

# PTW Series Inductive Proximity Sensors



## M30 (30 mm) stainless steel - DC

- Metal sensing face for extreme environments
- LED status indicators are visible at a wide angle.
- One-piece stainless design
- Axial cable or M12 quick-disconnect models
- Purchase cable separately (for quick-disconnect models).
- Lifetime warranty



PTW Series M30 DC SS Inductive Proximity Selection Chart								
Part Number	Price	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Dimensions
<i>Triple Distance</i>								
<a href="#">PTW-AN-5A</a>	\$132.00	20 mm [0.787 in]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	Figure 1
<a href="#">PTW-AP-5A</a>	\$132.00				PNP	2m [6.5 ft] axial cable	Diagram 2	Figure 1
<a href="#">PTW-AN-5H</a>	\$132.00				NPN	M12 [12mm] connector	Diagram 1	Figure 2
<a href="#">PTW-AP-5H</a>	\$132.00				PNP	M12 [12mm] connector	Diagram 2	Figure 2

## Wiring Diagrams

Diagram 1

NPN Output

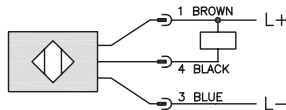
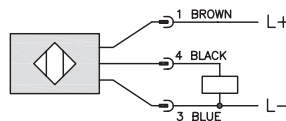


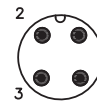
Diagram 2

PNP Output



Connector

M12 connector



**Note: Pin 2 is not present on some models.**

# PTW Series Inductive Proximity Sensors

PTW Series M30 DC SS Inductive Proximity Specifications		
Models	PTW-A*-2H	PTW-A*-5*
Mounting Type	Non-flush	Flush
Nominal Distance	25mm [0.984 in]	20mm [0.787 in]
Operating Distance	0 to 24.3 mm [0.96 in]	NA
Material Correction Factors	See the <a href="#">Material influence table</a>	
Output Type	NPN or PNP, N.O. only	
Operating Voltage	10 to 36 VDC	10 to 30 VDC
No-load Supply Current	25mA	10mA
Operating (Load) Current	100mA	≤ 200mA
Off-state (Leakage) Current	< 1mA	≤ 100µA
Voltage Drop	≤ 2.5V	≤ 2.0V
Switching Frequency	250Hz	100Hz
Differential Travel (% of Nominal Distance)	≤ 20%	≤ 15%
Repeat Accuracy	Not available	≤ 5%
Ripple	Not available	≤ 20%
Time Delay Before Availability (tv)	Not available	≤ 10ms
Reverse Polarity Protection	Yes	
Short-circuit Protection	Yes [non-latching]	
Operating Temperature	0 to 100°C [32 to 212°F]	-25 to 70°C [-13 to 158°F]
Protection Degree (DIN 40050)	IEC IP65/67/68/69K	IEC IP67 <sup>1</sup> [connector] IP68 <sup>1</sup> [cable]
Indication/Switch Status	Yellow [4 x 90°]	Yellow [N.O. output energized]
Housing Material	Stainless steel	Stainless steel
Sensing Face Material	Stainless steel	Stainless steel
Shock Resistance / Vibration Resistance	See <a href="#">Proximity Sensor Terminology</a>	
Tightening Torque	80Nm [50 lb-in]	15Nm [111 lb-in]
Weight	145g [5.11 oz]	114g [4.02 oz] / 50g [1.76 oz]
Connections	M12 connector, 2 lock nuts included	2m [6.5'] axial cable or M12 connector
Agency Approvals	cULus, UL file E328811, CE, RoHS	UL file E328811, CE, RoHS

Note:<sup>1</sup> Fully submersible to 290 psi (20 bar).

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

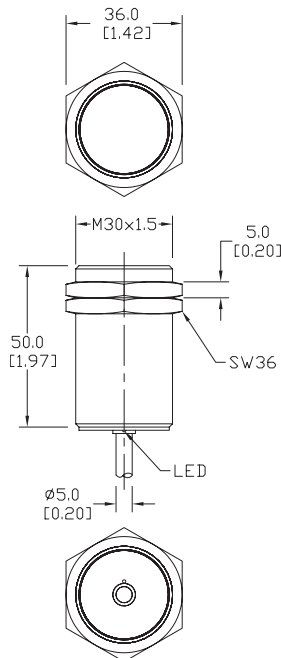
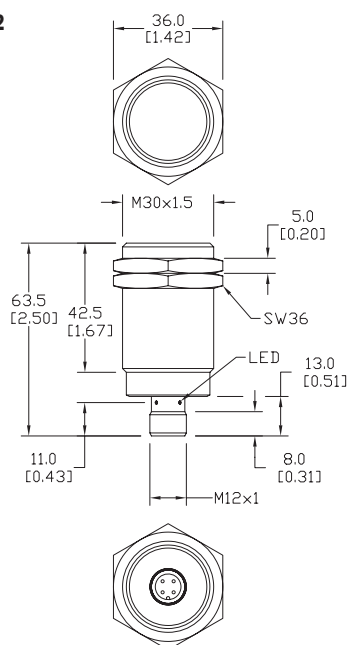


Figure 2



Note: Pin 2 is not present on some models.



# Accessories for 30mm Sensors

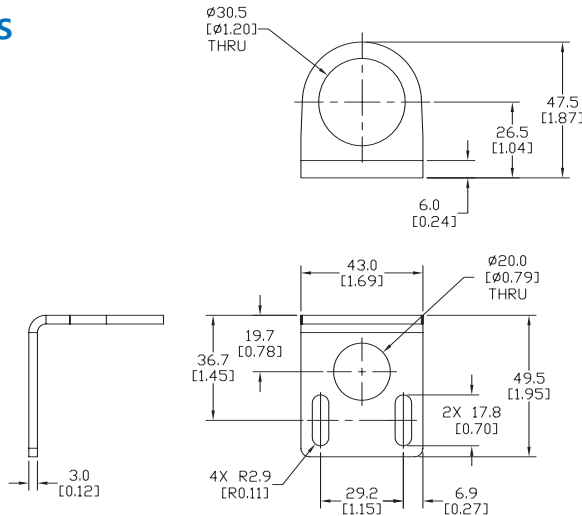
## Right-angle Mounting Bracket

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

Accessories for FW Series Sensors			
Part Number	Price	Description	Weight lb [g]
<a href="#"><u>ST30C6W</u></a>	\$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]
<a href="#"><u>OPT2118</u></a>	\$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	<a href="#"><u>PDF</u></a>	0.18 (81.7)
<a href="#"><u>OPT2119</u></a>	\$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	<a href="#"><u>PDF</u></a>	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)
<a href="#">OPT2109</a>	\$13.00	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	<a href="#">PDF</a>	0.41 [185.97]
<a href="#">OPT2110</a>	\$16.00	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	<a href="#">PDF</a>	0.60 [272.16]
<a href="#">OPT2111</a>	\$21.00	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>	\$16.00	Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods <a href="#">OPT2109</a> , <a href="#">OPT2110</a> & <a href="#">OPT2111</a> .	<a href="#">PDF</a>	0.07 [31.8]

