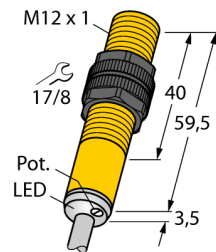


Capacitive sensor with extended temperature range BC3-S12-AP6X/S100

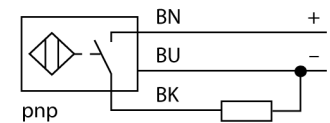
TURCK
works

Industrial
Automation



- Threaded barrel, M12 x 1
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- For temperatures up to 100 °C
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring Diagram

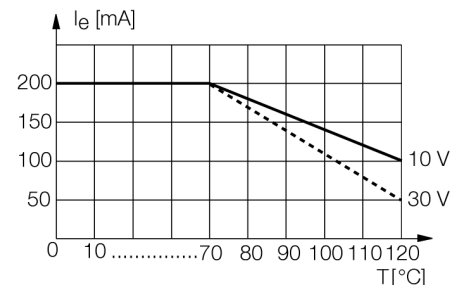


Functional principle

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

Special capacitive sensor versions can be used at temperatures of up to +100°C.

Derating Curve

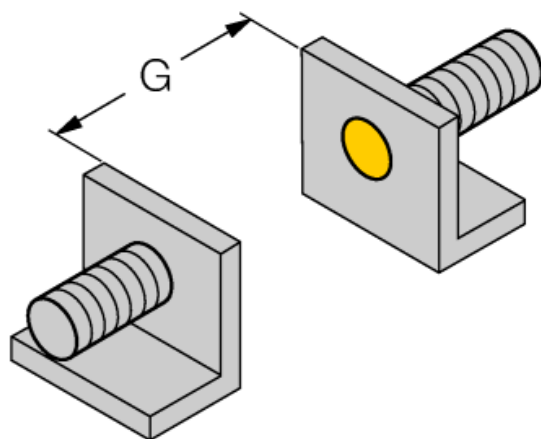


Type designation	BC3-S12-AP6X/S100
Ident-No.	2601201
Ident-No (TUSA)	M2601201
Rated switching distance (flush)	3 mm
Rated switching distance (non-flush)	4.5 mm
Assured switching distance	≤ (0.72 x Sn) mm
Hysteresis	2...20 %
Temperature drift	type 20 %
Repeatability	≤ 2 % of full scale
Ambient temperature	-25...+100 °C
Operating voltage	10... 30VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 200 mA
Rated operational current	see derating curve
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Switching frequency	0.1 kHz
Rated insulation voltage	≤ 0.5 kV
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes/ cyclic
Voltage drop at I _e	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Construction	Threaded barrel, M12 x 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 4, LiYY-11Y, PUR, 2m
Cable cross section	3 x 0.25 mm ²
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
Switching state	LED yellow

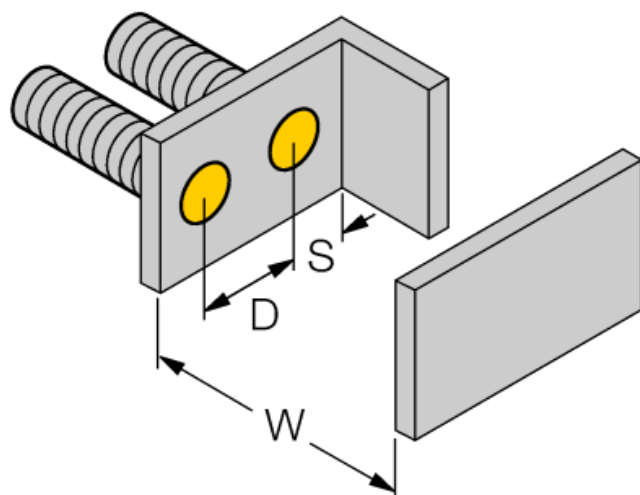
Capacitive sensor with extended temperature range BC3-S12-AP6X/S100

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

Diameter of the 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
with extended temperature range
BC3-S12-AP6X/S100



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: Polyvenyldenflourid; 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	