DW Series Analog Inductive Proximity Sensors

M30 (30mm) Metal – Analog Output

- Voltage or current analog output
- Metal housing
- M12 quick-disconnect model
- IP67 rated
- Purchase cable separately (for quick-disconnect model)
- Lifetime warranty

NEED CABLES?

DW Series M30 Analog Inductive Proximity Selection Chart

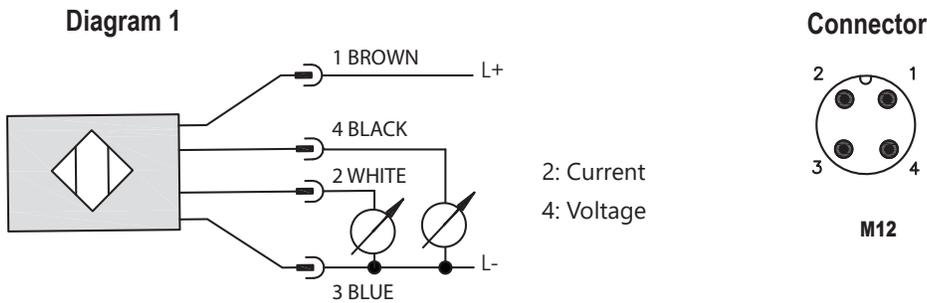| Part Number	Price	Sensing Range	Mounting	Output	Connection	Wiring	Dimensions
DW-AS-509-M30-120	$121.00	0-20 mm [0-0.787 in]	Semi-flush	0-5 VDC or 1-5 mA	M12 [12mm] quick-disconnect	Diagram 1	1
DW-AS-509-M30-320	$121.00	0-20 mm [0-0.787 in]	Semi-flush	0-10 VDC or 4-20 mA	M12 [12mm] quick-disconnect	Diagram 1	1

DW Series M30 Analog Inductive Proximity Specifications

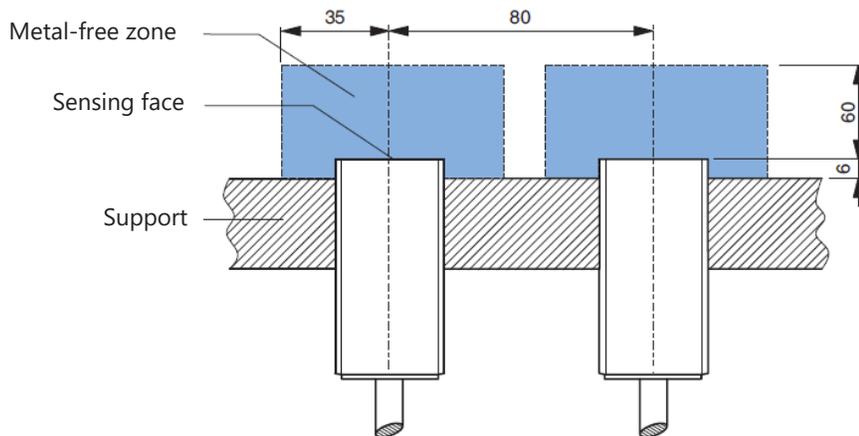| Specification	DW-AS-509-M30-120	DW-AS-509-M30-320
Mounting Type	Semi-flush	Semi-flush
Nominal Distance	0-20 mm [0-0.79 in]	0-20 mm [0-0.79 in]
Operating Distance	NA	NA
Material Correction Factors	See the Material influence table	See the Material influence table
Output Type	0-5 VDC or 1-5 mA	0-10 VDC or 4-20 mA
Current Output Max. Load / Power Supply	1 kΩ / 10VDC; 5 k / 30VDC	0.5 kΩ / 15VDC; 1 kΩ / 30VDC
Voltage Output Min. Load	500Ω	1kΩ
Operating Voltage	10 to 30 VDC	15 to 30 VDC
No-load Supply Current	≤10mA	≤12mA
Operating (Load) Current	≤ 10mA	≤10mA
Off-state (Leakage) Current	NA	NA
Voltage Drop	≤ 2.0 V	≤ 2.0 V
Switching Frequency	NA	NA
Differential Travel (% of Nominal Distance)	NA	NA
Repeat Accuracy	± 0.05 mm	± 0.05 mm
Ripple	≤ 20%	≤ 20%
Response Time	5ms	5ms
Time Delay Before Availability (tv)	≤ 50ms	≤50ms
Reverse Polarity Protection	Yes	Yes
Short-Circuit Protection	Yes (switch auto-resets after overload is removed)	Yes (switch auto-resets after overload is removed)
Operating Temperature	-25 to +70°C [-13 to 158°F]	-25 to +70°C [-13 to 158°F]
Protection Degree (DIN 40050)	IEC IP67	IEC IP67
Indication/Switch Status	NA	NA
Housing Material	Chrome-plated brass	Chrome-plated brass
Sensing Face Material	Polybutylene Terephthalate [PBT]	Polybutylene Terephthalate [PBT]
Shock/Vibration	IEC 60947-5-2	IEC 60947-5-2
Tightening Torque	60 N•m [44 lb•ft]	60 N•m [44 lb•ft]
Weight (M12 connector)	135g [4.76 oz]	135g [4.76 oz]
Connection	M12 [12mm] connector	M12 [12mm] connector
Agency Approvals	UL file E239373	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

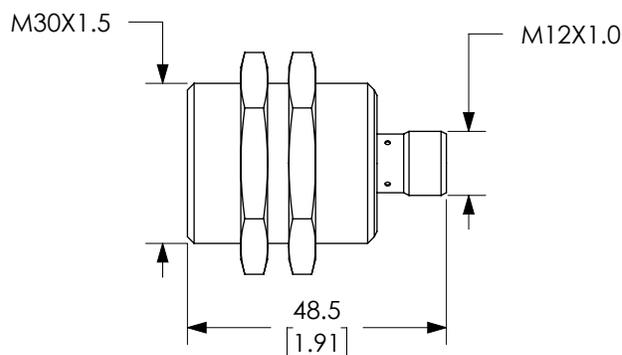1 BROWN — L+

4 BLACK

2 WHITE

2: Current

4: Voltage

3 BLUE — L-

Connector

2   1

3   4

M12

Installation

Metal-free zone

Sensing face

Support

35

80

60

6

Dimensions

mm [inches]

Figure 1

M30X1.5

M12X1.0

48.5
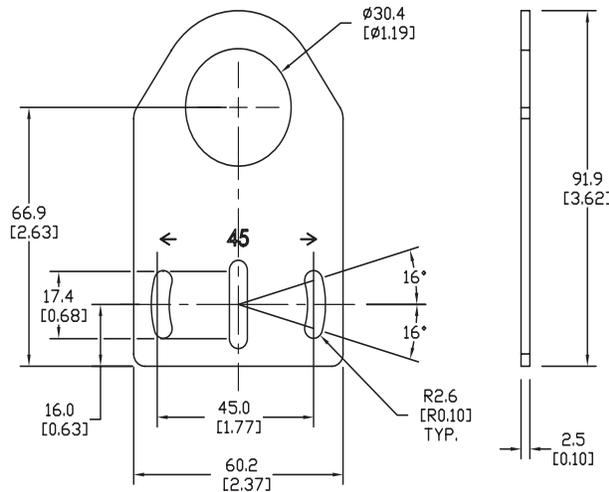[1.91]

Accessories for 30mm Sensors

Axial Mounting Bracket

Mounting bracket, axial, zinc-plated steel. For use with 30mm sensors. Has two mounting holes (use 5mm screws) and allows the rotation of an optical axis for right-beam-angle-adapter sensors. Hexagonal nuts not included.

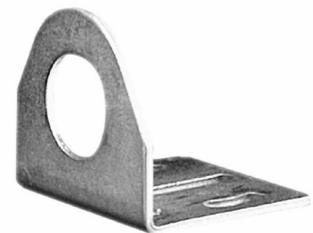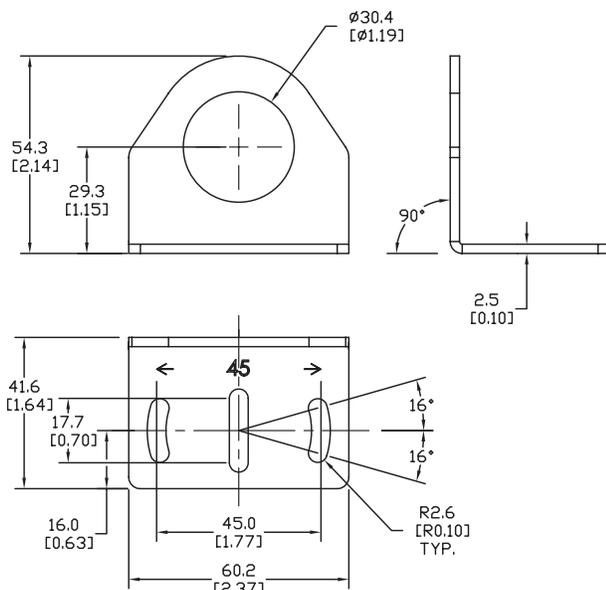| Accessories for 30mm Sensors			
Part Number	Price	Description	Weight lb [g]
ST30A	$2.25	Micro Detectors mounting bracket, axial, zinc plated steel. For use with 30mm sensors.	0.18 [81.7]

Dimensions

mm [inches]

ST30A

Right-angle Mounting Bracket

Mounting bracket, right-angle, zinc-plated steel. For use with 30mm sensors. Has two mounting holes (use 5mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.

Accessories for 30mm Sensors			
Part Number	Price	Description	Weight lb [g]
ST30C	$2.25	Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 30mm sensors.	0.18 [81.7]

Dimensions

mm [inches]

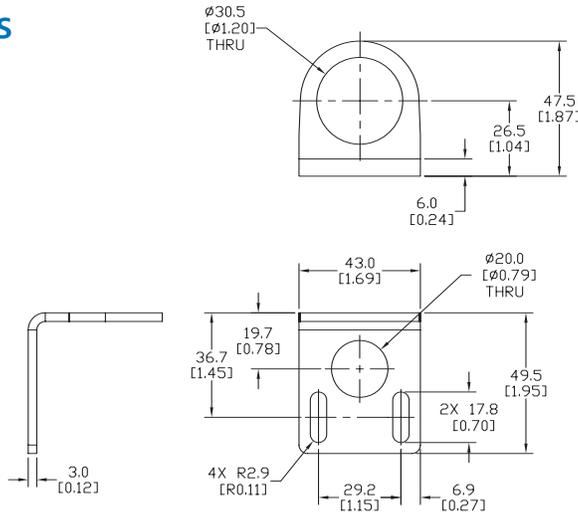**ST30C**

Accessories for 30mm Sensors

Right-angle Mounting Bracket

Mounting bracket, right-angle, 304 stainless steel. For use with 30mm sensors.

Accessories for FW Series Sensors			
Part Number	**Price**	**Description**	**Weight lb [g]**
ST30C6W	$5.50	AutomationDirect mounting bracket, right-angle, 304 stainless steel. For use with 30mm sensors.	0.15 (68.0)

Dimensions

mm [inches]

ST30C6W

Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 12mm rod mount. For use with 30mm sensors. Available in all 304 stainless steel or with an aluminum head with a 304 stainless steel mounting plate.

Accessories for 30mm Sensors						
Part Number	**Price**	**Description**	**Mounting Head**	**Mounting Plate**	**Drawing Link**	**Weight lb [g]**
OPT2118	$11.50	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 30mm sensors.	Aluminum	304 Stainless steel	PDF	0.18 [81.7]
OPT2119	$21.00	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 30mm sensors.	304 Stainless Steel	304 Stainless steel	PDF	0.18 [81.7]

Note: 304 Stainless steel mounting rods sold separately: OPT2109 (200mm [7.87 in] length), OPT2110 (300mm [11.81 in] length), and OPT2111 (500mm [19.69 in] length).

OPT2118, OPT2119

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	$13.00	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	PDF	0.41 [185.97]
OPT2110	$16.00	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	PDF	0.60 [272.16]
OPT2111	$21.00	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	$16.00	Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	PDF	0.07 [31.8]