

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 |
|----------------------|---------|------------------|-----------|--------------|-------|-------------------------|-----------|------------|
| Metal Housing | | | | | | | | |
| CT1-AN-1A | \$87.00 | 15mm [0.59 in] | Flush | N.O. | NPN | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1 |
| CT1-AP-1A | \$87.00 | 15mm [0.59 in] | Flush | N.O. | PNP | 2m [6.5 ft] axial cable | Diagram 2 | Figure 1 |
| CT1-AN-2A | \$87.00 | 20mm [0.79 in] | Non-flush | N.O. | NPN | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1 |
| CT1-AP-2A | \$87.00 | 20mm [0.79 in] | Non-flush | N.O. | PNP | 2m [6.5 ft] axial cable | Diagram 2 | Figure 1 |
| CT1-CN-2A | \$87.00 | 20mm [0.79 in] | Non-flush | N.C. | NPN | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1 |
| CT1-CP-2A | \$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 |
|--|--|----------------|
| Mounting Type | Flush | Non-flush |
| Nominal Sensing Distance | 15mm [0.59 in] | 20mm [0.79 in] |
| Sensitivity | 20-turn potentiometer | |
| Operating Distance | NA | |
| Material Correction Factors | | |
| Output Type | NPN/PNP; N.O./N.C. | |
| Operating Voltage | 10 to 30VDC | |
| No-load Supply Current | 8mA | |
| Operating (Load) Current | m200mA | |
| Off-state (Leakage) Current | m10µA | |
| Voltage Drop | 1.8 volts maximum | |
| Switching Frequency | 100Hz | |
| Differential Travel (% of Nominal Distance) | 2 to 20% | |
| Repeat Accuracy | 10% | |
| Ripple | m10% | |
| Time Delay Before Availability (tv) | 100ms | |
| Reverse Polarity Protection | Yes | |
| Short-circuit Protection | Yes (switch auto-resets after overload is removed) | |
| Operating Temperature | -25 to +70°C [-13 to 158°F] | |
| Protection Degree (DIN 40050) | IEC IP65 | |
| Indication/Switch Status | Green (supply, Red [NO output energized]) | |
| Housing Material | Nickel-plated brass | |
| Sensing Face Material | Polybutylene Terephthalate [PBT] | |
| Shock/Vibration | DIN EN 60947-5-2 | |
| Tightening Torque | 50N•m [36.9 lb•ft] | |
| Weight | 280g [19.88oz] | |
| Connectors | 2m [6.5 ft] axial cable, 2 lock nuts included | |
| Agency Approvals | CE | |

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

Capacitive Proximity Sensors - Accessories



Mounting Well

Mounting Adapter

| Capacitive Proximity Sensors Accessory Chart | | | | |
|--|---------|---|---|------------|
| Part Number | Price | Description | Material | Dimensions |
| Mounting Adapter | | | | |
| CR1-ADPTR | \$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 |
| Mounting Wells | | | | |
| MWT-01 | \$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 |
| MWK-01 | \$42.50 | 18mm [0.71 in] sensor mounting well | | Figure 3 |

Dimensions

mm [inches]

Figure 1

CR1 Adapter

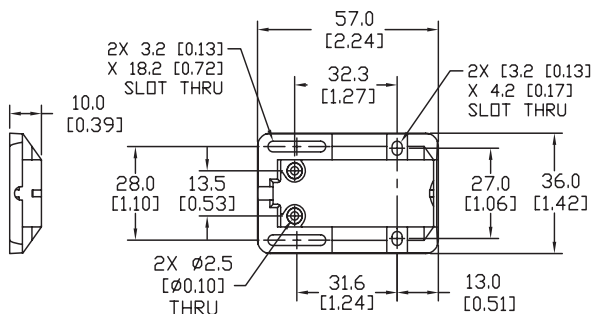


Figure 2

30mm Sensor Mounting Well

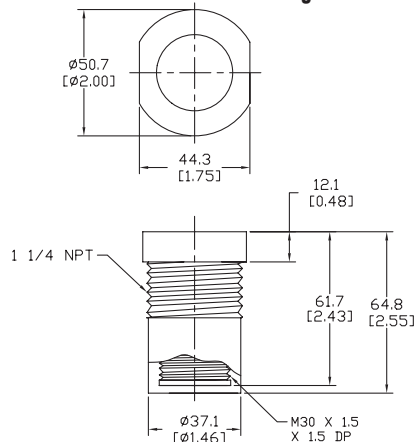
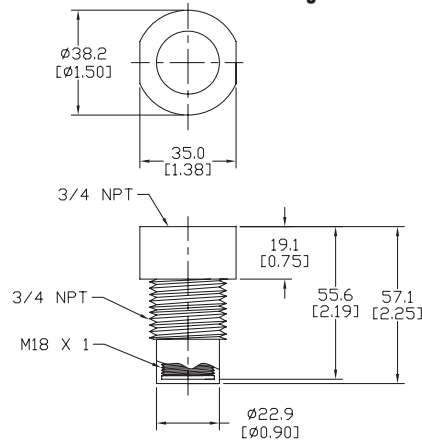


Figure 3

18mm Sensor Mounting Well

See our website: www.AutomationDirect.com for complete engineering drawings

Accessories for 30mm Sensors

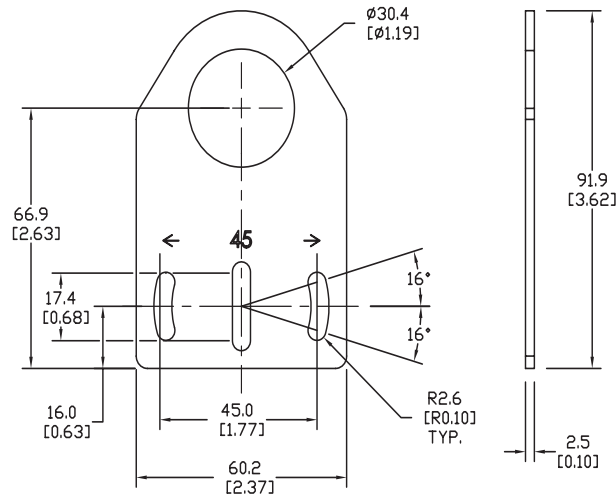
Axial Mounting Bracket

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] |
| ST30A | \$2.25 | Micro Detectors mounting bracket, axial, zinc plated steel. For use with 30mm sensors. | 0.18 [81.7] |

Dimensions

mm [inches]



ST30A

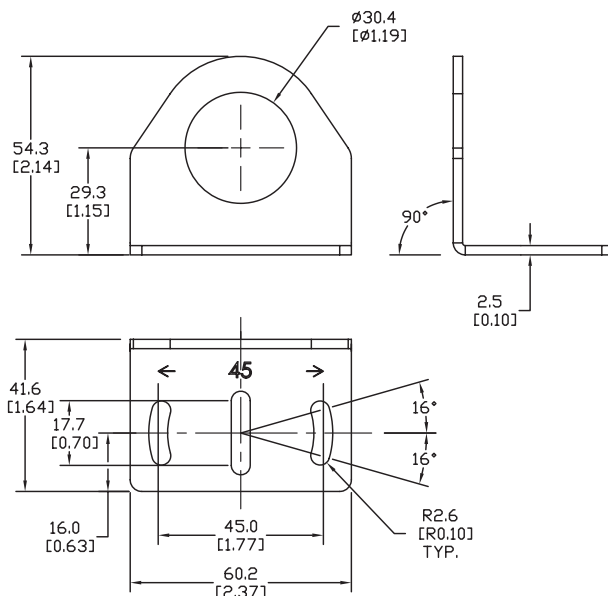
Right-angle Mounting Bracket

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] |
| ST30C | \$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

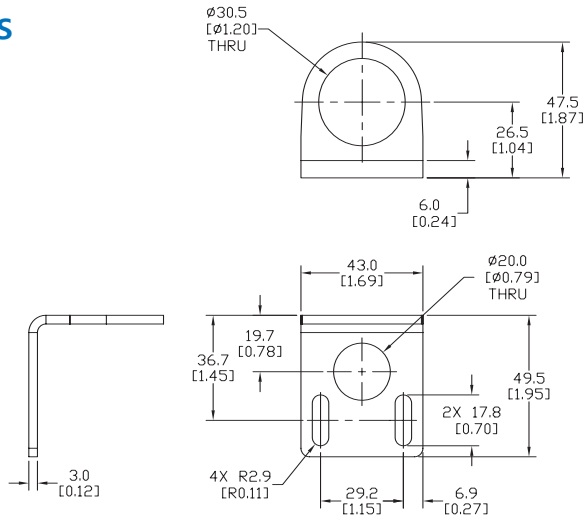
Right-angle Mounting Bracket

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

| Accessories for FW Series Sensors | | | |
|-----------------------------------|--------|---|----------------|
| Part Number | Price | Description | Weight lb [g] |
| <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] |
| <u>OPT2118</u> | \$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 | <u>PDF</u> | 0.18 [81.7] |
| <u>OPT2119</u> | \$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 | <u>PDF</u> | 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) |
| OPT2109 | \$13.00 | Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel. | PDF | 0.41 [185.97] |
| OPT2110 | \$16.00 | Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel. | PDF | 0.60 [272.16] |
| OPT2111 | \$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 [OPT2109](#), [OPT2110](#) & [OPT2111](#).

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

