

DW Series 12mm Stainless Steel Triple Sensing Proximity Sensors



M12 stainless steel – DC

- Eight models available
- 12mm threaded triple distance proximity sensor
- 10mm sensing
- Complete overload protection
- IP68, IP69k rated
- Two M12 lock nuts included
- Stainless steel construction
- One-piece for harsh duty applications
- LED status indicator
- Lifetime warranty

| DW Series 12mm Triple Distance Inductive Prox Selection Chart | | | | | | | | | |
|---|---------|------|-----------------|------------|--------------|-----------------------|-----------------------|-----------|------------|
| Part Number | Price | Size | Sensing Range | Housing | Output State | Logic | Connection | Wiring | Dimensions |
| Triple Distance | | | | | | | | | |
| DW-AD-711-M12 | \$84.00 | M12 | 10mm (0.393 in) | Unshielded | NO | NPN | 2m (6.5') axial cable | Diagram 1 | Figure 1 |
| DW-AD-713-M12* | \$84.00 | | | | | PNP | | Diagram 2 | Figure 1 |
| DW-AS-711-M12 | \$84.00 | | | | | NPN | M12 quick-disconnect | Diagram 3 | Figure 2 |
| DW-AS-713-M12* | \$84.00 | | | | | PNP | | Diagram 4 | Figure 2 |
| DW-AD-712-M12 | \$84.00 | | | | NC | 2m (6.5') axial cable | NPN | Diagram 1 | Figure 1 |
| DW-AD-714-M12 | \$84.00 | | | | | | PNP | Diagram 2 | Figure 1 |
| DW-AS-712-M12 | \$84.00 | | | | | NPN | M12 quick-disconnect | Diagram 3 | Figure 2 |
| DW-AS-714-M12 | \$84.00 | | | | | PNP | | Diagram 4 | Figure 2 |

* IO-Link model

Wiring diagrams

Diagram 1

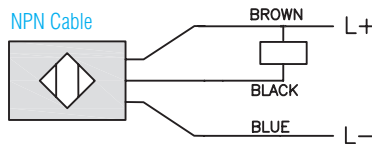


Diagram 2

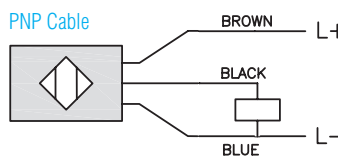


Diagram 3

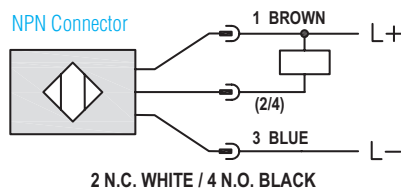
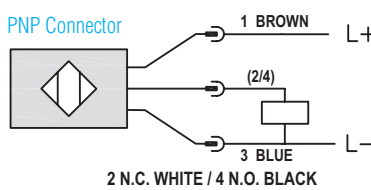
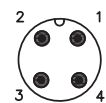


Diagram 4



Connectors

M12 connector



DW Series 12mm Stainless Steel Triple Sensing Proximity Sensors

| DW Series Specifications | DW-Ax-71x-M12 |
|--|--|
| Mounting Type | Unshielded |
| Nominal Sensing Distance | 10mm |
| Operating Distance | - |
| Material Correction Factors | See the Material influence table |
| Output Type | NPN or PNP, NO or NC |
| Operating Voltage | 10 to 30 VDC |
| No-load Supply Current | ≤ 10mA |
| Operating (Load) Current | ≤ 200mA |
| Off-state (Leakage) Current | ≤ 0.1 mA |
| Voltage Drop | ≤ 2 V |
| Switching Frequency | ≤ 400 Hz |
| Differential Travel (% of Nominal Distance) | ≤ 10% |
| Repeat Accuracy | 0.30 mm |
| Ripple | ≤ 20% |
| Time Delay Before Availability (tv) | ≤ 70ms |
| Reverse Polarity Protection | Yes |
| Short-Circuit Protection | Yes |
| Operating Temperature | -25 to 70°C (-13 to 158°F) |
| Protection Degree (DIN 40050) | IP68, IP69K |
| Indication/Switch Status | Yellow LED |
| Housing Material | Stainless steel |
| Sensing Face Material | Stainless steel |
| Shock/Vibration | IEC 60947-5-2/7.4 |
| Tightening Torque | - |
| Weight | 80g (2.82 oz), 23g (0.81 oz) |
| Connection | 2m cable, M12 connection |
| IO-Link | PNP/NO only |
| Agency Approvals | CE, cULus E239373 |

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

Dimensions

mm [inches]

Figure 1

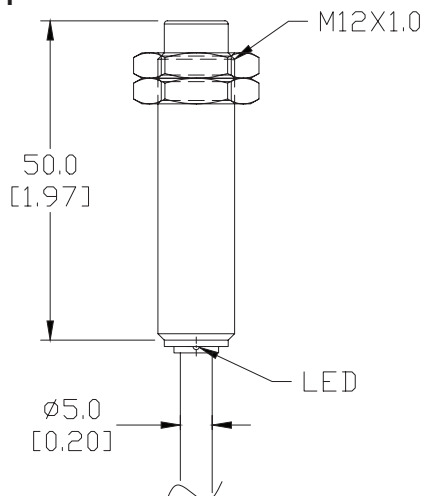
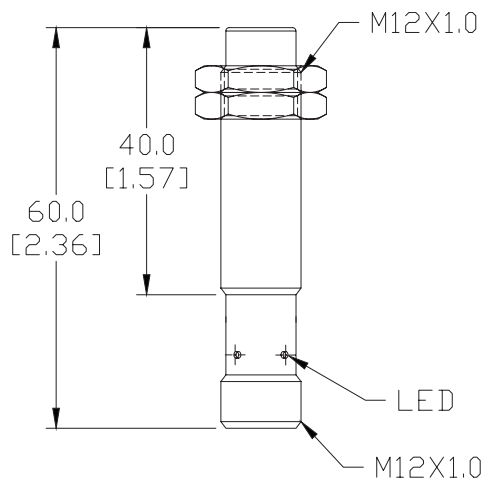


Figure 2



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Accessories for 12mm Sensors

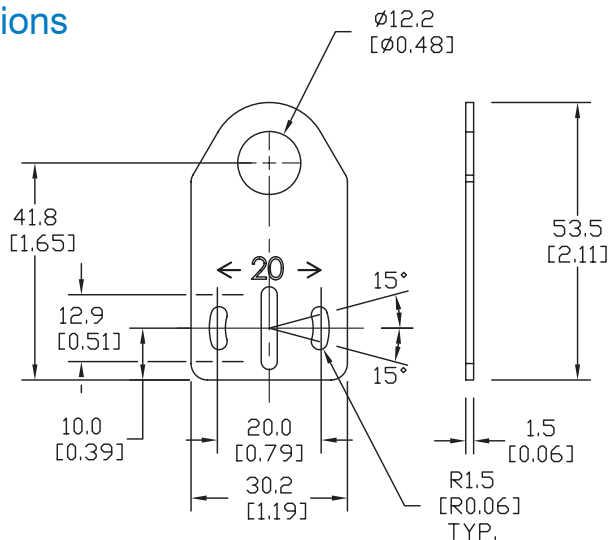
Axial Mounting Bracket

Mounting bracket, axial, zinc-plated steel. For use with 12mm sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for right-angle adapter sensors. Hexagonal nuts not included.

| Accessories for 12mm Sensors | | | |
|------------------------------|--------|---|-------------|
| Part Number | Price | Description | Weight (lb) |
| ST12A | \$2.00 | Mounting bracket, axial, zinc-plated steel. For use with 12mm sensors. 1/pk. | 0.03 |
| ST12A7W | \$6.00 | Mounting bracket, axial, 316L stainless steel. For use with 12mm sensors. 1/pk. | 0.03 |

Dimensions

mm [inches]



ST12A

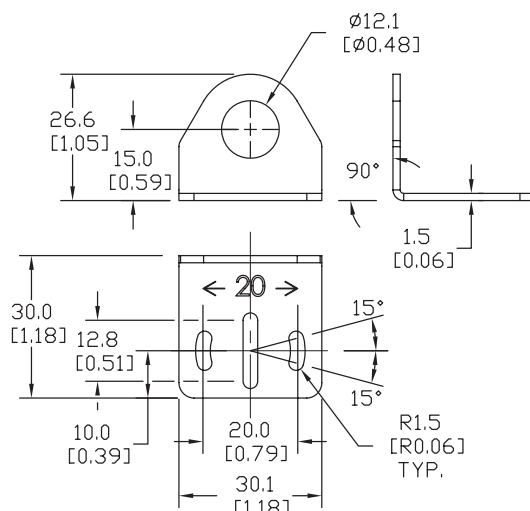
Right-angle Mounting Bracket

Mounting bracket, right-angle, zinc-plated steel or 316L stainless steel. For use with 12mm sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal screws not included.

| Accessories for 12mm Sensors | | | |
|------------------------------|--------|---|-------------|
| Part Number | Price | Description | Weight (lb) |
| ST12C | \$2.00 | Mounting bracket, right angle, zinc-plated steel. For use with 12mm sensors. 1/pk. | 0.03 |
| ST12C7W | \$6.00 | Mounting bracket, right angle, 316L stainless steel. For use with 12mm sensors. 1/pk. | 0.03 |

Dimensions

mm [inches]



ST12C

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

Accessories for 12mm Sensors

Right-angle Mounting Brackets

Mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 12mm sensors. Available with or without fixed insertion stop.

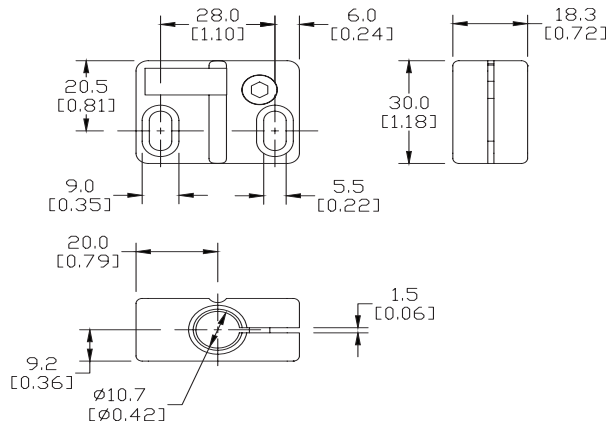
| Accessories for 12mm Sensors | | | | | |
|------------------------------|--------|---|-------------|--|--|
| Part Number | Price | Description | Weight [lb] | | |
| OPT2102 | \$6.00 | Mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 12mm sensors. | 0.05 | | |
| OPT2103 | \$6.00 | Mounting bracket, right-angle, plastic. For use with 12mm sensors. | 0.05 | | |



OPT2102, OPT2103

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 12mm sensors. Available in all stainless steel or with an aluminum head and stainless steel mounting plate.

| Accessories for 12mm Sensors | | | | | |
|------------------------------|---------|---|---------------------|---------------------|-------------|
| Part Number | Price | Description | Mounting Head | Mounting Plate | Weight [lb] |
| OPT2114 | \$9.00 | Mounting bracket, right-angle swivel, 360 vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 12mm sensors. | Aluminum | Stainless Steel | 0.14 |
| OPT2115 | \$16.00 | Mounting bracket, right-angle swivel, 360 vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 12mm sensors. | 304 Stainless Steel | 304 Stainless Steel | 0.27 |

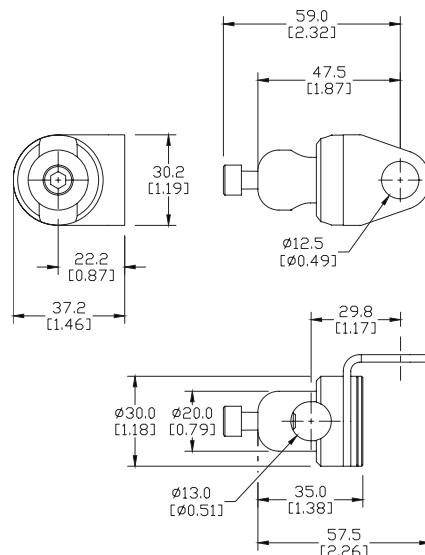
Note: 304 Stainless steel mounting rods sold separately: OPT2109 (200mm length), OPT2110 (300mm length), and OPT2111 (500mm length).



OPT2114, OPT2115

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.

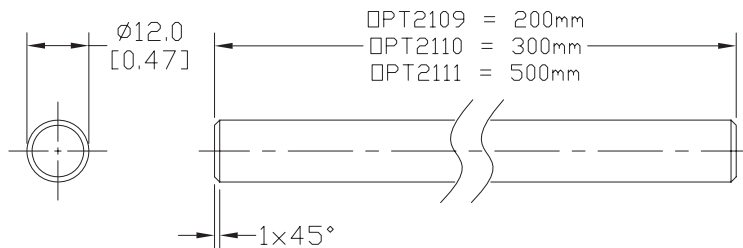
| Mounting Rods for OPT2112-2127 Swivel Mounting Brackets | | | |
|---|---------|---|-------------|
| Part Number | Price | Description | Weight [lb] |
| OPT2109 | \$10.00 | Mounting rod, 12mm diameter, 200mm length, 304 stainless steel. | 0.41 |
| OPT2110 | \$12.00 | Mounting rod, 12mm diameter, 300mm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



OPT2109, OPT2110, OPT2111

Dimensions

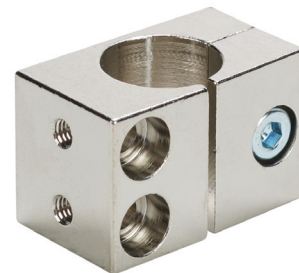
mm [inches]



Right-angle Mounting Bracket

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

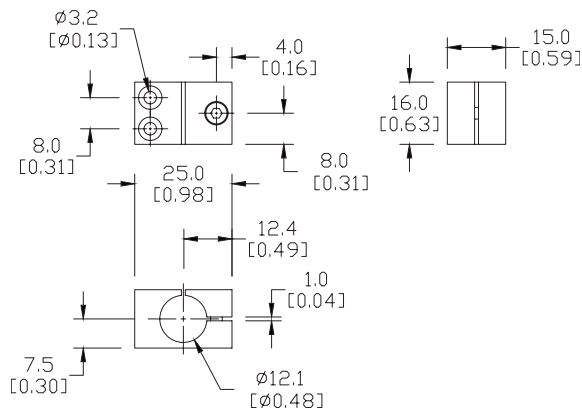
| Accessories for 12mm Sensors | | | |
|------------------------------|---------|---|-------------|
| Part Number | Price | Description | Weight [lb] |
| OPT2108 | \$12.00 | Mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111. | 0.07 |



OPT2108

Dimensions

mm [inches]



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