

DW Series Analog Inductive Proximity Sensors



M8 (8mm) Metal – Analog Output

- Compact metal housing
- Axial cable or M8 quick-disconnect models
- IP67 rated
- Purchase cables separately (for quick-disconnect model)
- Lifetime warranty



DW Series M8 Analog Inductive Proximity Selection Chart

| Part Number | Price | Sensing Range | Mounting | Output | Connection | Wiring | Dimensions |
|----------------------------------|----------|------------------------|------------|----------|---------------------------|-----------|------------|
| DW-AD-509-M8 | \$04b25: | 0-4 mm [0-0.157 in] | Semi-flush | 0-5 VDC | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1 |
| DW-AS-509-M8-001 | \$04b26: | | Semi-flush | 0-5 VDC | M8 [8mm] quick-disconnect | Diagram 1 | Figure 2 |
| DW-AD-509-M8-390 | \$04b27: | | Semi-flush | 0-10 VDC | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1 |
| DW-AS-509-M8-390 | \$04b28: | | Semi-flush | 0-10 VDC | M8 [8mm] quick-disconnect | Diagram 1 | Figure 2 |

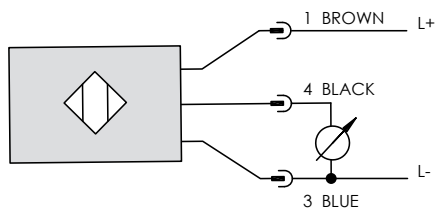
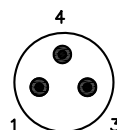
DW Series M8 Analog Inductive Proximity Specifications

| Specification | DW-Ax-509-M8 | DW-Ax-509-M8-390 |
|---|---|------------------|
| Mounting Type | Semi-flush | |
| Nominal Distance | 0-4 mm [0-0.157 in] | |
| Operating Distance | NA | |
| Material Correction Factors | See the Material influence table | |
| Output Type | 0-5 VDC | 0-10 VDC |
| Operating Voltage | 10-30 VDC | 15-30 VDC |
| No-load Supply Current | ≤ 10mA | |
| Operating (Load) Current | ≤ 10mA | |
| Off-state (Leakage) Current | NA | |
| Voltage Drop | ≤ 2.0 V | |
| Switching Frequency | NA | |
| Differential Travel (% of Nominal Distance) | NA | |
| Repeat Accuracy | ±0.01 mm | |
| Ripple | ≤ 20% | |
| Response Time | 0.6 ms | |
| Time Delay Before Availability (tv) | ≤ 50ms | |
| 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 IP67 | |
| Indication/Switch Status | NA | |
| Housing Material | Chrome-plated brass | |
| Sensing Face Material | Polybutylene Terephthalate (PBT) | |
| Shock/Vibration | IEC 60947-5-2 | |
| Tightening Torque | 4 N•m (2.95 lb•ft) | |
| Weight (cable/M8 connector) | 50g [1.76 oz] / 20g [0.71 oz] | |
| Connection | 2m [6.5 ft] axial cable or 3-pin M8 (8mm) connector | |
| Agency Approvals | UL file E239373 | |

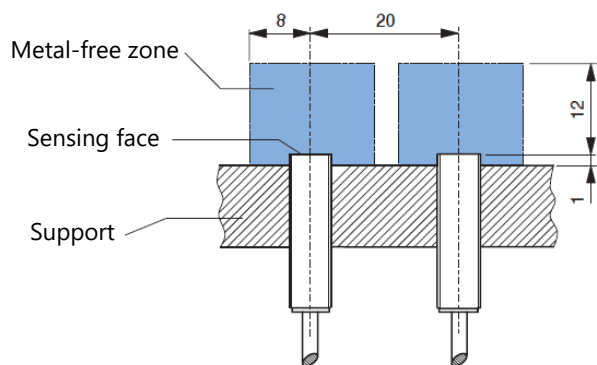
To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

DW Series Analog Inductive Proximity Sensors

Wiring Diagram

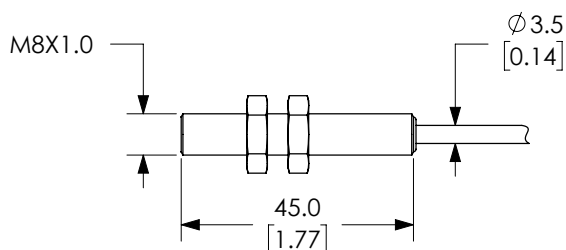
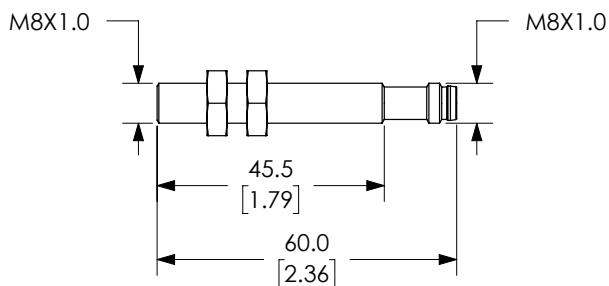
Diagram 1**Connector***M8*

Installation



Dimensions

mm [inches]

Figure 1**Figure 2**

Accessories for 8mm Sensors

Axial Mounting Bracket

Mounting bracket, axial, zinc-plated steel. For use with 8mm sensors. Has two mounting holes (use 3 mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.

| Accessories for 8mm Sensors | | | | |
|------------------------------|----------|--|---------------------|-------------|
| Part Number | Price | Description | Drawing Link | Weight [lb] |
| ST08A | \$;10#t: | Micro Detectors mounting bracket, axial, zinc plated steel. For use with 8mm sensors. | PDF | 0.04 |



[ST08A](#)

Right-angle Mounting Bracket

Mounting bracket, right-angle, zinc-plated steel. For use with 8mm sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for right-beam-angle-adaptor sensors. Hexagonal nuts not included.

| Accessories for 8mm Sensors | | | | |
|------------------------------|---------|--|---------------------|-------------|
| Part Number | Price | Description | Drawing Link | Weight [lb] |
| ST08C | \$10#u: | Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 8mm sensors. | PDF | 0.04 |



[ST08C](#)

Accessories for 8mm Sensors

Right-angle Mounting Bracket

Mounting bracket, right-angle, plastic. For use with 8mm sensors.

| Accessories for 8mm Sensors | | | | |
|-----------------------------|----------|--|---------------------|-------------|
| Part Number | Price | Description | Drawing Link | Weight [lb] |
| OPT2101 | \$-1nlp: | Wenglor mounting bracket, right-angle, plastic. For use with 8mm sensors. | PDF | 0.02 |



[OPT2101](#)

Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment. For use with 8mm sensors. Available in all stainless steel or with an aluminum head and stainless steel mounting plate.

| Accessories for 8mm Sensors | | | | | | |
|-----------------------------|-----------|---|---------------------|---------------------|---------------------|-------------|
| Part Number | Price | Description | Mounting Head | Mounting Plate | Drawing Link | Weight [lb] |
| OPT2112 | \$-1nlz: | Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 8mm sensors. | Aluminum | 304 Stainless Steel | PDF | 0.14 |
| OPT2113 | \$;-1nlj: | Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 8mm sensors. | 304 Stainless Steel | 304 Stainless Steel | PDF | 0.26 |



[OPT2112 & OPT2113](#)

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

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 | \$1nn9: | Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel. | PDF | 0.41 [185.97] |
| OPT2110 | \$1nna: | Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel. | PDF | 0.60 [272.16] |
| OPT2111 | \$1nnb: | 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 | \$-1nly: | Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111. | PDF | 0.07 [31.8] |

