

VELTRON DPT 2500

Ultra-Low Differential Pressure and Flow Transmitter

The VELTRON DPT 2500 is both a differential pressure and flow transmitter. As a differential pressure transmitter, the VELTRON DPT 2500 converts static or differential pressure signals into a 4-20mA DC output linear to the sensed pressure. By means of a user selectable integral square root function, the VELTRON DPT 2500 converts the total and static pressure signals from a flow element into a 4-20mA DC output linear to airflow velocity or volume.

Performance Specifications

- Accuracy. $\pm 0.5\%$ of Natural Span, including non-linearity, hysteresis, and non-repeatability.
- Ranges.

Natural Spans	Bi-Polar Natural Spans
0 to 10.00 IN w.c.	-10.00 to 10.00 IN w.c.
0 to 5.00 IN w.c.	- 5.00 to 5.00 IN w.c.
0 to 2.00 IN w.c.	- 2.00 to 2.00 IN w.c.
0 to 1.00 IN w.c.	- 1.00 to 1.00 IN w.c.
0 to 0.50 IN w.c.	- 0.50 to 0.50 IN w.c.
0 to 0.25 IN w.c.	- 0.25 to 0.25 IN w.c.
0 to 0.10 IN w.c.	- 0.10 to 0.10 IN w.c.
- Temperature Effect. Zero: 0.015% of Natural Span/°F
Span: 0.015% of Natural Span/°F
- Power Supply. 14-40VDC.
- Power Consumption. 0.5 watts at 24VDC.
- Output Signal. 4-20mA DC, 2-wire configuration.
- Maximum Overpressurization. 25 psig.
- Temperature Limits. +40°F to 120°F Operating.



Features

Custom Calibrated Spans. The VELTRON DPT 2500 has built-in span adjustment capability to permit matching the transmitter's calibrated span to the process maximum operating condition. The transmitter can be Factory or field calibrated as low as 40% of its Natural Span.

Accuracy. The VELTRON DPT 2500 is capable of maintaining an accuracy of 0.5% of Natural Span. For a span of 0 to 0.10 IN w.c., this is equivalent to an output accuracy of ± 0.0005 IN w.c. differential pressure or ± 6.33 FPM velocity.

Primary Signal Noise Filter. To eliminate background noise and pulsations from the flow signal, the VELTRON DPT 2500 is equipped with a user selectable low pass filter.

Integral Zeroing Means. Each VELTRON DPT 2500 is furnished with a built-in 3-way zeroing valve, permitting the transmitter to be zeroed by simply positioning the valve switch, eliminating the potential of transmitter damage that can occur during disconnecting and reconnecting input signal lines.

Continuous Display of Process (optional). The VELTRON DPT 2500 can be equipped with a $3\frac{1}{2}$ digit Liquid Crystal Display (LCD) to provide a continuous readout of the measured process in engineering units (Inches w.c., SCFM, lbs/hr, etc.).

Linear-to-Flow (Velocity and Volume) Output Signal. The VELTRON DPT 2500 incorporates a user selectable integral square root extractor capable of automatically using the square root of the differential pressure signal from a flow station or probe array to produce an output signal linear to flow (velocity). In addition, an integral multiplier circuit permits scaling of the output signal magnitude to produce a signal linear and scaled to air volume.

NEMA 12 Enclosure for Harsh Environments. The VELTRON DPT 2500I is furnished with a NEMA 12 steel enclosure with bulkhead signal connection fittings, quick release latch, conduit connection port, and internal tubing, wiring, and terminal strip. Enclosure is also furnished with oil-resistant gasket and integral mounting plate. Contact Factory for other enclosure options.

Accurate airflow measurement for demanding applications



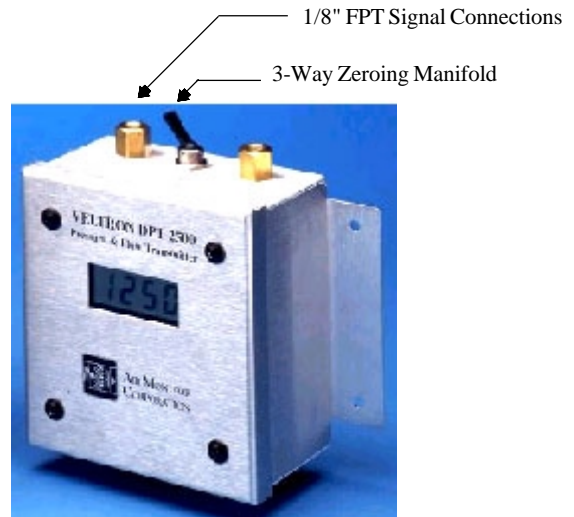
**AIR MONITOR
CORPORATION**

VELTRON DPT 2500

Construction Features

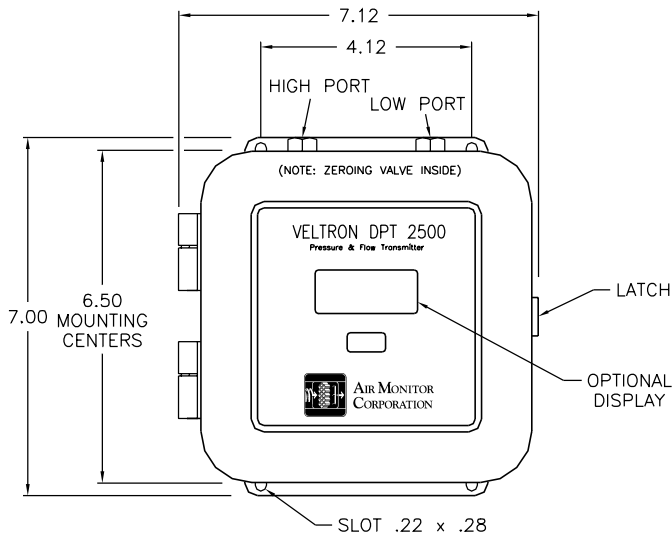


VELTRON DPT 2500I-D

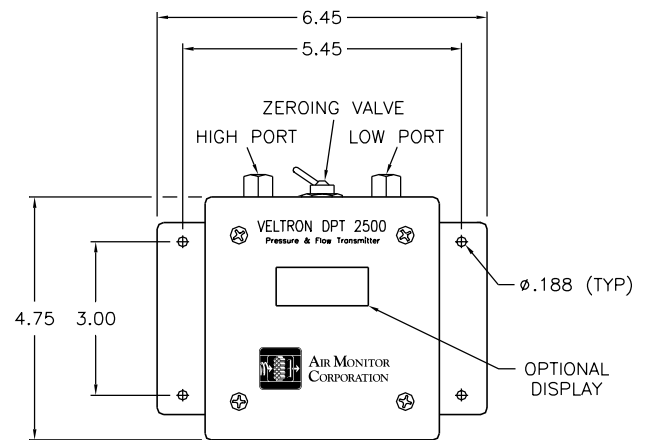


VELTRON DPT 2500-D

Dimensional Specifications



VELTRON DPT 2500I



VELTRON DPT 2500

Suggested Specification

The transmitter shall have an accuracy of $\pm 0.5\%$ of Natural Span and be furnished with a built-in 3-way zeroing valve, user selectable square root function, and integral $3\frac{1}{2}$ digit scalable LCD for display of measured process. The transmitter shall be housed in a NEMA 1 aluminum [NEMA 12 steel] enclosure with universal $\frac{1}{8}$ " signal connection ports.

The transmitter shall be the VELTRON DPT 2500 [2500I] as manufactured by Air Monitor Corporation, Santa Rosa, California.

