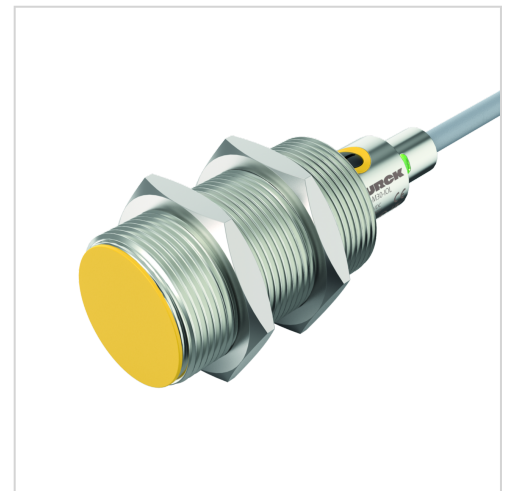
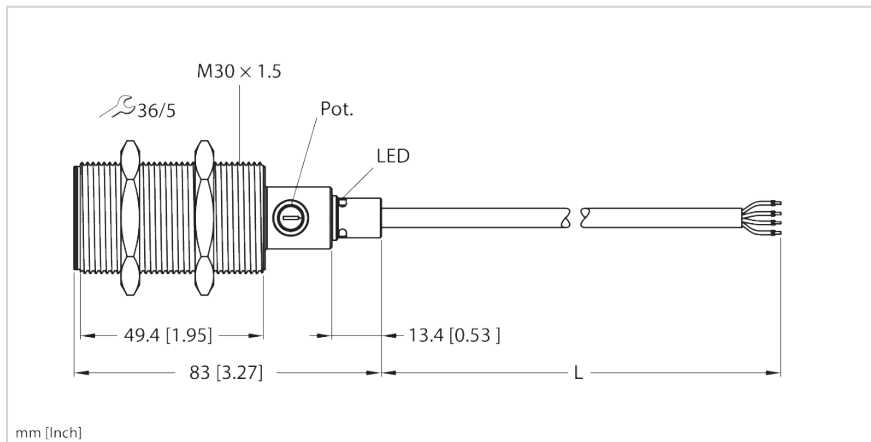


BC15-M30-IOL

Capacitive sensor



Typ	BC15-M30-IOL
Ident-No.	100050173

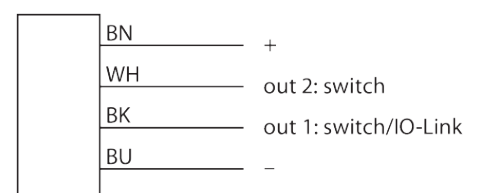
Technical data

General data	
Measuring principle	Capacitive
Application area	
Medium temperature	-40...+70 °C
Medium	Bulk goods, liquids
Detection area/measuring range	
Rated switching distance (flush)	15 mm
Rated switching distance (non-flush)	15 mm
Secured operating distance	≤ (0.72 × Sn) mm
Power supply	
Operating voltage U _B	10...30 VDC
	In IO-Link mode
Operating voltage U _B	18...30 VDC
	In SIO mode
Voltage drop at I _e	≤ 1 V
Electrical data	
Output function	4-wire, NO/NC programmable, PNP/ NPN
Short-circuit protection	yes, cyclic
Wire break/reverse polarity protection	yes

Features

- M30 × 1.5 threaded barrel
- Plastic, PA12-GF30
- Digital potentiometer
- Three different teach functions
- Can be parameterized via IOL
- Two switching outputs, can be parameterized independently
- Highly visible LED

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.

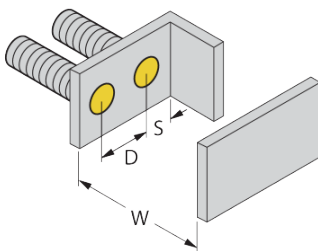
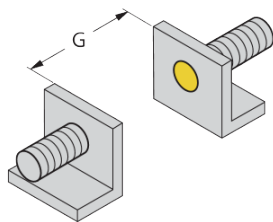
Technical data

DC rated operational current	≤ 200 mA
Insulation class	III
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz
Switching frequency	≤100 Hz
Interfaces	
Communication protocol	IO-Link
Outputs	
Number of digital outputs	2
Output 1	IO-Link/switching output
Output 2	Switching output
Accuracy/deviation	
Hysteresis	1 % v. E...15 % v. E.
Temperature drift	Typical 20 %
Repeat accuracy	≤ 0,5 % v. E.
IO-Link	
IO-Link specification	V1.1, Smart Sensor Profile
Transmission physics	corresponds to 3-wire physics (PHY2)
SIO mode-compatible	Yes
Transmission rate	COM 3
Process data width	32 bit
Measured value information	12 bit
Frame type	2.2
Programming	FDT/DTM
Included in the SIDI GSDML	Yes
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Construction type designation	M30
Dimensions	30 mm x 82 mm
Housing color	Black/yellow
Housing material	Metal/plastic, CuZn
Active area material	PA12-GF30, yellow
End cap	Plastic, PA12-GF30
Admissible pressure on front cap	≤5 bar
Max. tightening torque of housing nut	25 Nm
Electrical connection	Stranded wires, Open end
Thread size	M30 x 1.5

Technical data

Mounting conditions	Flush/Non-flush
Environmental conditions	
Ambient temperature	-40...+105 °C
Shock resistance	15 g (11 ms)
Vibration resistance	Log sweep from 10 Hz to 150 Hz, 20 cycles at 5 g, 1.0 oct/min, all 3 axes
Protection class	IP67
Tests/approvals	
MTTF	acc. to SN 29500 (Ed. 99) 40 °C
Displays/controls	
Power-on indication	Green
Switching state	3 × LEDs, Green/yellow/red
Setting 1	connection programmable

Installation instructions



Distance D: 60 mm

Distance W: 30 mm

Distance S: 45 mm

Distance G: 60 mm

Installation information:

The given minimum distances have been checked against the standard switching distance.

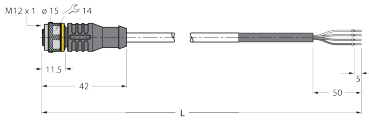
Should the sensitivity of the sensor be changed, these data sheet specifications no longer apply.

Connectivity accessories

RKC4.4T-2/TXL

6625503

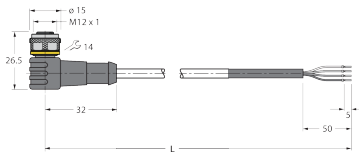
Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval



WKC4.4T-2/TXL

6625515

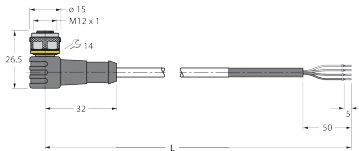
Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval



WKC4.4T-2/TEL

6625025

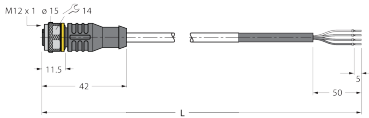
Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval



RKC4.4T-2/TEL

6625013

Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval



Functional accessories

USB-2-IOL-0002

6825482

IO-Link Master with integrated USB port

