

Capacitive sensor, CM18, DC 4-wire, Plastic

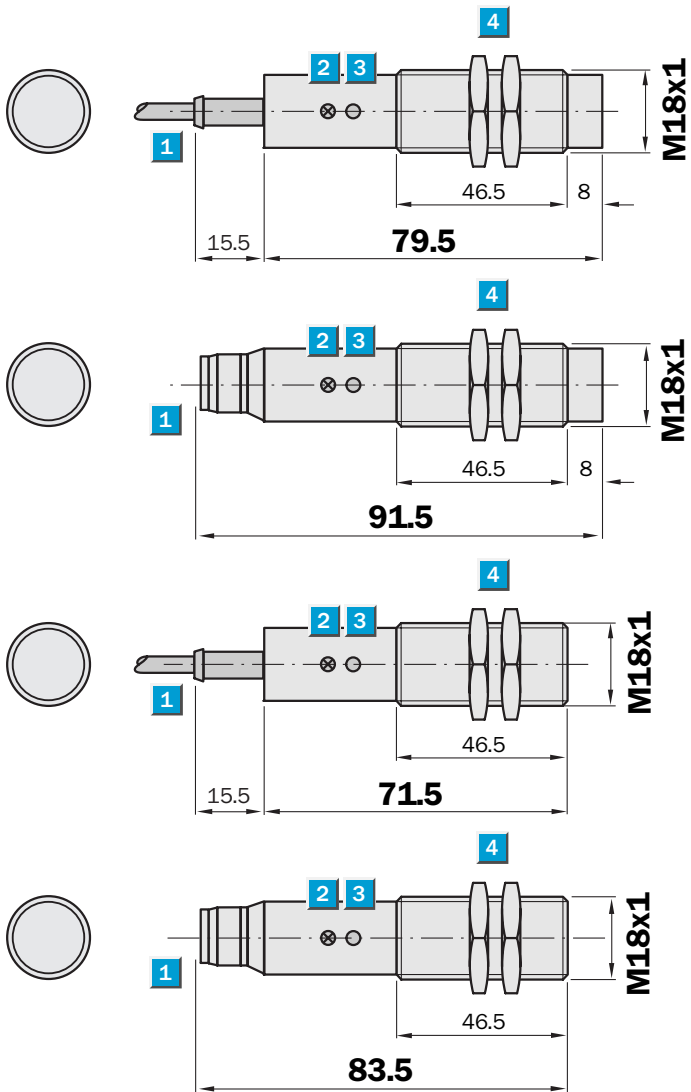
Sensing range
8 / 12 mm

Capacitive sensor

- High EMC immunity
- Short-circuit protection (pulsed)
- Complementary output function
- Enclosure rating IP 67
- LED status indicator



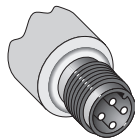
Dimensional drawing



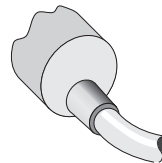
- 1 Connection
- 2 Display LED
- 3 Potentiometer
- 4 Fastening nuts (2 x); width across 24, Plastic

Connection type

CM18-08BNP-KC1	CM18-08BNP-KW1
CM18-08BPP-KC1	CM18-08BPP-KW1
CM18-12NPP-KC1	CM18-12NPP-KW1
CM18-12NPP-KC1	CM18-12NPP-KW1



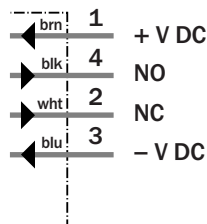
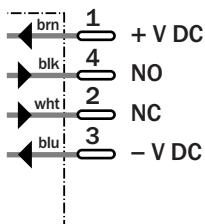
M12, 4-pin



4 x 0.34 mm²

See chapter Accessories

- Connector, M12, 4-pin
- Mounting systems



Technical specifications		CM18-	08BNP-KC1	08BNP-KW1	08BPP-KC1	08BPP-KW1	12NNP-KC1	12NNP-KW1	12NPP-KC1	12NPP-KW1		
Sensing range S_n	8 mm											
	12 mm											
Electrical configuration	DC 4-wire											
Supply voltage V_s	DC 10 ... 40 V											
Ripple U_{pp}	$\leq 10\%$ ¹⁾											
Voltage drop U_d	$\leq 2.5\text{ V}$ ²⁾											
Power consumption	$\leq 10\text{ mA}$ ³⁾											
Continuous current I_a	$\leq 200\text{ mA}$											
Time delay before availability t_v	$\leq 100\text{ ms}$											
Hysteresis H, of s_r	4 ... 20 %											
Repeatability R	$\leq 5\%$ (U_b and T_a constant) ⁴⁾											
Temperature drift, of s_r	$\pm 10\%$											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Complementary											
Installation	Flush											
	Non-flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁵⁾											
Max. switching frequency	30 Hz											
Dimensions	M18 x 1 ⁶⁾											
Short-circuit protection	✓ ⁷⁾											
Reverse polarity protection	✓											
Power-up pulse suppression	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature operation	-25 °C ... +80 °C											
Housing material	Plastic											
Tightening torque	2.6 Nm											

¹⁾ of U_b
²⁾ at I_a max

³⁾ without load
⁴⁾ of s_r

⁵⁾ according to EN 60529
⁶⁾ Thread diameter x pitch (mm)

⁷⁾ (pulsed)

Order information	
Type	Order no.
CM18-08BNP-KC1	6 021 456
CM18-08BNP-KW1	6 021 455
CM18-08BPP-KC1	6 020 388
CM18-08BPP-KW1	6 020 136
CM18-12NNP-KC1	6 021 458
CM18-12NNP-KW1	6 021 457
CM18-12NPP-KC1	6 020 410
CM18-12NPP-KW1	6 020 389

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