

DW Series 8mm Quadruple Sensing Proximity Sensors



M8 (8mm) chrome plated nickel silver – DC

- Ten models available
- 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 Prox Selection Chart									
Part Number	Price	Size	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Dimensions
Quadruple Distance									
DW-AD-521-M8		M8	4mm (0.158 in)	Semi-flush	N.O.	NPN	2m (6.5 ft) axial cable	Diagram 1	Figure 1
DW-AD-523-M8		M8	4mm (0.158 in)	Semi-flush	N.O.	PNP	2m (6.5 ft) axial cable	Diagram 2	Figure 1
DW-AS-521-M8		M8	4mm (0.158 in)	Semi-flush	N.O.	NPN	M12 quick-disconnect	Diagram 3	Figure 2
DW-AS-521-M8-001		M8	4mm (0.158 in)	Semi-flush	N.O.	NPN	M8 quick-disconnect	Diagram 3	Figure 3
DW-AS-523-M8		M8	4mm (0.158 in)	Semi-flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	Figure 2
DW-AS-523-M8-001		M8	4mm (0.158 in)	Semi-flush	N.O.	PNP	M8 quick-disconnect	Diagram 4	Figure 3
DW-AD-524-M8		M8	4mm (0.158 in)	Semi-flush	N.C.	PNP	2m (6.5 ft) axial cable	Diagram 2	Figure 1
DW-AS-522-M8-001		M8	4mm (0.158 in)	Semi-flush	N.C.	NPN	M8 quick-disconnect	Diagram 3	Figure 3
DW-AS-524-M8		M8	4mm (0.158 in)	Semi-flush	N.C.	PNP	M12 quick-disconnect	Diagram 4	Figure 2
DW-AS-524-M8-001		M8	4mm (0.158 in)	Semi-flush	N.C.	PNP	M8 quick-disconnect	Diagram 3	Figure 3

DW Series 8mm Quadruple Sensing Proximity Sensors

DW Series M8 Specifications	
	DW-Ax-52x-M8
Mounting Type	Semi-flush
Nominal Sensing Distance	4mm (0.158 in)
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	≤ 200mA
Off-state (Leakage) Current	≤ 0.1 mA
Voltage Drop	≤ 2 V
Switching Frequency	≤ 500Hz
Differential Travel (% of Nominal Distance)	≤ 15%
Repeat Accuracy	0.2 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 (LED on continuously - secured operating zone)
Housing Material	Chrome plated nickel silver
Sensing Face Material	Polybutylene terephthalate
Shock/Vibration	IEC 60947-5-2/7.4
Tightening Torque	7 N•m (61.96 lb•in)
Weight	45g (1.59 oz) with cable, 20g (0.71 oz) with M12 connector, 17g (0.60 oz) with M8 connector
Connection	2m cable (PVC [polyvinyl chloride] 3 x 0.14mm ² ≈ 26 AWG) with M12 connection or M8 connection
Minimum Mounting Distance (center to center)	24.0 mm (0.94 in)
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

NPN Cable

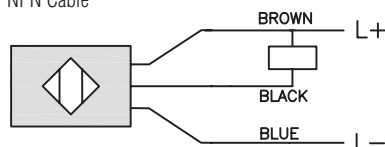


Diagram 2

PNP Cable

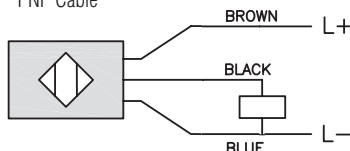


Diagram 3

NPN Connector

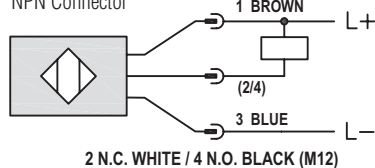
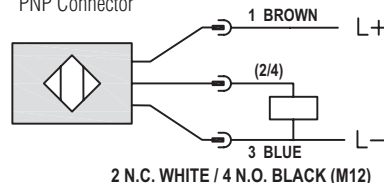


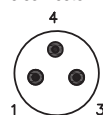
Diagram 4

PNP Connector

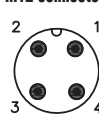


Connectors

M8 connector



M12 connector



DW Series 8mm Quadruple Sensing Proximity Sensors

Dimensions

mm [inches]

Figure 1

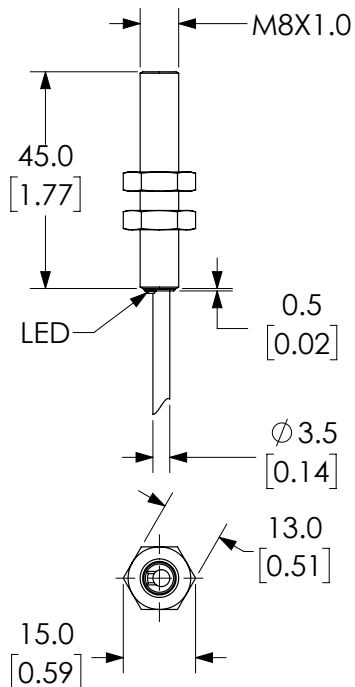


Figure 2

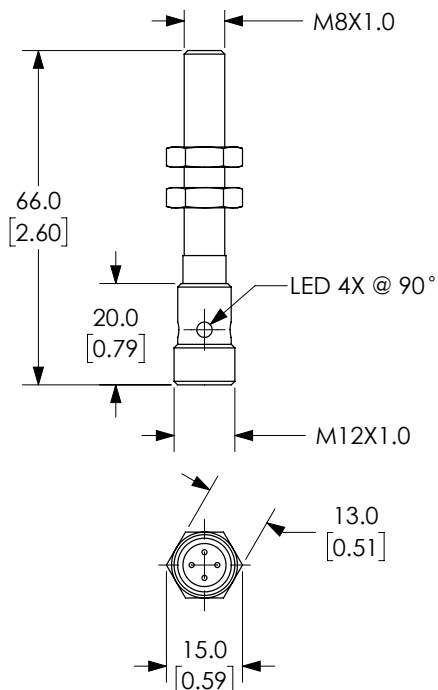
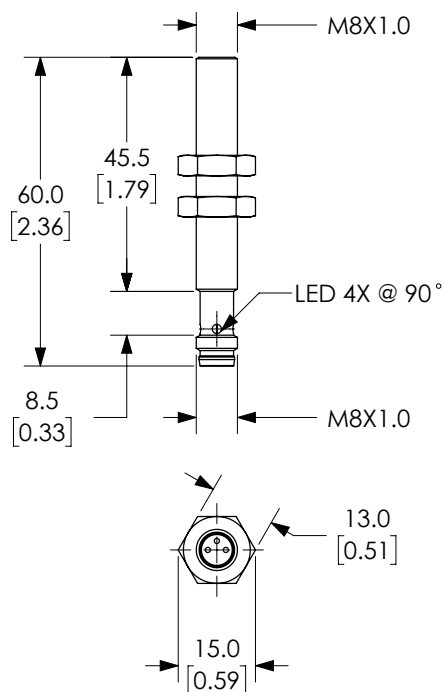


Figure 3



See our website 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]
ST08A		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		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.



OPT2101

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

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.



OPT2112 & OPT2113

Accessories for 8mm Sensors						
Part Number	Price	Description	Mounting Head	Mounting Plate	Drawing Link	Weight [lb]
OPT2112		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		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

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)