



DW Series 8mm Triple Sensing Proximity Sensors



Miniature M8 (8mm) chrome plate nickel silver or chrome plated brass – DC

- 8mm threaded Triple Distance proximity sensor
- Complete overload protection
- IP67 rated
- Two M8 lock nuts included
- Chrome plate nickel silver or chrome plated brass construction
- LED status indicator
- Lifetime warranty



DW Series M8 Triple Distance Inductive Proximity Selection Chart

Part Number	Price	Size	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Dimensions
Triple Distance Semi-flush									
<u>DW-AD-501-M8</u>		M8	3mm [0.118 in]	Semi-flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<u>DW-AD-503-M8</u>		M8	3mm [0.118 in]	Semi-flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<u>DW-AS-501-M8-001</u>		M8	3mm [0.118 in]	Semi-flush	N.O.	NPN	M8 quick-disconnect	Diagram 3	Figure 2
<u>DW-AS-503-M8-001</u>		M8	3mm [0.118 in]	Semi-flush	N.O.	PNP	M8 quick-disconnect	Diagram 4	Figure 2
<u>DW-AS-501-M8</u>		M8	3mm [0.118 in]	Semi-flush	N.O.	NPN	M12 quick-disconnect	Diagram 3	Figure 3
<u>DW-AS-503-M8</u>		M8	3mm [0.118 in]	Semi-flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	Figure 3
<u>DW-AD-502-M8</u>		M8	3mm [0.118 in]	Semi-flush	N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<u>DW-AD-504-M8</u>		M8	3mm [0.118 in]	Semi-flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<u>DW-AS-502-M8-001</u>		M8	3mm [0.118 in]	Semi-flush	N.C.	NPN	M8 quick-disconnect	Diagram 3	Figure 2
<u>DW-AS-504-M8-001</u>		M8	3mm [0.118 in]	Semi-flush	N.C.	PNP	M8 quick-disconnect	Diagram 4	Figure 2
<u>DW-AS-502-M8</u>		M8	3mm [0.118 in]	Semi-flush	N.C.	NPN	M12 quick-disconnect	Diagram 3	Figure 3
<u>DW-AS-504-M8</u>		M8	3mm [0.118 in]	Semi-flush	N.C.	PNP	M12 quick-disconnect	Diagram 4	Figure 3
Triple Distance Non-flush									
<u>DW-AD-511-M8</u>		M8	6mm [0.236 in]	Non-flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<u>DW-AD-513-M8</u>		M8	6mm [0.236 in]	Non-flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<u>DW-AS-511-M8-001</u>		M8	6mm [0.236 in]	Non-flush	N.O.	NPN	M8 quick-disconnect	Diagram 3	Figure 2
<u>DW-AS-513-M8-001</u>		M8	6mm [0.236 in]	Non-flush	N.O.	PNP	M8 quick-disconnect	Diagram 4	Figure 2
<u>DW-AS-511-M8</u>		M8	6mm [0.236 in]	Non-flush	N.O.	NPN	M12 quick-disconnect	Diagram 3	Figure 3
<u>DW-AS-513-M8</u>		M8	6mm [0.236 in]	Non-flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	Figure 3
<u>DW-AD-512-M8</u>		M8	6mm [0.236 in]	Non-flush	N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<u>DW-AD-514-M8</u>		M8	6mm [0.236 in]	Non-flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<u>DW-AS-512-M8-001</u>		M8	6mm [0.236 in]	Non-flush	N.C.	NPN	M8 quick-disconnect	Diagram 3	Figure 2
<u>DW-AS-514-M8-001</u>		M8	6mm [0.236 in]	Non-flush	N.C.	PNP	M8 quick-disconnect	Diagram 4	Figure 2
<u>DW-AS-512-M8</u>		M8	6mm [0.236 in]	Non-flush	N.C.	NPN	M12 quick-disconnect	Diagram 3	Figure 3
<u>DW-AS-514-M8</u>		M8	6mm [0.236 in]	Non-flush	N.C.	PNP	M12 quick-disconnect	Diagram 4	Figure 3

DW Series 8mm Triple Sensing Proximity Sensors

DW Series M8 Triple Distance Inductive Proximity Specifications		
Sensor	DW-Ax-50x-M8	DW-Ax-51x-M8
Mounting Type	Semi-flush	Non-flush
Nominal Sensing Distance	3mm	6mm
Operating Distance	-	
Material Correction Factors	See the Material influence table	
Output Type	NPN or PNP, N.O. or N.C.	
Operating Voltage	10 to 30 VDC	
No-load Supply Current	≤ 10mA	
Operating (Load) Current	≤ 100mA	
Off-state (Leakage) Current	≤ 0.1 mA	
Voltage Drop	≤ 2 V	
Switching Frequency	≤ 1kHz	≤ 500Hz
Differential Travel (% of Nominal Distance)	≤ 15%	
Repeat Accuracy	0.15 mm	0.30 mm
Ripple	≤ 20%	
Time Delay Before Availability (tv)	≤ 50ms	
Reverse Polarity Protection	Yes	
Short-Circuit Protection	Yes	
Operating Temperature	-25 to 70°C [-13 to 158°F]	
Protection Degree (DIN 40050)	IP67	
Indication/Switch Status	Yellow LED	
Housing Material	Nickel silver	Chrome plated brass
Sensing Face Material	PPS [Polyphenylene sulfide]	
Shock/Vibration	IEC 60947-5-2/7.4	
Tightening Torque	-	
Weight	45g [1.59 oz], 20g [0.71 oz], 17g [0.60 oz]	44g [1.55 oz], 19g [0.67 oz], 16g [0.56 oz]
Connection	2m [6.5 ft] cable, M12 connection, M8 connection	
IO-Link	-	
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.

Wiring Diagrams

Diagram 1

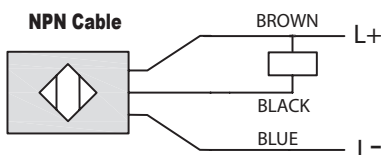


Diagram 2

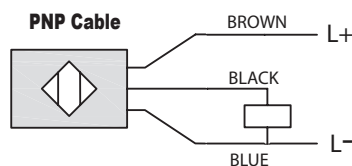


Diagram 3

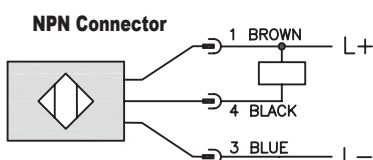
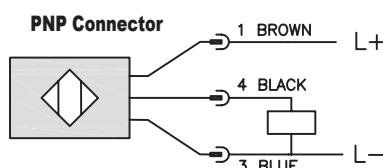
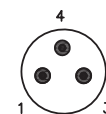


Diagram 4

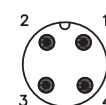


Connectors

M8 connector



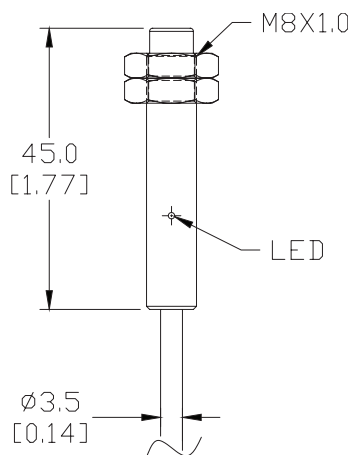
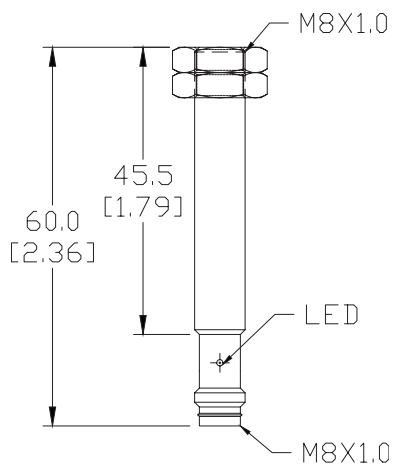
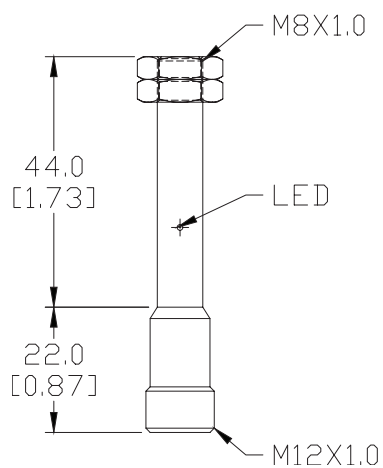
M12 connector



DW Series 8mm Triple Sensing Proximity Sensors

Dimensions

mm [inches]

Figure 1**Figure 2****Figure 3**See our website 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]
<u>ST08A</u>		Micro Detectors mounting bracket, axial, zinc plated steel. For use with 8mm sensors.	<u>PDF</u>	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]
<u>ST08C</u>		Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 8mm sensors.	<u>PDF</u>	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]
<u>OPT2101</u>		Wenglor mounting bracket, right-angle, plastic. For use with 8mm sensors.	<u>PDF</u>	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]
<u>OPT2112</u>		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	<u>PDF</u>	0.14
<u>OPT2113</u>		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	<u>PDF</u>	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		Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	PDF	0.41 [185.97]
OPT2110		Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	PDF	0.60 [272.16]
OPT2111		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		Wenglor mounting bracket, right-angle, nickel plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	PDF	0.07 [31.8]

