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The Nucleus of Quality Air Monitoring Programs

DIGITAL FLOW CALIBRATOR for AIR SAMPLERS

Regular Line Power and with Battery Powered Option

NOTABLE FEATURES:

- Flow measuring device: Venturi
- Display of flow in CFM, LPM or M³/min. by operator selection (LED display)
- Standard accuracy: ±2% Full Scale
- Flowrates displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)

Classical STP	0°C, 1 Atm
Normal T and P	20°C, 1 Atm
Modified Normal T and P	70°F, 1 Atm
Standard Ambient T and P	25°C, 1 Atm
- Display of barometric pressure in metric or English units
- Display of temperature in metric or English units
- Certified to UL, CSA and CE electrical safety standards for line power models
- Ambient or Reference flow is selectable by the operator
- 2 year warranty



Models Available

Basic Line Power Models		Units w/Battery option		AIR FLOW RANGE	
100 – 120VAC	220 – 240VAC	100 – 120VAC	220 – 240VAC	CFM	LPM
<u>MODEL NO.</u>	<u>MODEL NO.</u>	<u>MODEL NO.</u>	<u>MODEL NO.</u>		
D-801V.2	D-801EV.2	D-801BV.2	D-801BEV.2	0.1 – 1	3 – 30
D-802V.2	D-802EV.2	D-802BV.2	D-802BEV.2	0.2 – 2	6 – 56
D-812V.2	D-812EV.2	D-812BV.2	D-812BEV.2	0.5 – 4	14 – 115
D-828V.2	D-828EV.2	D-828BV.2	D-828BEV.2	1 – 9	28 – 250
D-814V.2	D-814EV.2	D-814BV.2	D-814BEV.2	2 – 14	56 – 400
D-530V.2	D-530EV.2	D-530BV.2	D-530BEV.2	5 – 30	140 – 850
D-540V.2	D-540EV.2	D-540BV.2	D-540BEV.2	5 – 40	140 – 1130
D-550V.2	D-550EV.2	D-550BV.2	D-550BEV.2	5 – 50	140 – 1400
D-870V.2	D-870EV.2	D-870BV.2	D-870BEV.2	10 – 70	280 – 1980

Options:

- Battery Powered Operation (Denoted by 'B' in model number)
- 1% F.S. accuracy units available (add '-1' to model number); example: D-812E-1

VENTURI DIGITAL CALIBRATOR

1. MEASUREMENT PRINCIPLE

- 1.1 Flow Sensor: Venturi Tube
- 1.2 Standardization: Correction for standard temperature and barometric pressure
- 1.3 Curve linearization: Individually calibrated and software corrected

2. MEASUREMENT RANGES

- 2.1 Air flow: See Table on front page
- 2.2 Temperature: -4°F – 122 Degree F (-20°C – 50 Degree C)
- 2.3 Barometric pressure: 30 – 24 In-Hg (760 – 609 mm-Hg)
approx. Sea level to 6000 ft. elevation above sea level

3. MEASUREMENT ACCURACY

- 3.1 Air flow: +/- 2% of full scale (Optional +/- 1% of full scale)
- 3.2 Temperature (Typical): 1°C over range -20°C to 50°C
- 3.3 Barometric pressure: +/- 1% over measurement range

4. DISPLAY 6 Digit LED 0.4" high

5. DISPLAYED PARAMETERS and RESOLUTIONS

	Parameter	Engineering Unit	Resolution	
5.1	CFM	Cubic feet per minute	0.01	CFM
5.2	LPM	Liter per minute	0.1 or 1	LPM*
5.3	M ³ /m	Cubic meter per minute	0.0001	M ³ /min
5.4	F	Degree Fahrenheit	0.1	° F
5.5	C	Degree Celsius	0.1	° C
5.6	In-Hg	Inches of Mercury	0.01	In-Hg
5.7	mm-Hg	Millimeters of Mercury	1	mm-Hg

* A 0.1 LPM resolution applies to calibrators that have a maximum flow of 900 LPM

6. GENERAL

- 6.1 Power requirements: 100–120 VAC;50/60Hz 0.3 Amps max; 220-240 VAC/50Hz
- 6.2 Operating temperature: -4°F – 122 Degree F (-20°C – 50° C)
- 6.3 Storage temperature: -20°F – 158° F (-29°C – 70° C)
- 6.4 Dimension (L×W×H) 9.75"×8.25"×10.75" (248 ×210 × 273 mm)
- 6.5 Weight: 8 lbs. 6 oz. (3.8 Kg)
- 6.6 Installation Category: Pollution Degree 2
- 6.7 Enclosure Rating: IPXO

7. CALIBRATION

Factory calibration is recommended once per year

8. OPTIONS

- 8.1 RS-232 interface, including cable — All measured and calculated parameters are accessible through an RS-232 port to a computer.
- 8.2 Data acquisition and processing software is available upon request.
- 8.3 AC input of 230V, 50Hz is available upon request at no additional charge.