of full scale                                 |
| Ambient temperature                    | -25...+70 °C                                              |
| <b>Electrical data</b>                 |                                                           |
| Operating voltage $U_s$                | 65 VDC                                                    |
| Ripple $U_{rs}$                        | $\leq 10 \%$ $U_{Bmax}$                                   |
| DC rated operating current $I_s$       | $\leq 200 \text{ mA}$                                     |
| No-load current                        | $\leq 15 \text{ mA}$                                      |
| Residual current                       | $\leq 0.1 \text{ mA}$                                     |
| Switching frequency                    | 0.1 kHz                                                   |
| Oscillation frequency                  | According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz |
| Isolation test voltage                 | 0.5 kV                                                    |
| Output function                        | 4-wire, Complementary contact, PNP                        |
| Short-circuit protection               | yes/Cyclic                                                |
| Voltage drop at $I_s$                  | $\leq 1.8 \text{ V}$                                      |
| Wire break/reverse polarity protection | yes/Complete                                              |

## Technical data

| Tests/approvals        |                                            |
|------------------------|--------------------------------------------|
| Approvals              | UL                                         |
| UL registration number | E210608                                    |
| Mechanical data        |                                            |
| Design                 | Rectangular, Q14                           |
| Dimensions             | 55.5 x 30 x 14 mm                          |
| Housing material       | Plastic, PBT-GF30-V0                       |
| Active area material   | PBT-GF30-V0                                |
| Electrical connection  | Cable                                      |
| Cable quality          | Ø 5.2 mm, LifYY-11Y, PUR, 2 m              |
| Core cross-section     | 4 x 0.34 mm <sup>2</sup>                   |
| Vibration resistance   | 55 Hz (1 mm)                               |
| Shock resistance       | 30 g (11 ms)                               |
| Protection class       | IP67                                       |
| MTTF                   | 1080 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication    | LED, Green                                 |
| Switching state        | LED, Yellow                                |
| Included in delivery   | MH-Q14                                     |