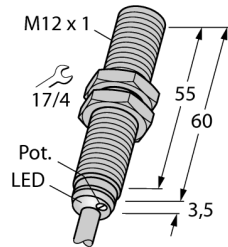


# Capacitive sensor BC3-M12-AN6X

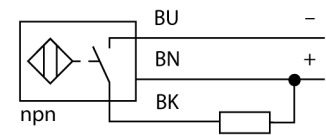
**TURCK**  
*works*

Industrial  
Automation



- M12 × 1 threaded barrel
- Chrome-plated brass
- Fine adjustment via potentiometer
- DC 3-wire, 10...30 VDC
- NO 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.

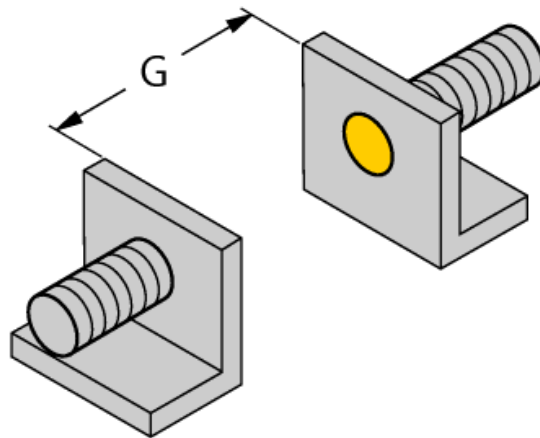
<b>Type designation</b>	BC3-M12-AN6X
Ident-No.	2601100
<b>Rated switching distance (flush)</b>	3 mm
Rated switching distance (non-flush)	3 mm
Secured operating distance	≤ (0.72 × S <sub>n</sub> ) mm
Hysteresis	2...20 %
Temperature drift	type 20 %
Repeat accuracy	≤ 2 % of full scale
Ambient temperature	-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, NPN
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	63.5 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, ABS, yellow
Admissible pressure on front cap	≤ 5 bar
Max. tightening torque housing nut	10 Nm
Electrical connection	Cable
Cable quality	Ø 4mm, 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-M12-AN6X

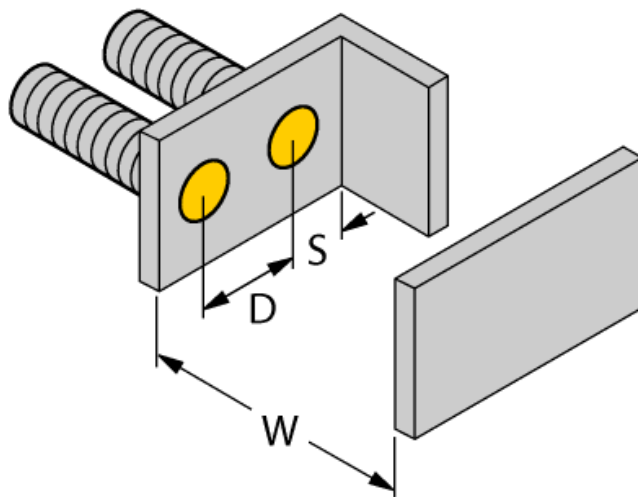
Mounting instructions/Description	minimum distances
Distance D	24 mm
Distance W	9 mm
Distance S	18 mm
Distance G	18 mm

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Diameter active area B	Ø 12 mm
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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-M12-AN6X



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	