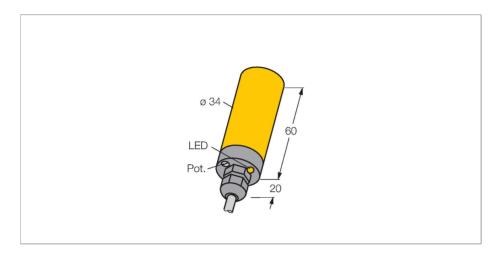


BC15-K34-RZ3X Capacitive Sensor



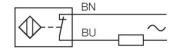
Technical data

ID	Туре	BC15-K34-RZ3X
Rated switching distance (non-flush) 22.5 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 _B 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 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I₀ ≤ 7 V Tests/approvals UL	ID	2310110
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 _B 20250 VAC AC rated operational current ≤ 500 mA Frequency ≥ 50≤ 60 Hz Smallest operating current ≤ 1.7 mA Switching frequency 0.02 kHz Oscillation frequency According to EN 60947-5-2, 8.2.6.2 Table 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I _B ≤ 7 V Tests/approvals Approvals UL	Rated switching distance (flush)	15 mm
Hysteresis 220 % Temperature drift Typical 20 % Repeat accuracy ≤ 2 % of full scale Ambient temperature -25+70 °C Electrical data Operating voltage U ₈ 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 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I ₈ ≤ 7 V Tests/approvals Approvals UL	Rated switching distance (non-flush)	22.5 mm
Temperature drift Repeat accuracy ≤ 2 % of full scale Ambient temperature -25+70 °C Electrical data Operating voltage U _B 20250 VAC AC rated operational current ≤ 500 mA Frequency ≥ 50≤ 60 Hz Smallest operating current ≥ 5 mA Residual current ≤ 1.7 mA Switching frequency Oscillation frequency 0.02 kHz Oscillation frequency According to EN 60947-5-2, 8.2.6.2 Table 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I _B ≤ 7 V Tests/approvals Approvals UL	Secured operating distance	≤ (0.72 × Sn) mm
Repeat accuracy ≤ 2 % of full scale Ambient temperature -25+70 °C Electrical data Operating voltage U _B 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 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I _B ≤ 7 V Tests/approvals Approvals UL	Hysteresis	220 %
Ambient temperature -25+70 °C Electrical data Operating voltage U _B 20250 VAC AC rated operational current ≤ 500 mA Frequency ≥ 50≤ 60 Hz Smallest operating current ≥ 5 mA Residual current ≤ 1.7 mA Switching frequency Oscillation frequency According to EN 60947-5-2, 8.2.6.2 Table 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I _B ≤ 7 V Tests/approvals Approvals	Temperature drift	Typical 20 %
Electrical data Operating voltage U _B 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 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I₀ Tests/approvals Approvals UL	Repeat accuracy	≤ 2 % of full scale
Operating voltage U _B 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 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I₀ ≤ 7 V Tests/approvals UL	Ambient temperature	-25+70 °C
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 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I _e ≤ 7 V Tests/approvals Approvals UL	Electrical data	
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 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I₀ ≤ 7 V Tests/approvals UL	Operating voltage U _B	20250 VAC
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 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I _e ≤ 7 V Tests/approvals UL	AC rated operational current	≤ 500 mA
Residual current ≤ 1.7 mA Switching frequency 0.02 kHz Oscillation frequency According to EN 60947-5-2, 8.2.6.2 Table 9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I _e ≤ 7 V Tests/approvals UL	Frequency	≥ 50≤ 60 Hz
Switching frequency 0.02 kHz Oscillation frequencyAccording to EN 60947-5-2, 8.2.6.2 Table 9: $0.12.0 \text{ MHz}$ Isolation test voltage 1.5 kV Output function 2-wire , NC contact, 2-wire Voltage drop at I_{\circ} $\leq 7 \text{ V}$ Tests/approvalsUL	Smallest operating current	≥ 5 mA
Oscillation frequency $\begin{array}{ccc} & & & & & & \\ & & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ &$	Residual current	≤ 1.7 mA
9: 0.12.0 MHz Isolation test voltage 1.5 kV Output function 2-wire, NC contact, 2-wire Voltage drop at I₀ ≤ 7 V Tests/approvals Approvals UL	Switching frequency	0.02 kHz
Output function 2-wire, NC contact, 2-wire Voltage drop at I₀ ≤ 7 V Tests/approvals Approvals UL	Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.12.0 MHz
Voltage drop at I _e ≤ 7 V Tests/approvals Approvals UL	Isolation test voltage	1.5 kV
Tests/approvals Approvals UL	Output function	2-wire, NC contact, 2-wire
Approvals UL	Voltage drop at I _e	≤ 7 V
	Tests/approvals	
UL registration number E210608	Approvals	UL
	UL registration number	E210608

Features

- ■Smooth barrel, Ø 34mm
- Plastic, PBT-GF30-V0
- Fine adjustment via potentiometer
- ■AC 2-wire, 20...250 VAC
- ■NC contact
- Cable connection

Wiring diagram



Functional principle

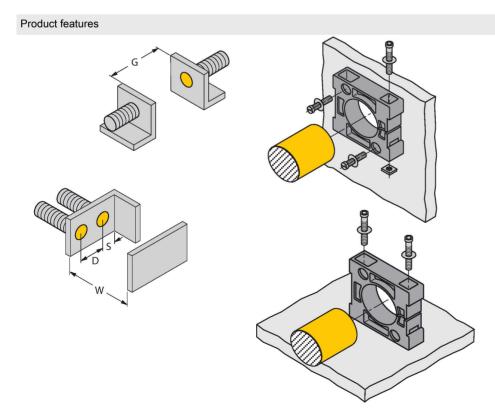
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.



Technical data

Mechanical data	
Design	Smooth barrel, 34 mm
Dimensions	80 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0, yellow
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	2 x 0.34 mm²
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
Included in delivery	BS34.1, 2 M5 screws, cable gland, blanking plugs

Mounting instructions



Distance D	68 mm
Distance W	45 mm
Distance S	51 mm
Distance G	90 mm
Diameter active area B	Ø 34 mm

The given minimum distances have been checked in compliance with the standard switching distance.

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