

# BC10-M30K-RZ3X Capacitive Sensor



### Features

M30 × 1.5 threaded barrel
Chrome-plated brass
Fine adjustment via potentiometer
AC 2-wire, 20...250 VAC
NC contact
Cable connection

#### Wiring diagram



## Technical data

| Туре                                 | BC10-M30K-RZ3X  |
|--------------------------------------|---|
| ID                                   | 2503025   |
| Rated switching distance (flush)     | 10 mm   |
| Rated switching distance (non-flush) | 10 mm   |
| Secured operating distance           | ≤ (0.72 × Sn) mm  |
| Hysteresis                           | 220 %   |
| Temperature drift                    | Typical 20 %  |
| Repeat accuracy                      | ≤ 2 % of full scale                                       |
| Ambient temperature                  | -25+70 °C   |
| Electrical data                      |   |
| Operating voltage U <sub>B</sub>     | 20250 VAC   |
| AC rated operational current         | ≤ 500 mA  |
| Frequency                            | ≥ 50≤ 60 Hz   |
| Smallest operating current           | ≥ 5 mA  |
| Residual current                     | ≤ 1.7 mA  |
| Switching frequency                  | 0.02 kHz  |
| Oscillation frequency                | According to EN 60947-5-2, 8.2.6.2 Table<br>9: 0.12.0 MHz |
| Isolation test voltage               | 1.5 kV  |
| Output function                      | 2-wire, NC contact, 2-wire                                |
| Voltage drop at I <sub>e</sub>       | ≤ 7 V   |
| Tests/approvals                      |   |
| Mechanical data                      |   |
| Design                               | Threaded barrel, M30 x 1.5                                |
| Dimensions                           | 62.5 mm   |
| Housing material                     | Metal, CuZn, Chrome-plated                                |
| Active area material                 | PA12-GF30, yellow   |
|                                      |   |

## Functional principle

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



#### Technical data

| Admissible pressure on front cap      | ≤ 3 bar                                       |
|---------------------------------------|---|
| Max. tightening torque of housing nut | 25 Nm   |
| Electrical connection                 | Cable   |
| Cable quality                         | Ø 5.2 mm, LifYY, PVC, 2 m                     |
| Core cross-section                    | 3 x 0.5 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<br>°C |
| Power-on indication                   | Green   |
| Switching state                       | LED, Red                                      |
|                                       |   |

## Mounting instructions

#### Product features





#### Accessories

#### MAP-M30



6950013 Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)



#### 6947216

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

| Distance D                | 60 mm   |
|---------------------------|---------|
| Distance W                | 30 mm   |
| Distance S                | 45 mm   |
| Distance G                | 60 mm   |
| Diameter active<br>area B | Ø 30 mm |

The given minimum distances have been checked against the standard switching distance.

Should the sensitivity of the sensors be changed via potentiometer, the data sheet specifications no longer apply.