

# Series PV9000 Electronic Gas Flowmeter



KEY INSTRUMENTS

# Series PV9000 Electronic Gas Flowmeter

## DESCRIPTION

**Series PV 9000** Electronic flowmeters, using differential pressure measurement / laminar flow element flow sensing technology, accurately measures the flow rate of non-hazardous, inert gases with an accuracy of  $\pm 2\%$  of full scale. The standard output for the PV 9000 meter is 0.0 - 5.0 VDC; the meter is also available with an integral or remote digital display, or 4 - 20 mA current signal. These electronic flow meters can be installed in any orientation with no effect on flow reading. All units are supplied with an aluminum body, high-impact resistant polycarbonate case and brass compression fittings.

## SPECIFICATIONS

<b>Response Time</b>	<50 ms
<b>Accuracy</b>	$\pm 2\%$ Full Scale
<b>Repeatability</b>	$\pm 1\%$ Full Scale
<b>Turndown Ratio</b>	50:1
<b>Pressure Drop</b>	<.75 PSI
<b>Temperature Range</b>	50° - 122° F (10° - 50° C)
<b>Supply Voltage<sup>1</sup></b>	6 - 26 VDC
<b>Supply Current<sup>2</sup></b>	3 mA
<b>Output Voltage</b>	0 - 5 VDC
<b>Output Current<sup>3</sup></b>	4 - 20 mA
<b>Maximum Pressure</b>	100 PSI (6.9 bar)
<b>Certifications</b>	CE Certified and RoHS Compliant

## PRINCIPLE OF OPERATION

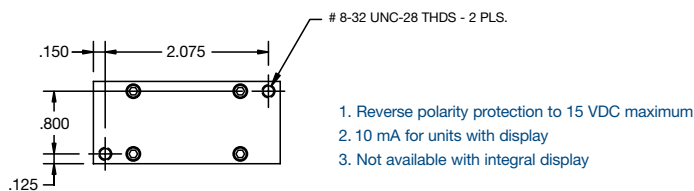
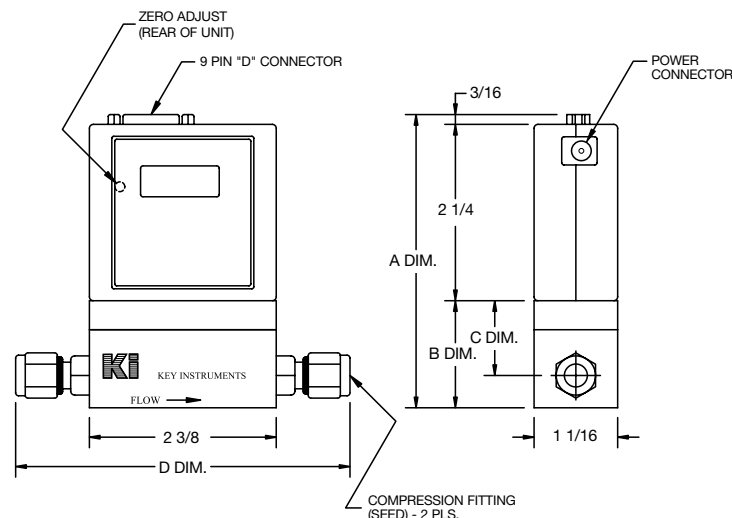
The flow rate is determined by measuring the pressure drop across a laminar flow element. As gases move through the flow element, the flow becomes laminar; as a result, the flow rate is linearly proportional to any change in pressure. This creates a highly accurate volumetric flow rate output, which can be displayed or transmitted as an analog signal. The major advantage of this technology is no moving parts, which means a long, dependable life for the meter.

## STANDARD GAS OPTIONS

<b>Gas Type</b>	Air	O <sub>2</sub>	N <sub>2</sub>	CO <sub>2</sub>	Argon
<b>Code</b>	A	O	N	C	AR

## DISPLAY / OUTPUT OPTIONS

<b>Model Code</b>	<b>Description</b>
VC	0-5 VDC/4-20 mA Output No Display
VRD	0-5 VDC/RS-232 Output Integral Display



## DIMENSIONS

Range	A	B	C	D	Fitting Size
Up to 5 LPM	3.47"	1.09"	.74"	4.06"	1/8" Compression
20 LPM	3.75"	1.37"	.95"	4.93"	1/4" Compression
50 LPM	3.87"	1.50"	1.08"	4.93"	1/4" Compression

## ACCESSORIES (Optional)

Model Code	Description
EPS002	Wall Mount Power Supply, 90-265 VAC input, 12 VDC output
ESC062	6' Ribbon Cable for RS-232 Communications
RDD	Remote Digital Display
PHW139	1/8" OD Tube X 1/8" NPT 316SS Compression Fitting
PHW140	1/4" OD Tube X 1/8" NPT 316SS Compression Fitting
FTG231	1/4" OD Tube X 1/4" NPT 316SS Compression Fitting
FTG232	3/8" OD Tube X 1/4" NPT 316SS Compression Fitting

## FLOW RANGES

CCM Air	Model Code	LPM Air	Model Code
1 - 50	PV050CCM	.02 - 1	PV001LPM
2 - 100	PV100CCM	.04 - 2	PV002LPM
4 - 200	PV200CCM	.10 - 5	PV005LPM
10 - 500	PV500CCM	.40 - 20	PV020LPM
		1.0 - 50	PV050LPM

**Ordering Example:** PV200CCMVCA = 200CCM, 0-5VDC/4-20mA output, air