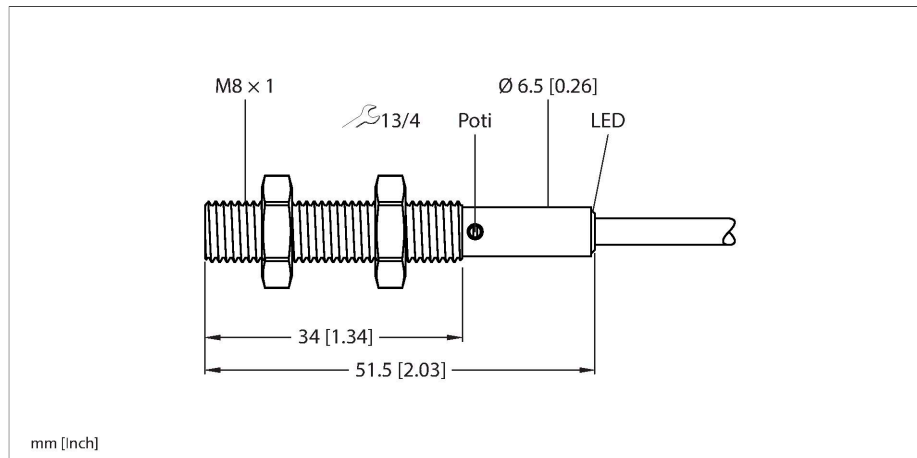


BC2-EM08-UN8X

Capacitive Sensor



Technical data

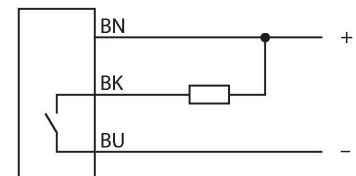
Type	BC2-EM08-UN8X
ID	100021822
Rated switching distance (flush)	2 mm
Hysteresis	10...20 %
Ambient temperature	-25...+70 °C
Medium temperature	-25...+70 °C
Electrical data	
Operating voltage U_B	18...30 VDC
DC rated operating current I_o	≤ 100 mA
No-load current	≤ 15 mA
Switching frequency	0.1 kHz
Isolation test voltage	0.5 kV
Number of digital outputs	1
Output function	3-wire, NO/NC (NO pre-set), NPN
Short-circuit protection	yes
Voltage drop at I_o	≤ 2.4 V
Wire break/reverse polarity protection	yes/Complete
Insulation class	III
Tests/approvals	
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	51.5 mm
Housing material	Stainless steel
Active area material	PBT, yellow
Electrical connection	Cable
Cable quality	Ø 3.4 mm, PUR, 2 m
Core cross-section	3 x 0.14 mm ²



Features

- M8 x 1 threaded barrel
- Stainless steel housing, probe made of PBT
- Fine adjustment via potentiometer
- DC 3-wire, 18...30 VDC
- Adjustable NC/NO contact
- Factory-set NO contact
- 3-pin cable connection, open strands

Wiring diagram



Functional principle

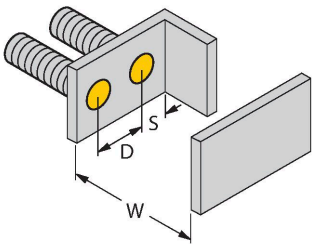
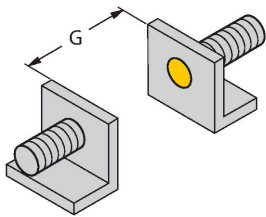
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

Technical data

Protection class	IP67
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	16 mm
Distance W	8 mm
Distance S	12 mm
Distance G	16 mm
Diameter active area B	Ø 8 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.

LED status indicators

LED	Meaning
Yellow	Operating mode NO: Object detected
	Operating mode NC: Object not detected
Flashes yellow 1 ×	Potentiometer counterclockwise:
	Sensor at minimum switching distance
	Potentiometer clockwise:
Flashes yellow 3 ×	Sensor at maximum switching distance
	NO/NC switching successful

For a detailed description of the NO/NC switching, see Quick Start Guide BC2-EM08-Ux8X... (100034228.pdf)