

# Wet Media Differential Pressure Transducer

## Jumper-Selectable Port Swap Feature

### APPLICATIONS

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

### FEATURES

- The jumper-selectable output switch for normal (4-20mA) or reverse (20-4mA) operation provides application flexibility
- Rugged, die-cast enclosure provides NEMA 4 sealing

#### Exceptional accuracy and stability

- Jumper-controlled electronic surge dampening for high stability
- Pushbutton zero calibration – no trim pots to adjust

#### Lowest total installed cost

- Jumper-selectable port swap feature eliminates costly replumbing when the high and low ports are improperly plumbed...change the jumper position from normal to swap – problem solved!
- Dual sensor design eliminates the requirement for a bypass valve assembly in most applications
- Switch-selectable pressure ranges...fewer models to order and stock
- Pushbutton and remote zero adjustment...maintain accuracy and prevent callbacks with automatic zero calibration

### SPECIFICATIONS

<b>Input Power</b>	12 to 30VDC/24VAC nominal
<b>Maximum Current Draw</b>	DC: 125mA; AC: 280mA
<b>Output</b>	3-wire transmitter; user selectable 4-20mA, (clipped and capped)/0-5V/0-10V†
<b>Accuracy @ 25°C*</b>	Range A, B, C: ±1% F.S.; Range D: ±2% F.S.**
<b>Surge Dampening</b>	Electronic; 5-second averaging
<b>Test Mode</b>	Overrides output to full-scale (20mA, 5V, 10V)

#### Pressure Ranges (Selectable):

<b>0-50 psig</b>	0-5/10/25/50 psid
<b>0-100 psig</b>	0-10/20/50/100 psid
<b>0-250 psig</b>	0-25/50/125/250 psid
<b>0-3.5 barg</b>	0.35/0.7/1.75/3.5 bard
<b>0-7.0 barg</b>	0.7/1.4/3.5/7.0 bard
<b>0-17.0 barg</b>	1.7/3.4/8.5/17.0 bard

<b>Product Operating Environment</b>	-10° to 55°C (14° to 130°F); 0 to 90%RH, non-condensing
<b>Long Term Stability</b>	±0.25% per year
<b>Zero Adjust</b>	Pushbutton auto-zero and digital input (2-pos terminal block)
<b>Status Indication</b>	Dual-color LED: Green = Normal, Green Blinking = Low > High, Red = Overrange, Red Blinking = Overpressure
<b>Housing Material</b>	White powder-coated aluminum

<b>Sensor:</b>	
<b>Media Compatibility</b>	Media compatible with 17-4 PH stainless steel
<b>Proof Pressure</b>	Max. 2x F.S. range
<b>Burst Pressure</b>	Max. 5x F.S. range
<b>Temperature Compensated Range</b>	0° to 50°C (32° to 122°F); TC Zero <±1.5% of product F.S. per sensor; TC Span <±1.5% of product F.S. per sensor, (2 sensors per unit)
<b>Media Temperature Limits</b>	-20° to 85°C (-4° to 185°F); 0 to 90% RH non-condensing

**Fittings** psig: 1/8" NPT female thread, 17-4 PH stainless; barg: 1/8" BSPT female thread, 17-4 PH stainless

†Minimum input voltage for 4-20mA operation: 250 ohm loop (1-5V) = 12 VDC; 500 ohm loop (2-10V) = 15 VDC; Minimum input voltage for volt operation: 0-5VDC output = 12 VDC; 0-10VDC output = 15 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 2006/95/EC; EMC directive 2004/108/EC.

EMC Special Note: Connect this product to a DC distribution network or an AC/DC power adaptor with proper SURGE PROTECTION (EN 61000-6-1:2007 specification requirements).

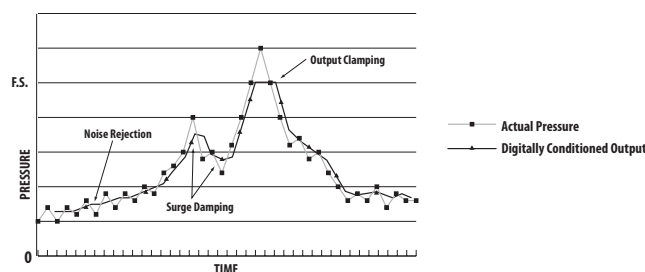


PW



### DESCRIPTION

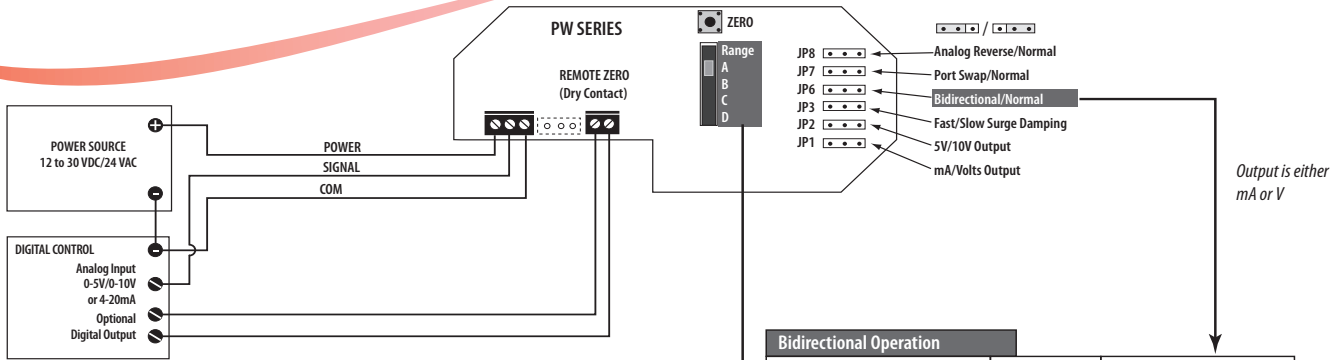
The PW Series wet/wet pressure transducers incorporate microprocessor profiled sensors for exceptional accuracy and reliability. Easy to use and designed to provide exceptional installation savings, the PW Series is ideal for measuring pressure across pumps, filters, heat exchangers, compressors, and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



#### Microprocessor provides digital signal conditioning

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

APPLICATION/WIRING DIAGRAM



**Bidirectional Operation**

Input Conditions		Result	Outputs Read	
HI PORT	LO PORT	DP	4-20mA	0-10V
100 psi	0 psi	+100 psi	20mA	10V
100 psi	50 psi	+50 psi	16mA	7.5V
50 psi	50 psi	0 psi	12mA	5V
50 psi	100 psi	-50 psi	8mA	2.5V
0 psi	100 psi	-100 psi	4mA	0V

*e.g. PW-04*

17.0 bar	0 bar	+17.0 bar	20mA	10V
17.0 bar	8.5 bar	+8.5 bar	16mA	7.5V
8.5 bar	8.5 bar	0 bar	12mA	5V
8.5 bar	17.0 bar	-8.5 bar	8mA	2.5V
0 bar	17.0 bar	-17.0 bar	4mA	0V

*e.g. PW-08*

Use the Range switch to select F.S. differential pressure.

Model	Range (psi)			
	A	B	C	D
PW-03	50	25	10	5
PW-04	100	50	20	10
PW-05	250	125	50	25

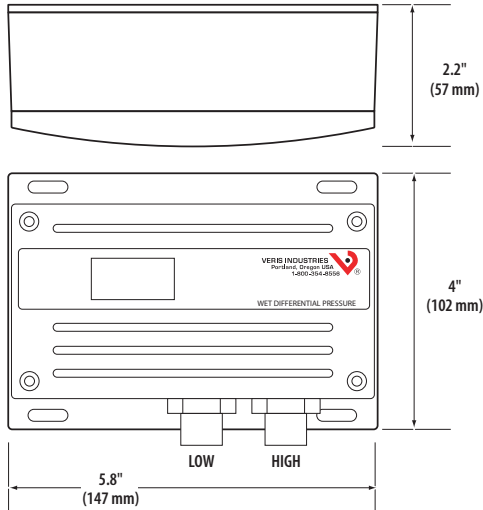
*e.g. PW-04*

Model	Range (bar)			
	A	B	C	D
PW-06	3.5	1.75	0.7	0.35
PW-07	7.0	3.5	1.4	0.7
PW-08	17.0	8.5	3.4	1.7

*e.g. PW-08*

DIMENSIONAL DRAWING



ORDERING INFORMATION Available

Local Display	NIST	Operational Range <sup>1</sup>	US or EU
PW <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L = LCD Display X = No Display	N = NIST X = None	03 = 0-50 psig 04 = 0-100 psig 05 = 0-250 psig 06 = 0-3.5 barg <sup>2</sup> 07 = 0-7.0 barg <sup>2</sup> 08 = 0-17 barg <sup>2</sup>	S = Standard <sup>3</sup> C = CE

*Example:*

PW  L  X  04  C

<sup>1</sup>Select operational range according to maximum gauge pressure, NOT differential pressure. Example: High gauge pressure=90 psig, Select 100 psig model (04).

<sup>2</sup>BARG models use BSPT threads on sensor fittings.

<sup>3</sup>Not available with barg units

ACCESSORIES

Bypass Valve assemblies (AA14A, AA16A), snubbers (AA11, AA12), steam siphon (AA13)