



# CE1 Series Capacitive Proximity Sensors



## M8 (8mm) Stainless Steel – DC

- Sensitivity adjustment via potentiometer (adjustment tool included with each sensor)
- IP65 rated
- LED status indicators
- M8 quick-disconnect (purchase cable separately), or cabled models

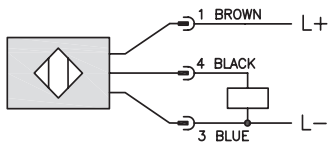


### CE1 Series Capacitive Proximity Sensors Selection Chart

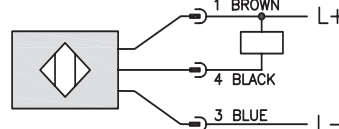
Part Number	Price	Sensing Distance	Mounting	Output State	Logic	Connection	Wiring	Drawing Link
<a href="#">CE1-AP-1A</a>	\$110.00	1.5 mm [0.06 in]	Flush	N.O.	PNP	3-wire cable, 2m [6.5 ft]	Diagram 1	<a href="#">PDF</a>
<a href="#">CE1-CP-1A</a>	\$110.00	1.5 mm [0.06 in]	Flush	N.C.	PNP	3-wire cable, 2m [6.5 ft]	Diagram 1	<a href="#">PDF</a>
<a href="#">CE1-AN-1A</a>	\$110.00	1.5 mm [0.06 in]	Flush	N.O.	NPN	3-wire cable, 2m [6.5 ft]	Diagram 2	<a href="#">PDF</a>
<a href="#">CE1-AP-1F</a>	\$110.00	1.5 mm [0.06 in]	Flush	N.O.	PNP	M8x1, 3-pin	Diagram 1	<a href="#">PDF</a>
<a href="#">CE1-CP-1F</a>	\$110.00	1.5 mm [0.06 in]	Flush	N.C.	PNP	M8x1, 3-pin	Diagram 1	<a href="#">PDF</a>
<a href="#">CE1-AP-2A</a>	\$110.00	3mm [0.12 in]	Non-flush	N.O.	PNP	3-wire cable, 2m [6.5 ft]	Diagram 1	<a href="#">PDF</a>
<a href="#">CE1-CP-2A</a>	\$110.00	3mm [0.12 in]	Non-flush	N.C.	PNP	3-wire cable, 2m [6.5 ft]	Diagram 1	<a href="#">PDF</a>
<a href="#">CE1-AN-2A</a>	\$110.00	3mm [0.12 in]	Non-flush	N.O.	NPN	3-wire cable, 2m [6.5 ft]	Diagram 2	<a href="#">PDF</a>
<a href="#">CE1-AP-2F</a>	\$110.00	3mm [0.12 in]	Non-flush	N.O.	PNP	M8x1, 3-pin	Diagram 1	<a href="#">PDF</a>
<a href="#">CE1-CP-2F</a>	\$110.00	3mm [0.12 in]	Non-flush	N.C.	PNP	M8x1, 3-pin	Diagram 1	<a href="#">PDF</a>

## Wiring Diagrams

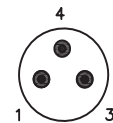
**Diagram 1**  
PNP Output



**Diagram 2**  
NPN Output



**M8 connector**



*Warning: These products are not safety sensors and are not suitable for use in personal safety applications.*

# CE1 Series Capacitive Specifications

CE1 Series Capacitive Proximity Sensors Specifications	
<b>Nominal Sensing Distance</b>	See Selection Table
<b>Operating Distance</b>	See Installation Guide
<b>Material Correction Factors</b>	N/A
<b>Output Type</b>	See Selection Table
<b>Operating Voltage</b>	11-30 VDC
<b>No-load Supply Current</b>	10mA
<b>Operating (Load) Current</b>	50mA
<b>Voltage Drop</b>	2V static max
<b>Switching Frequency</b>	100Hz
<b>Hysteresis (% of Sr)</b>	15%
<b>Repeat Accuracy</b>	2%
<b>Ripple</b>	10% max
<b>Time Delay Before Availability (tv)</b>	100ms
<b>Reverse Polarity Protection</b>	Yes
<b>Short-circuit Protection</b>	Yes
<b>Operating Temperature</b>	-10 to +70°C [+14 to +158°F]
<b>Protection Degree (DIN 40050)</b>	IP65
<b>Indication/Switch Status</b>	LED function indicator
<b>Housing Material</b>	Stainless steel
<b>Sensing Face Material</b>	PTFE (Polytetrafluoroethylene)
<b>Shock/Vibration</b>	IEC 60947-5-2
<b>Tightening Torque</b>	6 N•m [4.42 lb•ft]
<b>Weight</b>	Cabled Models: 58.98 g [2.08 oz] M8 Models: 31.75 g [1.11 oz]
<b>Connections</b>	M8x1, 3-pin, 0.30 m [0.98 ft] or cable, 2m [6.5 ft], PUR, 26 AWG (0.14 mm <sup>2</sup> )
<b>Agency Approvals</b>	CE, cULus

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

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# Accessories for 8mm Sensors

## Axial Mounting Bracket

Mounting bracket, axial, zinc-plated steel. For use with 8mm sensors. Has two mounting holes (use 3 mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.

Accessories for 8mm Sensors				
Part Number	Price	Description	Drawing Link	Weight [lb]
<a href="#"><u>ST08A</u></a>	\$2.00	Micro Detectors mounting bracket, axial, zinc plated steel. For use with 8mm sensors.	<a href="#"><u>PDF</u></a>	0.04



[ST08A](#)

## Right-angle Mounting Bracket

Mounting bracket, right-angle, zinc-plated steel. For use with 8mm sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for right-beam-angle-adaptor sensors. Hexagonal nuts not included.

Accessories for 8mm Sensors				
Part Number	Price	Description	Drawing Link	Weight [lb]
<a href="#"><u>ST08C</u></a>	\$2.00	Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 8mm sensors.	<a href="#"><u>PDF</u></a>	0.04



[ST08C](#)

# Accessories for 8mm Sensors

## Right-angle Mounting Bracket

Mounting bracket, right-angle, plastic. For use with 8mm sensors.

Accessories for 8mm Sensors				
Part Number	Price	Description	Drawing Link	Weight [lb]
<a href="#"><u>OPT2101</u></a>	\$8.00	Wenglor mounting bracket, right-angle, plastic. For use with 8mm sensors.	<a href="#"><u>PDF</u></a>	0.02



[OPT2101](#)

## Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment. For use with 8mm sensors. Available in all stainless steel or with an aluminum head and stainless steel mounting plate.

Accessories for 8mm Sensors						
Part Number	Price	Description	Mounting Head	Mounting Plate	Drawing Link	Weight [lb]
<a href="#"><u>OPT2112</u></a>	\$11.50	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 8mm sensors.	Aluminum	304 Stainless Steel	<a href="#"><u>PDF</u></a>	0.14
<a href="#"><u>OPT2113</u></a>	\$21.00	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 8mm sensors.	304 Stainless Steel	304 Stainless Steel	<a href="#"><u>PDF</u></a>	0.26



[OPT2112 & OPT2113](#)

Note: 304 Stainless steel mounting rods sold separately: [OPT2109](#) (200mm length), [OPT2110](#) (300mm length), and [OPT2111](#) (500mm length).