

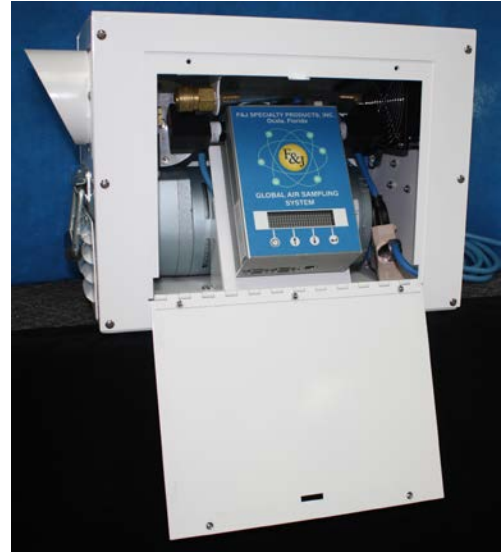
## F&J SPECIALTY PRODUCTS, INC.

*The Nucleus of Quality Air Monitoring Programs*

# GLOBAL LOW VOLUME AIR SAMPLING SYSTEM F&J MODEL GAS-28B

### 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 Model GAS-28B Global Air Sampling System is a microprocessor controlled low volume air sampler consisting of an  $\frac{1}{4}$  H.P. oil-less carbon vane vacuum pump with a constant air flow regulator for use where a nearly constant air flow is desirable. The regulator holds a constant pressure drop across an in-line venturi by varying the flow through a bypass valve into the pump. This system allows the pump to work at a minimum head drop at all times permitting it to run cooler, thus extending its service life. The oil-less pump requires no lubrication to maintain optimal efficiency during its service life. The pump is mounted on a base plate within a weather resistant aluminum environmental enclosure having four rubber feet. Handles are provided on the enclosure to facilitate transportation. The enclosure rating is IPX3.

The GAS-28B utilizes a bright VFD that has four (4) lines by 24 characters and utilizes wide temperature range electronic components for use in extreme ambient conditions.

This unit is designed for continuous indoor or outdoor use. This unit can be adapted for tripod mounting if desired. Please consult the product specifications for the design temperature range and the installation category.

The typical operating flow range is 0.5 to 4 CFM (14 – 115 LPM).

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# GAS-28B Global Low Volume Air Sampler (100 – 120VAC)

## SPECIFICATIONS

|                                     |  |
|-------------------------------------|--|
| <b>PUMP TYPE:</b>                   | Oil-less, carbon vane ¼ HP, 1725 RPM @ 60 Hz   |
| <b>MAXIMUM CAPACITY:</b>            | 4.3 CFM (122 LPM) @ 0" Hg Pressure drop  |
| <b>ULTIMATE VACUUM:</b>             | 25" (635 mm) Hg @ sea level  |
| <b>POWER REQUIREMENTS:</b>          | 100-120VAC; 50/60Hz; 6 amperes, single phase   |
| <b>CIRCUIT BREAKER PROTECTION:</b>  | 10 amperes   |
| <b>ELECTRICAL CORD:</b>             | All temperature, 3 wire, 14 gauge  |
| <b>THERMAL OVERLOAD PROTECTION:</b> | Furnished as an integral part of the motor   |
| <b>CONSTANT AIRFLOW REGULATOR:</b>  | Aluminum construction with silicone diaphragm; adjustable from 0.5 to 4 CFM (14-115 LPM) |
| <b>DIMENSIONS:</b>                  | 19"L × 12 ½"W × 13 ¼" H (48,3×31,75×33,7 cm)   |
| <b>WEIGHT:</b>                      | 59 lbs. (26,8 kg)  |
| <b>INSTALLATION CATEGORY:</b>       | Pollution Degree 3   |
| <b>ENCLOSURE RATING:</b>            | IPX3   |

## ELECTRONIC SPECIFICATIONS:

|                                   |  |
|-----------------------------------|--|
| <b>Air flow</b>                   | ± 3.0% of full scale                         |
| <b>Temperature</b>                | ± 0.9°F (0,5°C)                              |
| <b>Barometric Pressure</b>        | 1% over measured range                       |
| <b>OPERATING TEMPERATURE:</b>     | 0° - 122°F (-18° - 50°C)                     |
| <b>STORAGE TEMPERATURE RANGE;</b> | -40° - 158°F (-40° - 70°C)                   |
| <b>CALIBRATION:</b>               | Operator calibration-verification 1 per year |
| <b>COMMUNICATIONS INTERFACE:</b>  | Dual RS-232                                  |
| <b>DISPLAY:</b>                   | 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 operator selectable reference temperature and pressure

Auto-zero correction utilizing electro-pneumatic method to compensate for offset and drift (automatic, once every minute)

Minimum and maximum values of measured parameters

## COMBINATION FILTER HOLDERS

### AVAILABLE:

Durable plastic combination filter holders for F&J Model B, C or M charcoal cartridges and 47 mm, 2" or 50 mm diameter particulate filter paper are available. All models have quick disconnect function.

| FILTER HOLDER | CHARCOAL CARTRIDGE | PARTICULATE PAPER |
|---------------|--------------------|-------------------|
| MODEL         | DIMENSIONS         | DIAMETER          |
| FJ-05P        | F&J Model B        | 2" or 50 mm       |
| FJ-21P        | F&J Model C        | 2" or 50 mm       |
| FJ-35P        | F&J Model B        | 47 mm             |
| FJ-46P        | F&J Model C        | 47 mm             |
| FJ-51P        | F&J Model M        | 2" or 50 mm       |
| FJ-53P        | F&J Model M        | 47 mm             |