



# DW Series 18mm Stainless Steel Triple Sensing Proximity Sensors



## M18 (18mm) Stainless Steel – DC

- 18mm threaded triple distance proximity sensor
- 20mm sensing
- Complete overload protection
- IP68/IP69k rated
- Two M18 lock nuts included
- Stainless steel construction
- One-piece for harsh duty applications
- LED status indicator
- Lifetime warranty



### DW Series 18mm Stainless Steel Triple Distance Inductive Proximity Selection Chart

Part Number	Price	Size	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Dimensions
<b>Triple Distance</b>									
<a href="#"><u>DW-AD-711-M18</u></a>	\$011c2:	M18	20mm [0.787 in]	Non-flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<a href="#"><u>DW-AD-713-M18 *</u></a>	\$011c3:				N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<a href="#"><u>DW-AS-711-M18-002</u></a>	\$011c4:				N.O.	NPN	M12 quick-disconnect	Diagram 3	Figure 2
<a href="#"><u>DW-AS-713-M18-002 *</u></a>	\$011c5:				N.O.	PNP	M12 quick-disconnect	Diagram 4	Figure 2
<a href="#"><u>DW-AD-712-M18</u></a>	\$011c6:				N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<a href="#"><u>DW-AD-714-M18</u></a>	\$011c7:				N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<a href="#"><u>DW-AS-714-M18-002</u></a>	\$011c9:				N.C.	PNP	M12 quick-disconnect	Diagram 4	Figure 2

\*IO-Link model

## Wiring Diagrams

Diagram 1

NPN Cable

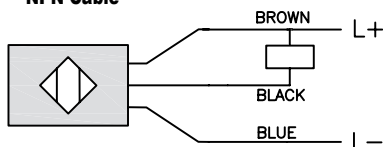
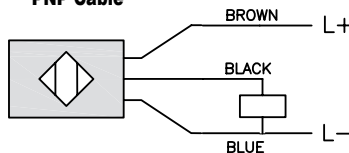


Diagram 2

PNP Cable



## Connectors

M12 connector

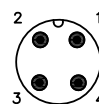


Diagram 3

NPN Connector

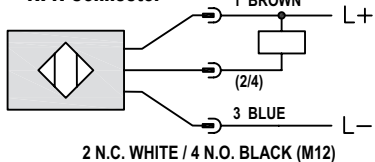
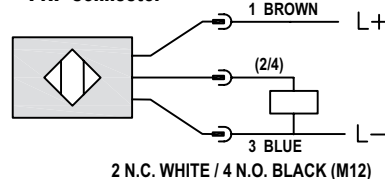


Diagram 4

PNP Connector



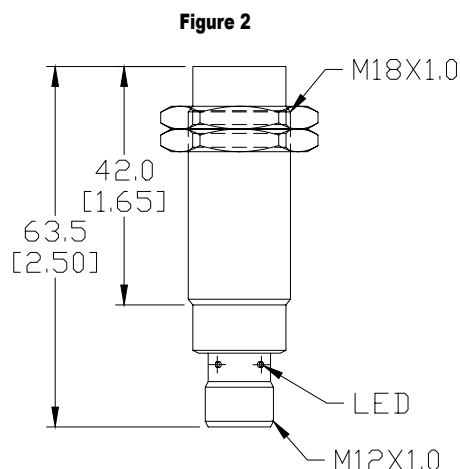
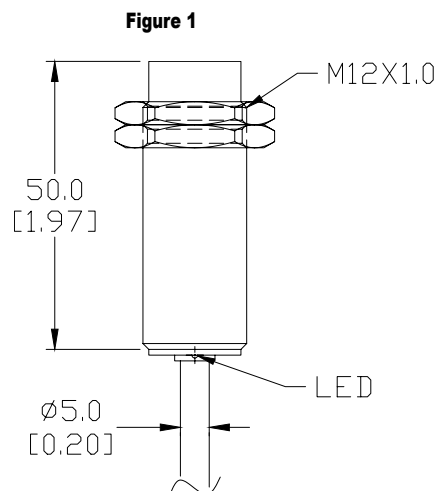
# DW Series 18mm Stainless Steel Triple Sensing Proximity Sensors

DW Series 18mm Stainless Steel Triple Distance Inductive Proximity Specifications	
<b>Specifications</b>	<b>DW-Ax-71x-M18</b>
<b>Mounting Type</b>	Non-flush
<b>Nominal Sensing Distance</b>	20mm [0.787 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>	≤ 200 Hz
<b>Differential Travel (% of Nominal Distance)</b>	≤ 10%
<b>Repeat Accuracy</b>	0.60 mm
<b>Ripple</b>	≤ 20%
<b>Time Delay Before Availability (tv)</b>	≤ 15ms
<b>Reverse Polarity Protection</b>	Yes
<b>Short-Circuit Protection</b>	Yes
<b>Operating Temperature</b>	-25 to 85°C [-13 to 185°F]
<b>Protection Degree (DIN 40050)</b>	IP68, IP69K
<b>Indication/Switch Status</b>	Yellow LED
<b>Housing Material</b>	Stainless steel
<b>Sensing Face Material</b>	Stainless steel
<b>Shock/Vibration</b>	IEC 60947-5-2/7.4
<b>Tightening Torque</b>	—
<b>Weight</b>	112g [3.95 oz], 51g [1.80 oz]
<b>Connection</b>	2m [6.5 ft] cable, M12 connection
<b>IO-Link</b>	PNP/N.O. version only
<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

## Dimensions

mm [inches]



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

## Axial Mounting Bracket

**ST18A**

## Dimensions

Technical drawing of a mechanical part, likely a valve or plug, showing front and side views with dimensions in millimeters and inches in brackets.

**Front View Dimensions:**

- Top circular feature:  $\varnothing 18.3$  [ $\varnothing 0.72$ ]
- Overall height: 53.8 [2.12]
- Distance from top to center of main body: 15.9 [0.62]
- Distance from bottom to center of main body: 14.0 [0.55]
- Overall width: 42.4 [1.67]
- Distance from center to side features: 30.0 [1.18]
- Side features: 30 (width), 15° (angle), 15° (angle)
- Radius: R2.1 [R0.08] TYP.

**Side View Dimensions:**

- Overall height: 70.6 [2.78]
- Bottom flange thickness: 1.5 [0.06]

**ST18C**

## Dimensions

# Accessories for 18mm Sensors

## Right-angle Mounting Brackets

Mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors. Available with or without fixed insertion stop.

Accessories for 18mm Sensors				
Part Number	Price	Description	Drawing Link	Weight lb [g]
<a href="#">OPT2104</a>	\$;-1nlt:	Wenglor mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors.	<a href="#">PDF</a>	0.06 [27.2]
<a href="#">OPT2105</a>	\$;-1nlu:	Wenglor mounting bracket, right-angle, plastic. For use with 18mm sensors.	<a href="#">PDF</a>	0.06 [27.2]



[OPT2104](#), [OPT2105](#)

## Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 12mm rod mount. For use with 18mm sensors. Available in all 304 stainless steel or with an aluminum head and a stainless steel mounting plate.

Accessories for 18mm Sensors						
Part Number	Price	Description	Mounting Head	Mounting Plate	Drawing Link	Weight lb [g]
<a href="#">OPT2116</a>	\$;-1n#:	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 18mm sensors.	Aluminum	304 Stainless steel	<a href="#">PDF</a>	0.15 [68.0]
<a href="#">OPT2117</a>	\$;-1nll:	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 18mm sensors.	304 Stainless steel	304 Stainless steel	<a href="#">PDF</a>	0.28 [127.0]



[OPT2116](#), [OPT2117](#)

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).

# 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>	\$1nn9:	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	<a href="#">PDF</a>	0.41 [185.97]
<a href="#">OPT2110</a>	\$1nna:	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	<a href="#">PDF</a>	0.60 [272.16]
<a href="#">OPT2111</a>	\$1nnb:	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>	\$-1nly:	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]

