

## **Features and Specifications Sheet for FlexStream™ SD Module** **(Secondary Dilution Module)**

### **Principal of Operation**

Secondary dilution of upstream single or multi-component gas stream.

### **Function**

Provides extended dilution of primary low concentration gas mixtures from devices/modules upstream. Trace concentration calibrations – ppmv, ppbv, pptv

### **Component Flow Path**

Mixture contacts only glass, Teflon® and stainless steel (other materials available; specified a time of purchase). Suitable for reactive component gases.

### **Flow Control**

Electronic mass flow control and measurement. Standard Control Range: 0.25 to 5 lpm secondary dilution, with 10 to 100 sccm component flow rate.

Optional Ranges (specified at time of purchase): 0.5 to 10 slpm secondary dilution, with 20 to 200 sccm component flow rate.

Flow Measurement Calibrated Accuracy: The lesser of  $\pm 1.5\%$  reading and  $\pm 1\%$  at Full Scale, calibrated traceable to N.I.S.T.

Flow Change: 0 to Full Scale: < 10 sec (2 time constants) at ambient pressure.

### **Dilution Ratio**

Standard: 500:1; Optional: 1000:1, 1250:1, 1667:1

When combined with primary dilution, total system dilution:

Standard: 10,000:1; Optional: 20,000:1, 25,000:1, 50,000:1

### **Input Pressure**

Secondary Dilution Gas Input regulated to 50 psig at max flow range (input pressure required >50 psig). Span Gas input regulated based on pressure from upstream Modules.

### **Output Pressure**

Ambient to nominal 20 psig (138 kPa) maximum for span out mixture. (Output pressure above ambient requires additional interface, e.g., KIN-TEK Interface Module, to convert ambient span gas stream to a pressurized stream).

**Modes of Operation**

Standby, Span.

**Local Interface**

Via FlexStream™ Base module color touch screen display with virtual keypad.

**Remote Interfaces**

Connection to controlling FlexStream™ Base module via RS485 (DB9 connection).

**Communication Protocol**

Modbus RTU through FlexStream™ Base module.

**Computer Control**

Controlled through the microprocessor subsystem in the FlexStream™ Base module.

**Environmental Conditions**

Operating (Ambient) Temperature: 5 °C to 40 °C. Storage Temperature: 0 to 50 °C.

Relative Humidity: Maximum of 80% for operating (ambient) temperatures up to 31 °C decreasing linearly to 50% at 40 °C.

Maximum Altitude: 2000 m (only for CE-rated modules).

**Power Requirements**

United States: 110-125 VAC, 2A, 60 Hz

European Union (EU): 230V~, 0.5A, 50/60 Hz

European Electronic Fuse Replacement: F 0,5A L 250V

Purchase option (non-EU): 220-250 VAC, 0.5A, 50/60 Hz

**Dimensions**

7.5 inch (18.4 cm) Width x 13.5 inch (34.3 cm) Height x 20 inch (50.8 cm) Depth

All dimensions are approximate.

**Weight**

27 lbs (12.2 kg) for Standalone module with portable carrying case. All weights are approximate.