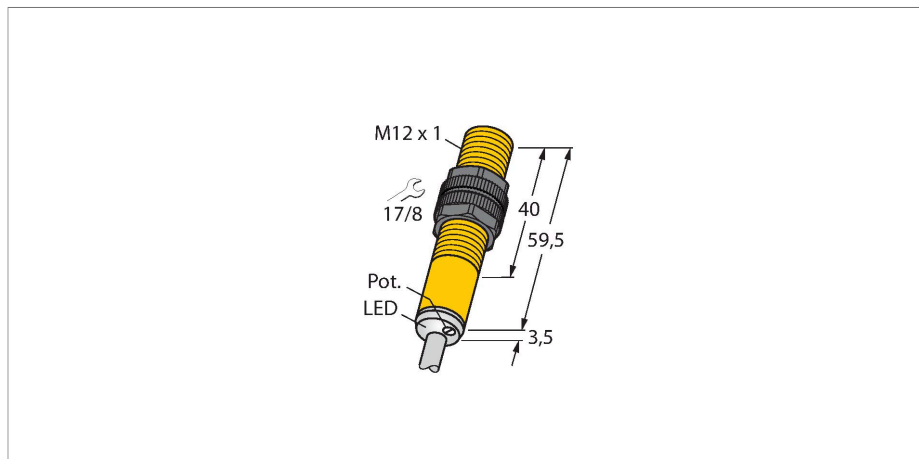


# BC3-S12-AN6X

## Capacitive Sensor



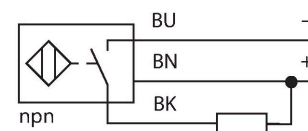
### Technical data

Type	BC3-S12-AN6X
ID	2601300
Rated switching distance (flush)	3 mm
Rated switching distance (non-flush)	4.5 mm
Secured operating distance	$\leq (0.72 \times Sn)$
Hysteresis	1...20 %
Temperature drift	Typical 20 %
Repeat accuracy	$\leq 2 \%$ of full scale
Ambient temperature	-25...+70 °C
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \%$ $U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Switching frequency	0.1 kHz
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz
Isolation test voltage	$\leq 0.5$ kV
Output function	3-wire, NO contact, NPN
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete

### Features

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

### Wiring diagram



### Functional principle

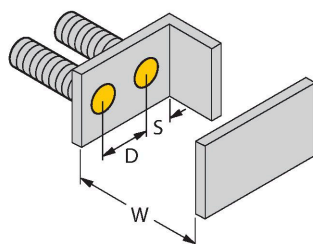
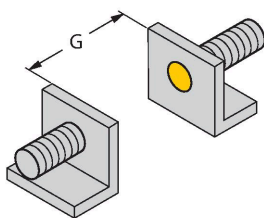
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

## Technical data

Tests/approvals	
Approvals	UL
UL registration number	E210608
Mechanical data	
Design	Threaded barrel, M12 x 1
Housing material	Plastic, PA12-GF30
Active area material	PA12-GF30
Admissible pressure on front cap	≤ 8 bar
Max. tightening torque of housing nut	1 Nm
Electrical connection	Cable
Cable quality	Ø 4 mm, LifYY, PVC, 2 m
Core cross-section	3 x 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
Power-on indication	Green
Switching state	LED, Yellow

## Mounting instructions

### Product features



Distance D	24 mm
Distance W	9 mm
Distance S	18 mm
Distance G	18 mm
Diameter active area B	Ø 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.