

# 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

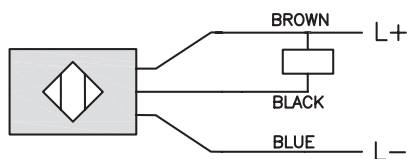
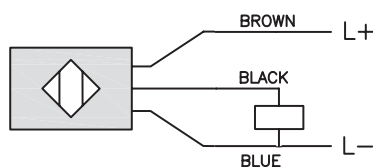
### CT Series Capacitive Proximity Specifications

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.

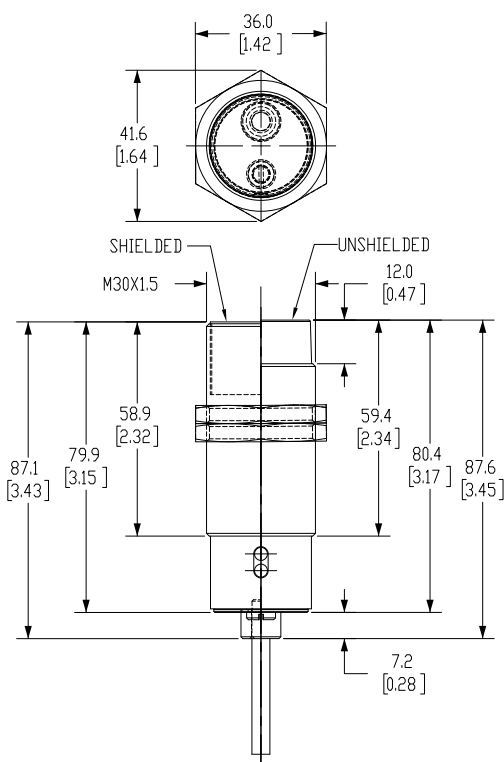
# CT Series Capacitive Proximity Sensors

## 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

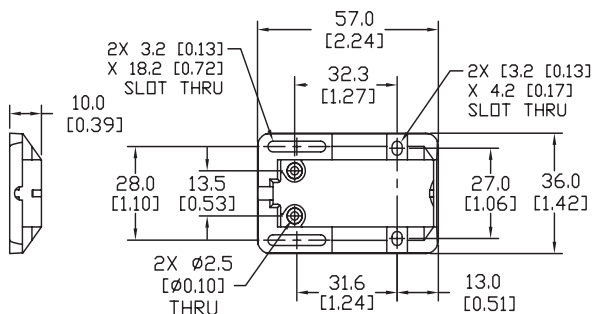


Figure 2

30mm Sensor Mounting Well

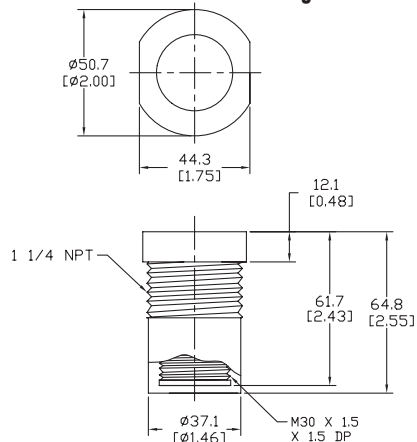
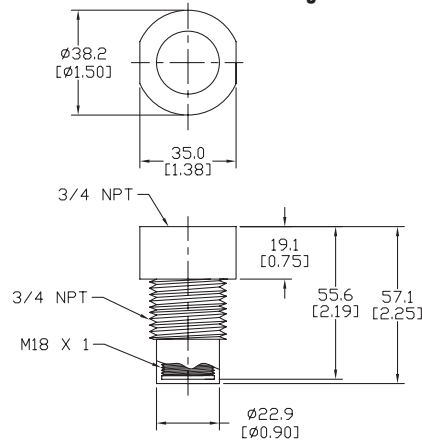


Figure 3

18mm Sensor Mounting Well

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

# Accessories for 30mm Sensors

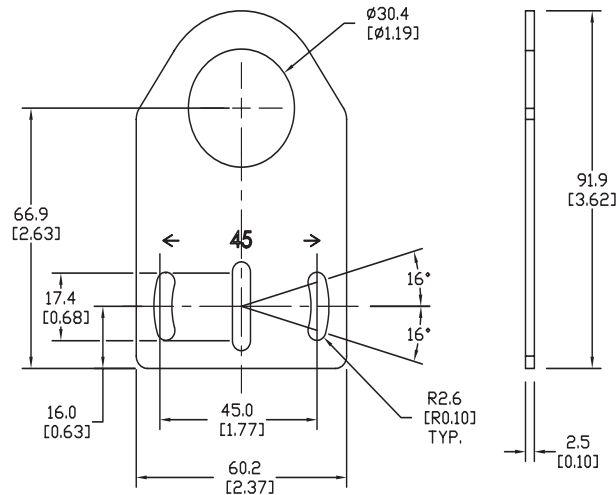
## Axial Mounting Bracket

Mounting bracket, axial, zinc-plated steel. For use with 30mm sensors. Has two mounting holes (use 5mm screws) and allows the rotation of an optical axis for right-beam-angle-adaptor sensors. Hexagonal nuts not included.

Accessories for 30mm Sensors			
Part Number	Price	Description	Weight lb [g]
<b>ST30A</b>	\$2.25	Micro Detectors mounting bracket, axial, zinc plated steel. For use with 30mm sensors.	0.18 [81.7]

### Dimensions

mm [inches]



**ST30A**

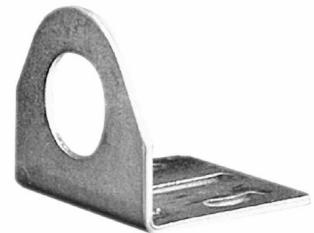
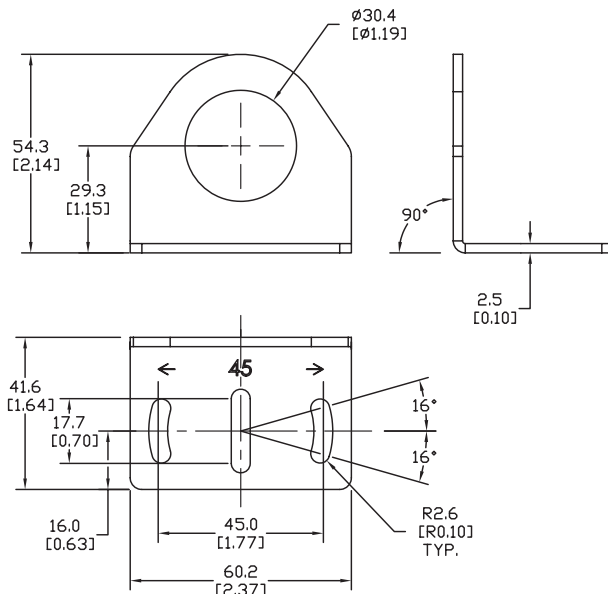
## Right-angle Mounting Bracket

Mounting bracket, right-angle, zinc-plated steel. For use with 30mm sensors. Has two mounting holes (use 5mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.

Accessories for 30mm Sensors			
Part Number	Price	Description	Weight lb [g]
<b>ST30C</b>	\$2.25	Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 30mm sensors.	0.18 [81.7]

### Dimensions

mm [inches]



**ST30C**

# Accessories for 30mm Sensors

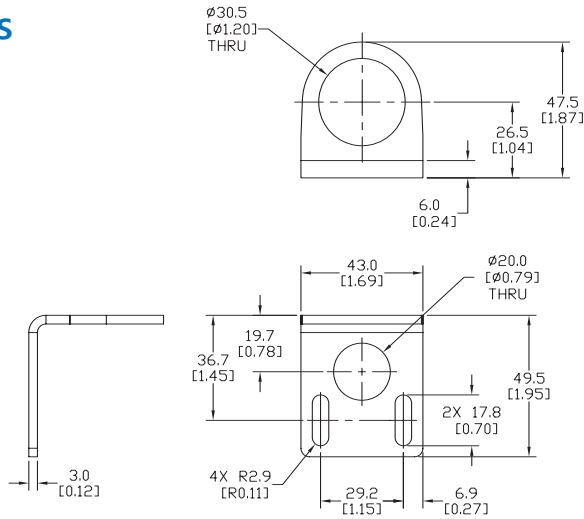
## Right-angle Mounting Bracket

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

Accessories for FW Series Sensors			
Part Number	Price	Description	Weight lb [g]
<a href="#"><u>ST30C6W</u></a>	\$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]

