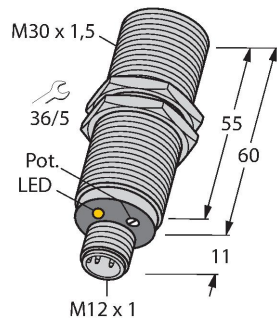


BC10-M30K-AN4X-H1141

Capacitive Sensor



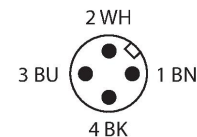
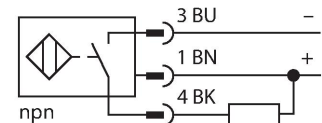
Technical data

Type	BC10-M30K-AN4X-H1141
ID	2503030
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	10 mm
Secured operating distance	$\leq (0.72 \times S_n)$
Hysteresis	1...20 %
Temperature drift	Typical 20 %
Repeat accuracy	$\leq 2 \%$ of full scale
Ambient temperature	-25...+70 °C
Electrical data	
Operating voltage	65 VDC
Residual ripple	$\leq 10 \%$ U_{ss}
DC rated operational current	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 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	≤ 0.5 kV
Output function	3-wire, NO contact, NPN
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete

Features

- M30 × 1.5 threaded barrel
- Chrome-plated brass
- Fine adjustment via potentiometer
- DC 3-wire, 10...65 VDC
- NO contact, NPN output
- M12 × 1 connector

Wiring diagram



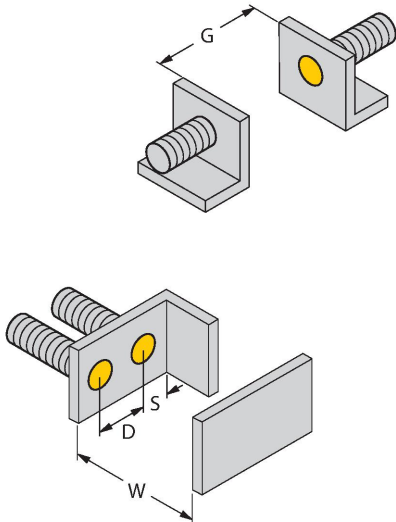
Functional principle

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, M30 x 1.5
Dimensions	60 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	PA12-GF30, yellow
Admissible pressure on front cap	≤ 3 bar
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, M12 × 1
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
	60 mm
	Distance W
	30 mm
	Distance S
	45 mm
	Distance G
	60 mm
	Diameter active area B
	Ø 30 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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