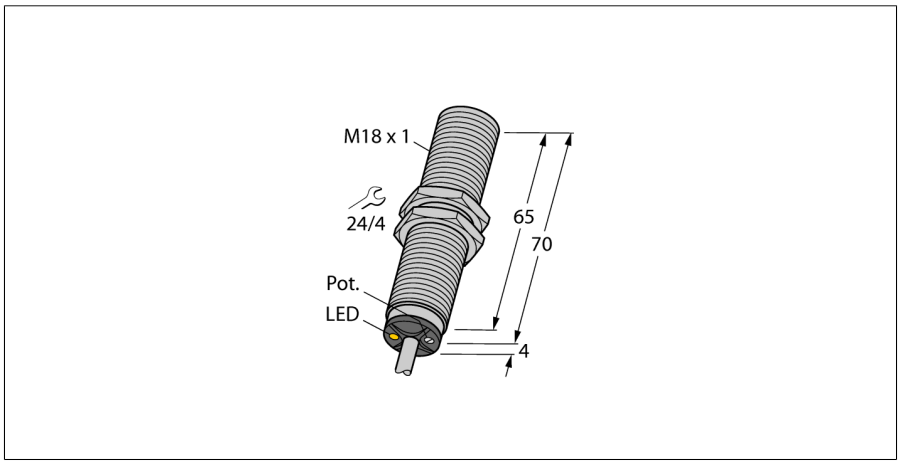
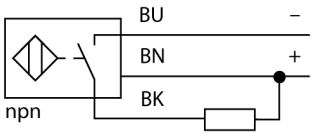
Capacitive sensor
BC5-M18-AN4X

Industrial Automation



- **M18 × 1 threaded barrel**
- **Chrome-plated brass**
- **Fine adjustment via potentiometer**
- **DC 3-wire, 10…65 VDC**
- **NO contact, NPN output**
- **Cable connection**

Wiring Diagram



Type designation	BC5-M18-AN4X
Ident-No.	2504002
Rated switching distance (flush)	5 mm
Rated switching distance (non-flush)	5 mm
Secured operating distance	≤ (0.72 x Sn) mm
Hysteresis	2…20 %
Temperature drift	type 20 %
Repeat accuracy	≤ 2 % of full scale
Ambient temperature	-25…+70 °C
Operating voltage	10…65 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Switching frequency	0.1 kHz
Isolation test voltage	≤ 0.5 kV
Output function	3-wire, NO contact, NPN
Short-circuit protection	yes/ Cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Approvals	UL
Design	Threaded barrel,M18 × 1
Dimensions	74 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT-GF30-V0, yellow
Admissible pressure on front cap	≤ 4 bar
Max. tightening torque housing nut	25 Nm
Electrical connection	Cable
Cable quality	Ø 5.2mm, LifYY, PVC, 2
Cable cross section	3 x 0.34 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
Packaging unit	1
Switching state	LED,Yellow

Functional principle

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

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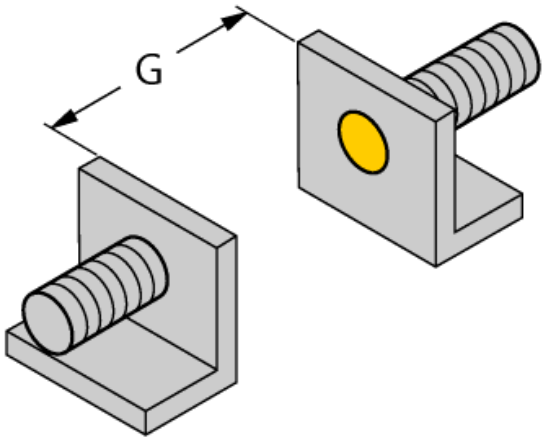
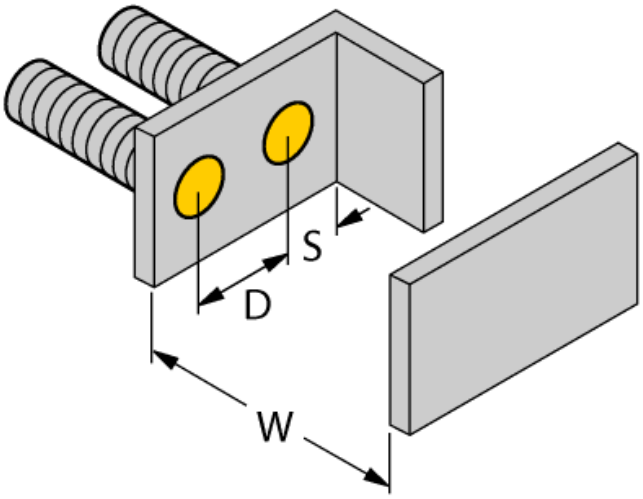
Mounting instructions/Description	minimum distances
Distance D	36 mm
Distance W	15 mm
Distance S	27 mm
Distance G	30 mm
Diameter active area B	Ø 18 mm





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.

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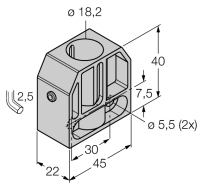
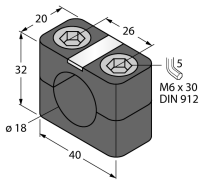
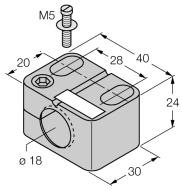
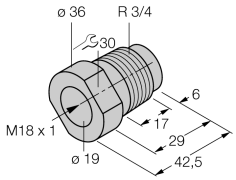
Accessories

Type code	Ident-No.	Description	
BS-18	69471	Mounting bracket for threaded barrel devices; material: PA66-GF	
BSN 18	69472	Fixing clamp; material: PA66-GF	
BST-18B	6947214	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
MAP-M18	6950012	Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)	

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