

CM18-08BNP-TW0







# Capacitive Proximity Sensors Cylindrical threaded housing, CM18 PTFE

Model Name > CM18-08BNP-TW0

Part No. > 6026194





#### At a glance

- M18 Cylindrical housing
- · Operating distance up to 8 mm
- · Best-in-class electromagnetic compatibility
- Short-circuit, reverse polarity, and power-up pulse suppression protection
- · LED status indicator
- · IP 67 enclosure rating
- · Complementary output function
- PTFE housing with M18 x 1 mm

#### Your benefits

- Fewer maintenance costs due to a durable PTFE (Teflon ®) housing that withstands harsh industrial applications
- · Quick and easy adjustment via potentiometer saves installation and setup time
- Simple, cost-saving detection alternative to photoelectric and inductive sensors in applications such as detecting product in a sealed box, container or tank
- High EMC immunity prevents false switching, which reduces material loss and increases throughput
- High shock and vibration resistance increases sensor life and reduces maintenance costs



#### **Features**

Design: Cylindrical
Thread size: M18 x 1
Sensing range Sn: 8 mm
Assured sensing range Sa: 5.76 mm
Installation type: Flush
Switching frequency: ± 30 Hz
Output type: NPN

Output function:

Electrical wiring:

Enclosure rating:

Complementary

DC 4-wire

IP 67 1)

Electrical connection:

Adjustment:

Cable, 4-wire, 2 m<sup>2)</sup>

Potentiometer, 270 °, Sensitivity

<sup>1)</sup> According to EN 60529 2) Do not bend below 0 °C

#### Mechanics/electronics

Housing material: PTFE

 $\begin{array}{lll} \text{Supply voltage:} & 10 \text{ V DC.... } 36 \text{ V} \\ \text{Residual ripple:} & \leq 10 \text{ }\%^{1)} \\ \text{Voltage drop:} & \leq 2.5 \text{ V DC.}^{2)} \\ \text{Power consumption:} & \leq 10 \text{ mA.}^{3)} \\ \text{Time delay before availability:} & \leq 100 \text{ ms.} \end{array}$ 

Hysteresis: 4 % ... 20 %Repeatability::  $\leq 5 \%$ 

Temperature drift (of Sr): ± 10 %

EMC: According to EN 60947-5-2 <sup>6)</sup>

 Output current Ia:
 ≤ 200 mA

 Cable material:
 PVC

 Conductor cross-section:
 0.34 mm²

Short-circuit protection:

Reverse polarity protection:

Power-up pulse protection:

Shock and vibration resistance: 30 g, 11 ms/10 ... 55 Hz, 1 mm

Ambient temperature operation: -25 °C ... +60 °C

Housing cap material:

Housing length:

71.5 mm

Thread length:

46.5 mm

Tightening torque, max.:

≤ 2.6 Nm

the oscillator. This can cause changes to the output signal.(see operating instructions)

### **Reduction factors**

Note: The values are reference values which may vary

 Metal:
 1

 Water:
 1

 PVC:
 Ca. 0.4

 Oil:
 Ca. 0.25

## Installation note

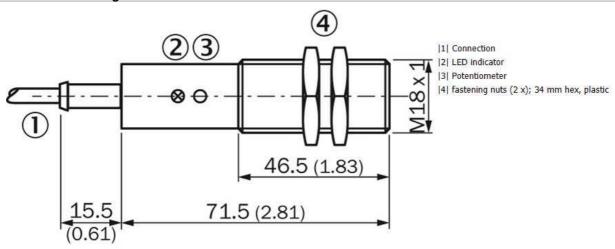
Remark: Associated graphic see "Installation"

B: 18 mm C: 18 mm D: 24 mm

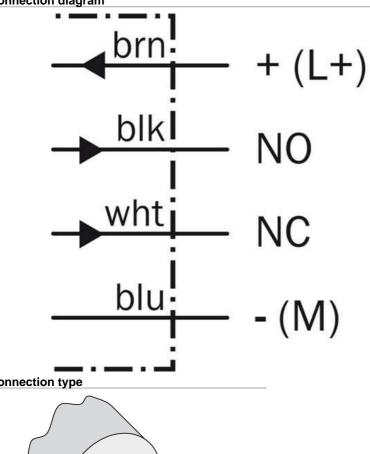
<sup>1)</sup> Of Ub 2) At I max 3) Without load 4) Of Sr 5) Ub and Ta constant 6) In EMC critical applications, conducted interference levels may lie in the frequency range of



## **Dimensional drawing**



All dimensions in mm (inch)



Connection type



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