

PW SERIES



CE available

PW SERIES

Wet Media Differential Pressure Transducer

Installer's Specifications

Media Compatibility	17-4 PH stainless steel
Input Power	12 to 30VDC, 24VAC nom.
Maximum Current Draw	DC: 125mA; AC: 280mA
Output	3-wire transmitter; user-selectable 4-20mA/0-5V/0-10V†

Pressure Ranges:	
0-50 psig	5/10/25/50 psid
0-100 psig	10/20/50/100 psid
0-250 psig	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 barg	1.7/3.4/8.5/17.0 bard

Status Indication	Dual color LED: solid green = normal, blinking green = low > high, solid red = over range, blinking red = over pressure
Proof Pressure	2x max. F.S. range
Burst Pressure	5x max. F.S. range
Accuracy at 25°C*	Ranges A, B, C: ±1% F.S.** Range D: ±2% F.S.**

Surge Damping	Electronic; 5-second averaging
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

Sensor Operating Range	-20° to 85°C (-4° to 185°F)
Long Term Stability	±0.25%
Zero Adjust	Pushbutton auto-zero and digital input (2-position terminal block)
Operating Environment	-10° to 55°C (14° to 131°F); 10-90% RH noncondensing
Fittings	psig models: 1/8" NPT female thread, stainless steel 17-4 PH barg models: 1/8" BSPT female thread, stainless steel 17-4 PH
Physical	White powder-coated aluminum

To conform to EMC Standards, use shielded cabling. Technical information is available from the factory on request or on our website (www.veris.com/ce)

† Minimum input voltage for 4-20mA operation:
250 Ω loop (1-5V) = 12 VDC
500 Ω 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.

** F.S. is defined as full span of selected range in bidirectional mode.

NOTICE

- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- Read and understand the instructions before installing this product.
- Turn off all power supplying equipment before working on it.
- The installer is responsible for conformance to all applicable codes.

PRODUCT IDENTIFICATION

Local Display	NIST	Operational Range¹	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 ² 07 = 0-7.0 barg ² 08 = 0-17 barg ²	S = Standard ³ C = CE

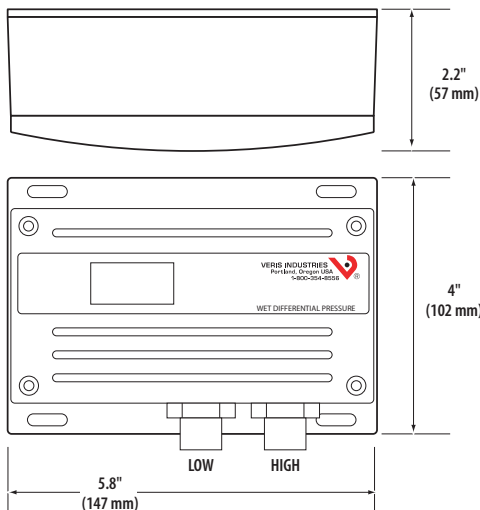
¹ Select operational range according to maximum gauge pressure, NOT differential pressure.

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.

DIMENSIONS

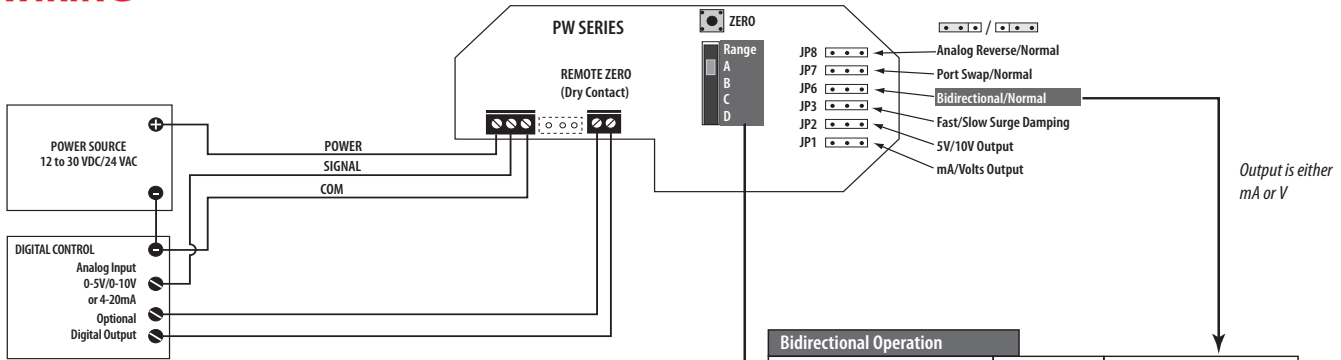


QUICK INSTALL

The PW Series sensor is designed to accept high differential pressure. Install the sensor on a duct or pipe across a pump, filter, heat exchanger, compressor, or other non-corrosive wet media. The dual sensor design eliminates the need for a bypass valve, and the bi-directional capability reduces installation errors. A pushbutton allows easy zero adjustment.

1. Mount sensor on a duct or pipe, across a pump, filter, or other pressure differential.
2. Wire as shown (see page 2).
3. Configure the jumpers (see page 2).

WIRING



Caution: This product uses a half-wave rectifier power supply. If the installer is using a transformer to power the device, do not use the same transformer to power other devices utilizing non-isolated full-wave power supplies.

Optional: Connect Zero terminals to digital output (contact closure) of control system.

Caution: Zero input is for dry-contact only. Do not apply voltage to the Zero terminals.

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. differential pressure.

CONFIGURATION

Jumper	Options	Notes
JP1	Voltage (V) or Current (mA)	
JP2	0-10V or 0-5V output span	Use only if JP1 is set to V mode.
JP3	Slow or Fast	Slow mode provides 5 second averaging for surge damping.
JP6	Normal or Bidirectional	Normal: 0 to F.S. pressure Bidirectional: -F.S. pressure to +F.S. pressure; output reads 1/2 when pressure is zero.
JP7	Normal or Port Swap	Reverses polarity of the pressure ports (i.e. makes the LO port operate as the HI port and vice versa); used when the sensor is incorrectly plumbed.
JP8	Normal or Analog Reverse	Normal: output increases as pressure increases; Reverse: output is maximum when pressure differential is zero and decreases as pressure increases.

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

OPERATION

Blink Codes:

LED Color	Status
Solid Green	Normal operation.
Flashing Green	Low > High; use port swap jumper or bidirectional mode.
Solid Red	Differential pressure is too high; select a higher pressure range.
Flashing Red	Gauge pressure over sensor range; reduce line pressure or replace with a higher range device.

Auto-Zero: Press and hold the Zero button for 2 seconds or provide contact closure on the auxiliary 'Remote Zero' terminal to reset the output to zero pressure. To protect the device from accidental zeroing, this feature is only enabled when the detected pressure is within 5% of factory calibration.