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The Nucleus of Quality Air Monitoring Programs

PORTABLE INLINE FLOW MONITOR FOR AIR SAMPLERS – GAS-100-XX/100E-XX SERIES

NOTABLE FEATURES:

- Precision machined DP flow sensor
- State-of-the-Art electronics
- Vacuum fluorescent display; 4 line × 24 characters
- Flow rate and volume measurements corrected to operator selectable Reference Temperature and Pressure
- Constant air flow regulator
- Display in English or various metric units
- Dual RS-232 communication ports
- Flow rate accuracy: $\pm 3.0\%$ Full Scale
- Auto zero calibration feature of flow sensor
- Various operator selectable sampling modes
- Multiple operator selectable data storage and data transmission frequency rates
- Display of Multiple on-board calculations
- Wide temperature range electronics



GENERAL DESCRIPTION:

The GAS-100-XX/100E-XX Series portable flow computer systems are designed to upgrade existing air sampling systems. The GAS-100-XX/100E-XX are connected in line between the pump inlet and the filter holder. The GAS-100-XX/100E-XX upgrade eliminates the need to engage in expensive conversions of equipment or the need to purchase new air sampling systems. The GAS-100 flow computer can also be utilized to measure the flow rate of ducts which already have installed differential pressure air flow monitoring sensors.

The inline flow monitor utilizes a bright VFD that has two (4) lines by 24 characters and utilizes wide temperature range electronic components for use in extreme ambient conditions.

The inline flow monitor is designed for continuous indoor use or protected outdoor use. Please consult the product specifications for the design temperature range and the installation category.

The typical operating flow ranges vary from 1 CFM to 25 CFM (30 – 710 LPM).

REV: 03 March 2016

GAS-100-XX/100E-XX SERIES SPECIFICATIONS

Flow Range Available:	Model	Flow Range		Model
	(110-120V)	(CFM)	(LPM)	(220-240V)
	GAS-100-01	0.1 – 1	3 – 30	GAS-100E-01
	GAS-100-02	0.2 – 2	6 – 60	GAS-100E-02
	GAS-100-04	0.5 – 4	14 – 115	GAS-100E-04
	GAS-100-09	1 – 9	30 – 255	GAS-100E-09
	GAS-100-14	2 – 14	56 – 400	GAS-100E-14
	GAS-100-25	3 – 25	85 - 710	GAS-100E-25
	GAS-100	Duct flow measurement system		

Handle: Plastic
Electrical Cord: All temperature, 3 wire, 14 gauge

Power Requirements:
GAS100: 100-120 VAC, 47-63 Hz; 0.3 amperes maximum
GAS100E: 220-240 VAC, 47-93 Hz; 0.2 amperes maximum

Dimensions: 10" L x 8-1/2" W x 9-3/4" H. (25.4 cm X 21.6 cm X 24.8 cm)

Weight: 8 lbs. (3.6 kgs)

ELECTRONIC SPECIFICATIONS:

Measurement Accuracy: Air flow +/- 3.0% of full scale
Temperature +/- 0.9° F (0.5° C)
Barometric Pressure 1% over measured range

Operating Temperatures -30° to 122° F (-34° to 50° C)

Storage Temperature: -40° to 158° F (-40° to 70° C)

Calibration: Factory calibration 1 per year

Communications Interface: RS-232

Display: VFD; 4×24 characters

Data Storage:

Simultaneous data storage of all measured parameters in Non-volatile memory; time and date stamp on records.
Data storage for continuous sampling
Optional reporting of all stored data and/or summary record for host computer or local printer via RS-232 serial link.

On-Board Calculations:

- Flow calculation from differential pressure value using best-fit curve method.
- Flow correction for standard temperature and pressure is operator selectable (4 options)
- Auto-zero correction utilizing electro-pneumatic method to compensate for zero offset and drift (automatic once every minute).
- Minimum and maximum values of measured and calculated parameters.

Operator Selectable References are:

Temperature	0°C	Pressure
	20°C	1 Atm (101.325 kPa)
	70°F	1 Bar (100.000 kPa)
	25°C	

Optional Items:

Optional data communications software to download data from instrument to PC after completion of sampling activity.

GAS-100-XX/100E-XX SERIES Specifications (continued)



Model GAS-100-XX/100E-XX Series Units can be quick-disconnect-fitted to a conventional rotometer based unit.



Part Number: **DLDR38**

Quick disconnect (3.8") fitting for GAS-100-XX/100E-XX Units connection to standard 3.8" female quick disconnect



Part Number: **VENA1H**

Fittings for GAS-100-XX/100E-XX Series Monitoring Systems (1" thread by 1" O.D. slipjoint)