

# Capacitive sensor BC10-S30-VN4X

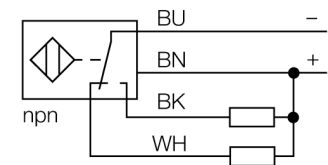
**TURCK**

Industrial  
Automation



- Threaded barrel, M30 x 1.5
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- DC 4-wire, 10...65 VDC
- Changeover contact, NPN 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.

<b>Type code</b>	BC10-S30-VN4X
Ident no.	2506000
<b>Rated switching distance (flush)</b>	10 mm
Rated switching distance (non-flush)	15 mm
Assured sensing range	$\leq (0.72 \times S_n)$ mm
Hysteresis	2...20 %
Temperature drift	type $\leq \pm 20$ %
Repeatability	$\leq 2$ % of full scale
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	10...65VDC
Residual ripple	$\leq 10$ % $U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current $I_0$	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Switching frequency	0.1 kHz
Rated insulation voltage	$\leq 0.5$ kV
Output function	4-wire, changover contact, NPN
Short-circuit protection	yes/ cyclic
Voltage drop at $I_0$	$\leq 1.8$ V
Wire breakage / Reverse polarity protection	yes/ complete
<b>Design</b>	threaded barrel, M30 x 1.5
Dimensions	62.5 mm
Housing material	plastic, PA
Material active area	Plastic, PA, yellow
Admissible pressure on front cap	$\leq 3$ bar
Max. tightening torque housing nut	5 Nm
Connection	cable
Cable quality	$\varnothing$ 5.2, LifYY, PVC, 2 m
Cable 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
<b>Switching state</b>	LED yellow

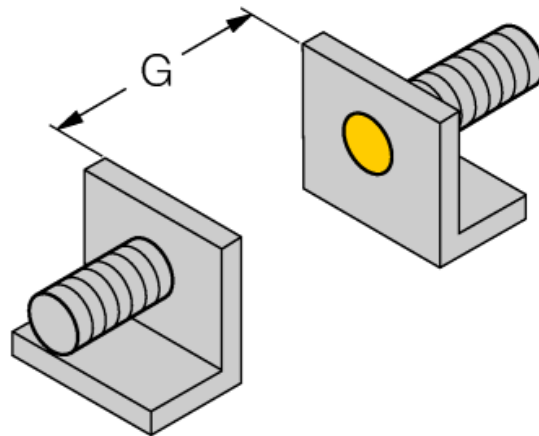
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Mounting instructions / Description	minimum distances
Distance D	60 mm
Distance W	30 mm
Distance S	45 mm
Distance G	60 mm

Diameter of the active area B                     $\varnothing$  30 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.



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**Accessories**

Type code	Ident no.	Description	Dimension drawing
MAP-M30	6950013	Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)	
BST-30B	6947216	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	