PFT Series IP69K-rated Proximity Sensors
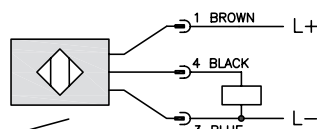
30 mm Stainless Steel - DC

- PFT1 series – short-body length,
  PFT2 series – regular body length
- 30 mm diameter
- 316L stainless steel housing
- M12 quick-disconnect plug with gold-plated pins
  (purchase cable separately)
- Complete overload protection
- IP69K rated for food and beverage applications
- M30 mounting hex nuts included
- Lifetime warranty

PFT1-AP-3H
PFT1-AP-4H

NEED CABLES?

PFT Series Food and Beverage DC Inductive Proximity Selection Chart								
Part Number	*Price*	*Sensing Range*	*Mounting*	*Output State*	*Logic*	*Connection*	*Wiring*	*Dimensions*
PFT1-AP-3H	$-09el:	0 to 14 mm [0 to 0.551 in]	Flush	N.O.	PNP	M12 [12mm] connector	Diagram 1	Figure 1
PFT2-AP-3H	Retired	0 to 15 mm [0 to 0.590 in]			PNP	M12 [12mm] connector	Diagram 1	Figure 2
PFT1-AP-4H	$09en:	0 to 22 mm [0 to 0.866 in]	Non-flush	N.O.	PNP	M12 [12mm] connector	Diagram 1	Figure 1
PFT2-AP-4H	$09ep:				PNP	M12 [12mm] connector	Diagram 1	Figure 2

Wiring Diagram

Diagram 1
PNP output

1 BROWN — L+
4 BLACK
3 BLUE — L−

Connector
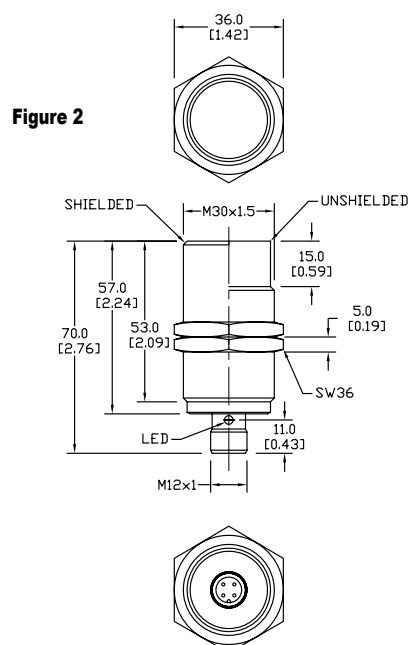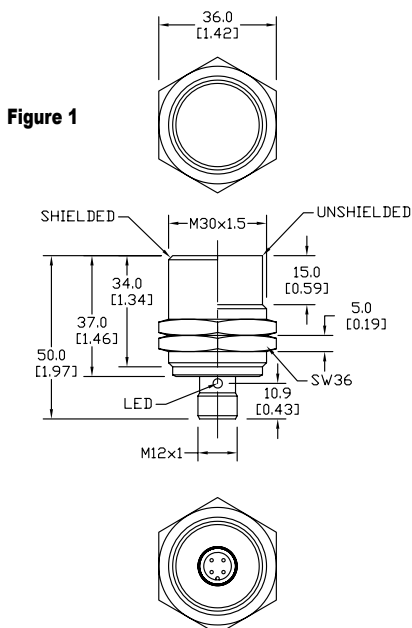**M12 connector**

2 1
3 4

Note: Class 2 power supply required

PFT Series IP69K-rated Proximity Sensors

PFT Series Food and Beverage DC Inductive Proximity Specifications				
Mounting Type	Flush		Non-flush	
Series	PFT1	PFT2	PFT1	PFT2
Nominal Sensing Distance	14mm [0.551 in]	15mm [0.590 in]	22mm [0.866 in]	
Operating Distance	NA			
Material Correction Factors	See the Material influence table			
Output Type	PNP, N.O. only			
Operating Voltage	10 - 36 VDC			
No-load Supply Current	≤ 10mA			
Operating (Load) Current	≤ 100mA			
Off-state (Leakage) Current	NA			
Voltage Drop	≤ 2.5 V			
Switching Frequency	50Hz		100Hz	
Differential Travel (% of Nominal Distance)	3 - 15%			
Repeat Accuracy	10%			
Ripple	NA			
Time Delay Before Availability (tv)	30ms			
Reverse Polarity Protection	Yes			
Short-Circuit Protection	Yes (switch auto-resets after overload is removed)			
Operating Temperature	0 to 100°C [32 to 212°F]			
Protection Degree (DIN 40050)	IEC IP68, IP69K			
Indication/Switch Status	Normally Open output energized - Yellow			
Housing Material	316 L stainless steel			
Sensing Face Material	PEEK (Polyether Ether Ketone)			
Shock/Vibration	See Proximity Sensor Terminology			
Tightening Torque	80 Nm [59 lb-ft]			
Weight	110g [3.88 oz]	130g [4.58 oz]	107g [3.77 oz]	124g [4.37 oz]
Connection	M12 plug with gold-plated pins			
Agency Approvals	UL file E328811, CE ECOLAB, RoHS			

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

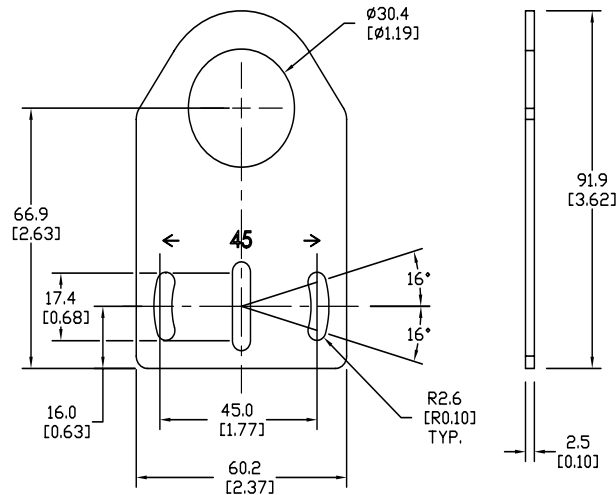Figure 2

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.

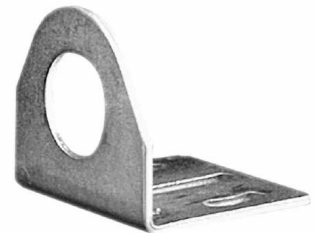| Accessories for 30mm Sensors			
Part Number	Price	Description	Weight lb [g]
ST30A	$983:	Micro Detectors mounting bracket, axial, zinc plated steel. For use with 30mm sensors.	0.18 [81.7]

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.

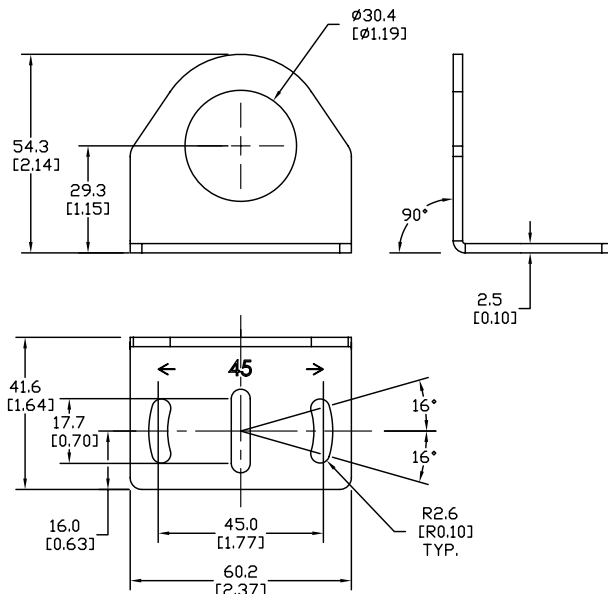| Accessories for 30mm Sensors			
Part Number	Price	Description	Weight lb [g]
ST30C	$984:	Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 30mm sensors.	0.18 [81.7]

Dimensions
mm [inches]

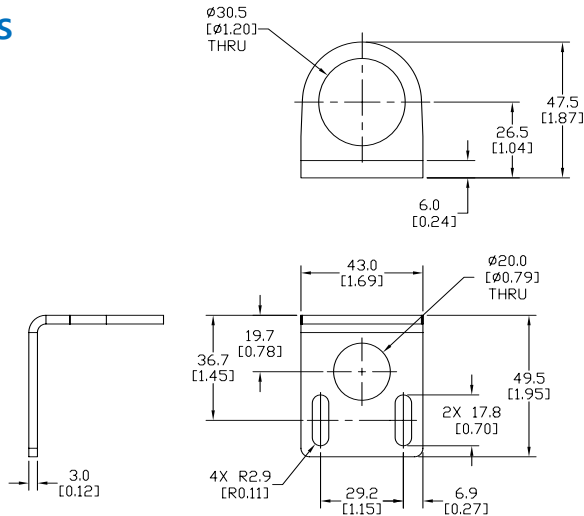

ST30C

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	$-5i1:	AutomationDirect mounting bracket, right-angle, 304 stainless steel. For use with 30mm sensors.	0.15 (68.0)

Dimensions

mm [inches]

ST30C6W

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	$-1nl?:	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	$;-1nl,:	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	$1nn9:	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	PDF	0.41 [185.97]
OPT2110	$1nna:	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	PDF	0.60 [272.16]
OPT2111	$1nnb:	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	$-1nly:	Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	PDF	0.07 [31.8]