

# CT Series Capacitive Proximity Sensors



## M30 (30mm) Metal

- Potentiometer sensitivity adjustment
- N.O. or N.C. units
- IP65 rated
- LED status indicators
- 2m (6.5 ft) axial cable
- Mounting accessories available



### CT Series Capacitive Proximity Selection Chart

Part Number	Price	Sensing Distance	Mounting	Output State	Logic	Connection	Wiring	Dimensions
<b>Metal Housing</b>								
<b>CT1-AN-1A</b>	\$87.00	15mm [0.59 in]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<b>CT1-AP-1A</b>	\$87.00	15mm [0.59 in]	Flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<b>CT1-AN-2A</b>	\$87.00	20mm [0.79 in]	Non-flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<b>CT1-AP-2A</b>	\$87.00	20mm [0.79 in]	Non-flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<b>CT1-CN-2A</b>	\$87.00	20mm [0.79 in]	Non-flush	N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<b>CT1-CP-2A</b>	\$87.00	20mm [0.79 in]	Non-flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1

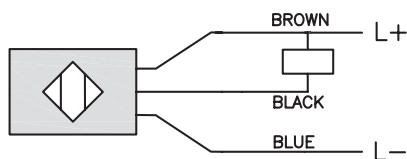
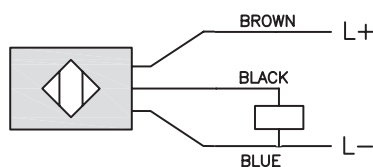
### CT Series Capacitive Proximity Specifications

Part Number	CT1-xx-1X	CT1-xx-2X
<b>Mounting Type</b>	Flush	Non-flush
<b>Nominal Sensing Distance</b>	15mm [0.59 in]	20mm [0.79 in]
<b>Sensitivity</b>	20-turn potentiometer	
<b>Operating Distance</b>	NA	
<b>Material Correction Factors</b>		
<b>Output Type</b>	NPN/PNP; N.O./N.C.	
<b>Operating Voltage</b>	10 to 30VDC	
<b>No-load Supply Current</b>	8mA	
<b>Operating (Load) Current</b>	m200mA	
<b>Off-state (Leakage) Current</b>	m10µA	
<b>Voltage Drop</b>	1.8 volts maximum	
<b>Switching Frequency</b>	100Hz	
<b>Differential Travel (% of Nominal Distance)</b>	2 to 20%	
<b>Repeat Accuracy</b>	10%	
<b>Ripple</b>	m10%	
<b>Time Delay Before Availability (tv)</b>	100ms	
<b>Reverse Polarity Protection</b>	Yes	
<b>Short-circuit Protection</b>	Yes (switch auto-resets after overload is removed)	
<b>Operating Temperature</b>	-25 to +70°C [-13 to 158°F]	
<b>Protection Degree (DIN 40050)</b>	IEC IP65	
<b>Indication/Switch Status</b>	Green (supply, Red [NO output energized])	
<b>Housing Material</b>	Nickel-plated brass	
<b>Sensing Face Material</b>	Polybutylene Terephthalate [PBT]	
<b>Shock/Vibration</b>	DIN EN 60947-5-2	
<b>Tightening Torque</b>	50N•m [36.9 lb•ft]	
<b>Weight</b>	280g [19.88oz]	
<b>Connectors</b>	2m [6.5 ft] axial cable, 2 lock nuts included	
<b>Agency Approvals</b>	CE	

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

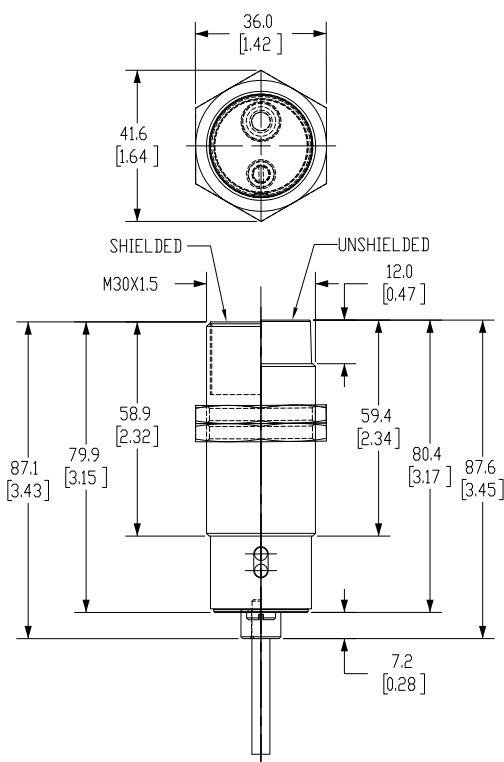
# CT Series Capacitive Proximity Sensors

## Wiring Diagrams

**Diagram 1****NPN Cable****Diagram 2****PNP Cable**

## Dimensions

mm [inches]

**Figure 1**See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings

# Capacitive Proximity Sensors - Accessories



Mounting Well

Mounting Adapter

Capacitive Proximity Sensors Accessory Chart				
Part Number	Price	Description	Material	Dimensions
<b>Mounting Adapter</b>				
<b>CR1-ADPTR</b>	\$4.50	Adapter for CR1 series capacitive sensors	Housing: Polybutylene Terephthalate (PBT) Included Screws: M3 x 6 Steel (0.5 N•m [0.37 lb•ft])	Figure 1
<b>Mounting Wells</b>				
<b>MWT-01</b>	\$52.00	30mm [1.18 in] sensor mounting well	PTFE - Polytetrafluoroethylene (Teflon®) Temp: -25 to 246°C [-13 to 474.8°F] Max. pressure: 100 PSI [6.9 bar]	Figure 2
<b>MWK-01</b>	\$42.50	18mm [0.71 in] sensor mounting well		Figure 3

## Dimensions

mm [inches]

Figure 1

CR1 Adapter

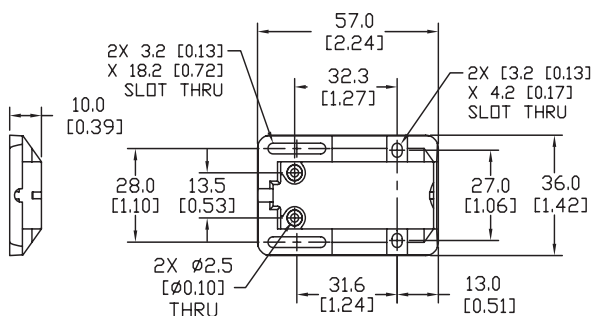


Figure 2

30mm Sensor Mounting Well

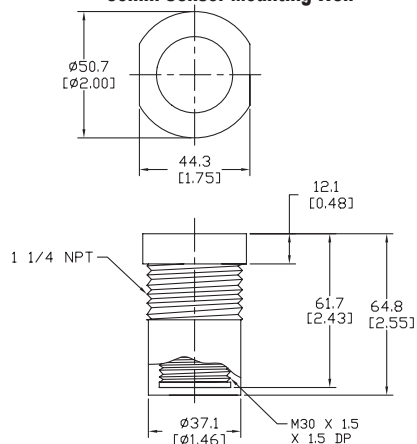
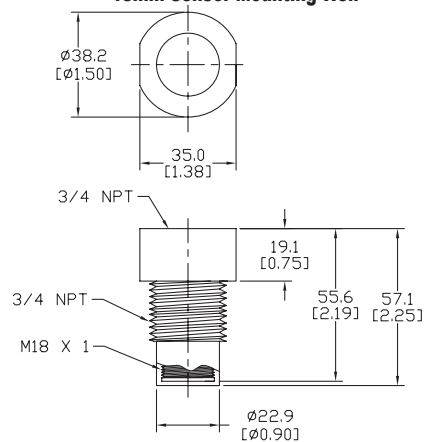


Figure 3

18mm Sensor Mounting Well

See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings



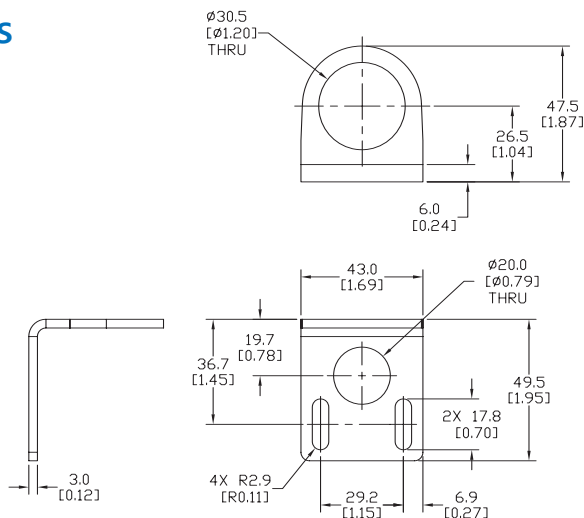
## Right-angle Mounting Bracket

Mounting bracket, right-angle, 304 stainless steel. For use with 30mm sensors.

Accessories for FW Series Sensors			
Part Number	Price	Description	Weight lb [g]
<u>ST30C6W</u>	\$5.50	AutomationDirect mounting bracket, right-angle, 304 stainless steel. For use with 30mm sensors.	0.15 (68.0)

## Dimensions

mm [inches]



## ST30C6W

## Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 12mm rod mount. For use with 30mm sensors. Available in all 304 stainless steel or with an aluminum head with a 304 stainless steel mounting plate.

Accessories for 30mm Sensors						
Part Number	Price	Description	Mounting Head	Mounting Plate	Drawing Link	Weight lb [g]
<a href="#"><u>OPT2118</u></a>	\$11.50	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 30mm sensors.	Aluminum	304 Stainless steel	<a href="#"><u>PDF</u></a>	0.18 [81.7]
<a href="#"><u>OPT2119</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 30mm sensors.	304 Stainless Steel	304 Stainless steel	<a href="#"><u>PDF</u></a>	0.18 [81.7]

Note: 304 Stainless steel mounting rods sold separately: [OPT2109](#) (200mm [7.87 in] length), [OPT2110](#) (300mm [11.81 in] length), and [OPT2111](#) (500mm [19.69 in] length).



### OPT2118, OPT2119

# Mounting Rods and Brackets

## Mounting Rods

304 Stainless steel rods for mounting swivel brackets [OPT2112](#) - [OPT2127](#). Available in three lengths: 200mm, 300mm, and 500mm. 12mm diameter.

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



## Right-angle Mounting Bracket

Mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods [OPT2109](#), [OPT2110](#) & [OPT2111](#).

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

