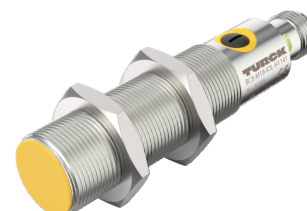
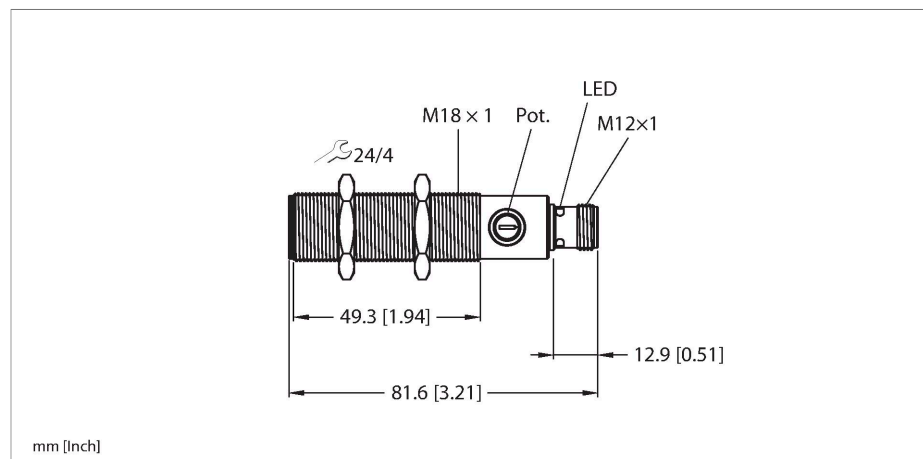


BC8-M18-IOL-H1141

Capacitive Sensor



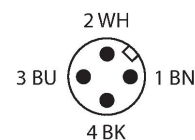
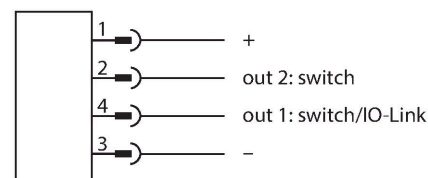
Technical data

Type	BC8-M18-IOL-H1141
ID	100050174
Rated switching distance (flush)	8 mm
Rated switching distance (non-flush)	8 mm
Secured operating distance	$\leq (0.72 \times S_n)$ mm
	The rated operating distance is based on a standard target made of steel. The operating distance may vary depending on the composition of the carbon material.
Hysteresis	1...15 %
Ambient temperature	-40...+60 °C
Storage temperature	-40...+85 °C
Electrical data	
Operating voltage U_s	10...30 VDC
	Acc. to IO-Link specification
DC rated operating current I_s	≤ 200 mA
Switching frequency	0.1 kHz
Communication protocol	IO-Link
Number of digital outputs	2
Output function	NO/NC programmable, PNP/NPN
Short-circuit protection	Cyclic
Voltage drop at I_s	≤ 1 V
Wire break/reverse polarity protection	yes

Features

- M18 × 1 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

Tests/approvals	
IO-Link	
IO-Link specification	V1.1, Smart Sensor Profile
Programming	FDT/DTM
Transmission physics	corresponds to 3-wire physics (PHY2)
Transmission rate	COM 3
Process data width	32 bit
Measured value information	12 bit
Frame type	2.2
Included in the SIDI GSDML	Yes
Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	82 mm
Admissible pressure on front cap	≤ 5 bar
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, M12 × 1
Core cross-section	4
Protection class	IP67
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	3 × LEDs, Green/yellow/red

Mounting instructions

Product features

Distance D	36 mm
Distance W	15 mm
Distance S	27 mm
Distance G	30 mm
Diameter active area B	Ø 18 mm

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.

BC8-M18-IOL-H1141 | 04/23/2026 22-18 | technical changes reserved