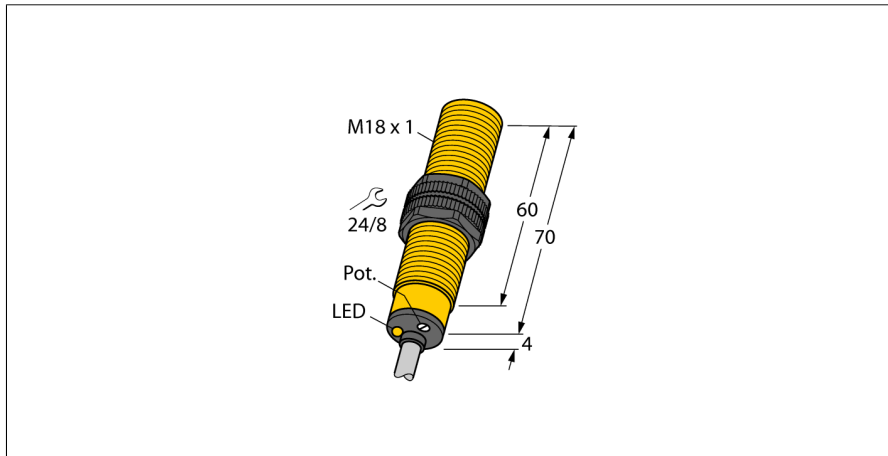


# Capacitive sensor BC5-S18-RZ3X

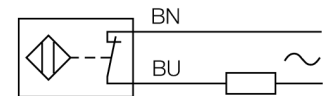
**TURCK**

Industrial  
Automation



- Threaded barrel, M18 x 1
- Plastic, PA12-GF30
- 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.

<b>Type code</b>	BC5-S18-RZ3X
Ident no.	2305400
<b>Rated switching distance (flush)</b>	5 mm
Rated switching distance (non-flush)	7.5 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>	20...250 VAC
AC rated operational current	$\leq 500$ mA
Frequency	$\geq 50... \leq 60$ Hz
Smallest operating current $I_m$	$\leq 5$ mA
Residual current	$\leq 1.7$ mA
Switching frequency	0.02 kHz
Rated insulation voltage	$\leq 1.5$ kV
Output function	2-wire, NC contact, 2-wire
Voltage drop at $I_m$	$\leq 7$ V
<b>Design</b>	threaded barrel, M18 x 1
Dimensions	74 mm
Housing material	plastic, PA
Material active area	Plastic, PA, yellow
Admissible pressure on front cap	$\leq 6$ bar
Max. tightening torque housing nut	2 Nm
Connection	cable
Cable quality	$\varnothing 5.2$ , LifYY, PVC, 2 m
Cable cross section	2 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

# Capacitive sensor BC5-S18-RZ3X

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Mounting instructions / Description	minimum distances
Distance D	36 mm
Distance W	15 mm
Distance S	27 mm
Distance G	30 mm

Diameter of the active area B                     $\varnothing$  18 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.



**Capacitive sensor  
BC5-S18-RZ3X**

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**Accessories**

Type code	Ident no.	Description	Dimension drawing
BS 18	69471	Mounting bracket for threaded barrel devices; material: PA66-GF	
BSN 18	69472	Fixing clamp; material: PA66-GF	
BST-18B	6947214	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
MAP-M18	6950012	Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)	