



## Capacitive Proximity Sensors Cylindrical threaded housing, CM18

CM18-08BNP-KW1



**Model Name** > **CM18-08BNP-KW1**  
**Part No.** > **6021455**



**At a glance**

- M18 - Cylindrical housing
- Adjustable sensing range of 1 to 8 mm flush and 1 to 12 mm non-flush installation
- Best-in-class electromagnetic compatibility
- Short-circuit reverse polarity and power-up pulse suppression protection
- LED status indicator
- Sensitivity control with potentiometer
- IP 67 enclosure rating
- Complementary output function

**Your benefits**

- Space saving installation with M18 cylindrical mounting
- Quick and easy adjustment via potentiometer saves installation and setup time
- Simple and save 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:	Complementary
Electrical wiring:	DC 4-wire
Enclosure rating:	IP 67 <sup>1)</sup>
Electrical connection:	Cable, 4-wire, 2 m <sup>2)</sup>
Adjustment:	Potentiometer, 270 °, Sensitivity

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

**Mechanics/electronics**

Housing material:	Plastic
Supply voltage:	10 V DC ... 36 V
Residual ripple:	$\leq 10\%$ <sup>1)</sup>
Voltage drop:	$\leq 2.5\text{ V DC}$ <sup>2)</sup>
Power consumption:	$\leq 10\text{ mA}$ <sup>3)</sup>
Time delay before availability:	$\leq 100\text{ ms}$
Hysteresis:	4 % ... 20 %
Repeatability::	$\leq 5\%$ <sup>4) 5)</sup>
Temperature drift (of Sr):	$\pm 10\%$
EMC:	According to EN 60947-5-2 <sup>6)</sup>
Output current I <sub>a</sub> :	$\leq 200\text{ mA}$
Cable material:	PVC
Conductor cross-section:	0.34 mm <sup>2</sup>
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 ... +80 °C
Housing cap material:	PBT
Housing length:	71.5 mm
Thread length:	46.5 mm
Tightening torque, max.:	2.6 Nm

<sup>1)</sup> Of U<sub>b</sub> <sup>2)</sup> At I<sub>a</sub> max <sup>3)</sup> Without load <sup>4)</sup> Of Sr <sup>5)</sup> U<sub>b</sub> and T<sub>a</sub> constant <sup>6)</sup> In EMC critical applications, conducted interference levels may lie in the frequency range of the oscillator. This can cause changes to the output signal.(see operating instructions)

### Reduction factors

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Note:	The values are reference values which may vary
Metal:	1
Water:	1
PVC:	Ca. 0.4
Oil:	Ca. 0.25

### Installation note

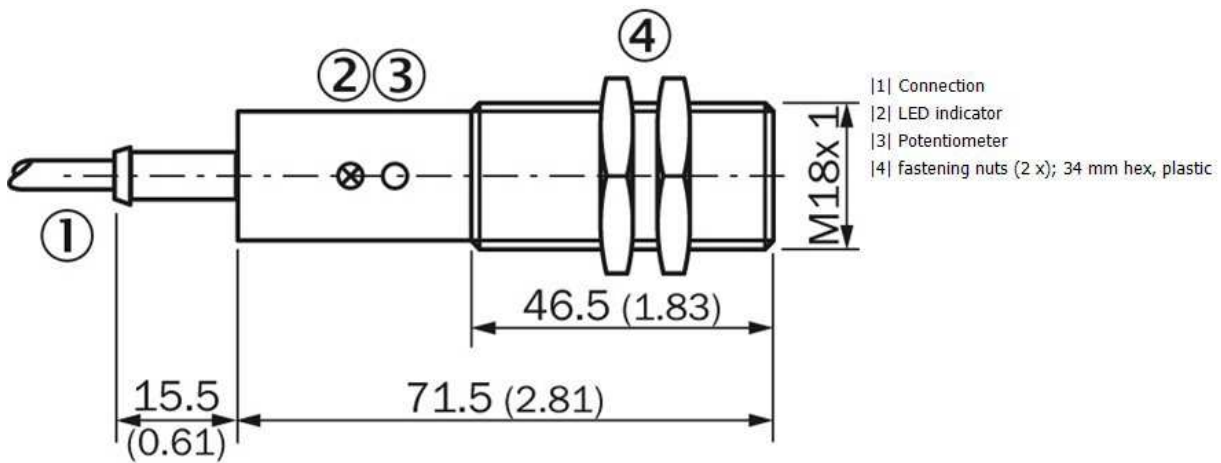
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Remark:	Associated graphic see "Installation"
B:	18 mm
C:	18 mm
D:	24 mm

## Installation note

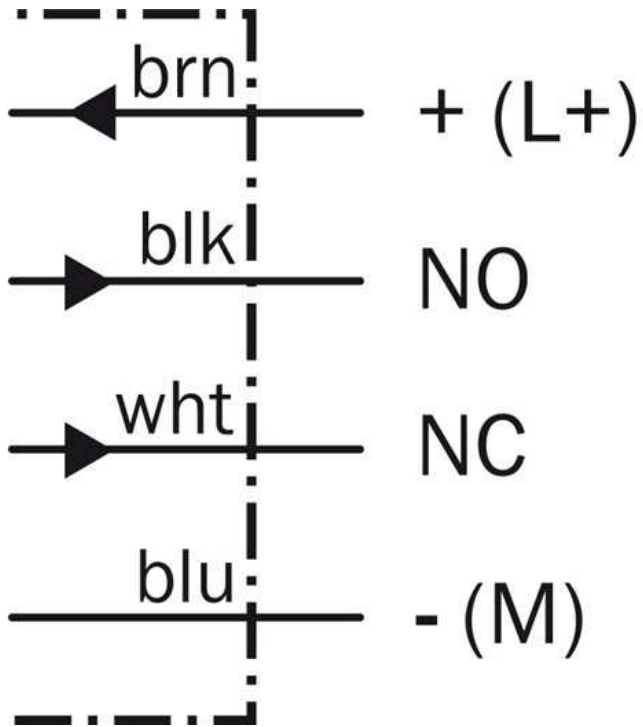


## Dimensional drawing

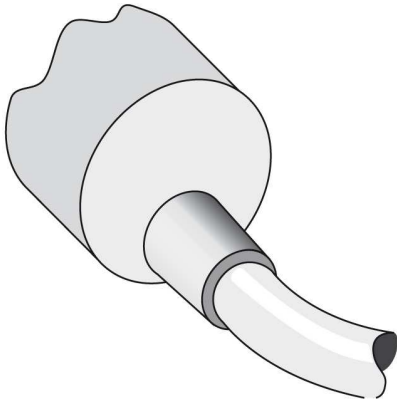


All dimensions in mm (inch)

Connection diagram



Connection type



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