BCT4-M12-IOL-H1141
Capacitive Sensor

Ø 10.6 [0.42]

M12 × 1   M12 × 1

17/4   LED

27 [1.06]

45 [1.77]

mm [Inch]
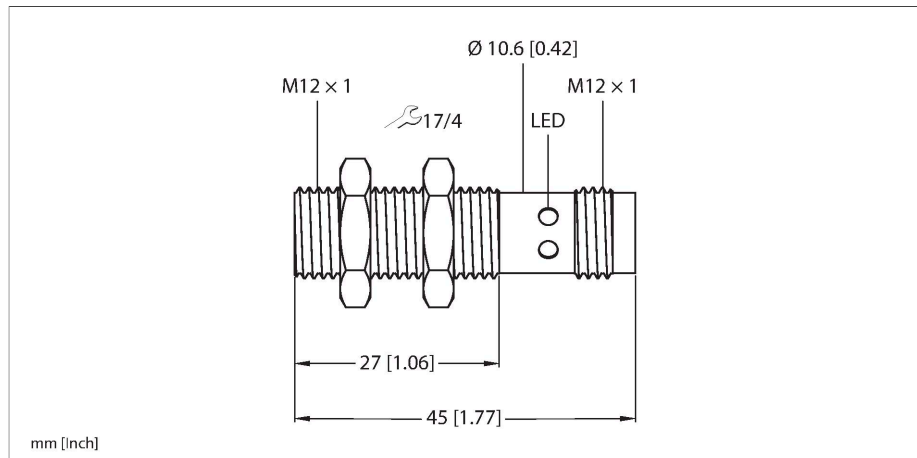
Features

■ Detection of metallic and non-metallic objects
■ Detection of liquids, powders and solid materials
■ All functions can be parameterized via IO-Link
■ Three different types of object teaching (one value, two value, dynamic) possible
■ Available counting function whose content can be called up via IO-Link
■ Switching status indicated by four LEDs arranged all around the device
■ M12 × 1 male connector, 4-pin
■ Robust, compact housing made of nickel-plated brass
■ M12 threaded design, flush, switching distance = 4 mm

Technical data

Type	BCT4-M12-IOL-H1141
ID	100027492
Hysteresis	10…20 %
Ambient temperature	-25…+70 °C
Medium temperature	-25…+70 °C
Electrical data	
Operating voltage U_B	18…30 VDC
	In IO-Link mode
DC rated operating current I_e	≤ 100 mA
Switching frequency	0.2 kHz
Isolation test voltage	0.5 kV
Communication protocol	IO-Link
SIO mode-compatible	Yes
Number of digital outputs	1
Output function	4-pin, NO/NC programmable, PNP/NPN
Voltage drop at I_e	≤ 2 V
Insulation class	III
Tests/approvals	
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

1   +
2   n.c.
4   switch / IO-Link
3   −

2 WH

3 BU   1 BN

4 BK
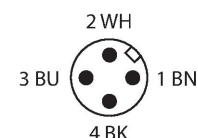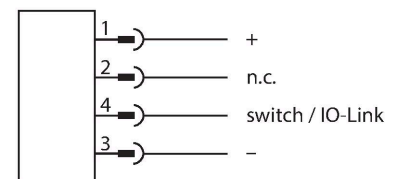
Technical data

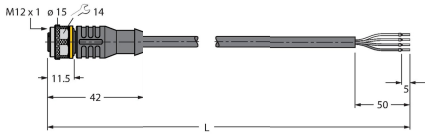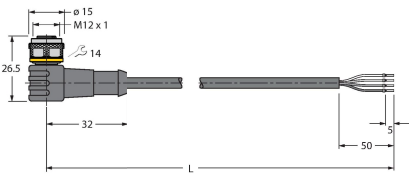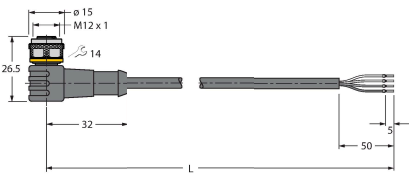| Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	45 mm
Housing material	Metal, Nickel-plated brass
Active area material	Plastic, PBT, yellow
Electrical connection	Connector, M12 × 1
Vibration resistance	30 Hz (1 mm)
	At 10…55 Hz/0.5 mm
Protection class	IP67
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, 4 × yellow
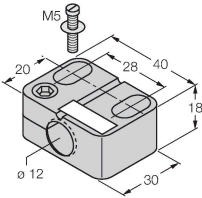
Mounting instructions

Product features	
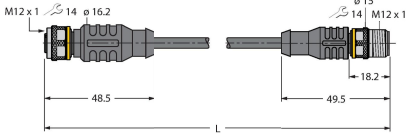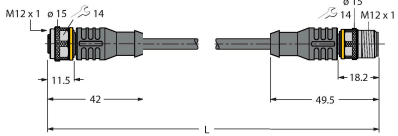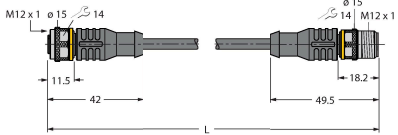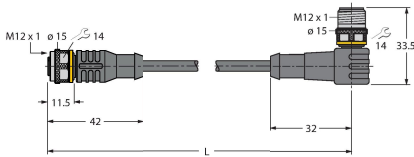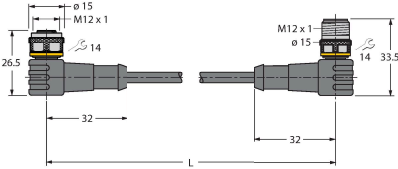
Distance D	24 mm
Distance W	9 mm
Distance S	18 mm
Distance G	18 mm
Diameter active area B	Ø 12 mm

The given minimum distances have been checked against the standard switching distance.
Should the sensitivity of the sensors be changed, these data sheet specifications no longer apply.
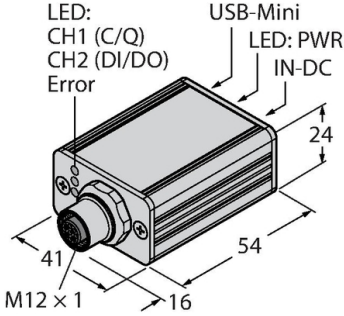
Accessories

BST-12B	6947212

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
	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
	RKC4.4T-P7X2-2-RSC4.4T/TEL	6627320	Extension cable, M12 female connector with LED (PNP, YE, GN), straight, 4-pin to M12 male connector, straight, 4-pin; cable length: 2 m, jacket material: PVC, black
	RKC4.4T-2-RSC4.4T/TEL	6625208	Extension cable, M12 female connector, straight, 4-pin to M12 male connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
	RKC4.4T-2-RSC4.4T/TXL	6625608	Extension cable, M12 female connector, straight, 4-pin to M12 male connector, straight, 4-pin; cable length: 2 m, jacket material: PUR, black; cULus approval

Dimension drawing	Type	ID	
	RKC4.4T-2-WSC4.4T/TXL	6625624	Extension cable, M12 female connector, straight, 4-pin to M12 male connector, angled, 4-pin; cable length: 2 m, jacket material: PUR, black; cULus approval
	WKC4.4T-2-WSC4.4T/TXL	6625656	Extension cable, M12 female connector, angled, 4-pin to M12 male connector, angled, 4-pin; cable length: 2 m, jacket material: PUR, black; cULus approval

Accessories

Dimension drawing	Type	ID	
	USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port