

CK Series Capacitive Proximity Sensors

M18 (18 mm) plastic – DC



- NO/NC selectable
- IP65/IP67 rated
- LED status indicators
- M12 quick-disconnect; purchase cable separately
- Lifetime warranty
- Auto-detect circuit
- Push button teach
- Mounting accessories available



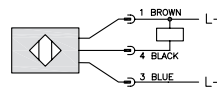
CK Series Capacitive Prox Selection Chart								
Part Number	Price	Sensing Distance	Housing	Output State	Logic	Connection	Wiring	Dimensions
CK1-00-2H	\$79.00	12 mm (0.472 in)	Unshielded	NO/NC	NPN/PNP	M12 (12 mm) quick disconnect	Diagram 1	Figure 1

CK Series Specifications	CK1-00-2H
Mounting Type	Unshielded
Nominal Sensing Distance	12 mm (0.472 in)
Operating Distance	NA
Material Correction Factors	
Output Type	NPN/PNP; NO/NC
Operating Voltage	10 to 36 VDC
No-load Supply Current	<20 mA
Operating (Load) Current	200 mA
Off-state (Leakage) Current	NA
Voltage Drop	<2.5V
Switching Frequency	10Hz
Differential Travel (% of Nominal Distance)	
Repeat Accuracy	NA
Ripple	
Time Delay Before Availability (tv)	
Reverse Polarity Protection	Yes
Short-circuit Protection	Yes, pulsed
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	
Shock/Vibration	See Proximity Sensor Terminology
Tightening Torque	2.0 Nm
Weight	59g (2.08 oz)
Connectors	M12 connector. 2 lock nuts included
Agency Approvals	cULus file E328811, CE, RoHS

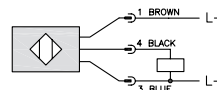
Wiring diagrams

Diagram 1

NPN Output

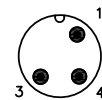


PNP Output



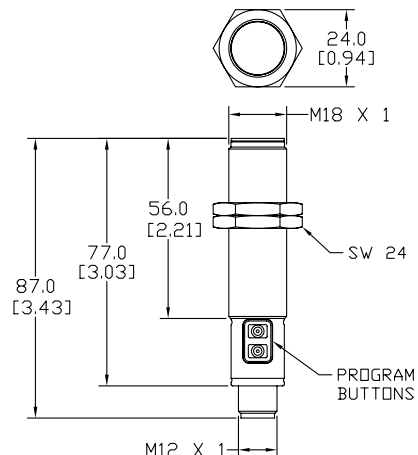
Connectors

M12 connector



Dimensions mm [inches]

Figure 1



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 Nm)	Figure 1
Mounting Wells				
MWT-01	\$43.00	30 mm 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	\$35.00	18 mm sensor mounting well		Figure 3

Dimensions mm[inches]

Figure 1

CR1 Adapter

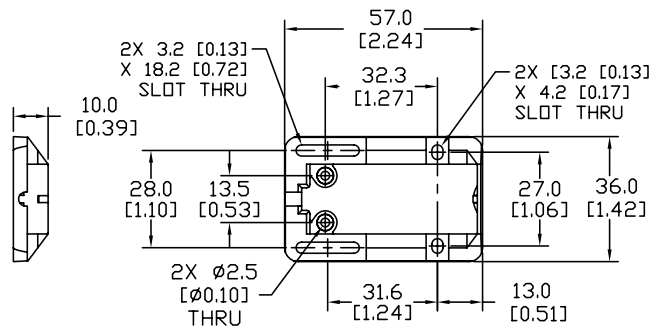


Figure 2

30mm Sensor Mounting Well

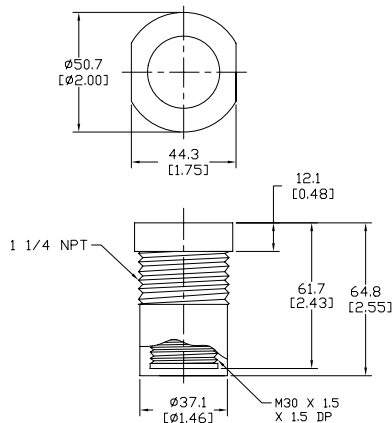
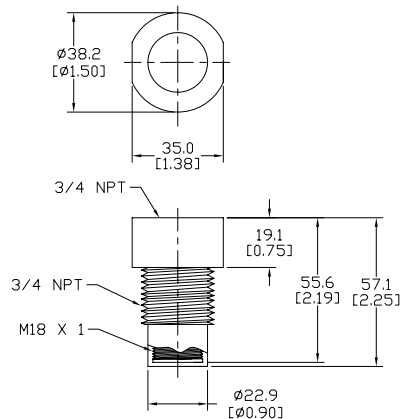


Figure 3

18mm Sensor Mounting Well



Accessories for 18mm Sensors

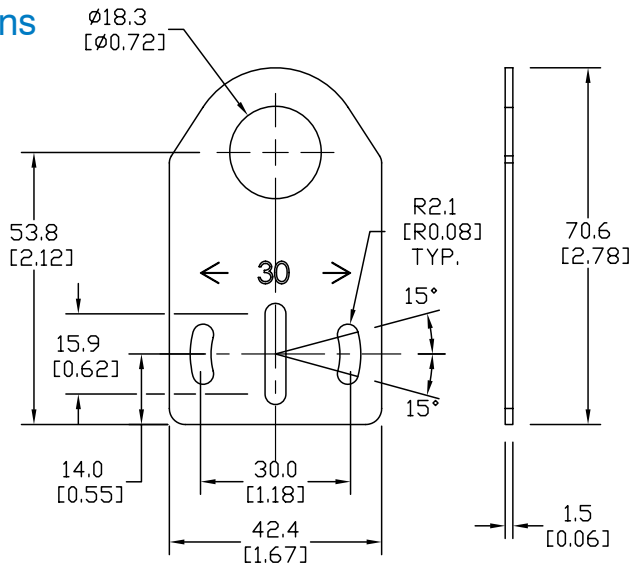
Axial Mounting Bracket

Axial mounting bracket for use with 18mm sensors. Has two mounting holes (use 4mm screws) and allows for rotation of an optical axis for right-beam-angle-adaptor sensors. Hexagonal nuts not included.

Accessories for 18mm Sensors			
Part Number	Price	Description	Weight [lb]
ST18A	\$1.25	Mounting bracket, axial, zinc-plated steel. For use with 18mm sensors. 1/pk.	0.06
ST18A7W	\$6.00	Mounting bracket, axial, 316L stainless steel. For use with 18mm sensors. 1/pk.	0.06

Dimensions

mm [inches]



ST18A

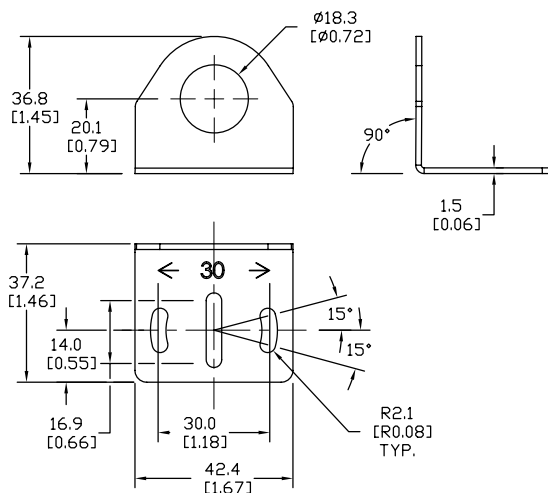
Right-angle Mounting Bracket

Right-angle mounting bracket for use with 18mm sensors. Has two mounting holes (use 4mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.

Accessories for 18mm Sensors			
Part Number	Price	Description	Weight [lb]
ST18C	\$1.25	Mounting bracket, right angle, zinc-plated steel. For use with 18mm sensors. 1/pk.	0.06
ST18C7W	\$6.00	Mounting bracket, right angle, 316L stainless steel. For use with 18mm sensors. 1/pk.	0.06

Dimensions

mm [inches]



ST18C

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

Accessories for 18mm Sensors

Right-angle Mounting Brackets

Mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors. Available with or without fixed insertion stop.

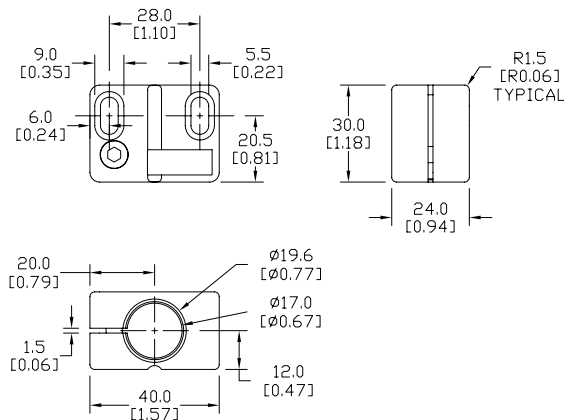
Accessories for 18mm Sensors				
Part Number	Price	Description	Weight [lb]	
OPT2104	\$8.00	Mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors.	0.06	
OPT2105	\$8.00	Mounting bracket, right-angle, plastic. For use with 18mm sensors.	0.06	



OPT2104, OPT2105

Dimensions

mm [inches]



Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 12mm rod mount. For use with 18mm sensors. Available in all 304 stainless steel or with an aluminum head and a stainless steel mounting plate.

Accessories for 18mm Sensors					
Part Number	Price	Description	Mounting Head	Mounting Plate	Weight [lb]
OPT2116	\$9.00	Mounting bracket, right-angle swivel, 360 vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 18mm sensors.	Aluminum	304 Stainless Steel	0.15
OPT2117	\$16.00	Mounting bracket, right-angle swivel, 360 vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 18mm sensors.	304 Stainless Steel	304 Stainless Steel	0.28

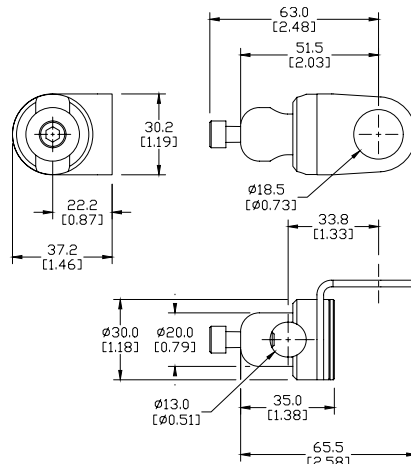
Note: 304 Stainless steel mounting rods sold separately: OPT2109 (200mm length), OPT2110 (300mm length), and OPT2111 (500mm length).



OPT2116, OPT2117

Dimensions

mm [inches]



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

Mounting Rods

Mounting Rods

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

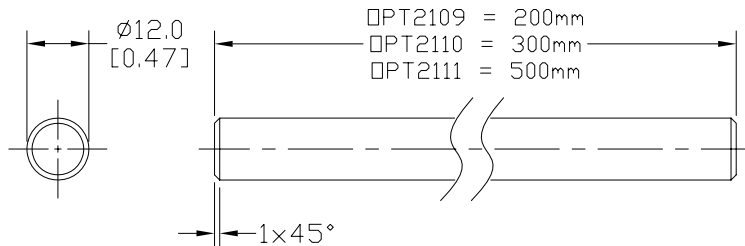
Mounting Rods for OPT2112-2127 Swivel Mounting Brackets			
Part Number	Price	Description	Weight [lb]
OPT2109	\$10.00	Mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	0.41
OPT2110	\$12.00	Mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	0.60
OPT2111	\$16.00	Mounting rod, 12mm diameter, 500mm length, 304 stainless steel.	0.98



OPT2109, OPT2110, OPT2111

Dimensions

mm [inches]



Right-angle Mounting Bracket

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

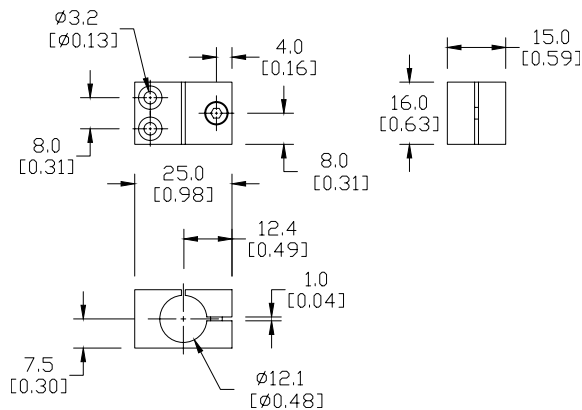
Accessories for 12mm Sensors			
Part Number	Price	Description	Weight [lb]
OPT2108	\$12.00	Mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	0.07



OPT2108

Dimensions

mm [inches]



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