



PxW2 Series Metal Face Inductive Proximity Sensors

316L Stainless Steel – DC



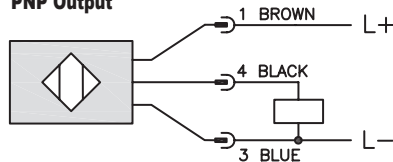
- 8mm, 12mm, 18mm, 30mm
- Complete overload protection
- IP65, IP66, IP67, IP68, IP69K rated
- Lock nuts included
- 316L Stainless Steel body
- Metal sensing face provides durable protection
- LED Status indicator
- Lifetime warranty



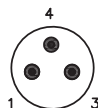
| PxW2 Series Metal Face Inductive Proximity Selection Chart | | | | | | | | |
|--|---------|-----------------|------------|--------------|-------|----------------------------|-----------|---------------------|
| Part Number | Price | Sensing Range | Mounting | Output State | Logic | Connection | Wiring | Drawing Link |
| M8 Proximity Sensors | | | | | | | | |
| PEW2-AP-3F | \$33.50 | 3mm [0.118 in] | Semi-flush | N.O. | PNP | 3-pin M8 quick-disconnect | Diagram 1 | PDF |
| PEW2-AP-4F | \$33.50 | 5mm [0.20 in] | Non-flush | N.O. | PNP | 3-pin M8 quick-disconnect | Diagram 1 | PDF |
| M12 Proximity Sensors | | | | | | | | |
| PMW2-AP-3H | \$33.50 | 4mm [0.157 in] | Flush | N.O. | PNP | 4-pin M12 quick-disconnect | Diagram 1 | PDF |
| PMW2-AP-4H | \$33.50 | 6mm [0.236 in] | Non-flush | N.O. | PNP | 4-pin M12 quick-disconnect | Diagram 1 | PDF |
| M18 Proximity Sensors | | | | | | | | |
| PKW2-AP-3H | \$35.50 | 8mm [0.31 in] | Flush | N.O. | PNP | 4-pin M12 quick-disconnect | Diagram 1 | PDF |
| PKW2-AP-4H | \$35.50 | 12mm [0.47 in] | Non-Flush | N.O. | PNP | 4-pin M12 quick-disconnect | Diagram 1 | PDF |
| M30 Proximity Sensors | | | | | | | | |
| PTW2-AP-3H | \$44.50 | 15mm [0.59 in] | Flush | N.O. | PNP | 4-pin M12 quick-disconnect | Diagram 1 | PDF |
| PTW2-AP-4H | \$44.50 | 25mm [0.984 in] | Non-flush | N.O. | PNP | 4-pin M12 quick-disconnect | Diagram 1 | PDF |

Wiring Diagrams

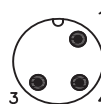
Diagram 1
PNP Output



Connectors
M8 connector



M12 connector

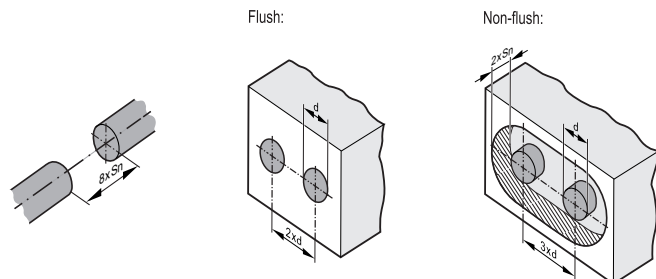


Warning: These products are not safety sensors and are not suitable for use in personal safety applications.

PxW2 Series Metal Face Inductive Proximity Specifications

| PxW2 Series Metal Face Inductive Proximity Specifications | | | | | | | | |
|---|--|------------------|-----------------------------|----------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|
| Sensor | PEW2-AP-3F | PEW2-AP-4F | PMW2-AP-3H | PMW2-AP-4H | PKW2-AP-3H | PKW2-AP-4H | PTW2-AP-3H | PTW2-AP-4H |
| Mounting Type | Semi-flush | Non-flush | Flush | Non-flush | Flush | Non-flush | Flush | Non-flush |
| Sensing Range | 3mm | 5mm | 4mm | 6mm | 8mm | 12mm | 15mm | 25mm |
| Real Sensing Range (Sr) | 3 ± 10% | 5 ± 10% | 4 ± 10% | 6 ± 10% | 8 ± 10% | 12 ± 10% | 15 ± 10% | 25 ± 10% |
| Material Correction Factors | See Material Influence Table | | | | | | | |
| Output Type | PNP N.O. | | | | | | | |
| Operating Voltage | 10-30 VDC | | | | | | | |
| No-load Supply Current | ≤ 20 mA | | | | | | | |
| Operating (Load) Current | ≤ 100 mA | | | | | | | |
| Off-state (Leakage) Current | ≤ 0.1 mA | | | | | | | |
| Voltage Drop | 2.5 V | | | | | | | |
| Switching Frequency | 250Hz | 500Hz | 100Hz | 250Hz | 100Hz | 250Hz | 50Hz | 100Hz |
| Hysteresis (% of Sr) | 3 to 15 | | | | | | | |
| Switch-point Drift (% of Sr) | -10 to 10 | | | | | | | |
| Pressure Rating (bar) | 50 [725.19 psi] | | | 100 [1450 psi] | | | | |
| Protection Class | III | | | | | | | |
| Reverse Polarity Protection | Yes | | | | | | | |
| Short-Circuit Protection | Yes | | | | | | | |
| Operating Temperature (UL) | -25 to +85°C [-13 to +185°F] | | -25 to +70°C [-13 to 158°F] | 0 to +70°C [35 to 158°F] | -25 to +70°C [-13 to 158°F] | 0 to +70°C [35 to 158°F] | -25 to +70°C [-13 to 158°F] | 0 to +70°C [35 to 158°F] |
| Protection Degree (DIN 40050) | IP65, IP66, IP67, IP68, IP69K (With IP69K Cable) | | | | | | | |
| Indication/Switch Status | Yellow LED, Switching Status, 4 x 90° | | | | | | | |
| Housing Material | 316L Stainless Steel | | | | | | | |
| Sensing Face Material | 316L Stainless Steel | | | | | | | |
| Shock/Vibration | Shock EN 60068-2-27, Vibration EN 60068-2-6 | | | | | | | |
| Tightening Torque | 5 N•m | | 15 N•m | | 50 N•m | | 80 N•m | |
| Weight | 15.8 g [0.56 oz] | 15.3 g [0.54 oz] | 25.8 g [0.91 oz] | 23.9 g [0.84 oz] | 44g [1.55 oz] | 38.6 g [1.36 oz] | 115g [4.05 oz] | 106.8 g [3.77 oz] |
| Connection | 3-pin M8 quick-disconnect | | | 4-pin M12 quick-disconnect | | | | |
| IO-Link | NA | | | | | | | |
| Agency Approvals | CE, cULus E328811 | | | | | | | |

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



Minimum clearance for installing units of the same type (side-by-side installation). Applies to cylindrical and rectangular sensors. The minimum distance between units may only be disregarded for units with different oscillator frequencies or different sensing principles.

Warning: These products are not safety sensors and are not suitable for use in personal safety applications.

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-adaptor sensors. Hexagonal nuts not included. For use with 18mm sensors.



ST18A

| Accessories for 18mm Sensors | | | |
|------------------------------|--------|---|---------------|
| Part Number | Price | Description | Weight lb [g] |
| ST18A | \$2.00 | Micro Detectors mounting bracket, axial, zinc plated steel. For use with 18mm sensors. | 0.06 [27.2] |
| ST18A7W | \$7.25 | Micro Detectors mounting bracket, axial, 316L stainless steel. For use with 18mm sensors. | 0.06 [27.2] |

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.

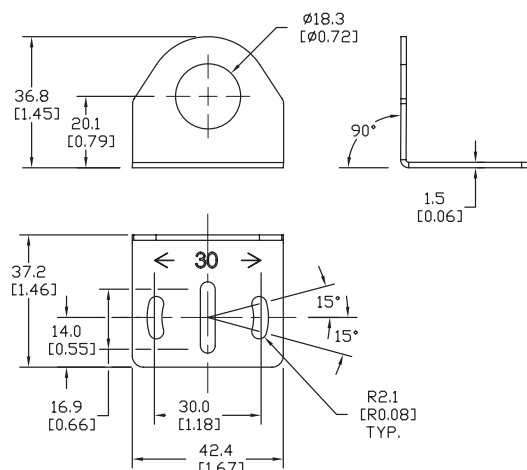


ST18C

| Accessories for 18mm Sensors | | | |
|------------------------------|--------|---|---------------|
| Part Number | Price | Description | Weight lb [g] |
| ST18C | \$2.00 | Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 18mm sensors. | 0.06 [27.2] |
| ST18C7W | \$7.25 | Micro Detectors mounting bracket, right-angle, 316L stainless steel. For use with 18mm sensors. | 0.06 [27.2] |

Dimensions

mm [inches]

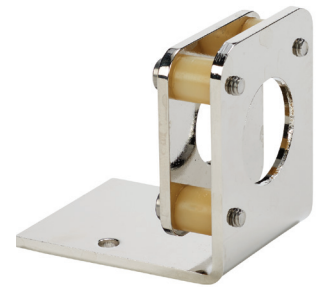


Accessories for 18mm Sensors

Right-angle Fine Tune Mounting Bracket

Mounting bracket, right-angle, fine tune vertical and horizontal adjustment, nickel-plated steel. For use with 18mm sensors. Allows for fine tuning vertical and horizontal placement.

| Accessories for 18mm Sensors | | | | |
|------------------------------|---------|--|---------------------|-------------|
| Part Number | Price | Description | Drawing Link | Weight [lb] |
| OPT2036 | \$38.50 | Wenglor mounting bracket, right-angle, fine tune vertical and horizontal adjustment, nickel plated steel. For use with 18mm sensors. | PDF | 0.02 |

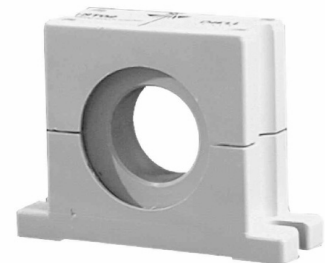


OPT2036

Swivel Mounting Bracket

Mounting bracket, ball swivel, plastic. For use with 18mm sensors. Has a ball-joint and set screws to adjust sensor orientation. Allows angular orientation up to 15 degrees (from center) in all directions for photoelectric sensors (Will not work with C18 series).

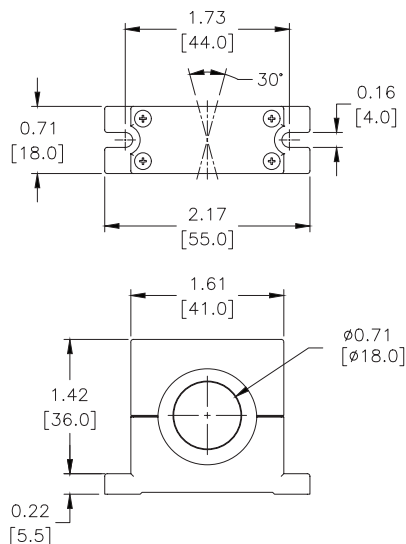
| Accessories for 18mm Sensors | | | |
|------------------------------|--------|--|-------------|
| Part Number | Price | Description | Weight [lb] |
| ST02 | \$9.50 | Micro Detectors mounting bracket, ball swivel, plastic. For use with 18mm sensors. | 0.06 |



ST02

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.

| Accessories for 18mm Sensors | | | | |
|------------------------------|---------|---|---------------------|---------------|
| Part Number | Price | Description | Drawing Link | Weight lb [g] |
| OPT2104 | \$10.50 | Wenglor mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors. | PDF | 0.06 [27.2] |
| OPT2105 | \$10.50 | Wenglor mounting bracket, right-angle, plastic. For use with 18mm sensors. | PDF | 0.06 [27.2] |



[OPT2104](#), [OPT2105](#)

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.

| Accessories for 18mm Sensors | | | | | | |
|------------------------------|---------|--|---------------------|---------------------|---------------------|---------------|
| Part Number | Price | Description | Mounting Head | Mounting Plate | Drawing Link | Weight lb [g] |
| OPT2116 | \$11.50 | 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 | \$21.00 | 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] |



[OPT2116](#), [OPT2117](#)

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).