



Capacitive Proximity Sensors Cylindrical threaded housing, CM30

CM30-16BNP-KC1



Model Name > **CM30-16BNP-KC1**
Part No. > **6021460**



At a glance

- M30 - cylindrical housing
- Adjustable sensing range from 2 to 16 mm shielded and 4 to 25 mm unshielded
- Best-in-class electromagnetic compatibility
- Short-circuit, reverse polarity, and power-up pulse suppression protection
- LED status indicator
- Sensitivity control via potentiometer
- IP 67 enclosure rating
- Complementary output function

Your benefits

- Reliably detect objects at a long sensing distance up to 25 mm (non-flush)
- 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, reduces material loss and increases throughput
- High shock and vibration resistance increases sensor life and reduces maintenance costs



Features

Design:	Cylindrical
Thread size:	M30 x 1.5
Sensing range Sn:	16 mm
Assured sensing range Sa:	11.52 mm
Installation type:	Flush
Switching frequency:	± 50 Hz
Output type:	NPN
Output function:	Complementary
Electrical wiring:	DC 4-wire
Enclosure rating:	IP 67 ¹⁾
Electrical connection:	Connector M12, 4-pin
Adjustment:	Potentiometer , Sensitivity

¹⁾ According to EN 60529

Mechanics/electronics

Housing material:	Plastic
Supply voltage:	10 V DC ... 36 V
Residual ripple:	$\leq 10\%$ ¹⁾
Voltage drop:	$\leq 2.5\text{ V DC}$ ²⁾
Power consumption:	$\leq 10\text{ mA}$ ³⁾
Time delay before availability:	$\leq 100\text{ ms}$
Hysteresis:	4 % ... 20 %
Repeatability:	$\leq 5\%$ ^{4) 5)}
Temperature drift (of Sr):	$\pm 10\%$
EMC:	According to EN 60947-5-2 ⁶⁾
Output current I _a :	$\leq 200\text{ mA}$
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:	79 mm
Thread length:	50 mm
Tightening torque, max.:	$\leq 7.5\text{ Nm}$

¹⁾ Of U_b ²⁾ At I_a max ³⁾ Without load ⁴⁾ Of Sr ⁵⁾ U_b and T_a constant ⁶⁾ 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

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

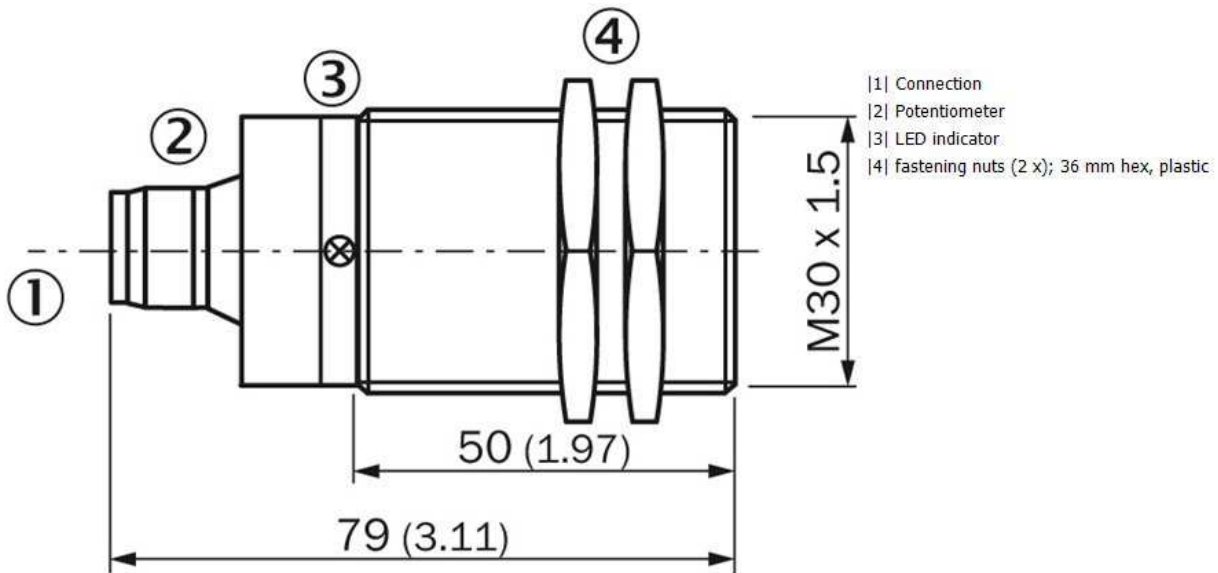
Installation note

Remark:	Associated graphic see "Installation"
B:	30 mm
C:	30 mm
D:	48 mm

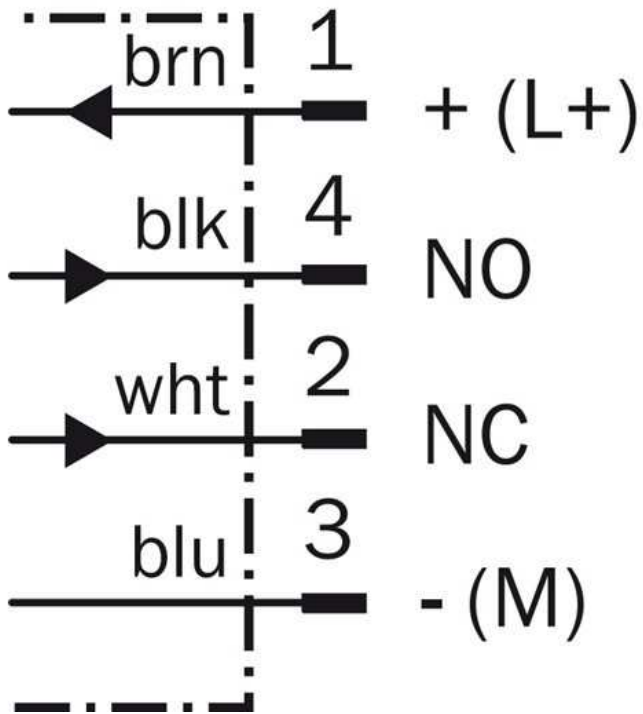
Installation note



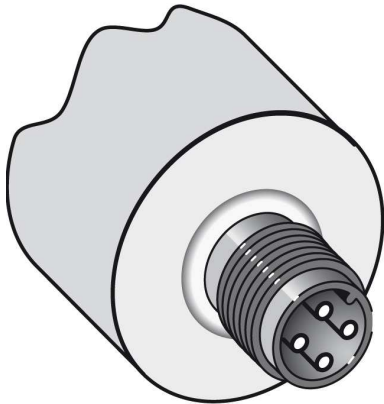
Dimensional drawing



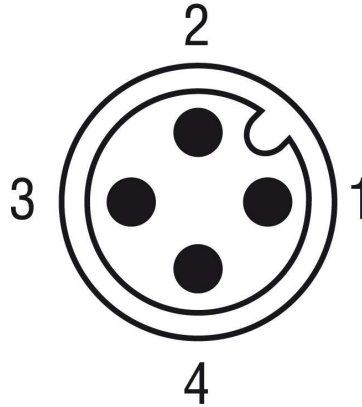
Connection diagram



Connection type



Connection to conveyor



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