

# DW Series Analog Inductive Proximity Sensors



## M8 (8mm) Metal – Analog Output

- 4 models available
- 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 Prox Selection Chart**

Part Number	Price	Sensing Range	Mounting	Output	Connection	Wiring	Dimensions
<b>DW-AD-509-M8</b>	\$133.00	0-4 mm [0-0.157 in]	Semi-flush	0-5 VDC	2m [6.56 ft] axial cable	Diagram 1	Figure 1
<b>DW-AS-509-M8-001</b>	\$133.00	0-4 mm [0-0.157 in]	Semi-flush	0-5 VDC	M8 [8mm] quick-disconnect	Diagram 1	Figure 2
<b>DW-AD-509-M8-390</b>	\$133.00	0-4 mm [0-0.157 in]	Semi-flush	0-10 VDC	2m [6.56 ft] axial cable	Diagram 1	Figure 1
<b>DW-AS-509-M8-390</b>	\$133.00	0-4 mm [0-0.157 in]	Semi-flush	0-10 VDC	M8 [8mm] quick-disconnect	Diagram 1	Figure 2

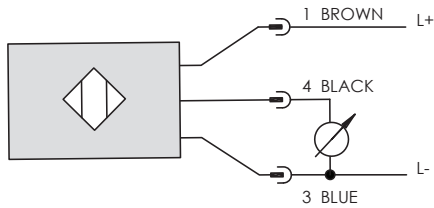
## Specifications

	<b>DW-Ax-509-M8</b>	<b>DW-Ax-509-M8-390</b>
<b>Mounting Type</b>	Semi-flush	Semi-flush
<b>Nominal Distance</b>	0-4 mm (0-0.157 in)	0-4 mm (0-0.157 in)
<b>Operating Distance</b>	NA	NA
<b>Material Correction Factors</b>	See the <a href="#">Material influence table</a>	See the <a href="#">Material influence table</a>
<b>Output Type</b>	0-5 VDC	0-10 VDC
<b>Operating Voltage</b>	10-30 VDC	15-30 VDC
<b>No-load Supply Current</b>	≤ 10mA	≤ 10mA
<b>Operating (Load) Current</b>	≤ 10mA	≤ 10mA
<b>Off-state (Leakage) Current</b>	NA	NA
<b>Voltage Drop</b>	≤ 2.0 V	≤ 2.0 V
<b>Switching Frequency</b>	NA	NA
<b>Differential Travel (% of Nominal Distance)</b>	NA	NA
<b>Repeat Accuracy</b>	±0.01 mm	±0.01 mm
<b>Ripple</b>	≤ 20%	≤ 20%
<b>Response Time</b>	0.6 ms	0.6 ms
<b>Time Delay Before Availability (tv)</b>	≤ 50ms	≤ 50ms
<b>Reverse Polarity Protection</b>	Yes	Yes
<b>Short-Circuit Protection</b>	Yes (switch auto-resets after overload is removed)	Yes (switch auto-resets after overload is removed)
<b>Operating Temperature</b>	-25° to +70°C (-13° to 158°F)	-25° to +70°C (-13° to 158°F)
<b>Protection Degree (DIN 40050)</b>	IEC IP67	IEC IP67
<b>Indication/Switch Status</b>	NA	NA
<b>Housing Material</b>	Chrome-plated brass	Chrome-plated brass
<b>Sensing Face Material</b>	Polybutylene Terephthalate (PBT)	Polybutylene Terephthalate (PBT)
<b>Shock/Vibration</b>	IEC 60947-5-2	IEC 60947-5-2
<b>Tightening Torque</b>	4 N•m (2.95 lb•ft)	4 N•m (2.95 lb•ft)
<b>Weight (cable/M8 connector)</b>	50g (1.76 oz) / 20g (0.71 oz)	50g (1.76 oz) / 20g (0.71 oz)
<b>Connection</b>	2m (6.56 ft) axial cable or 3-pin M8 (8mm) connector	2m (6.56 ft) axial cable or 3-pin M8 (8mm) connector
<b>Agency Approvals</b>	UL file E239373	UL file E239373

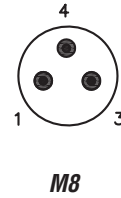
# DW Series Analog Inductive Proximity Sensors

## Wiring diagram

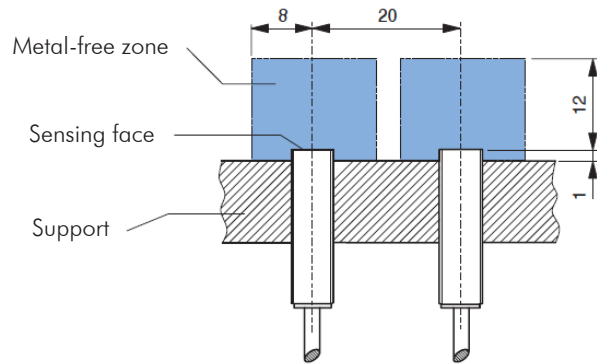
Diagram 1



## Connector



## Installation



## Dimensions

mm [inches]

Figure 1

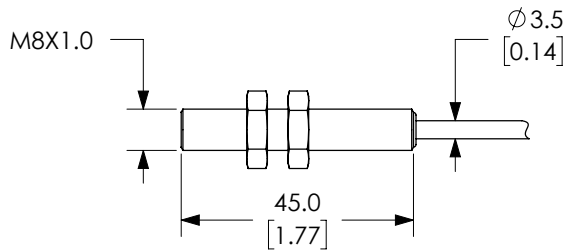
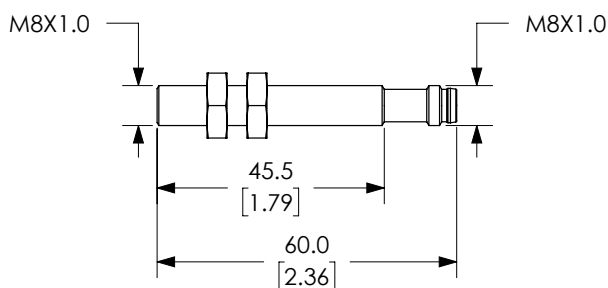


Figure 2



# 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.

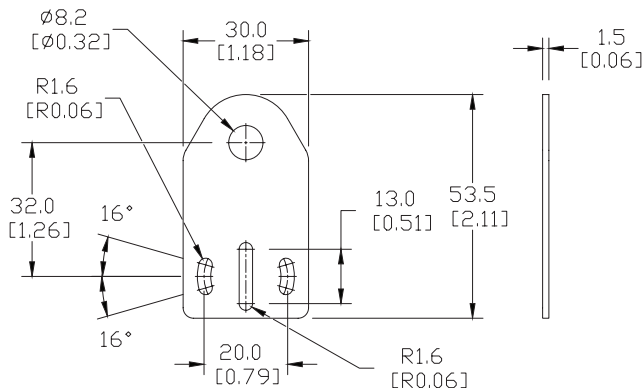


**ST08A**

Accessories for 8mm Sensors			
Part Number	Price	Description	Weight [lb]
ST08A	\$2.00	Mounting bracket, axial, zinc plated steel. For use with 8mm sensors.	0.04

## Dimensions

mm [inches]



## 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.

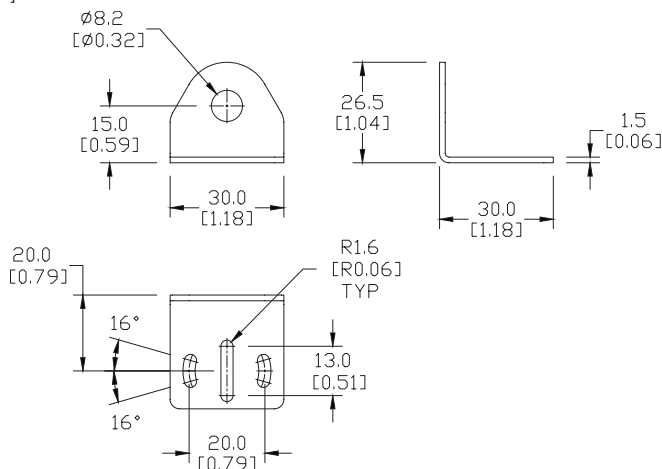


**ST08C**

Accessories for 8mm Sensors			
Part Number	Price	Description	Weight [lb]
ST08C	\$2.00	Mounting bracket, right-angle, zinc plated steel. For use with 8mm sensors.	0.04

## Dimensions

mm [inches]



See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com)  
for complete engineering drawings

# 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]
<b>OPT2101</b>	\$7.25	Wenglor mounting bracket, right-angle, plastic. For use with 8mm sensors.	<a href="#">PDF</a>	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]
<b>OPT2112</b>	\$10.50	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	<a href="#">PDF</a>	0.14
<b>OPT2113</b>	\$18.50	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	<a href="#">PDF</a>	0.26

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



**OPT2112 & OPT2113**

# 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)
<b>OPT2109</b>	\$11.50	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	<a href="#">PDF</a>	0.41 (185.97)
<b>OPT2110</b>	\$14.50	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	<a href="#">PDF</a>	0.60 (272.16)
<b>OPT2111</b>	\$18.50	Wenglor mounting rod, 12mm diameter, 500mm length, 304 stainless steel.	<a href="#">PDF</a>	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)
<b>OPT2108</b>	\$14.50	Wenglor mounting bracket, right-angle, nickel plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	<a href="#">PDF</a>	0.07 (31.8)

