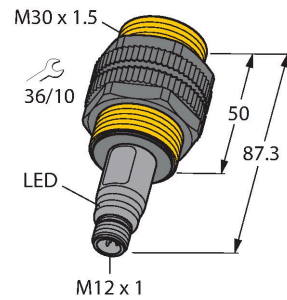


BCT10-S30-UN6X2-H1151

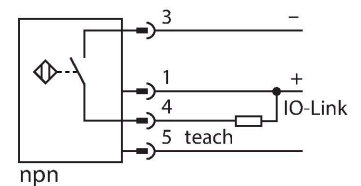
Capacitive Sensor



Features

- M30 × 1.5 threaded barrel
- Plastic, PA12-GF30
- Teach-in and configuration via pin 5 and IO-Link

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

Type	BCT10-S30-UN6X2-H1151
ID	2101800
Remark to product	For remote teaching via pin 5 please use 5-wire cable (e.g. RKC4.5T.../WKC4.5T...)
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	15 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	18...30 VDC
	In IO-Link mode
Residual ripple	$\leq 10 \%$ U_{ss}
DC rated operational current	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Switching frequency	0.01 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
Communication protocol	IO-Link
Output function	3-wire, NO/NC, NPN
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	≤ 2.4 V

Technical data

Wire breakage/Reverse polarity protection yes / Complete

Tests/approvals

Approvals UL

UL registration number E210608

IO-Link

IO-Link specification V 1.1

Programming FDT/DTM

Transmission physics corresponds to 3-wire physics (PHY2)

Transmission rate COM 2/38.4 kbps

Process data width 16 bit

Measured value information 12 bit

Frame type 2.2

Included in the SIDI GSDML Yes

Mechanical data

Design Threaded barrel, M30 x 1.5

Dimensions 87.3 mm

Housing material Plastic, PA12-GF30, PEI

Active area material PA12-GF30, yellow

Admissible pressure on front cap ≤ 3 bar

Max. tightening torque of housing nut 5 Nm

Electrical connection Connector, M12 × 1

Vibration resistance 55 Hz (1 mm)

Shock resistance 30 g (11 ms)

Protection class IP67
IP69K

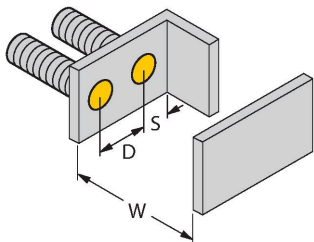
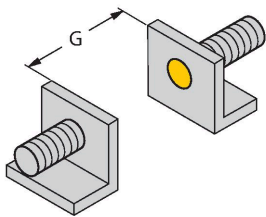
MTTF 1080 years acc. to SN 29500 (Ed. 99) 40 °C

Power-on indication Green

Switching state LED, Yellow

Mounting instructions

Product features

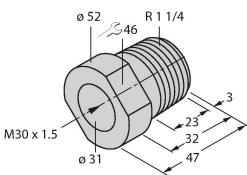


Distance D	60 mm
Distance W	30 mm
Distance S	45 mm
Distance G	60 mm
Diameter active area B	Ø 30 mm

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.

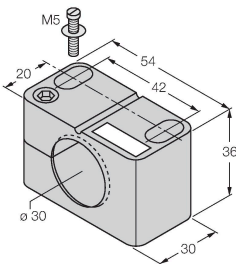
Accessories

MAP-M30 6950013



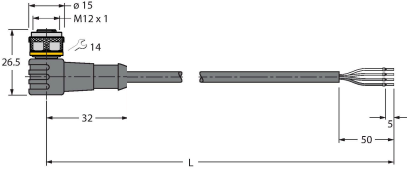
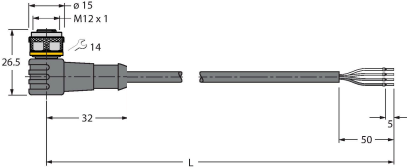
Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)

BST-30B 6947216



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

Accessories

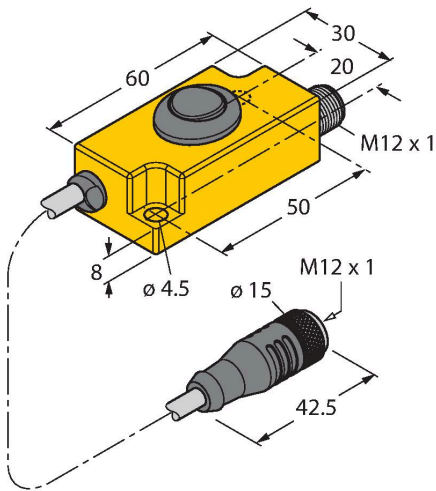
Dimension drawing	Type	ID	
	RKC4.4T-2/TXL	6625503	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
	WKC4.4T-2/TXL	6625515	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
	WKC4.4T-2/TEL	6625025	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval

Dimension drawing	Type	ID	
	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval

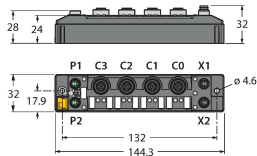


Accessories

Dimension drawing	Type	ID	
	TX1-Q20L60	6967114	Teach adapter for inductive encoders, linear position, angle, ultrasonic and capacitive sensors



TBEN-S2-4IOL	6814024	Compact multiprotocol I/O module, 4 IO-Link Master 1.1 Class A, 4 universal PNP digital channels 0.5 A
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USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port
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