PW SERIES

Jumper-Selectable Port Swap Feature



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.

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)
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 $<\pm 1.5\%$ of product F.S. per sensor; TC Span $<\pm 1.5\%$ of product F.S. per sensor, (2 sensors per unit)

Jumper-selectable Switch-selectable

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

7ero calibration Rugged

Rugged, die-cast enclosure provides NEMA 4 sealing

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

Switch-selectable pressure

and stock

ranges...fewer models to order

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

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



*Minimum input voltage for 4 to 20 mA operation: $250 \Omega \log (1 \text{ to } 5 \text{ V}) = 12 \text{ Vdc};$ 500Ω 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).

Output is either

mA or V

0-10V

10V

7.5V

2.5V

5V

e.g. PW-04

Outputs Read

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

e.g. PW-04

4-20mA

20mA

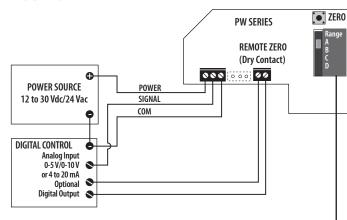
16mA

12mA

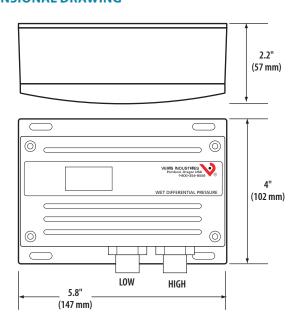
8mA

4mA

WIRING DIAGRAM



DIMENSIONAL DRAWING



MICROPROCESSOR PROVIDES DIGITAL SIGNAL CONDITIONING

•••/•••

Port Swap/Normal

5 V/10 V Output

mA/Volts Output

Analog Reverse/Normal

Fast/Slow Surge Damping

Result

DP

+1<u>00 psi</u>

+50 psi

0 psi

(

10

20

50

D

5

10

25

-50 psi

-100 psi

Range (psi)

25

50

125

JP8 ••• -

JP7 ••• **→**

JP6 ••• •

JP3 ••••

JP2 ••• 🔻

Bidirectional Operation Input Conditions

LO PORT

0 psi

50 psi

50 psi

100 psi

100 psi

50

100

250

JP1 ••••

HI PORT

100 psi

100 psi

50 psi

50 psi

0 psi

Model

PW-03

PW-04

PW-05

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

ORDERING INFORMATION

