## 1-800-633-0405 **CM Series Capacitive Proximity Sensors**



#### M12 (12mm) metal – DC

- Sensitivity adjustment via potentiometer
- IP65 rated
- LED status indicators
- M12 quick-disconnect; purchase cable separately



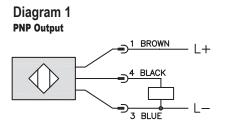
CM Series Capacitive Proximity Selection Chart									
Part Number	Part Number Price Sensing Distance Mounting Output State Logic Connection Wiring Dimension						Dimensions		
<u>CM1-AP-1H</u>	\$92.00	6mm [0.24 in]	Flush	N.O.	PNP	M12 (12mm) quick-disconnect	Diagram 1	Figure 1	
<u>CM1-AP-2H</u>	\$92.00	12mm [0.47 in]	Non-flush	N.O.	PNP	M12 (12mm) quick-disconnect	Diagram 1	Figure 1	

CM Series Capacitive Proximity Specifications						
Part Number	<u>CM1-AP-1H</u>	<u>CM1-AP-2H</u>				
Mounting Type	Flush	Non-flush				
Nominal Sensing Distance	6mm [0.24 in]	12mm [0.47 in]				
Operating Distance	N	A				
Material Correction Factors	- NA					
Output Type	PNP; N	O. only				
Operating Voltage	10 to 3	6VDC				
No-load Supply Current	< 12	mA				
Operating (Load) Current	100	mA				
Off-state (Leakage) Current	N	A				
Voltage Drop	< 2	5V				
Switching Frequency	50Hz					
Differential Travel (% of Nominal Distance)	- NA					
Repeat Accuracy						
Ripple						
Time Delay Before Availability (tv)						
Reverse Polarity Protection	Ye	S				
Short-circuit Protection	Yes, p	ulsed				
Operating Temperature	-25 to 70°C [·	13 to 158°F]				
Protection Degree (DIN 40050)	IEC	P65				
Indication/Switch Status	Yellow (output	it energized)				
Housing Material	Stainles	s steel				
Sensing Face Material	Polyether Ether	Ketone (PEEK)				
Shock/Vibration	DIN EN 60947-5-2					
Tightening Torque	5.0 N•m [3.69 lb•ft]					
Weight	54g [1.90 oz]					
Connectors	M12 connector. 2	ock nuts included				
Agency Approvals	cULus file E	328811, CE				

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

## 1-800-633-0405 CM Series Capacitive Proximity Sensors

#### Wiring Diagrams



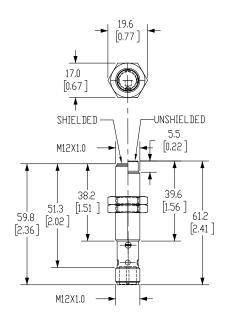
Connectors M12 connector



#### Dimensions

mm [inches]

Figure 1



# Accessories for 12mm Sensors

#### **Axial Mounting Bracket**

Mounting bracket, axial, available in zinc-plated steel or 316L stainless steel. For use with 12mm sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for right-angle adapter sensors. Hexagonal nuts not included.

	Accessories for 12mm Sensors							
Part Number	Price	Description	Drawing Link	Weight Ib [g]				
<u>ST12A</u>	\$2.00	Micro Detectors mounting bracket, axial, zinc plated steel. For use with 12mm sensors.	PDF	0.03 [13.6]				
<u>ST12A7W</u>	\$7.25	Micro Detectors mounting bracket, axial, 316L stainless steel. For use with 12mm sensors.	PDF	0.03 [13.6]				



<u>ST12A</u>

## **Right-angle Mounting Bracket**

Mounting bracket, right-angle, zinc-plated steel or 316L stainless steel. For use with 12mm sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal screws not included.

Accessories for 12mm Sensors							
Part Number	Drawing Link	Weight Ib [g]					
<u>ST12C</u>	\$2.00	Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 12mm sensors.		0.03 [13.6]			
<u>ST12C7W</u>	\$7.25	Micro Detectors mounting bracket, right-angle, 316L stainless steel. For use with 12mm sensors.	<u>PDF</u>	0.03 [13.6]			



<u>ST12C</u>

# Accessories for 12mm Sensors

#### **Right-angle Mounting Brackets**

Mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 12mm sensors. Available with or without fixed insertion stop.

	Accessories for 12mm Sensors								
Part Number	Price	Description	Drawing Link	Weight Ib [g]					
<u>OPT2102</u>	\$8.00	Wenglor mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 12mm sensors.	PDF	0.05 [22.7]					
<u>OPT2103</u>	\$8.00	Wenglor mounting bracket, right-angle, plastic. For use with 12mm sensors.	<u>PDF</u>	0.05 [22.7]					



## **Right-angle Swivel Mounting Systems**

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 12mm rod mount. For use with 12mm sensors. Available in all stainless steel or with an aluminum head and stainless steel mounting plate.

	Accessories for 12mm Sensors								
Part Number	Price	Description	Mounting Head	Mounting Plate	Drawing Link	Weight Ib [g]			
<u>OPT2114</u>	\$11.50	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 12mm sensors.	Aluminum	Stainless steel	<u>PDF</u>	0.14 [63.5]			
<u>OPT2115</u>	\$21.00	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 12mm sensors.	304 Stainless steel	304 Stainless steel	<u>PDF</u>	0.27 [122.5]			



Note: 304 stainless steel mounting rods sold separately: <u>OPT2109</u> (200mm [7.87 in] length), <u>OPT2110</u> (300mm [11.81 in] length), and <u>OPT2111</u> (500mm [19.69 in] length).

OPT2114, OPT2115

## 1-800-633-0405 Mounting Rods and Brackets

#### **Mounting Rods**

304 Stainless steel rods for mounting swivel brackets <u>OPT2112</u> - <u>OPT2127</u> Available in three lengths: 200mm, 300mm, and 500mm. 12mm diameter.

M	Mounting Rods for OPT2112-2127 Swivel Mounting Brackets							
Part Number	Part Number Price Description		Drawing Link	Weight Ib (g)				
<u>OPT2109</u>	\$13.00	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	PDF	0.41 [185.97]				
<u>OPT2110</u>	\$16.00	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	PDF	0.60 [272.16]				
<u>OPT2111</u>	\$21.00	Wenglor mounting rod, 12mm diameter, 500mm length, 304 stainless steel.	PDF	0.98 [444.52]				



#### **Right-angle Mounting Bracket**

Mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods <u>OPT2109</u>, <u>OPT2110</u> & <u>OPT2111</u>.

	Right-angle Mounting Brackets for 12mm Sensors							
Part Number Price Description			Drawing Link	Weight Ib [g]				
<u>OPT2108</u>	\$16.00	Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	<u>PDF</u>	0.07 [31.8]				

