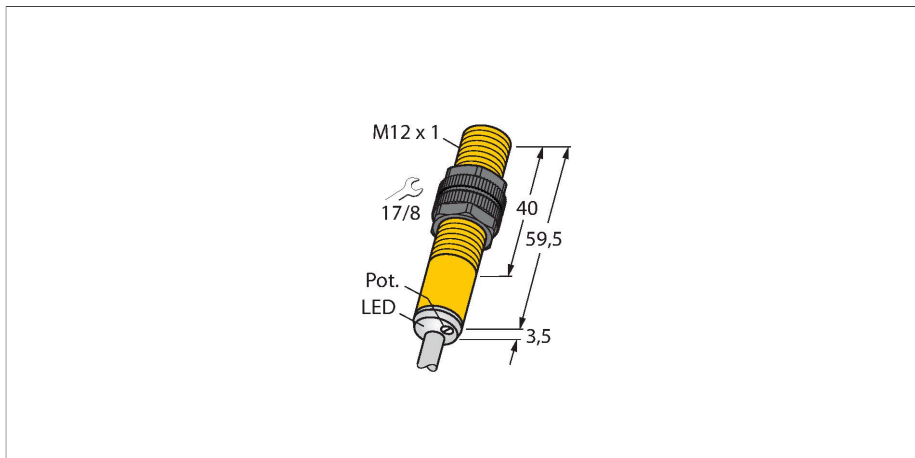


# BCE3-S12-AP6X

## Capacitive Sensor – With Potentiometer



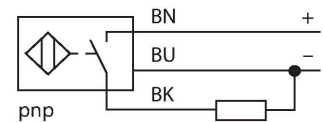
### Technical data

Type	BCE3-S12-AP6X
ID	100026590
Rated switching distance (flush)	3 mm
Rated switching distance (non-flush)	4.5 mm
Secured operating distance	$\leq (0.72 \times S_n)$ mm
Hysteresis	1...20 %
Repeat accuracy	$\leq 5$ % of full scale
Ambient temperature	-10...+60 °C
<b>Electrical data</b>	
Operating voltage $U_B$	10...30 VDC
Ripple $U_{ss}$	$\leq 10$ % $U_{Bmax}$
DC rated operating current $I_o$	$\leq 100$ mA
Residual current	$\leq 0.1$ mA
Switching frequency	0.05 kHz
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz
Isolation test voltage	0.5 kV
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes/Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire break/reverse polarity protection	yes/Complete
<b>Tests/approvals</b>	
Approvals	UL
UL registration number	E210608
<b>Mechanical data</b>	
Design	Threaded barrel, M12 x 1
Housing material	Plastic, PA12-GF30

### Features

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

### Wiring diagram



### Functional principle

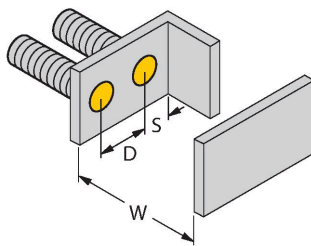
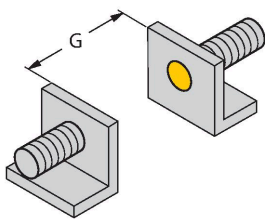
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

## Technical data

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	IP65
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

## Mounting instructions

### Product features



Distance D	24 mm
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Distance W	9 mm
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Distance S	18 mm
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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.

## Accessories

BST-12B

6947212

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

