PW SERIES

Jumper-Selectable Port Swap Feature

PW

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

Jumper-selectable

The jumper-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

Zero calibration

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

High stability

Jumper-controlled electronic surge dampening for high stability

APPLICATIONS

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

SPECIFICATIONS

GENERAL	
Input Power	Class 2; 12 to 30 Vdc or 24 Vac nominal, 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; 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
Housing Material	White powder-coated aluminum
Fittings	psig: 1/8" NPT female thread, 17 to 4 PH stainless; barg: 1/8" BSPT female thread, 17 to 4 PH stainless
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)
0 to 3.5 barg (Gauge)	0.35/0.7/1.75/3.5 bard (Differential)
0 to 7.0 barg (Gauge)	0.7/1.4/3.5/7.0 bard (Differential)
0 to 17.0 barg (Gauge)	1.7/3.4/8.5/17.0 bard (Differential)
SENSOR	
Accuracy @ 25 °C**	Range A, B, C: ±1% F.S.; Range D: ±2% F.S.***
Long Term Stability	±0.25% per year
Media Compatibility	Media compatible with 17 to 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
Product Operating Environment	-10 to 55 °C (14 to 130 °F); 0 to 90% RH non-condensing
WARRANTY	
Limited Warranty	5 years

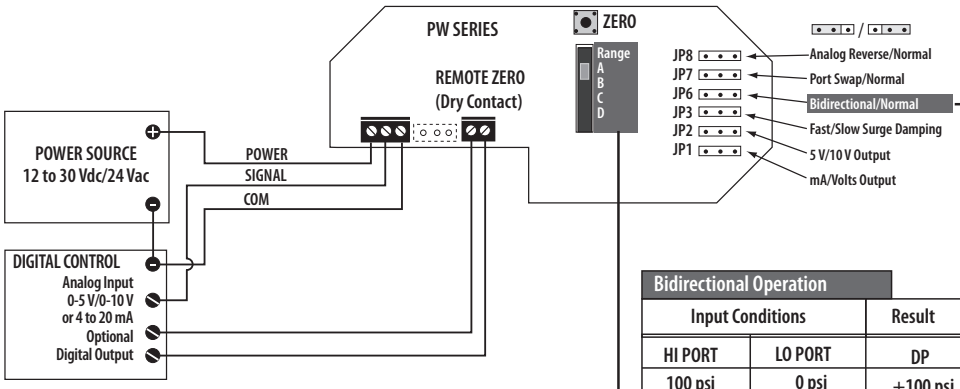
AGENCY APPROVALS

CE† Available

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

† The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

WIRING DIAGRAM



Output is either mA or V

Bidirectional Operation

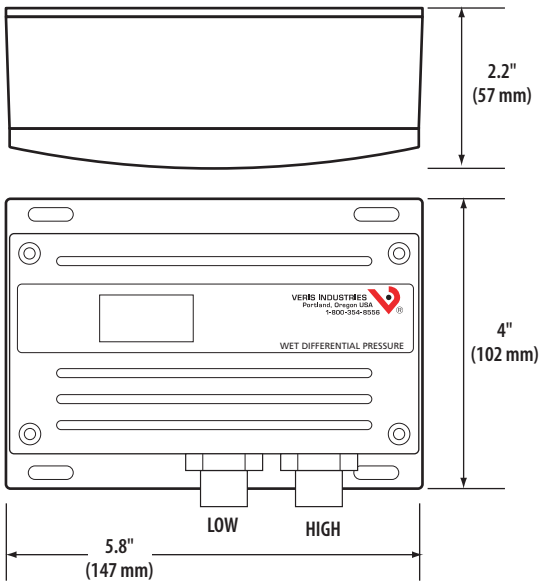
Input Conditions		Result	Outputs Read		
HI PORT	LO PORT	DP	4-20mA	0-10V	
100 psi	0 psi	+100 psi	20mA	10V	
100 psi	50 psi	+50 psi	16mA	7.5V	
50 psi	50 psi	0 psi	12mA	5V	*e.g. PW-04*
50 psi	100 psi	-50 psi	8mA	2.5V	
0 psi	100 psi	-100 psi	4mA	0V	
17.0 bar	0 bar	+17.0 bar	20mA	10V	
17.0 bar	8.5 bar	+8.5 bar	16mA	7.5V	
8.5 bar	8.5 bar	0 bar	12mA	5V	*e.g. PW-08*
8.5 bar	17.0 bar	-8.5 bar	8mA	2.5V	
0 bar	17.0 bar	-17.0 bar	4mA	0V	

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	*e.g. PW-04*
PW-05	250	125	50	25	

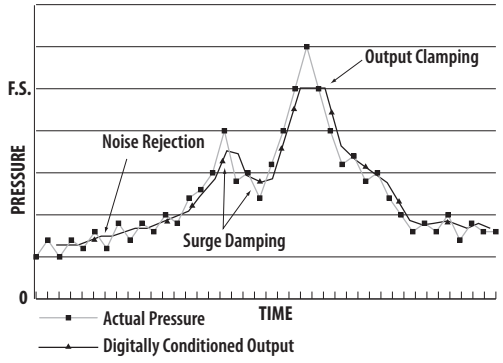
Range (bar)					
Model	A	B	C	D	
PW-06	3.5	1.75	0.7	0.35	
PW-07	7.0	3.5	1.4	0.7	*e.g. PW-08*
PW-08	17.0	8.5	3.4	1.7	

DIMENSIONAL DRAWING



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*	US or EU
PW ☐	☐	☐	☐
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** 07 = 0-7.0 barg** 08 = 0-17 barg**	S = Standard*** C = CE

Example:

PW	L	X	04	C

* 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