

PW SERIES

DIP Switch Selectable Port Swap Feature



PWxxxS



PWxxxBP

The PW Series wet pressure transducers incorporate microprocessor profiled sensors for exceptional accuracy and reliability. Easy to use and designed to provide exceptional installation savings, the PW Series is ideal for measuring pressure across pumps, filters, heat exchangers, compressors, and other non-corrosive wet media applications.

The DIP switch selectable port swap feature eliminates costly replumbing when the high and low ports are improperly plumbed, allowing the DIP switch position to be changed from normal to swap.

The optional pre-assembled bypass valve is designed for easy maintenance and one-step installation.

SPECIFICATIONS

GENERAL

| | |
|---|--|
| Input Power | Class 2; 15 to 30 Vdc, 24 Vac nom. 50/60 Hz* |
| Max. Current Draw | DC: 125 mA; AC: 280 mA |
| Output | 3-wire transmitter; user selectable 4 to 20 mA (clipped & capped)/0-5 V/0-10 V* |
| Surge Damping | Electronic; 1 or 5 second averaging |
| Test Mode | Overrides output to full-scale (20 mA, 5 V, 10 V) |
| Zero Adjust | Pushbutton auto-zero & digital input (2-pos terminal block) |
| Status Indication | Dual-color LED: Green = Normal, Green Blinking = Low > High Red = Overrange, Red Blinking = Overpressure Green/Red Blinking = Underpressure |
| Zero Offset (Bidirectional and Port Swap modes only) | 0.5% |
| Housing Material | White powder-coated aluminum NEMA 4, IP65 |
| Fittings | 1/8" NPT female thread, 17 to 4 PH stainless steel |

PRESSURE RANGES (SELECTABLE)

| | |
|-----------------------|--|
| 0 to 50 psig (Gauge) | 0 to 5/10/25/50 psid (Differential) |
| 0 to 100 psig (Gauge) | 0 to 10/20/50/100 psid (Differential) |
| 0 to 250 psig (Gauge) | 0 to 25/50/125/250 psid (Differential) |

SENSOR

| | |
|--------------------|---|
| Accuracy @ 25 °C** | Ranges A and B: $\pm 1\%$ F.S. typical***; Range C: $\pm 1.5\%$ F.S. typical***; Range D: $\pm 2\%$ F.S. typical*** |
|--------------------|---|

Flexible

The DIP switch selectable output switch for normal (4 to 20 mA) or reverse (20 to 4 mA) operation provides application flexibility

Switch-selectable

Switch-selectable pressure ranges...fewer models to order and stock

Rugged

Rugged, die-cast enclosure provides NEMA 4 sealing

High stability

DIP switch controlled electronic surge dampening

Zero calibration

Pushbutton and remote zero adjustment...maintain accuracy and reduce callbacks with automatic zero calibration

APPLICATIONS

- Monitoring and controlling pump differential pressure
- Chiller/boiler differential pressure drop
- CW/HW system differential pressure

| | |
|-------------------------------|---|
| Long Term Stability | $\pm 0.25\%$ per year |
| Media Compatibility | Media compatible with 17 to 4 PH stainless steel |
| Proof Pressure | 2x max. F.S. range*** |
| Burst Pressure | 5x max. F.S. range*** |
| Temperature Compensated Range | 0 to 50 °C (32 to 122 °F); TC Zero $<\pm 1.5\%$ of product F.S.*** per sensor; TC Span $<\pm 1.5\%$ of product F.S.*** per sensor, (2 sensors per unit) |
| Media Temp. Limits | -20 to 85 °C (-4 to 185 °F); 0 to 90% RH non-condensing |
| Operating Environment | -10 to 50 °C (14 to 122 °F); 10 to 90% RH non-condensing |

WARRANTY

Limited Warranty 5 years

AGENCY APPROVALS



*VFD systems and system wiring generate fields that can disrupt electrical devices. Ensure that these fields are minimized and are not affecting the sensor or sensor wiring.

**Accuracy combines linearity, hysteresis, and repeatability.

*** F.S. is defined as full span of selected range in bi-directional mode.

EMC Conformance - Low voltage directive 2014/35/EU; EMC directive 2014/30/EU.

EMC Special Note: Connect this product to a DC distribution network or an AC/DC power adaptor with proper surge protection (EN 61000-6-1 specification requirements).



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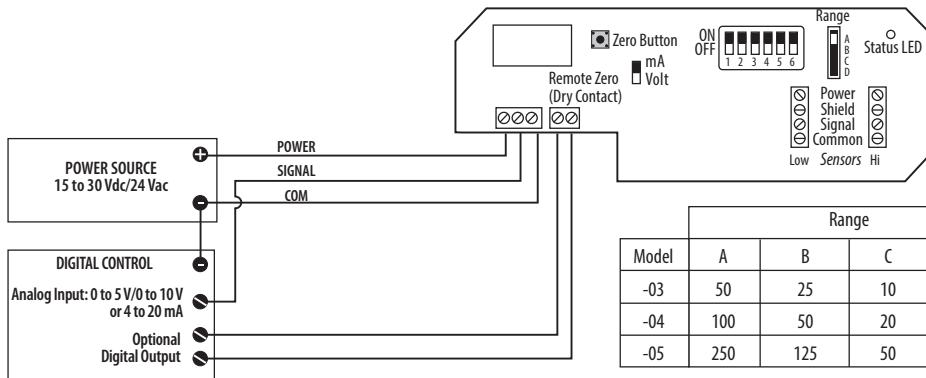
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WIRING DIAGRAM

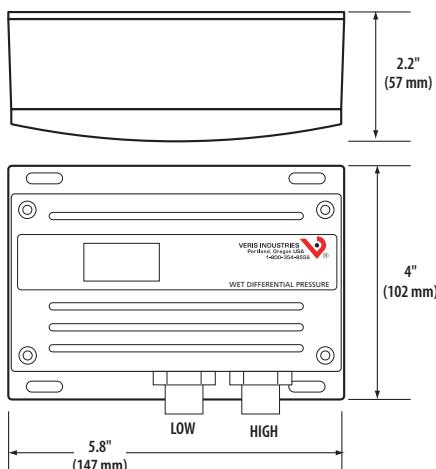


| DIP Switches | | |
|--------------|--------------------------|----------------------|
| Num | Function | Off/On ¹ |
| 1 | Damping | Fast/Slow |
| 2 | Test | Operate/Test |
| 3 | Mode | Normal/Bidirec. |
| 4 | Analog | Normal/Reverse |
| 5 | Port | Normal/Swap |
| 6 | Voltage Out ² | 0 to 10 Vdc/0 to 5 V |

1. "Off" position is the default setting for all DIP switches.
2. Ignored in mA mode.

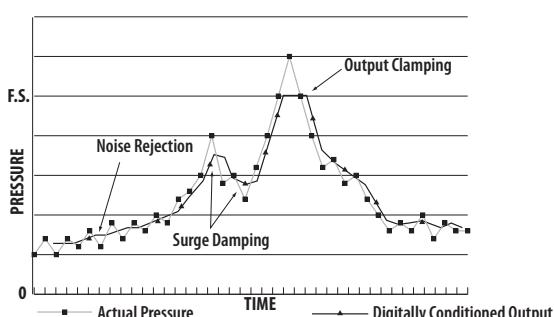
DIMENSIONAL DRAWING

PW Series (PWxxxS)



MICROPROCESSOR PROVIDES DIGITAL SIGNAL CONDITIONING

- Noise rejection reduces fluctuating readings due to noise or turbulence
- Surge damping prevents false alarms by averaging fast peaks

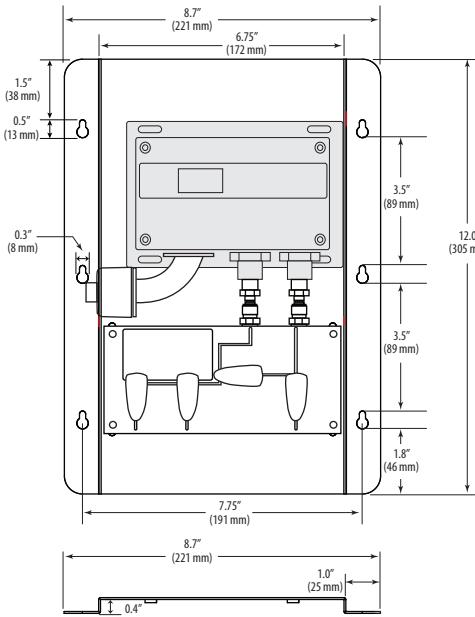


ORDERING INFORMATION

| | | | |
|---|------|--------------------|---------|
| Local Display | NIST | Operational Range* | Options |
| PW | | | |
| PW = LCD display L = No display N = NIST X = None 03 = 0-50 psig 04 = 0-100 psig 05 = 0-250 psig S = Standard BP = With mounted bypass assembly** Example: PW <input type="checkbox"/> L <input type="checkbox"/> X <input type="checkbox"/> 04 <input type="checkbox"/> S | | | |
| * Select operational range according to maximum gauge pressure, NOT differential pressure. ** Bypass valve assembly also sold separately as AA14A. | | | |

DIMENSIONAL DRAWING

PW Series with Optional Mounted Bypass Assembly (PWxxxBP)*



* Bypass valve assembly also sold separately as AA14A.

ACCESSORIES

- Brass Snubber, 1/8" NPT (AA11)
- Brass Snubber, 1/4" NPT (AA69)
- Stainless Steel Snubber, 1/8" NPT (AA12)
- Stainless Steel Snubber, 1/4" NPT (AA70)
- Pigtail Steam Siphon (AA13)



AA11/AA69

AA12/AA70



AA13