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

NEED CABLES?

DW Series 18mm Stainless Steel Triple Distance Inductive Proximity Selection Chart									
Part Number	*Price*	*Size*	*Sensing Range*	*Mounting*	*Output State*	*Logic*	*Connection*	*Wiring*	*Dimensions*
Triple Distance									
DW-AD-711-M18					N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
*DW-AD-713-M18 ***					N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
DW-AS-711-M18-002					N.O.	NPN	M12 quick-disconnect	Diagram 3	Figure 2
*DW-AS-713-M18-002 ***		M18	20mm [0.787 in]	Non-flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	Figure 2
DW-AD-712-M18					N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
DW-AD-714-M18					N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
DW-AS-714-M18-002					N.C.	PNP	M12 quick-disconnect	Diagram 4	Figure 2

*IO-Link model

Wiring Diagrams

Diagram 1
NPN Cable

BROWN — L+
BLACK
BLUE — L—

Diagram 2
PNP Cable

BROWN — L+
BLACK
BLUE — L—
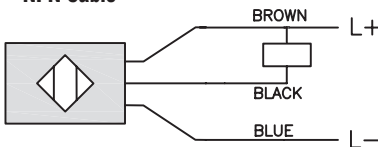
Connectors
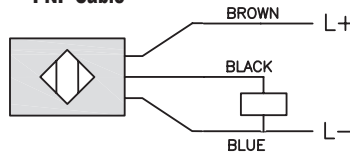
M12 connector

Diagram 3
NPN Connector

1 BROWN — L+
(2/4)
3 BLUE — L—

2 N.C. WHITE / 4 N.O. BLACK (M12)
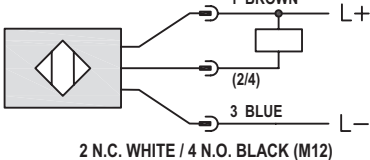
Diagram 4
PNP Connector

1 BROWN — L+
(2/4)
3 BLUE — L—

**2 N.C. WHITE / 4 N.O. BLACK (M12)**
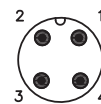
DW Series 18mm Stainless Steel Triple Sensing Proximity Sensors

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

Figure 1

Figure 2

M12X1.0

50.0 [1.97]

LED

Ø5.0 [0.20]

M18X1.0

42.0 [1.65]

63.5 [2.50]

LED

M12X1.0
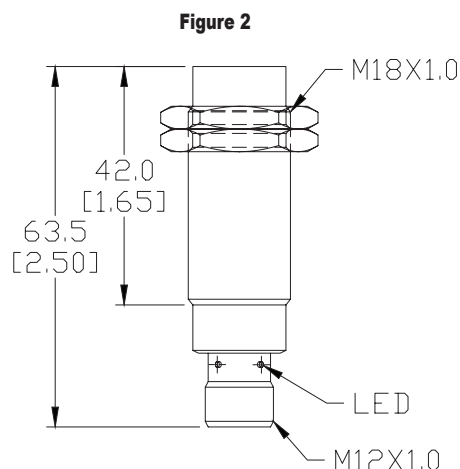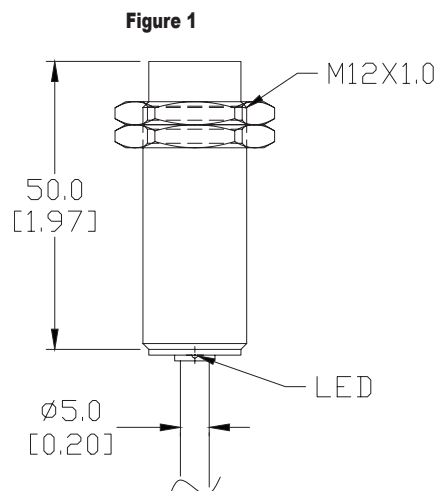
See our website for complete engineering drawings.

Accessories for 18mm Sensors

Axial Mounting Bracket

Axial mounting bracket available in zinc plated steel or 316L stainless steel. Has two mounting holes (use 4mm screws) and allows for rotation of an optical axis for right-beam-angle-adapter sensors. Hexagonal nuts not included. For use with 18mm sensors.
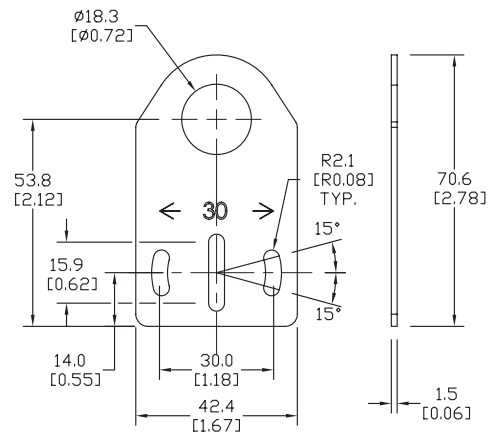
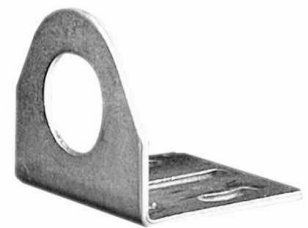| Accessories for 18mm Sensors			
Part Number	**Price**	**Description**	**Weight lb [g]**
ST18A		Micro Detectors mounting bracket, axial, zinc plated steel. For use with 18mm sensors.	0.06 [27.2]
ST18A7W		Micro Detectors mounting bracket, axial, 316L stainless steel. For use with 18mm sensors.	0.06 [27.2]

ST18A

Dimensions

mm [inches]

Right-angle Mounting Bracket

Right-angle mounting bracket for use with 18mm sensors. Has two mounting holes (use 4mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.
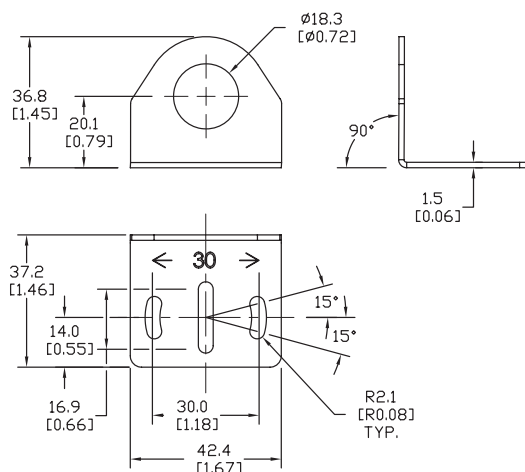
Accessories for 18mm Sensors			
Part Number	**Price**	**Description**	**Weight lb [g]**
ST18C		Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 18mm sensors.	0.06 [27.2]
ST18C7W		Micro Detectors mounting bracket, right-angle, 316L stainless steel. For use with 18mm sensors.	0.06 [27.2]

ST18C

Dimensions

mm [inches]

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.

OPT2104, OPT2105

Accessories for 18mm Sensors				
Part Number	Price	Description	Drawing Link	Weight lb [g]
OPT2104		Wenglor mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors.	PDF	0.06 [27.2]
OPT2105		Wenglor mounting bracket, right-angle, plastic. For use with 18mm sensors.	PDF	0.06 [27.2]

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.

OPT2116, OPT2117

Accessories for 18mm Sensors						
Part Number	Price	Description	Mounting Head	Mounting Plate	Drawing Link	Weight lb [g]
OPT2116		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	PDF	0.15 [68.0]
OPT2117		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	PDF	0.28 [127.0]

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)
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]