



# DW Series 8mm Quadruple Sensing Proximity Sensors



## M8 (8mm) chrome plated nickel silver – DC

- 8mm threaded Quadruple Distance proximity sensor
- Complete overload protection
- IP67 rated
- Chrome plated nickel silver construction
- LED status indicator
- Lifetime warranty

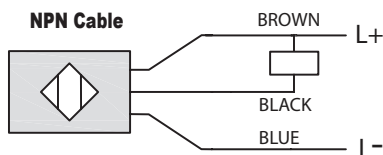


**DW Series M8 Quadruple Distance Inductive Proximity Selection Chart**

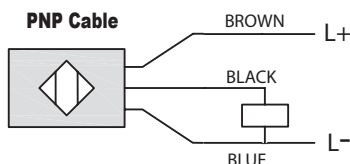
Part Number	Price	Size	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Dimensions
<a href="#">DW-AD-521-M8</a>	\$106.00	M8	4mm [0.158 in]	Semi-flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<a href="#">DW-AD-523-M8</a>	\$106.00			Semi-flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<a href="#">DW-AS-521-M8</a>	\$106.00			Semi-flush	N.O.	NPN	M12 quick-disconnect	Diagram 3	Figure 2
<a href="#">DW-AS-521-M8-001</a>	\$106.00			Semi-flush	N.O.	NPN	M8 quick-disconnect	Diagram 3	Figure 3
<a href="#">DW-AS-523-M8</a>	\$106.00			Semi-flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	Figure 2
<a href="#">DW-AS-523-M8-001</a>	\$106.00			Semi-flush	N.O.	PNP	M8 quick-disconnect	Diagram 4	Figure 3
<a href="#">DW-AD-524-M8</a>	\$106.00			Semi-flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<a href="#">DW-AS-522-M8-001</a>	\$106.00			Semi-flush	N.C.	NPN	M8 quick-disconnect	Diagram 3	Figure 3
<a href="#">DW-AS-524-M8</a>	\$106.00			Semi-flush	N.C.	PNP	M12 quick-disconnect	Diagram 4	Figure 2
<a href="#">DW-AS-524-M8-001</a>	\$106.00			Semi-flush	N.C.	PNP	M8 quick-disconnect	Diagram 3	Figure 3

## Wiring Diagrams

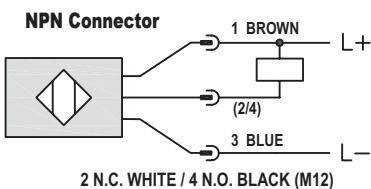
**Diagram 1**



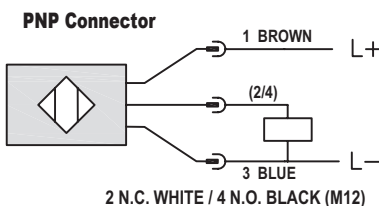
**Diagram 2**



**Diagram 3**

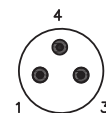


**Diagram 4**

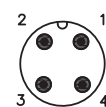


## Connectors

**M8 connector**



**M12 connector**



# DW Series 8mm Quadruple Sensing Proximity Sensors

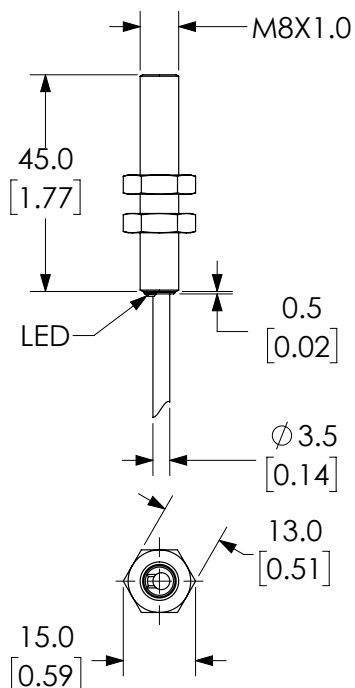
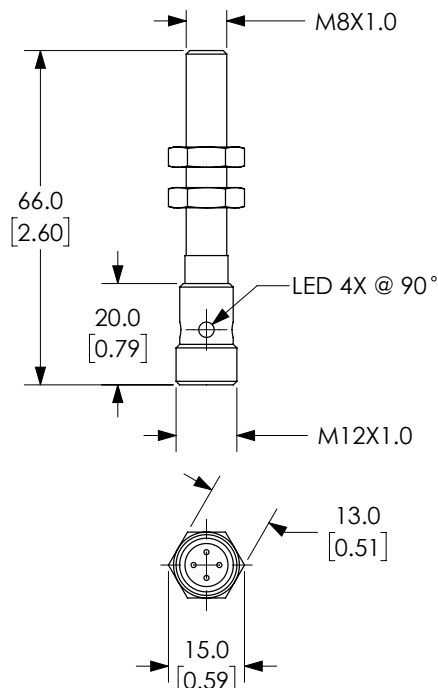
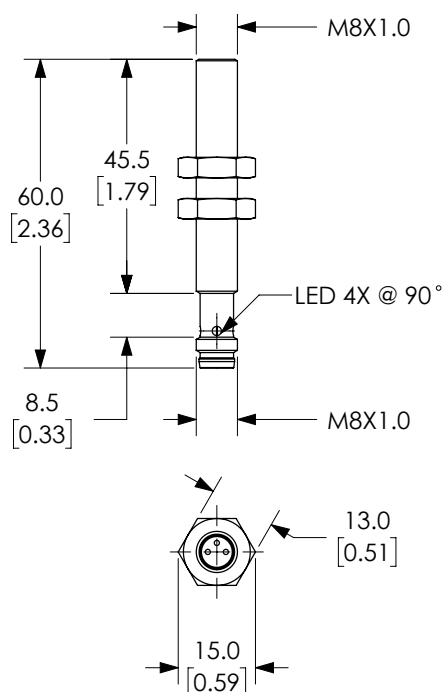
DW Series M8 Quadruple Distance Inductive Proximity Specifications	
<b>Specifications</b>	<b>DW-Ax-52x-M8</b>
<b>Mounting Type</b>	Semi-flush
<b>Nominal Sensing Distance</b>	4mm [0.158 in]
<b>Operating Distance</b>	—
<b>Material Correction Factors</b>	See the <a href="#">Material influence table</a>
<b>Output Type</b>	NPN or PNP, N.O. or N.C.
<b>Operating Voltage</b>	10 to 30 VDC
<b>No-load Supply Current</b>	≤ 10mA
<b>Operating (Load) Current</b>	≤ 200mA
<b>Off-state (Leakage) Current</b>	≤ 0.1 mA
<b>Voltage Drop</b>	≤ 2 V
<b>Switching Frequency</b>	≤ 500Hz
<b>Differential Travel (% of Nominal Distance)</b>	≤ 15%
<b>Repeat Accuracy</b>	0.2 mm
<b>Ripple</b>	≤ 20%
<b>Time Delay Before Availability (tv)</b>	50ms
<b>Reverse Polarity Protection</b>	Yes
<b>Short-Circuit Protection</b>	Yes
<b>Operating Temperature</b>	-25 to 70°C [-13 to 158°F]
<b>Protection Degree (DIN 40050)</b>	IP67
<b>Indication/Switch Status</b>	Yellow LED [LED on continuously - secured operating zone]
<b>Housing Material</b>	Chrome plated nickel silver
<b>Sensing Face Material</b>	Polybutylene terephthalate
<b>Shock/Vibration</b>	IEC 60947-5-2/7.4
<b>Tightening Torque</b>	7 N•m [61.96 lb•in]
<b>Weight</b>	45g [1.59 oz] with cable, 20g [0.71 oz] with M12 connector, 17g [0.60 oz] with M8 connector
<b>Connection</b>	2m [6.5 ft] cable (PVC [polyvinyl chloride] 3 x 0.14mm <sup>2</sup> ≈ 26 AWG) with M12 connection or M8 connection
<b>Minimum Mounting Distance (center to center)</b>	24.0 mm [0.94 in]
<b>IO-Link</b>	—
<b>Agency Approvals</b>	CE, cULus 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 8mm Quadruple Sensing Proximity Sensors

## Dimensions

mm [inches]

**Figure 1****Figure 2****Figure 3**See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.

# 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]
<a href="#"><u>ST08A</u></a>	\$2.00	Micro Detectors mounting bracket, axial, zinc plated steel. For use with 8mm sensors.	<a href="#"><u>PDF</u></a>	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]
<a href="#"><u>ST08C</u></a>	\$2.00	Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 8mm sensors.	<a href="#"><u>PDF</u></a>	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]
<a href="#"><u>OPT2101</u></a>	\$8.00	Wenglor mounting bracket, right-angle, plastic. For use with 8mm sensors.	<a href="#"><u>PDF</u></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]
<a href="#"><u>OPT2112</u></a>	\$11.50	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="#"><u>PDF</u></a>	0.14
<a href="#"><u>OPT2113</u></a>	\$21.00	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="#"><u>PDF</u></a>	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)
<a href="#">OPT2109</a>	\$13.00	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	<a href="#">PDF</a>	0.41 [185.97]
<a href="#">OPT2110</a>	\$16.00	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	<a href="#">PDF</a>	0.60 [272.16]
<a href="#">OPT2111</a>	\$21.00	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]
<a href="#">OPT2108</a>	\$16.00	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]

