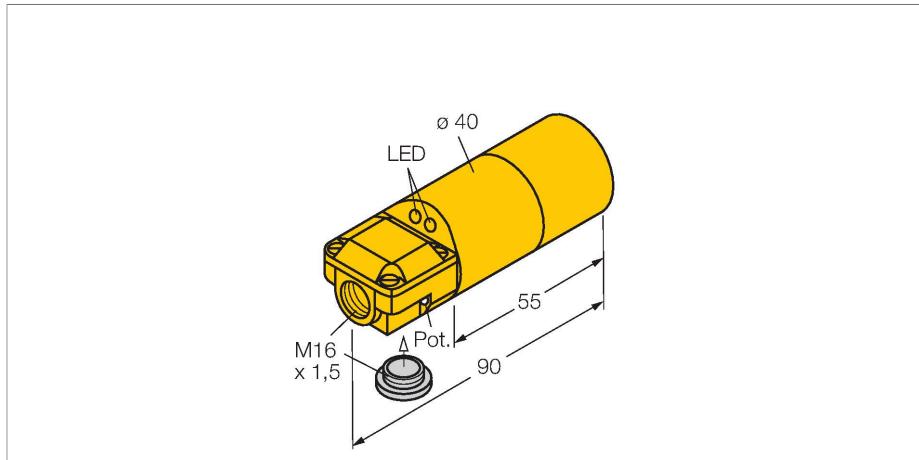


# BC20-K40SR-VN4X2

## Capacitive Sensor



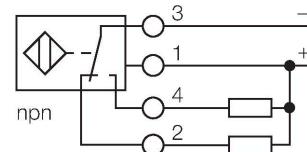
### Technical data

Type	BC20-K40SR-VN4X2
ID	25101
Rated switching distance (flush)	20 mm
Rated switching distance (non-flush)	30 mm
Secured operating distance	$\leq (0.72 \times S_n)$
Hysteresis	1...20 %
Temperature drift	Typical 20 %
Repeat accuracy	$\leq 2$ % of full scale
Ambient temperature	-25...+70 °C
Electrical data	
Operating voltage	10...65 VDC
Residual ripple	$\leq 10$ % $U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ 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	$\leq 0.5$ kV
Output function	4-wire, Complementary contact, NPN
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete

### Features

- 2 cable entries (axial, radial)
- Smooth barrel, Ø 40 mm
- Plastic, ABS
- Fine adjustment via potentiometer
- DC 4-wire, 10...65 VDC
- Complementary contact, NPN output
- Terminal chamber

### Wiring diagram



### Functional principle

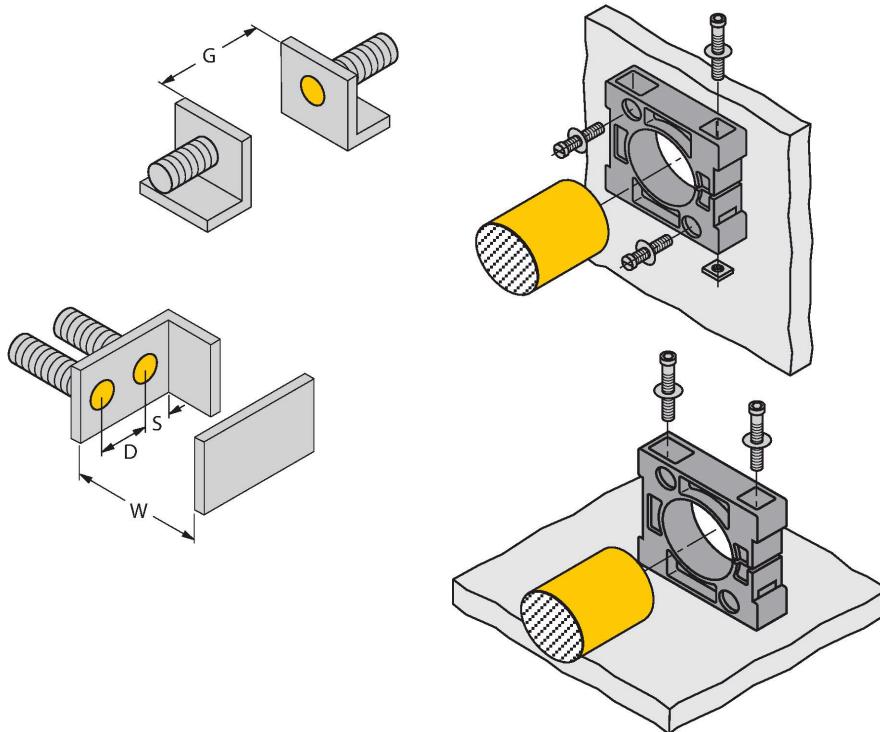
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

## Technical data

Tests/approvals	
Approvals	UL
UL registration number	E210608
Mechanical data	
Design	Smooth barrel, 40 mm
Dimensions	90 mm
Housing material	Plastic, ABS
Active area material	ABS
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 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 °C
Power-on indication	LED, Green
Switching state	LED, Yellow
Included in delivery	BS40, cable gland, blanking plug

## Mounting instructions

## Product features



Distance D	40 mm
Distance W	60 mm
Distance S	60 mm
Distance G	120 mm
Diameter active area B	$\varnothing$ 40 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.