DW Series 30mm Triple Sensing Proximity Sensors

M30 (30mm) Chrome Plated Brass – DC

- Sixteen models available
- 30mm threaded triple distance proximity sensor
- 22mm and 40mm sensing
- Complete overload protection

- IP67 rated
- Two M30 lock nuts included
- Chrome plated brass construction
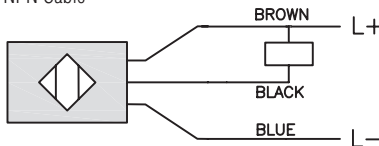- LED status indicator
- Lifetime warranty

NEED CABLES?

CONTRINEX
SENSORS SAFETY RFID

Part Number	Price	Size	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Dimensions
DW Series 30mm Stainless Steel Triple Distance Inductive Prox Selection Chart									
Triple Distance Semi-flush									
DW-AD-501-M30		M30	22mm (0.866 in)	Semi-flush	N.O.	NPN	2m (6.5 ft) axial cable	Diagram 1	Figure 1
DW-AD-503-M30		M30	22mm (0.866 in)	Semi-flush	N.O.	PNP	2m (6.5 ft) axial cable	Diagram 2	Figure 1
DW-AS-501-M30-002		M30	22mm (0.866 in)	Semi-flush	N.O.	NPN	M12 quick-disconnect	Diagram 3	Figure 3
DW-AS-503-M30-002		M30	22mm (0.866 in)	Semi-flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	Figure 3
DW-AD-502-M30		M30	22mm (0.866 in)	Semi-flush	N.C.	NPN	2m (6.5 ft) axial cable	Diagram 1	Figure 1
DW-AD-504-M30		M30	22mm (0.866 in)	Semi-flush	N.C.	PNP	2m (6.5 ft) axial cable	Diagram 2	Figure 1
DW-AS-502-M30-002		M30	22mm (0.866 in)	Semi-flush	N.C.	NPN	M12 quick-disconnect	Diagram 3	Figure 3
DW-AS-504-M30-002		M30	22mm (0.866 in)	Semi-flush	N.C.	PNP	M12 quick-disconnect	Diagram 4	Figure 3
Triple Distance Non-flush									
DW-AD-511-M30		M30	40mm (1.574 in)	Non-flush	N.O.	NPN	2m (6.5 ft) axial cable	Diagram 1	Figure 2
DW-AD-513-M30		M30	40mm (1.574 in)	Non-flush	N.O.	PNP	2m (6.5 ft) axial cable	Diagram 2	Figure 2
DW-AS-511-M30-002		M30	40mm (1.574 in)	Non-flush	N.O.	NPN	M12 quick-disconnect	Diagram 3	Figure 4
DW-AS-513-M30-002		M30	40mm (1.574 in)	Non-flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	Figure 4
DW-AD-512-M30		M30	40mm (1.574 in)	Non-flush	N.C.	NPN	2m (6.5 ft) axial cable	Diagram 1	Figure 2
DW-AD-514-M30		M30	40mm (1.574 in)	Non-flush	N.C.	PNP	2m (6.5 ft) axial cable	Diagram 2	Figure 2
DW-AS-512-M30-002		M30	40mm (1.574 in)	Non-flush	N.C.	NPN	M12 quick-disconnect	Diagram 3	Figure 4
DW-AS-514-M30-002		M30	40mm (1.574 in)	Non-flush	N.C.	PNP	M12 quick-disconnect	Diagram 4	Figure 4

Wiring diagrams

Diagram 1

NPN Cable

BROWN L+
BLACK
BLUE L−

Diagram 2

PNP Cable

BROWN L+
BLACK
BLUE L−

Connectors

M12 connector

2 1
3 4

Diagram 3

NPN Connector

1 BROWN L+
(2/4)
3 BLUE L−

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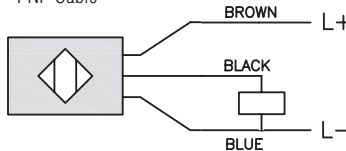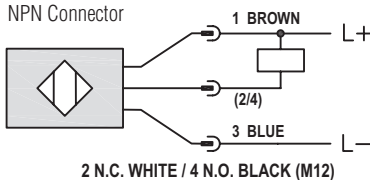
Diagram 4

PNP Connector

1 BROWN L+
(2/4)
3 BLUE L−

2 N.C. WHITE / 4 N.O. BLACK (M12)
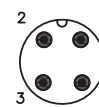
DW Series 30mm Triple Sensing Proximity Sensors

DW Series Specifications		
	DW-Ax-50x-M30	**DW-Ax-51x-M30**
Mounting Type	Semi-flush	Non-flush
Nominal Sensing Distance	22mm	40mm
Operating Distance	NA	
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	$\leq$ 10mA	
Operating (Load) Current	$\leq$ 200mA	
Off-state (Leakage) Current	$\leq$ 0.1 mA	
Voltage Drop	$\leq$ 2 V	
Switching Frequency	$\leq$ 200Hz	$\leq$ 100Hz
Differential Travel (% of Nominal Distance)	$\leq$ 10%	
Repeat Accuracy	1.1 mm	2.0 mm
Ripple	$\leq$ 20%	
Time Delay Before Availability (tv)	$\leq$ 200ms	
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	Chrome plated brass	
Sensing Face Material	PBT (Polybutylene terephthalate)	
Shock/Vibration	IEC 60947-5-2/7.4	
Tightening Torque	--	
Weight	215g (7.58 oz), 155g (5.47 oz)	212g (7.48 oz), 143g (5.04 oz)
Connection	2m cable, M12 connection	
IO-Link	NA	
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		

DW Series 30mm Triple Sensing Proximity Sensors

Dimensions
mm [inches]
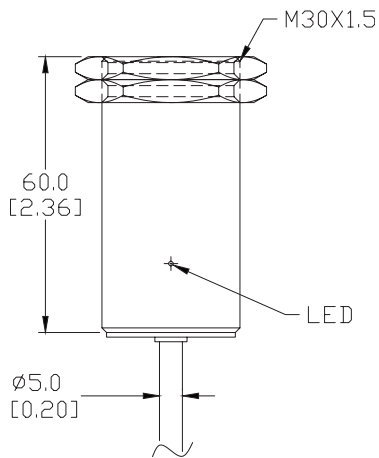
Figure 1
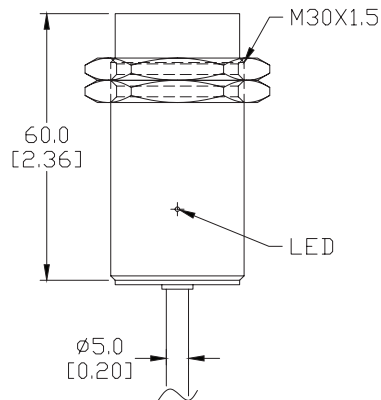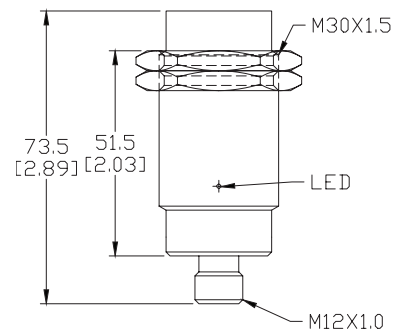
M30X1.5
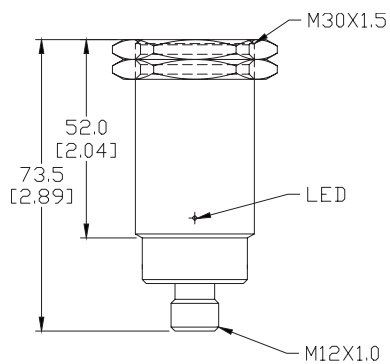
60.0
[2.36]

LED

∅5.0
[0.20]

Figure 2

M30X1.5

60.0
[2.36]

LED

∅5.0
[0.20]

Figure 3

M30X1.5

52.0
[2.04]

73.5
[2.89]

LED

M12X1.0

Figure 4

M30X1.5

73.5   51.5
[2.89] [2.03]

LED

M12X1.0

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		Mounting bracket, axial, zinc plated steel. For use with 30mm sensors.	0.18 (81.7)

Dimensions

mm [inches]

ø30.4 [ø1.19]
66.9 [2.63]
45
17.4 [0.68]
16°
16°
16.0 [0.63]
45.0 [1.77]
R2.6 [R0.10] TYP.
60.2 [2.37]
91.9 [3.62]
2.5 [0.10]
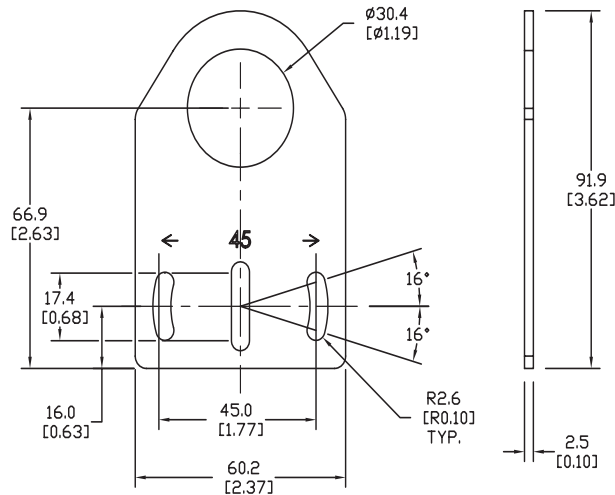
ST30A

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		Mounting bracket, right-angle, zinc plated steel. For use with 30mm sensors.	0.18 (81.7)

Dimensions

mm [inches]

ø30.4 [ø1.19]
54.3 [2.14]
29.3 [1.15]
90°
2.5 [0.10]
41.6 [1.64]
45
17.7 [0.70]
16°
16°
16.0 [0.63]
45.0 [1.77]
R2.6 [R0.10] TYP.
60.2 [2.37]

ST30C

Accessories for 30mm Sensors
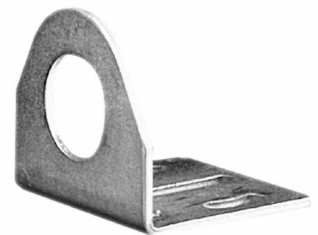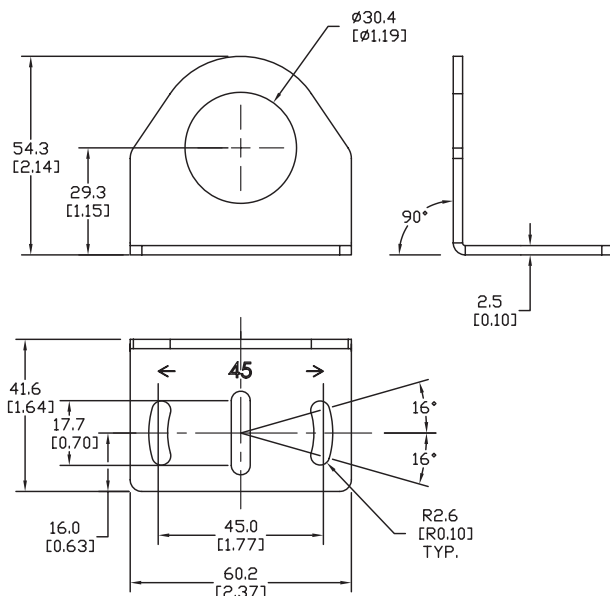
Right-angle Mounting Bracket

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		Mounting bracket, right-angle, 304 stainless steel. For use with 30mm sensors.	0.15 (68.0)

ST30C6W

Dimensions

mm [inches]

ø30.5 [ø1.20] THRU
47.5 [1.87]
26.5 [1.04]
6.0 [0.24]

43.0 [1.69]
ø20.0 [ø0.79] THRU
19.7 [0.78]
36.7 [1.45]
49.5 [1.95]
2X 17.8 [0.70]
3.0 [0.12]
4X R2.9 [R0.11]
29.2 [1.15]
6.9 [0.27]

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		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		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		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)