

PWT Series Wet/Wet Differential Pressure Sensors

SPECIFICATION DATA



FEATURES

- The PWT Pressure Sensors incorporate microprocessor profiled sensors for exceptional accuracy and reliability.
- Field-selectable 4-20 mA, 0-5 Vdc, or 0-10 Vdc output.
- Jumper-selectable slow or fast response time.
- Switch-selectable pressure ranges (See Table 2).
- The jumper-selectable output switch for normal (4-20 mA) or reverse (20-4mA) operation provides application flexibility.
- Rugged, die-cast enclosure provides NEMA 4 sealing.
- Jumper-selectable port swap feature.
- All models offer both push button and digital input to zero the output. A microprocessor algorithm prevents accidental zero adjustment during normal operation.
- Used with the PWT-BV bypass valve manifold.

APPLICATION

The PWT Series wet/wet differential pressure sensors provide reliable, accurate measurement and control of proper applications, including the monitor and control of pump differential pressure, chiller/boiler differential pressure drop, and CW/HW system differential pressure. The PWT Series is ideal for measuring pressure across pumps, filters, heat exchangers, compressors and other non-corrosive wet media applications.

Table 1. PWT Sensor Models.

Model	Pressure Range	Bypass Valve Assembly
PWT50	0-5, 0-10, 0-25, 0-50 psid	No
PWT100	0-10, 0-20, 0-50, 0-100 psid	No
PWT250	0-25, 0-50, 0-125, 0-250 psid	No



SPECIFICATIONS

Models: See Table 1.

Dimensions: See Fig. 1.

Media Compatibility: 17-4 PH stainless steel

Supply Voltage: 12 to 30 VDC, 24 VAC nom.

Maximum Current Draw DC: 125 mA; AC: 280 mA

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.**

Table 2. Range Selection Guide (PSI).

Model	A	B	C	D
PWT50	50	25	10	5
PWT100	100	50	20	10
PWT250	250	125	50	25

Surge Dampening: Electronic; 5-second averaging

IMPORTANT

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

Example: High gauge pressure =90 psig, select 100 psig model.

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: Push button auto-zero and digital input (2-position terminal block)

Operating Environment: -10° to 55°C (14° to 131°F); 10-90% RH noncondensing

Fittings: 1/8 in. NPT female, stainless steel 17-4 PH

* Accuracy combines linearity, hysteresis, and repeatability.

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

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Automation and Control Solutions

Honeywell International Inc.
1985 Douglas Drive North
Golden Valley, MN 55422
customer.honeywell.com

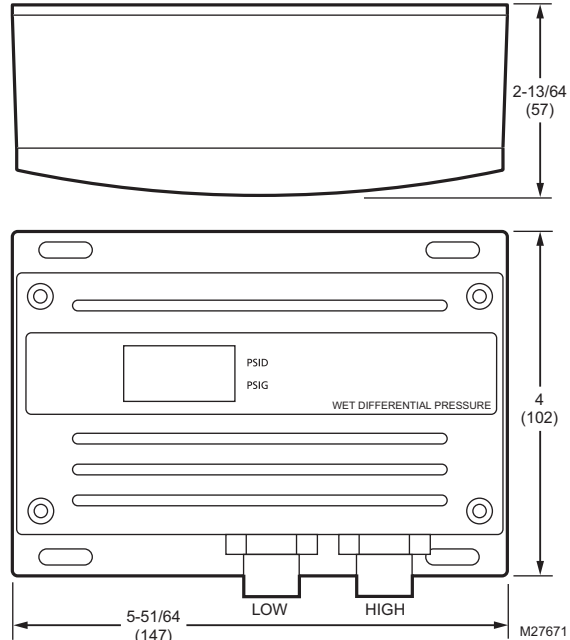


Fig. 1. Dimensions in in. (mm).

OPERATION

Blink Settings

Table 3. 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.