

BCT4-M12-IOL-H1141 Capacitive Sensor



Technical data

TypeBCT4-M12-IOL-H1141ID100027492Hysteresis1020 %Ambient temperature $-25+70$ °CMedium temperature $-25+70$ °CElectrical data $-25+70$ °COperating voltage1830 VDCIn IO-Link modeDC rated operational current ≤ 100 mASwitching frequency 0.2 kHzIsolation test voltage ≤ 0.5 kVCommunication protocolIO-Link
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Electrical data Operating voltage 1830 VDC In IO-Link mode DC rated operational current ≤ 100 mA Switching frequency 0.2 kHz Isolation test voltage ≤ 0.5 kV
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In IO-Link mode DC rated operational current ≤ 100 mA Switching frequency 0.2 kHz Isolation test voltage ≤ 0.5 kV
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Switching frequency0.2 kHzIsolation test voltage≤ 0.5 kV
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_{\circ} $\leq 2 V$
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



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

Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	45 mm
Housing material	Metal, Nickel-plated brass
Active area material	yellow
Electrical connection	Connector, M12 × 1
Protection class	IP67
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, 4 × yellow

Mounting instructions

Product features



Accessories

BST-12B



6947212 Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

24 mm
9 mm
18 mm
18 mm
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

		Ture	ID	
Dimension drawing		Type RKC4.4T-2/TXL	ID 6625503	Connection cable M12 famale
M12 x 1 e 15 14	50-50-50-50-50-50-50-50-50-50-50-50-50-5	RKC4.41-2/TXL	6625503	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
0 15 M12x1 26.5 32 0	5 50 50	WKC4.4T-2/TXL	6625515	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
0 15 M12x1 26.5 → 32 →	50-50-	WKC4.4T-2/TEL	6625025	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
M12x1 e 15 /2 14		RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
M12x1 214 0162	0 15 14 M12 x 1 -182 - 49.5	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
M12x1 015 /2 14	0 15 14 M12x1 	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
M12x1 015 / 2014	e 15 Z 14 M12x1 -18.2 + -18.2 + -18.2 +	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	Туре	ID	
M12x1 0 15 2 14 115 + 42 - 42 - 42	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
015 14 265 32 32 32 32 32 32 32 32 32 32	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	Туре	ID	
	USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port
LED: USB-Mini CH1 (C/Q) LED: PWR CH2 (DI/DO) Error 41 41 M12 × 1 16			