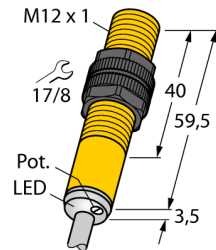


# Capacitive sensor BC3-S12-AP6X

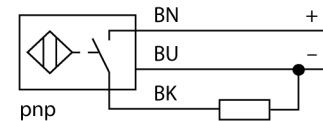
**TURCK**  
*works*

Industrial  
Automation



- M12 × 1 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

### Wiring Diagram



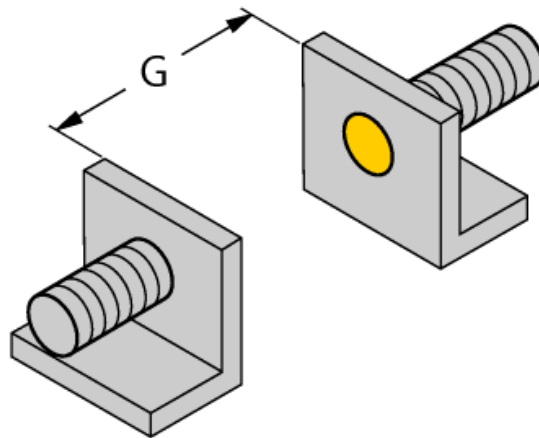
### Functional principle

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

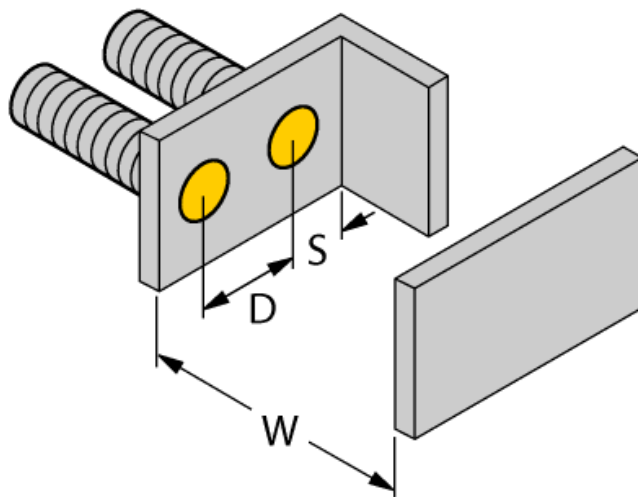
<b>Type designation</b>	BC3-S12-AP6X
Ident-No.	2601200
<b>Rated switching distance (flush)</b>	3 mm
Rated switching distance (non-flush)	4.5 mm
Secured operating distance	≤ (0.72 × S <sub>n</sub> ) mm
Hysteresis	2...20 %
Temperature drift	type 20 %
Repeat accuracy	≤ 2 % of full scale
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	10...30 VDC
Residual ripple	≤ 10 % U <sub>s</sub>
DC rated operational current	≤ 200 mA
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Switching frequency	0.1 kHz
Isolation test voltage	≤ 0.5 kV
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes/ Cyclic
Voltage drop at I <sub>0</sub>	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
<b>Approvals</b>	UL
<b>Design</b>	Threaded barrel, M12 × 1
Dimensions	63 mm
Housing material	Plastic, PA12-GF30
Active area material	Plastic, PA12-GF30, yellow
Admissible pressure on front cap	≤ 8 bar
Max. tightening torque housing nut	1 Nm
Electrical connection	Cable
Cable quality	Ø 5.2mm, LifYY, PVC, 2
Cable cross section	3 × 0.25 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
Packaging unit	1
<b>Switching state</b>	LED, Yellow

# Capacitive sensor BC3-S12-AP6X

Mounting instructions/Description	minimum distances
Distance D	24 mm
Distance W	9 mm
Distance S	18 mm
Distance G	18 mm
<b>Diameter active area B</b>	$\varnothing$ 12 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.



**Capacitive sensor  
BC3-S12-AP6X**



**Accessories**

Type code	Ident-No.	Description	
MAP-M12-PP	6950016	Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)	
MAP-M12-PVDF	6950017	Mounting adapter; material: Polyvinylidenflourid; sensor can be replaced with filled container (adapter remains in container during replacement)	
BST-12B	6947212	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	