PB Series Inductive Proximity Sensors

Nickel-plated Brass - DC

- Low cost/high performance
- IP67 rated
- LED status indicators
- M12 quick-disconnect; purchase cable separately
- Lifetime warranty

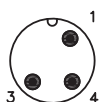**NEED CABLES?**

Basic Series Inductive Proximity Selection Chart

Part Number	Price	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Dimensions
M30 Models								
PBT-AP-1H	Retired	10 mm (0.394 in)	Flush	N.O.	PNP	M12 (12mm) connector	Diagram 1	Figure 1

Wiring diagram

Diagram 1
PNP Output

1 BROWN — L+
4 BLACK
3 BLUE — L−

M12 connector

1
3   4
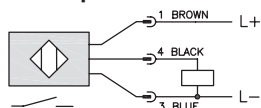
Dimensions

mm[inches]

Figure 1

SHIELDED M30×1 UNSHIELDED

20.0 [0.79]
49.0 [1.93]
40.0 [1.57]
60.0 [2.36]

LED

M12×1

36.0 [1.42]
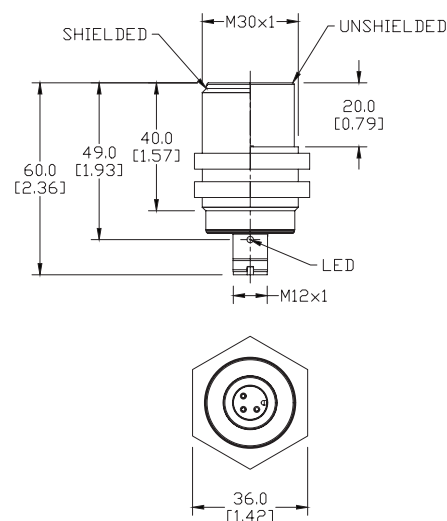
PB Series Inductive Proximity Sensors

PB Series Specifications	
Mounting Type	*Flush*
Nominal Sensing Distance	10mm (0.394 in)
Operating Distance	NA
Material Correction Factors	See the Material influence table
Output Type	NPN or PNP, N.O. only
Operating Voltage	15 to 30 VDC
No-load Supply Current	< 15 mA
Operating (Load) Current	100mA
Off-state (Leakage) Current	< 0.1 mA
Voltage Drop	< 2.5 V
Switching Frequency	200Hz
Differential Travel (% of Nominal Distance)	NA
Repeat Accuracy	NA
Ripple	NA
Time Delay Before Availability (tv)	NA
Reverse Polarity Protection	Yes
Short-circuit Protection	Yes, pulsed
Operating Temperature	-25 to 70°C [-13 to 158°F]
Protection Degree (DIN 40050)	IEC IP67
Indication/Switch Status	Yellow (output energized)
Housing Material	Housing: brass, nickel-plated; Lock nuts: brass
Sensing Face Material	Polybutylene Terephthalate (PBT)
Shock/Vibration	See Proximity Sensor Terminology
Tightening Torque	50.0 Nm (36.8 lb-ft)
Weight	8.50 g (0.30 oz)
Connectors	M12 connector. 2 lock nuts included
Agency Approvals	cULus file E328811, CE, RoHS

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

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

Dimensions

mm [inches]
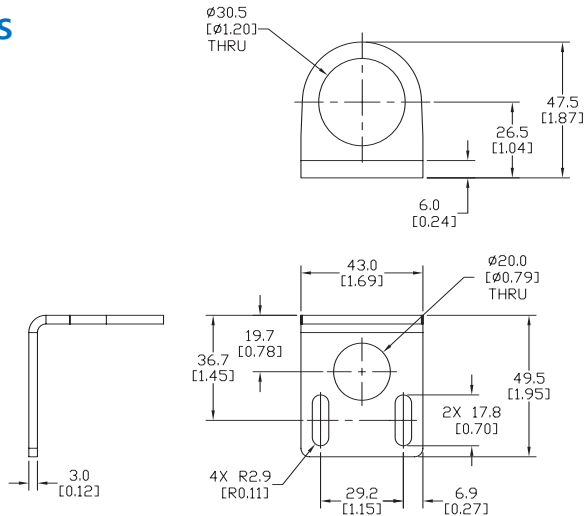
ST30C6W

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]
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)

For the latest prices, please check AutomationDirect.com.