CT Series Capacitive Proximity Sensors

M30 (30mm) plastic – AC/DC

Plastic Housings:
- Push button teach
- NO/NC selectable
- IP65/IP67 rated
- LED status indicators
- 1/2 inch Micro AC quick-disconnect; purchase cable separately
- Mounting accessories available

NEED CABLES?

CT Series Capacitive Prox Selection Chart								
Part Number	**Price**	**Sensing Distance**	**Mounting**	**Output State**	**Logic**	**Connection**	**Wiring**	**Dimensions**
AC								
CTV-00-2M	$95.00	40mm (1.58 in)	Non-flush	N.O./N.C.	-	1/2 inch micro AC quick-disconnect	Diagram 1	Figure 1

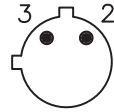| CT Series Specifications	CTV-00-2M
Mounting Type	Non-flush
Nominal Sensing Distance	40mm (1.58 in)
Sensitivity	Push to teach
Operating Distance	NA
Material Correction Factors	
Output Type	AC/DC; N.O./N.C.
Operating Voltage	20 to 250VDC; 30 to 250VAC
No-load Supply Current	NA
Operating (Load) Current	150mA (40°C)/100mA (80°C) continuous; 1.0 A (20ms/ 0.5 Hz) peak
Off-state (Leakage) Current	< 2.5mA (250VAC) < 1.7mA (110VAC) < 1.5mA (24VDC)
Voltage Drop	< 8VDC/ <10VAC
Switching Frequency	10Hz
Differential Travel (% of Nominal Distance)	NA
Repeat Accuracy	
Ripple	
Time Delay Before Availability (tv)	
Reverse Polarity Protection	Yes
Short-circuit Protection	No
Operating Temperature	-25° to 80°C (-13° to 176°F); Sensing face: -25° to 110°C (-13° to 230°F)
Protection Degree (DIN 40050)	IEC IP65/IP67
Indication/Switch Status	Yellow (output energized)
Housing Material	Polybutylene Terephthalate (PBT)
Sensing Face Material	Polybutylene Terephthalate (PBT)
Shock/Vibration	DIN EN 60947-5-2
Tightening Torque	8.0 N•m (5.9 lb•ft)
Weight	122g (4.30 oz)
Connectors	0.5 in (12.7 mm) micro AC connector, 2 lock nuts included
Agency Approvals	cULus file E328811, CE, RoHS

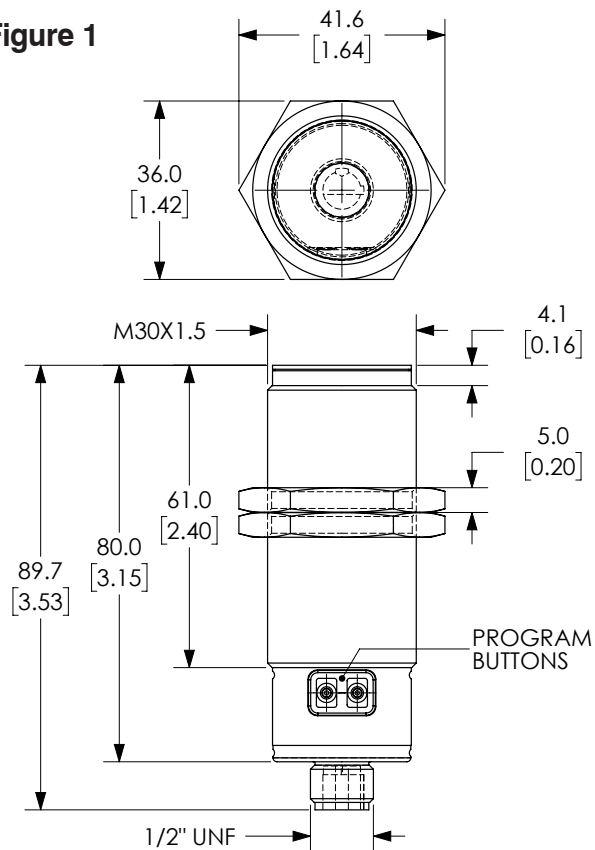# CT Series Capacitive Proximity Sensors

Wiring Diagram

Diagram 1

AC Output

3   L1 / L+

2   N / L−

2   L1 / L+

3   N / L−

Connector

3   2
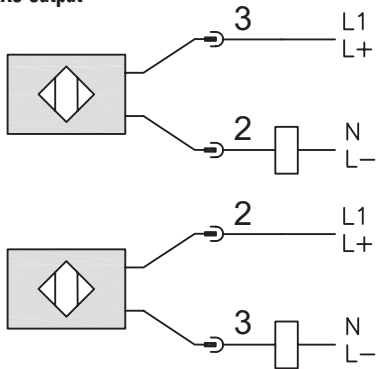
1/2" micro AC

Dimensions

mm [inches]

Figure 1

41.6 [1.64]

36.0 [1.42]

M30X1.5

4.1 [0.16]

5.0 [0.20]

61.0 [2.40]

80.0 [3.15]

89.7 [3.53]

PROGRAM BUTTONS

1/2" UNF

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Capacitive Proximity Sensors - Accessories

Mounting Well

Mounting Adapter

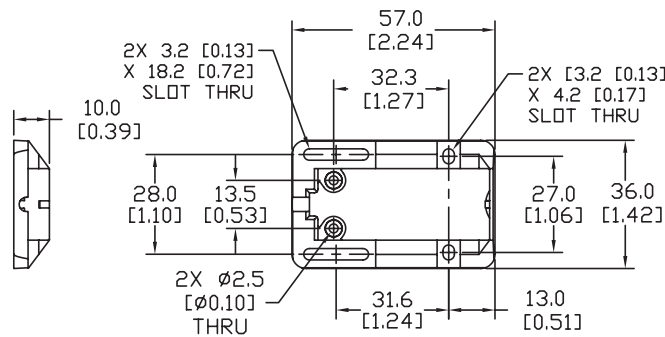| Capacitive Proximity Sensors Accessory Chart				
Part Number	*Price*	*Description*	*Material*	*Dimensions*
Mounting Adapter				
CR1-ADPTR	$4.00	Adapter for CR1 series capacitive sensors	Housing: Polybutylene Terephthalate (PBT) Included Screws: M3 x 6 Steel (0.5 N•m [0.37 lb•ft])	Figure 1
Mounting Wells				
MWT-01	$46.50	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
MWK-01	$38.00	18mm (0.71 in) sensor mounting well		Figure 3

Dimensions

mm [inches]

Figure 1

CR1 Adapter

57.0 [2.24]
2X 3.2 [0.13] X 18.2 [0.72] SLOT THRU
32.3 [1.27]
2X [3.2 [0.13] X 4.2 [0.17] SLOT THRU
10.0 [0.39]
28.0 [1.10] 13.5 [0.53] 27.0 [1.06] 36.0 [1.42]
2X Ø2.5 [Ø0.10] THRU
31.6 [1.24] 13.0 [0.51]

Figure 2

30mm Sensor Mounting Well

Ø50.7 [Ø2.00]
44.3 [1.75]
12.1 [0.48]
1 1/4 NPT
61.7 [2.43] 64.8 [2.55]
Ø37.1 [Ø1.46]
M30 X 1.5 X 1.5 DP
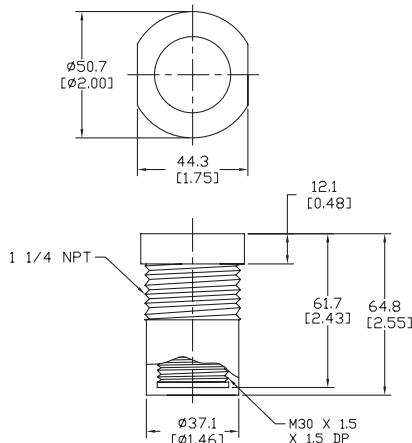
Figure 3

18mm Sensor Mounting Well
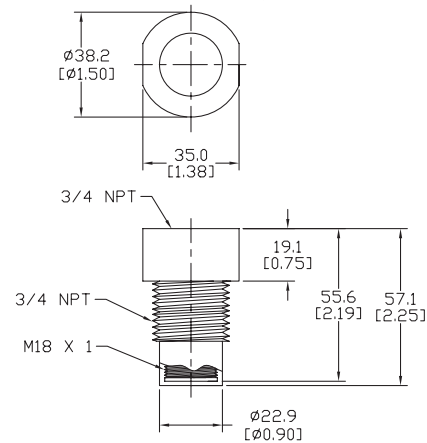
Ø38.2 [Ø1.50]
35.0 [1.38]
3/4 NPT
19.1 [0.75]
3/4 NPT
55.6 [2.19] 57.1 [2.25]
M18 X 1
Ø22.9 [Ø0.90]

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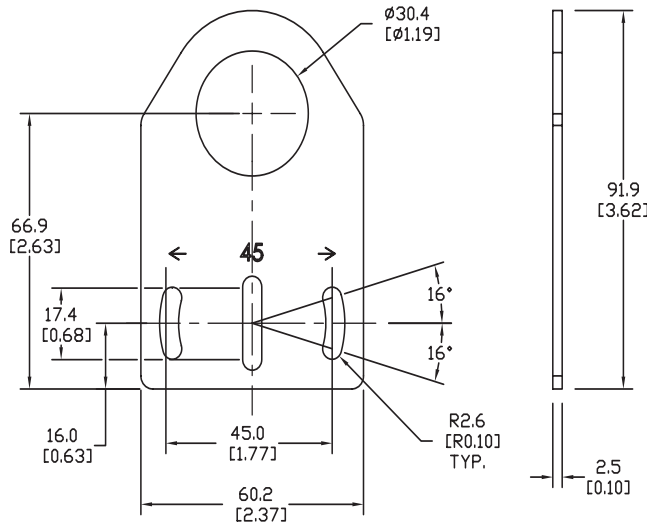
Accessories for 30mm Sensors

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-adapter sensors. Hexagonal nuts not included.

Accessories for 30mm Sensors			
Part Number	Price	Description	Weight lb (g)
ST30A	$2.25	Mounting bracket, axial, zinc plated steel. For use with 30mm sensors.	0.18 (81.7 g)

Dimensions

mm [inches]

ø30.4 [ø1.19]

66.9 [2.63]

45

17.4 [0.68]

16°

16°

16.0 [0.63]

45.0 [1.77]

60.2 [2.37]

R2.6 [R0.10] TYP.

91.9 [3.62]
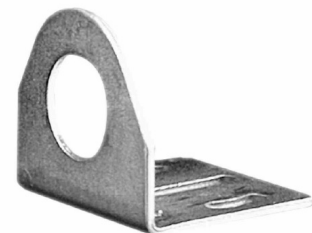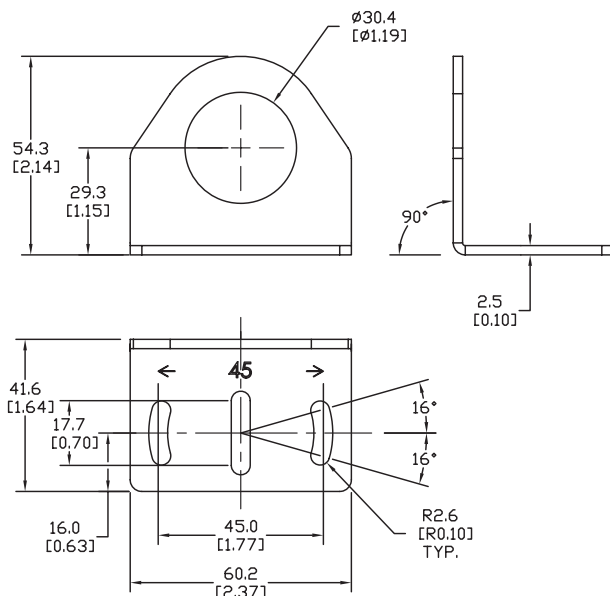
2.5 [0.10]

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)
ST30C	$2.25	Mounting bracket, right-angle, zinc plated steel. For use with 30mm sensors.	0.18 (81.7 g)

Dimensions

mm [inches]

ø30.4 [ø1.19]

54.3 [2.14]

29.3 [1.15]

90°

2.5 [0.10]

41.6 [1.64]

17.7 [0.70]

45

16°

16°

16.0 [0.63]

45.0 [1.77]

60.2 [2.37]

R2.6 [R0.10] TYP.

ST30C

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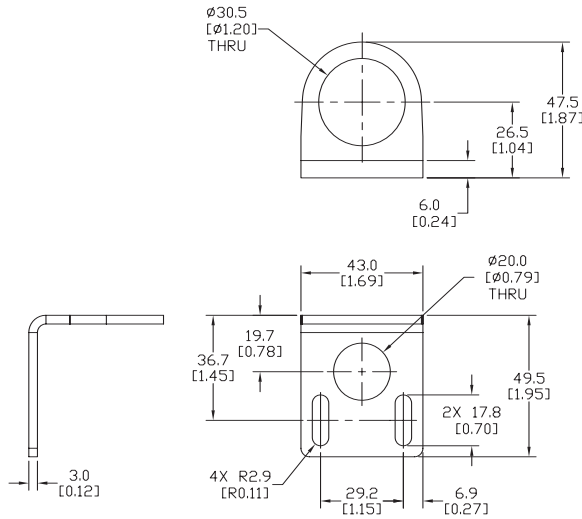
Accessories for 30mm Sensors

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)**
ST30C6W	$3.50	Mounting bracket, right-angle, 304 stainless steel. For use with 30mm sensors.	0.15 (68.0)

ST30C6W

Dimensions

mm [inches]

Ø30.5 [Ø1.20] THRU
47.5 [1.87]
26.5 [1.04]
6.0 [0.24]

43.0 [1.69]
Ø20.0 [Ø0.79] THRU
19.7 [0.78]
36.7 [1.45]
49.5 [1.95]
2X 17.8 [0.70]
4X R2.9 [R0.11]
29.2 [1.15]
6.9 [0.27]
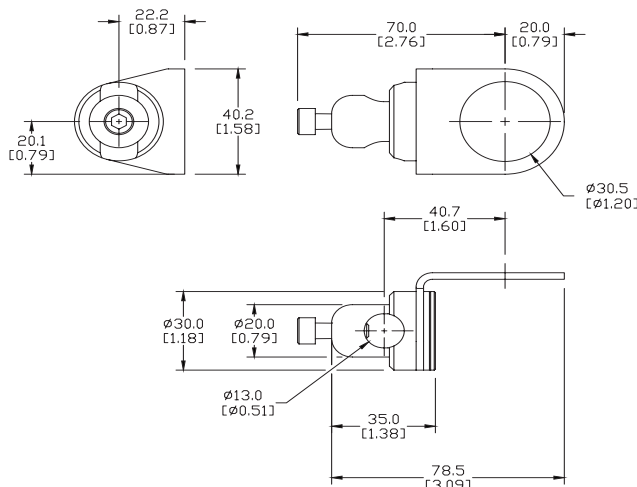3.0 [0.12]

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**	**Weight lb (g)**
OPT2118	$9.75	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	0.18
OPT2119	$17.50	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	0.30

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

Dimensions

mm [inches]

22.2 [0.87]
40.2 [1.58]
20.1 [0.79]
20.0 [0.79]

70.0 [2.76]
20.0 [0.79]
Ø30.5 [Ø1.20]

40.7 [1.60]
Ø30.0 [1.18]
Ø20.0 [0.79]
Ø13.0 [Ø0.51]
35.0 [1.38]
78.5 [3.09]

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For the latest prices, please check AutomationDirect.com.

Mounting Rods

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*	*Weight lb (g)*
OPT2109	$11.00	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	0.41 (185.97)
OPT2110	$13.50	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	0.60 (272.16)
OPT2111	$17.50	Wenglor mounting rod, 12mm diameter, 500mm length, 304 stainless steel.	0.98 (444.52)

OPT2109, OPT2110, OPT2111

Dimensions

mm [inches]
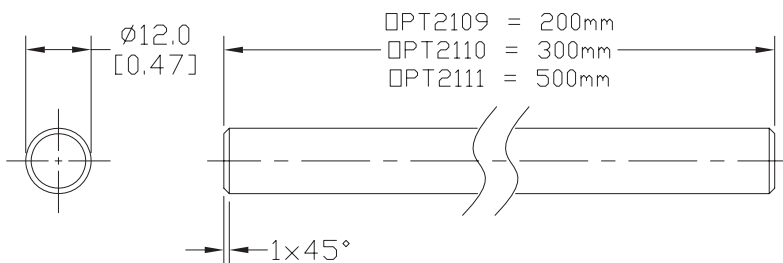
Ø12.0 [0.47]

OPT2109 = 200mm
OPT2110 = 300mm
OPT2111 = 500mm

1×45°

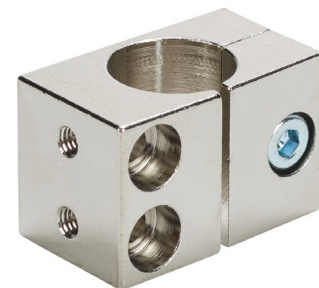## Right-angle Mounting Bracket

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

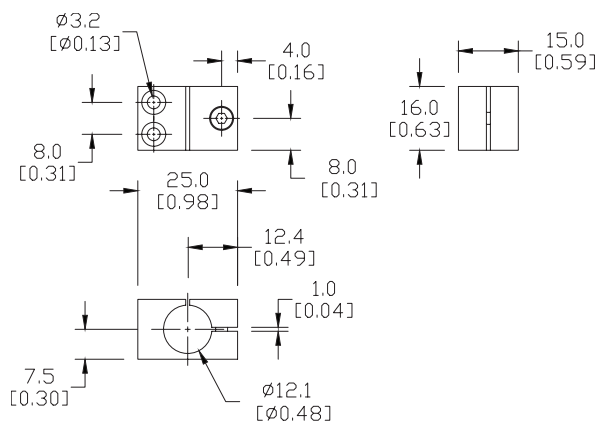| Accessories for 12mm Sensors			
Part Number	*Price*	*Description*	*Weight lb (g)*
OPT2108	$13.50	Wenglor mounting bracket, right-angle, nickel plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	0.07 (31.8)

OPT2108

Dimensions

mm [inches]

Ø3.2 [Ø0.13]
4.0 [0.16]
15.0 [0.59]
16.0 [0.63]
8.0 [0.31]
25.0 [0.98]
8.0 [0.31]
12.4 [0.49]
1.0 [0.04]
7.5 [0.30]
Ø12.1 [Ø0.48]

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