



Airflow Products

PVT-2000

Pneumatic Control Valve with Digital Vortek Flow Sensing

- Low Pressure Drop
- High Accuracy Flow Measurement
- True Flow Feedback
- Fast Response
- Linear Control
- Quiet
- No Scheduled Maintenance

GENERAL DESCRIPTION

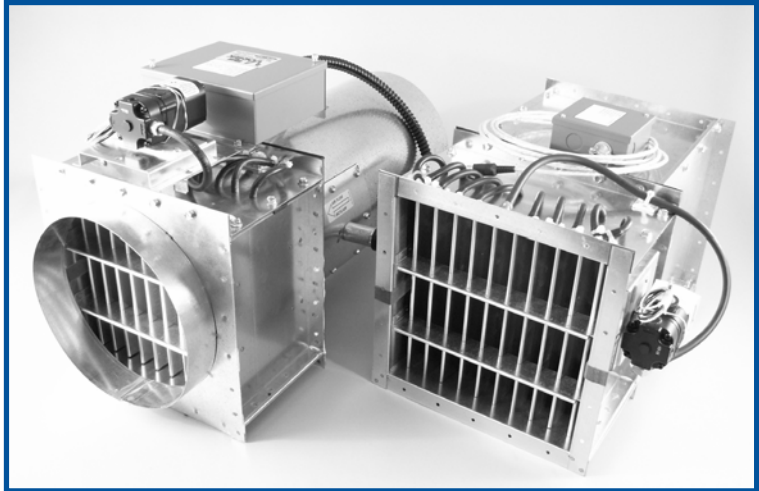
The **PVT2000** is a precision airflow control valve consisting of a **VorTek VT2000** airflow measuring device mounted in the inlet of the airflow control valve.

A factory-installed high volume electro pneumatic transducer, takes the electronic control signal (4-20mA), from any airflow controller to modulate the Pressure Reducing Device (**PRD**). The **VorTek** transmitter provides a 4-20 ma, 1-5 vdc or 2-10 vdc output to the airflow controller representing flow. The use of these industry standard signals allow compatibility with most airflow and temperature controllers presently on the market. Power for the **VorTek** transmitter can either be 24 VAC, or 15 to 35 VDC and the I/P transducer is loop powered by a two wire connection to the controller.

APPLICATIONS

The **PVT2000** has been used for precise control of airflow in a wide variety of applications, ranging from room supply air and lab exhaust control, cleanroom pressurization control, hospital operating rooms, industrial and process facilities.

The **PVT2000** is available with rectangular or round inlet and outlets, can be ordered in galvanized steel or stainless steel which is well suited to contaminated or corrosive airstreams.



SPECIFICATIONS

General

Temperature Limits (in airstream) -20°F to 140°F (contact factory for higher temperature applications)
 Humidity non condensing

PRD Valve

Case Leakage <1% of rated airflow @ 4 wc static pressure
 Shutoff Leakage at 4" wc inlet Pressure <3% of rated airflow at 2000 fpm, with 13 psi applied to valve

Pneumatic Transducer

Main Air Requirement 20+/-2, psi clean / dry instrument air
 Maximum Pressure 25 psi
 I/P Impedance (nominal) 250 ohms

Vortek Flow Sensors

Accuracy +/-2.0% of reading
 Velocity Range 350 to 3000 fpm
 Suggested Minimum Control Velocity 450 fpm

Vortek Electronics

Output 4-20 mA, 1-5 VDC and 2-10 VDC field selectable
 Power 15 to 35 VDC or 24 VAC (+/-20%) 1.2 VA 50/60 Hz.
 Loaded Limits 650 ohms max.
 Enclosure NEMA 1 (NEMA 4 optional)

MATERIALS OF CONSTRUCTION	
PRD, Case/Vane	Vortek Probe/Sensor
Galvanized / 301 S.S. 304 S.S. / 301 S.S.	Alum / Polycarbonate ABS CPVC / Polycarbonate ABS



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Round Selection Table

PVT-2111 ▪ Round PRD, Galvanized Steel/301 Stainless Steel Construction. Valves have 17" inlet extensions with Aluminum VorTek 2000 flow probe & 1/2" Flow Straightener, and 2" outlet extensions for "slip-fit" into ductwork. I/P transducer mounted and connected to manifold.

PVT-2121 ▪ Round PRD, 304/301 Stainless Steel Construction. Valves have 17" inlet extensions with CPVC VorTek 2000 flow probe and 2" outlet extensions for "slip-fit" into ductwork. I/P transducer mounted and connected to manifold.

Diameter	Area Sq. Ft.	Min. cfm. @ 400 fpm.	cfm. @ .25" DP	Max. cfm. @ 0.5" DP	Full Scale cfm. @ 3000 fpm.	Model # PVT-2111	Model # PVT-2121
6	0.196	79	265	375	588	PVT-2111-6	PVT-2121-6
8	0.349	140	486	687	1047	PVT-2111-8	PVT-2121-8
10	0.545	218	805	1138	1635	PVT-2111-10	PVT-2121-10
12	0.785	314	1238	1760	2355	PVT-2111-12	PVT-2121-12
14	1.069	428	1812	2583	3207	PVT-2111-14	PVT-2121-14

Rectangular Selection Table

PVT-2211 ▪ Rectangular PRD, Galvanized Steel/301 Stainless Steel Construction. Valves are flanged with 12" inlet extensions having Aluminum VorTek 2000 flow probe & 1/2" Flow Straightener. I/P transducer mounted and connected to manifold.

PVT-2221 ▪ Rectangular PRD, 304/301 Stainless Steel Construction. Valves are flanged with 12" inlet extensions having CPVC VorTek 2000 flow probe. Inlet. I/P transducer mounted and connected to manifold.

Width	Height	Area Sq. Ft.	Min. cfm. @ 400 fpm.	cfm. @ .25" DP	Max. cfm. @ 0.5" DP	Full Scale cfm. @ 3000 fpm.	Galv. Steel Model #	304 SS Model #
6	6	0.25	100	338	478	750	T-PVT-2211-0606	T-PVT-2221-0606
8	8	0.44	177	537	900	1333	T-PVT2211-0808	T-PVT2221-0808
10	10	0.69	277	1068	1510	2083	T-PVT2211-1010	T-PVT2221-1010
12	12	1.00	400	1666	2356	3000	T-PVT2211-1212	T-PVT2221-1212
18	12	1.50	600	2800	4000	4500	T-PVT2211-1812	T-PVT2221-1812
24	12	2.00	800	4000	5700	6000	T-PVT2211-2412	T-PVT2221-2412
36	12	3.00	1200	6000	8500	9000	T-PVT2211-3612	T-PVT2221-3612

This is a sample of sizes, please contact your representative for sizes not listed.

All specifications subject to change without notice or liability to provide changes to prior purchasers.

Your Accutrol Representative is:



21 Commerce Drive, Danbury, CT 06810
203-445-9991
www.accutrollc.com