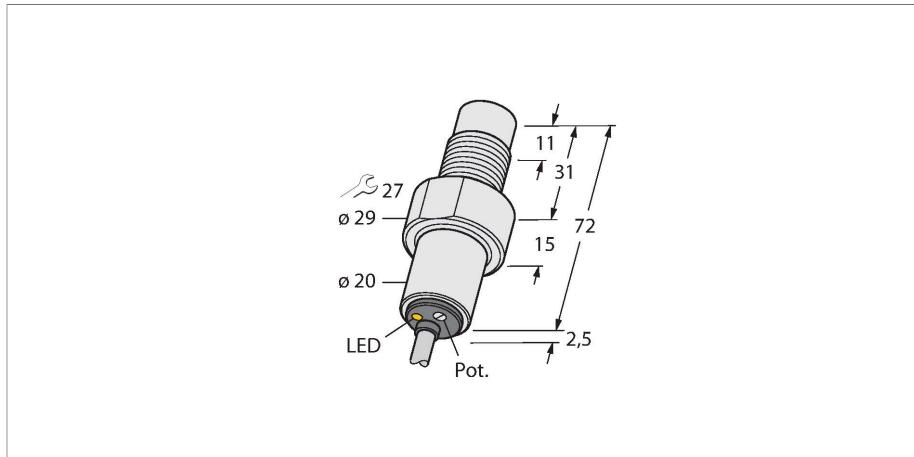


BC5-S185-AP4X/S100

Capacitive Sensor – With Increased Temperature Range



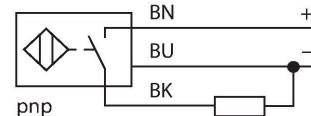
Technical data

Type	BC5-S185-AP4X/S100
ID	2503502
Rated switching distance (flush)	5 mm
Rated switching distance (non-flush)	7.5 mm
Secured operating distance	$\leq (0.72 \times S_n)$
Hysteresis	1...20 %
Repeat accuracy	$\leq 2\%$ of full scale
Ambient temperature	-25...+100 °C
Electrical data	
Operating voltage	10...65 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 200\text{ mA}$
Rated operational current	See derating curve
No-load current	$\leq 15\text{ mA}$
Residual current	$\leq 0.1\text{ mA}$
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	$\leq 0.5\text{ kV}$
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	$\leq 1.8\text{ V}$
Wire breakage/Reverse polarity protection	yes / Complete

Features

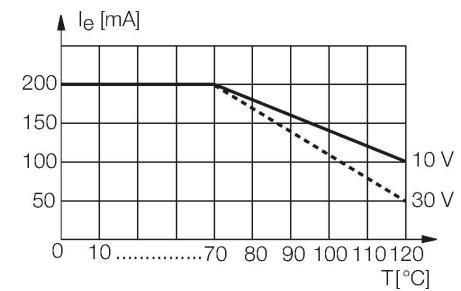
- M18 x 1 threaded barrel
- Plastic, PVDF
- Fine adjustment via potentiometer
- For temperatures up to 100°C
- DC 3-wire, 10...65 VDC
- NO contact, PNP output
- Cable connection

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.



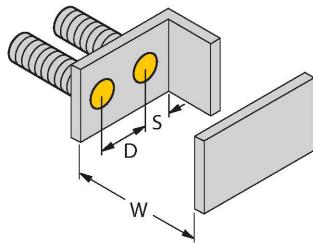
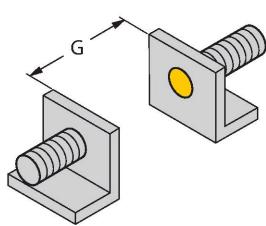
Technical data

Tests/approvals

Approvals	UL
UL registration number	E210608
Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	74.5 mm
Housing material	Plastic, PVDF
Active area material	PVDF, ecru
Max. tightening torque of housing nut	2 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	3 x 0.5 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
Power-on indication	Green
Switching state	LED, Yellow

Mounting instructions

Product features



Distance D	36 mm
Distance W	15 mm
Distance S	27 mm
Distance G	30 mm
Diameter active area B	Ø 18 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.