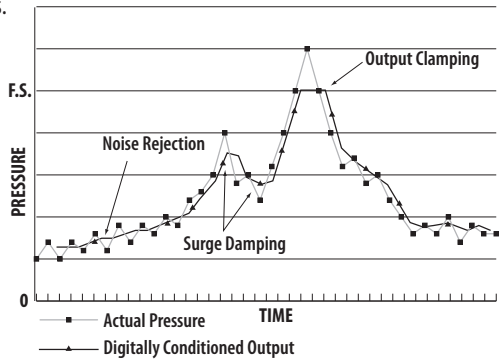
Wet Media Differential Pressure Transducer

Jumper-Selectable Port Swap Feature

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

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

SPECIFICATIONS

5 Year Warranty

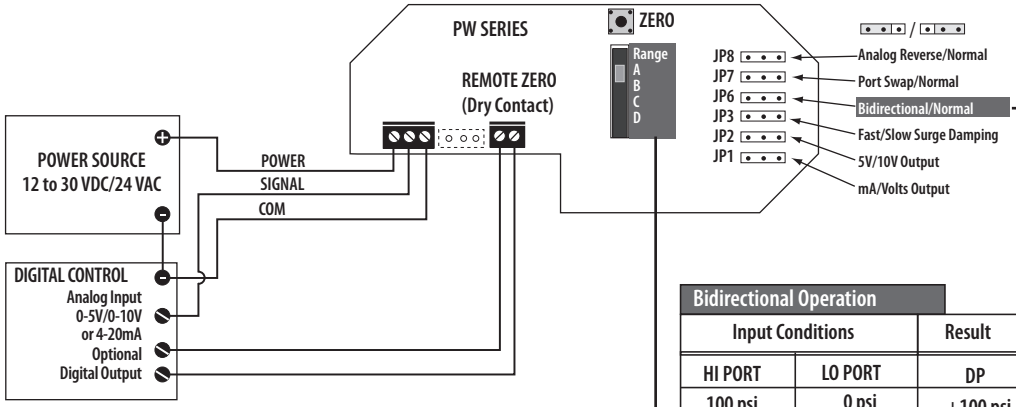
Input Power	12 to 30VDC/24VAC nominal
Maximum Current Draw	DC: 125mA; AC: 280mA
Output	3-wire transmitter; user selectable 4-20mA (clipped and capped)/0-5V/0-10V†
Accuracy @ 25°C*	Range A, B, C: ±1% F.S.; Range D: ±2% F.S.**
Surge Damping	Electronic; 5-second averaging
Test Mode	Overrides output to full-scale (20mA, 5V, 10V)
Pressure Ranges (Selectable):	
0-50 psig	0-5/10/25/50 psid
0-100 psig	0-10/20/50/100 psid
0-250 psig	0-25/50/125/250 psid
0-3.5 barg	0.35/0.7/1.75/3.5 bard
0-7.0 barg	0.7/1.4/3.5/7.0 bard
0-17.0 barg	1.7/3.4/8.5/17.0 bard
Product Operating Environment	-10° to 55°C (14° to 130°F); 0 to 90% RH noncondensing
Long Term Stability	±0.25% per year
Zero Adjust	Pushbutton auto-zero and 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 Temperature Limits	-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 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: 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).

PRESSURE

VERIS INDUSTRIES

APPLICATION/WIRING DIAGRAM



Output is either mA or V

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
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-04

e.g. PW-08

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

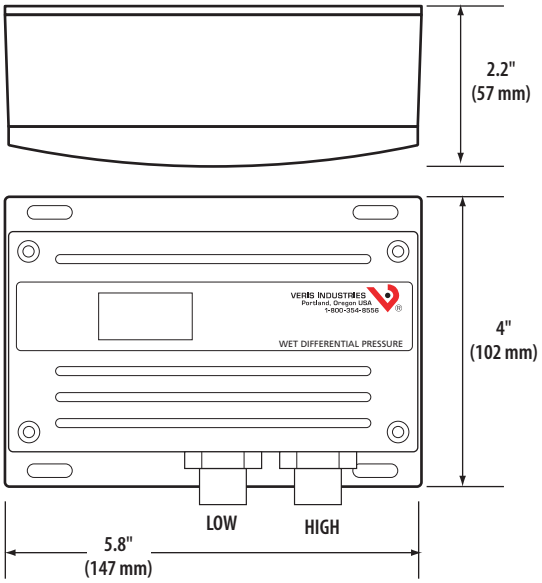
Range (psi)				
Model	A	B	C	D
PW-03	50	25	10	5
PW-04	100	50	20	10
PW-05	250	125	50	25

e.g. PW-04

Range (bar)				
Model	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



PRESSURE

ORDERING INFORMATION

CE

Local Display	NIST	Operational Range [1]	US or EU
PW [ ]	[ ]	[ ]	[ ]
L = LCD Display	**N** = NIST	**03** = 0-50 psig	**S** = Standard[3]
X = No Display	**X** = None	**04** = 0-100 psig	**C** = CE
		05 = 0-250 psig	
		06 = 0-3.5 barg[2]	
		07 = 0-7.0 barg[2]	
		08 = 0-17 barg[2]	

Example: PW | L | X | 04 | C

[1] *Select operational range according to maximum gauge pressure, NOT differential pressure.*
Example: High gauge pressure=90 psig, Select 100 psig model (04).
[2] *BARG models use BSPT threads on sensor fittings.*
[3] *Not available with barg units*

ACCESSORIES

Bypass Valve assemblies (AA14A)
PW installed on bypass valve manifold (AA16A)
Snubbers (AA11, AA12), Steam siphon (AA13)


AA11


AA13


AA14A