

Wet Media Differential Pressure Transducer

PW Series



PW

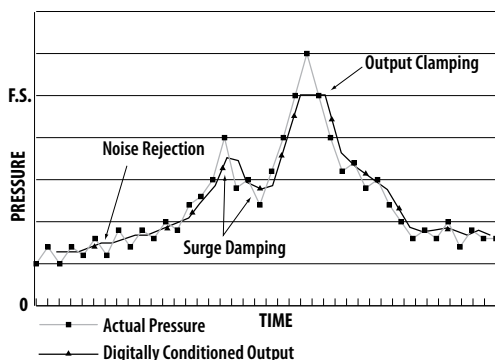
Jumper-Selectable Port Swap Feature

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
- 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!
- Switch-selectable pressure ranges...fewer models to order and stock
- Pushbutton and remote zero adjustment...maintain accuracy and reduce callbacks with automatic zero calibration
- Jumper-controlled electronic surge dampening for high stability
- Pushbutton zero calibration – no trim pots to adjust

DESCRIPTION

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.



Microprocessor provides digital signal conditioning

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

SPECIFICATIONS



Input Power	Class 2; 12 to 30VDC or 24VAC nominal, 50/60 Hz
Max. Current Draw	DC: 125mA; AC: 280mA
Output	3-wire transmitter; user selectable 4-20mA (clipped and capped)/0-5V/0-10V*
Accuracy @ 25°C**	Range A, B, C: ±1% F.S.; Range D: ±2% F.S.***
Surge Damping	Electronic; 5-second averaging
Test Mode	Overrides output to full-scale (20mA, 5V, 10V)
Fittings	psig: 1/8" NPT female thread, 17-4 PH stainless; barg: 1/8" BSPT female thread, 17-4 PH stainless
PRESSURE RANGES (SELECTABLE)	
0-50 psig (Gauge)	0-5/10/25/50 psid (Differential)
0-100 psig (Gauge)	0-10/20/50/100 psid (Differential)
0-250 psig (Gauge)	0-25/50/125/250 psid (Differential)
0-3.5 barg (Gauge)	0.35/0.7/1.75/3.5 bard (Differential)
0-7.0 barg (Gauge)	0.7/1.4/3.5/7.0 bard (Differential)
0-17.0 barg (Gauge)	1.7/3.4/8.5/17.0 bard (Differential)
Product Operating Environment	-10° to 55°C (14° to 130°F); 0 to 90% RH non-condensing
Long Term Stability	±0.25% per year
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
Housing Material	White powder-coated aluminum
SENSOR	
Media Compatibility	Media compatible with 17-4 PH stainless steel
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 <±1.5% of product F.S. per sensor ; TC Span<±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

*Minimum input voltage for 4-20mA operation: 250 Ω loop (1-5V) = 12VDC; 500 Ω loop (2-10V) = 15VDC; Minimum input voltage for volt operation: 0-5VDC output = 12VDC; 0-10VDC output = 15VDC.

**Accuracy combines linearity, hysteresis, and repeatability.

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

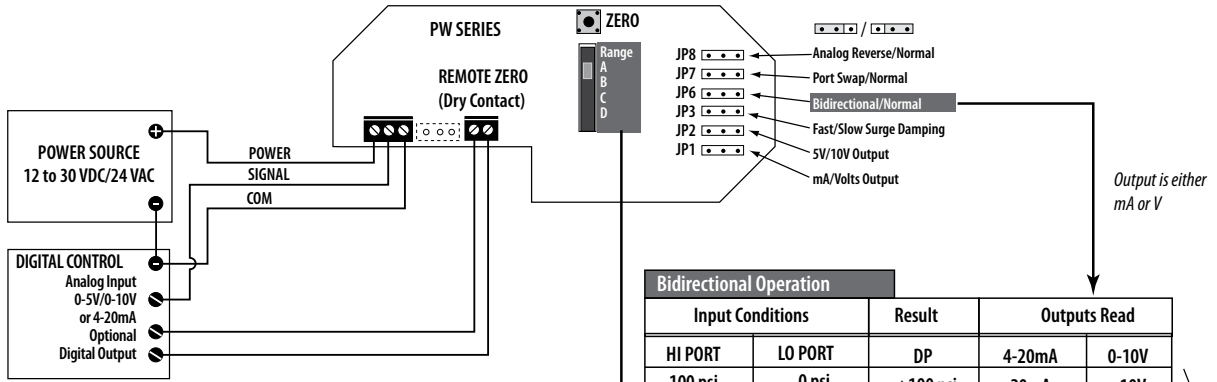
EMC Conformance - CE option: Low voltage directive 2006/95/EC; EMC directive 2004/108/EC.

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).

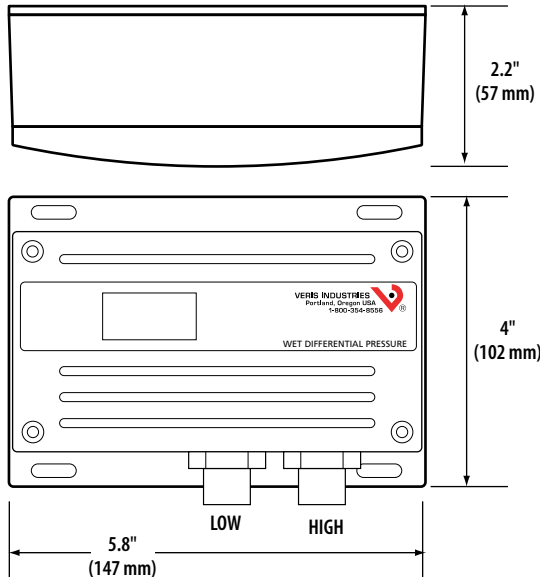
APPLICATIONS

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

WIRING DIAGRAM



DIMENSIONAL DRAWING



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

ORDERING INFORMATION



Local Display
 PW L = LCD Display
 X = No Display

NIST
 N = NIST
 X = None

Operational Range*
 03 = 0-50 psig
 04 = 0-100 psig
 05 = 0-250 psig
 06 = 0-3.5 barg**
 07 = 0-7.0 barg**
 08 = 0-17 barg**

US or EU
 S = Standard***
 C = CE

Example:
 PW L X 04 C

ACCESSORIES

- Bypass valve assemblies (AA14A)
- PW installed on bypass valve manifold (AA16A)
- Snubbers, brass, 1/8" NPT (AA11)
- Snubbers, stainless steel, 1/8" NPT (AA12)
- Steam siphon (AA13)



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

**Barg models use BSPT threads on sensor fittings

***Not available with barg units