

## PW2 SERIES

4 to 20 mA, 2-Wire Devices



PW2xxxS



PW2xxxBP

The PW2 Series 2-wire, 4 to 20 mA wet pressure transducers incorporate microprocessor profiled sensors for exceptional accuracy and reliability. Easy to use and designed to provide exceptional installation savings, the PW2 Series is ideal for measuring pressure across pumps, filters, heat exchangers, compressors, and other non-corrosive wet media applications.

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

### SPECIFICATIONS

#### GENERAL

|                      |                                                                    |
|----------------------|--------------------------------------------------------------------|
| Input Power          | Class 2; 12 to 24 Vdc, loop powered (polarity insensitive)         |
| Maximum Current Draw | 29 mA                                                              |
| Output               | 2-wire transmitter; user selectable 4 to 20 mA (clipped & capped)* |
| Surge Damping        | Electronic; 5-second averaging                                     |
| Zero Adjust          | Pushbutton auto-zero terminals                                     |
| Housing Material     | White powder-coated aluminum                                       |

#### PRESSURE RANGES (SELECTABLE)

|                                        |                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------|
| 0 to 50 psi (0 to 3.45 barg) (Gauge)   | 0-5/10/25/50 psid (0-0.34/0.69/1.72/3.45 bard) (Differential)                    |
| 0 to 100 psig (0 to 6.89 barg) (Gauge) | 0-10/20/50/100 psid (Differential) (0-0.69/1.38/3.45/6.89 bard) (Differential)   |
| 0 to 250 psi (0 to 17.24 bar) (Gauge)  | 0-25/50/125/250 psid (Differential) (0-1.72/3.45/8.62/17.24 bard) (Differential) |

#### SENSOR

|                               |                                                                                                                                                     |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy @ 25 °C**            | Range A, B, C: $\pm 1\%$ F.S.; Range D: $\pm 2\%$ F.S.***                                                                                           |
| Media Compatibility           | Media compatible with 17-4 PH stainless steel                                                                                                       |
| Long Term Stability           | $\pm 0.25\%$ per year                                                                                                                               |
| Proof Pressure                | Max. 2x F.S. range                                                                                                                                  |
| Burst Pressure                | Max. 5x 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 Temperature Limits      | -20 to 85 °C (-4 to 185 °F); 0 to 90% RH non-condensing                                                                                             |

## Jumper selectable Dual sensor

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

Dual sensor design for improved overpressure tolerance... eliminates the requirement for a bypass valve assembly in most applications

## Rugged

Rugged, die-cast enclosure provides NEMA 4 sealing

## High stability

Jumper-controlled electronic surge dampening for high stability

## Selectable

Selectable differential units: psid or bard

## Zero calibration

Pushbutton zero calibration – no trim pots to adjust... 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

|                               |                                                         |
|-------------------------------|---------------------------------------------------------|
| Product Operating Environment | -10 to 55 °C (14 to 130 °F); 0 to 90% RH non-condensing |
|-------------------------------|---------------------------------------------------------|

#### WARRANTY

|                  |         |
|------------------|---------|
| Limited Warranty | 5 years |
|------------------|---------|

#### AGENCY APPROVALS



\* Minimum input voltage: 250  $\Omega$  loop = 12 Vdc; 500  $\Omega$  loop = 17 Vdc

\*\*Accuracy combines linearity, hysteresis, and repeatability.

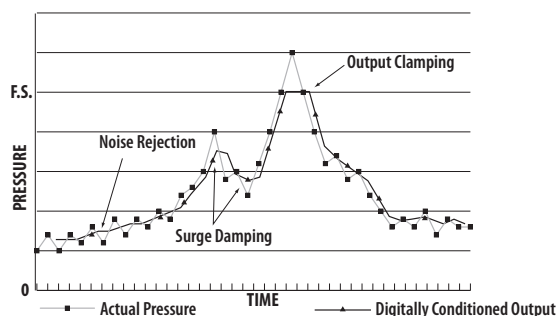
\*\*\*FS is defined as full span of selected range in bi-directional mode.

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).

### MICROPROCESSOR PROVIDES DIGITAL SIGNAL CONDITIONING

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



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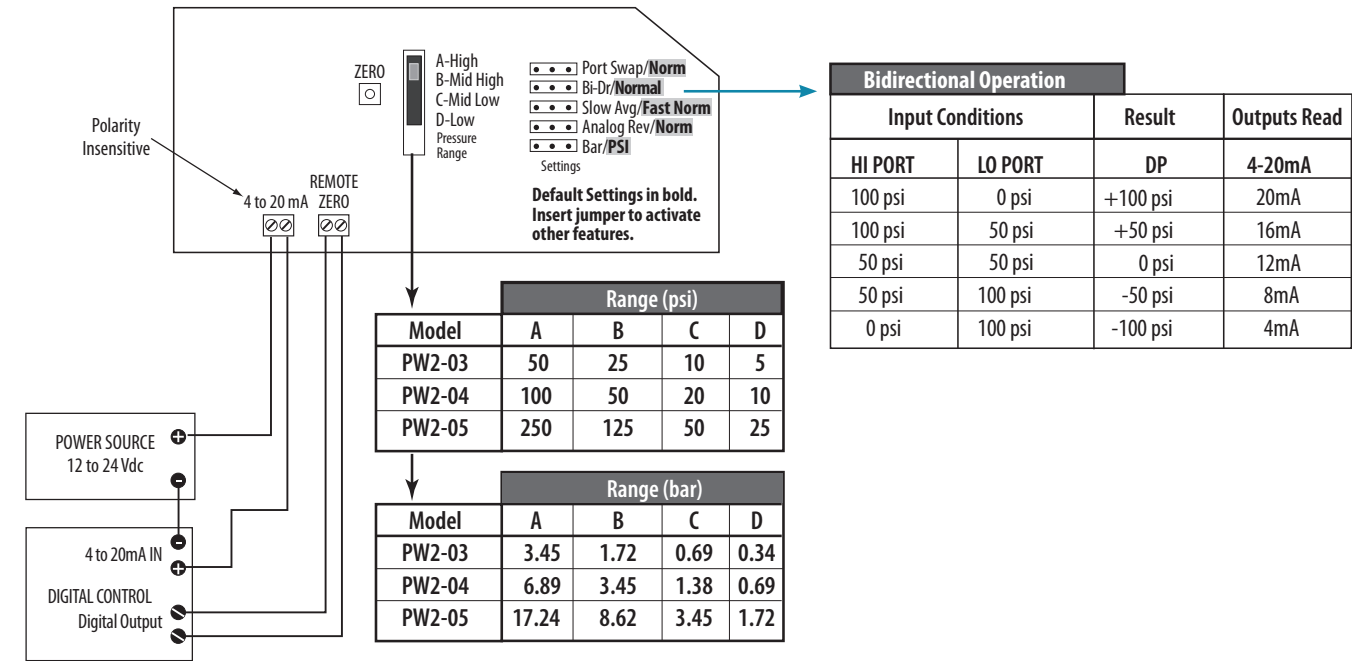
1.888.610.7664



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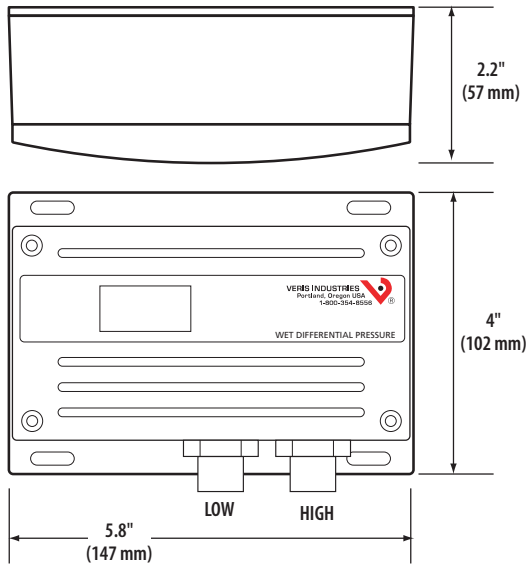
sales@calcert.com

# WIRING DIAGRAM



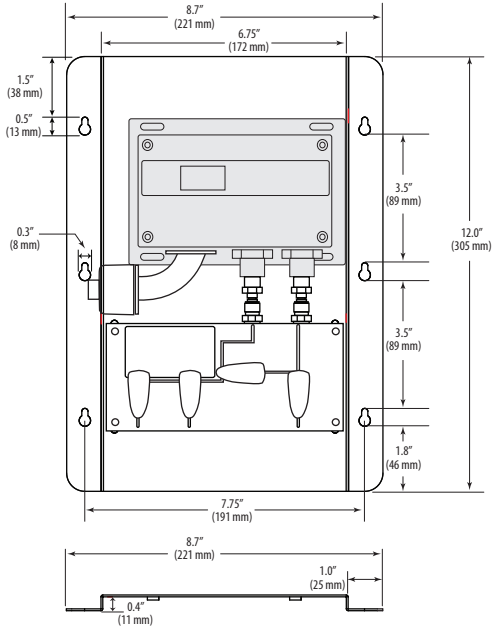
# DIMENSIONAL DRAWING

PW2xxxS



# DIMENSIONAL DRAWING

PW2xxxBP\*



\* Bypass valve assembly also sold separately as AA14A.

# ORDERING INFORMATION

| Local Display                     | NIST                          | Operational Range*                                                                           | Options                                             |
|-----------------------------------|-------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------|
| PW2 <input type="checkbox"/>      | NIST <input type="checkbox"/> | Operational Range* <input type="checkbox"/>                                                  | Options <input type="checkbox"/>                    |
| L = LCD Display<br>X = No Display | N = NIST<br>X = None          | 03 = 0 to 50 psig/3.45 barg<br>04 = 0 to 100 psig/6.89 barg<br>05 = 0 to 250 psig/17.24 barg | S = Standard<br>BP = With mounted bypass assembly** |

Example: PW2 ☐ L ☐ X ☐ 04 ☐ S

\*Select operational range according to max. gauge pressure, NOT differential pressure.  
 Example: High gauge pressure = 90 psig. Select 100 psig model (04).  
 \*\* 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)

