Honeywell

PWTA Series Wet Pressure Transmitters

PRODUCT DATA



APPLICATIONS

The PWTA Series wet/wet differential pressure sensors provide reliable, accurate measurement for proper application control including:

- Monitor and control of pump differential pressure.
- Chiller/boiler differential pressure drop.
- Cold/Hot water system differential pressure.
- Other non-corrosive wet media applications.

FEATURES

Versatile Universal Transmitter

- **Three selectable PSID ranges per sensing element.**
- **User friendly LCD displays in PSID or kPa.**
- **Absolute mode outputs absolute value of difference.**
- **Port swap corrects plumbing errors.**
- **Fast/slow to select desired response time.**
- **Uni/bi-directional modes.**
- **Test mode: Forces full-scale output.**
- **Over range icon warning.**
- **Switch selectable outputs: 2-wire 4-20mA, 3-wire 0-5V or 0-10V.**

High Reliability

- **Industry's only standard built-in t-shaped snubbers protect sensing elements from water hammer damage.**
- **MEMS sensor technology.**

Simple and Low-Cost Installation

- **Reduced plumbing complexity with remote mounted transmitter and wired pressure transducers.**
- **No bypass required for installation as sensors can be installed in tees or elbows for simple air bleeding.**
- **Pre-wired plenum and armored cable versions eliminate wiring issues.**

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PWTA SENSOR MODELS

Model	Max PSIG	Selectable PSID Ranges	Cable Type	Cable Length (Feet)
PWTA40-X	40 PSIG	10/20/40 PSID	Conduit	–
PWTA100-X	100 PSIG	50/75/100 PSID	Conduit	–
PWTA250-X	250 PSIG	75/150/250 PSID	Conduit	–
PWTA40-PC-9	40 PSIG	10/20/40 PSID	Plenum	9
PWTA100-PC-9	100 PSIG	50/75/100 PSID	Plenum	9
PWTA250-PC-9	250 PSIG	75/150/250 PSID	Plenum	9
PWTA40-PC-50	40 PSIG	10/20/40 PSID	Plenum	50
PWTA100-PC-50	100 PSIG	50/75/100 PSID	Plenum	50
PWTA250-PC-50	250 PSIG	75/150/250 PSID	Plenum	50
PWTA40-AC-9	40 PSIG	10/20/40 PSID	Armored	9
PWTA100-AC-9	100 PSIG	50/75/100 PSID	Armored	9
PWTA250-AC-9	250 PSIG	75/150/250 PSID	Armored	9
PWTA40-AC-50	40 PSIG	10/20/40 PSID	Armored	50
PWTA100-AC-50	100 PSIG	50/75/100 PSID	Armored	50
PWTA250-AC-50	250 PSIG	75/150/250 PSID	Armored	50

SPECIFICATIONS

Power Supply	Voltage output (0-5V)	12-30 VDC/24 VAC[1], 20 mA max.
	Voltage output (0-10V) Current (4-20 mA) output	15-30 VDC/24 VAC 12-30 VDC, 20 mA max.
Outputs	Switch selectable	2-wire 4-20 mA, 3-wire 0-5V/10V
Pressure Ranges (Switch Selectable)	PWTA40-X PWTA100-X PWTA250-X	10/20/40 PSID 50/75/100 PSID 75/150/250 PSID
Operating Temperature	Transmitter	32 to 140°F (0-60°C)
Media Compatibility	Type	Water, other 17-4 SS compatible media
	Temperature	-40 to 248°F (-40-120°C)
Zero Adjustment	Automatic	Pushbutton, terminal block switch input Press button for 5 seconds to re-zero Hold for 10 seconds to restore to factory settings
Sensor Type		Micro-machined silicon strain gauge
PWTA40 Transmitter	Accuracy[2]	Range A: +/-4% FS Range B/C: +/- 2% FS
PWTA100/250 Transmitter	Accuracy[2]	Range A: +/-2% FS Range B/C: +/- 1% FS
Sensor Performance	Accuracy	< +/-0.5% BFSL
	Zero Offset	< +/-2% FS
	Span Tolerance	< +/-2% FS
	Stability (1 year)	+/-2.5% FS, typ
	Over-range protection	2x rated pressure
	Burst pressure	5x or 20,000 PSI (whichever is less)
	Pressure Cycles	> 100 million
	Compensated Range	30 to 130°F (0-55°C)
	Temperature Compensation	Zero, < +/-1.5% of FS Span, < +/-1.5% of FS
	Shock	100G, 11 msec, 1/2 sine
	Vibration	10G peak, 20 to 2000 Hz
	EMI/RFI Protection	Yes
Enclosure, Transmitter	Construction	Powder coated steel
	Sealing	IP65 (Installed with water-tight fittings)
Enclosure, Sensor	Construction	Stainless Steel, 17-4, 1/4" MNPT, 1/2" Conduit Fitting

[1] One side of transformer secondary is connected to signal common. Dedicated transformer is recommended.

[2] For PWTA Transmitter performance accuracy, FS is defined as the full scale of the selected range in bi-directional mode.

Honeywell Building Technologies

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