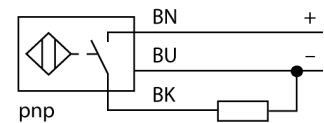


**Capacitive sensor
with extended temperature range
BC3-S12-AP6X/S100**

- 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

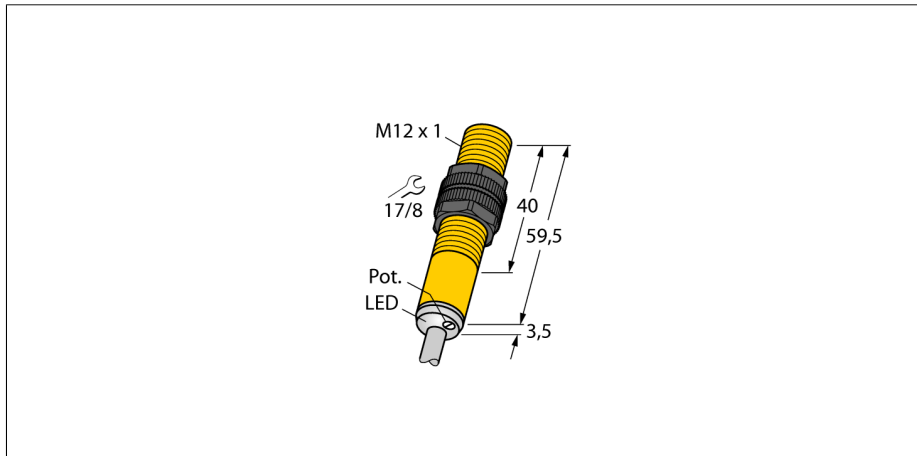
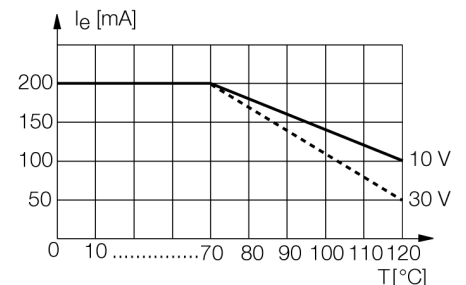


Functional principle

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

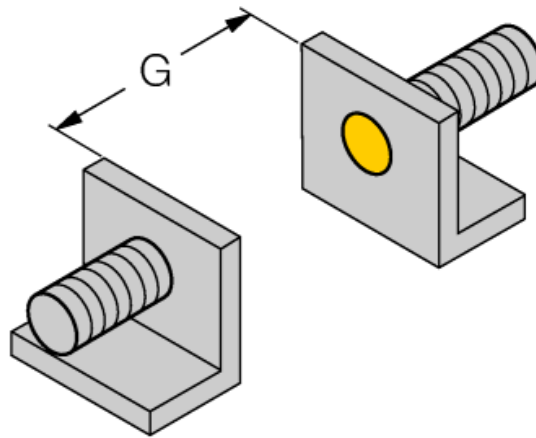


Type code	BC3-S12-AP6X/S100
Ident no.	2601201
Rated operating distance Sn	3 mm
Rated operating distance Sn	4.5 mm, non-flush mounting
Assured sensing range	≤ (0.72 x Sn) mm
Hysteresis	2...20 %
Temperaturdrift	type ≤ ± 20 %
Repeatability	≤ 2 % of full scale
Ambient temperature	-25...+100 °C
Operating 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
Design	threaded barrel, M12 x 1
Dimensions	63 mm
Housing material	Plastic, PA
Material active face	Plastic, PA, yellow
Admissible pressure on front cap	≤ 8 bar
Max. tightening torque housing nut	1 Nm
Connection	cable
Cable quality	Ø 4, LifYY-11Y, PUR, 2 m
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	● yellow

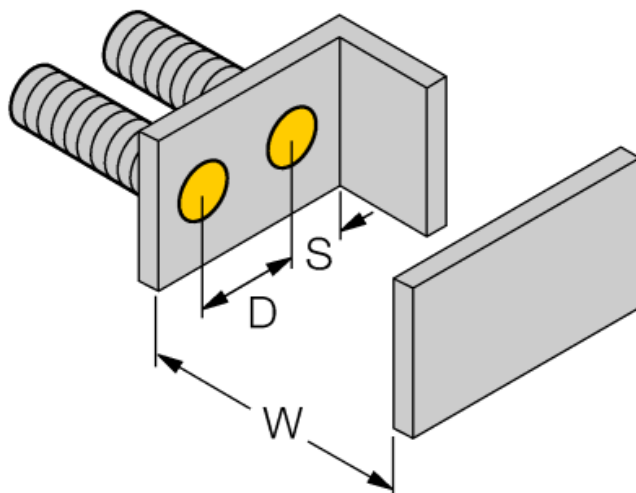
**Capacitive sensor
with extended temperature range
BC3-S12-AP6X/S100**

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 \varnothing 12 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
with extended temperature range
BC3-S12-AP6X/S100**

Accessories

Type code	Ident no.	Description	Dimension drawing
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	