

## 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 pushbutton and digital input to zero the output. A microprocessor algorithm prevents accidental zero adjustment during normal operation.
- Models available with pre-assembled Bypass Valve for easy installation and maintenance. (See Table 1).

### 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
PWT50-BP	0-5, 0-10, 0-25, 0-50 psid	Yes
PWT100	0-10, 0-20, 0-50, 0-100 psid	No
PWT100-BP	0-10, 0-20, 0-50, 0-100 psid	Yes
PWT250	0-25, 0-50, 0-125, 0-250 psid	No
PWT250-BP	0-25, 0-50, 0-125, 0-250 psid	Yes

# SPECIFICATIONS

**Models:** See Table 1.

**Dimensions:** See Fig. 1 and 2.

**Media Compatibility:** 17-4 PH stainless steel

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

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

**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

**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)

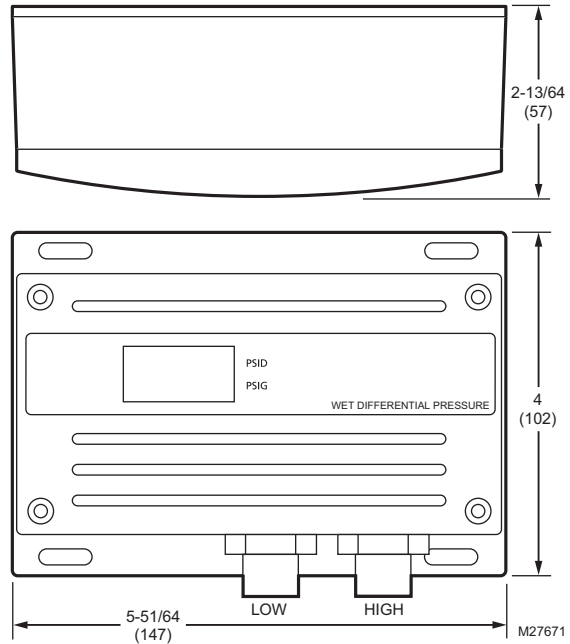
**Long Term Stability:** ±0.25%

**Zero Adjust:** Pushbutton auto-zero and digital input (2-position terminal block)

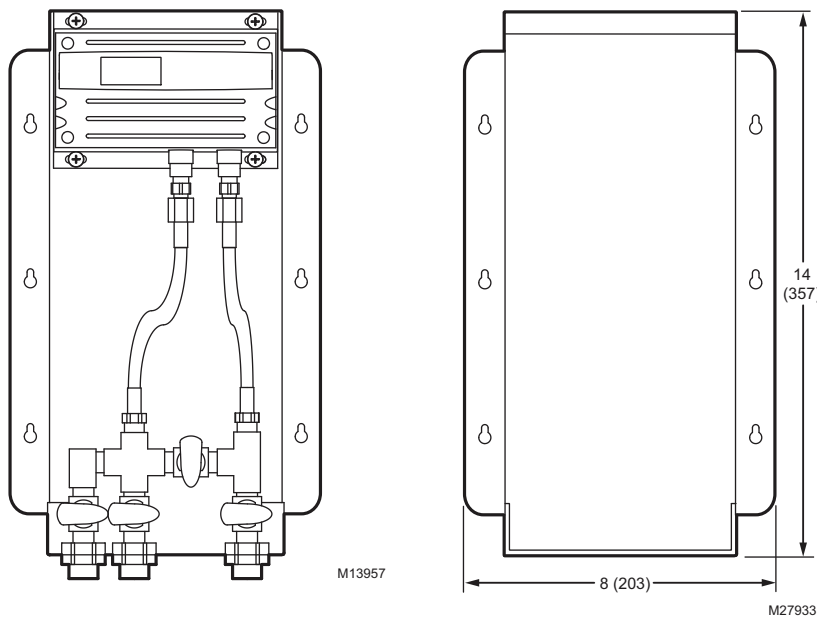
**Operating Environment:** -10° to 55°C (14° to 131°F); 10-90% RH noncondensing

**Fittings:** 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.



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



**Fig. 2. Bypass valve assembly and bracket dimensions in in. (mm).**

# OPERATION

## Blink Settings

**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.

**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.

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