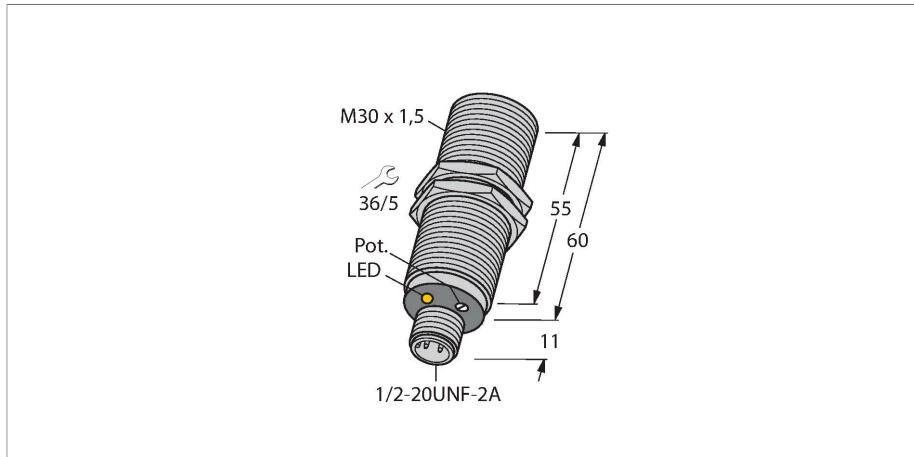


# BC10-M30K-RZ3X-B3131

## Capacitive Sensor



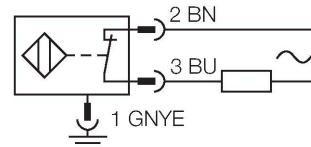
### Technical data

Type	BC10-M30K-RZ3X-B3131
ID	2503023
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	10 mm
Secured operating distance	$\leq (0.72 \times S_n)$
Hysteresis	2...20 %
Temperature drift	Typical 20 %
Repeat accuracy	$\leq 2$ % of full scale
Ambient temperature	-25...+70 °C
Electrical data	
Operating voltage	20...250 VAC
AC rated operational current	$\leq 500$ mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Smallest operating current	$\geq 5$ mA
Residual current	$\leq 1.7$ mA
Switching frequency	0.02 kHz
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz
Isolation test voltage	$\leq 1.5$ kV
Output function	2-wire, NC contact, 2-wire
Voltage drop at $I_o$	$\leq 7$ V
Tests/approvals	
Mechanical data	
Design	Threaded barrel, M30 x 1.5

### Features

- M30 x 1.5 threaded barrel
- Chrome-plated brass
- Fine adjustment via potentiometer
- AC 2-wire, 20...250 VAC
- NC contact
- 1/2" connector

### Wiring diagram



### Functional principle

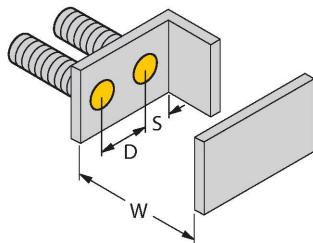
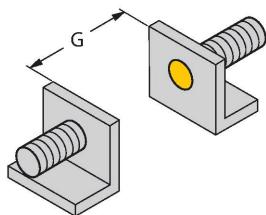
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

## Technical data

Dimensions	60 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	yellow
Admissible pressure on front cap	≤ 3 bar
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, 1/2"
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	Green
Switching state	LED, Red

## Mounting instructions

### Product features



Distance D	60 mm
Distance W	30 mm
Distance S	45 mm
Distance G	60 mm
Diameter active 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.