RC SYSTEMS
"The Art of Gas Detection"

Gas Detection Sample Draw System

- *For use with RC Systems Fixed Gas Detector*

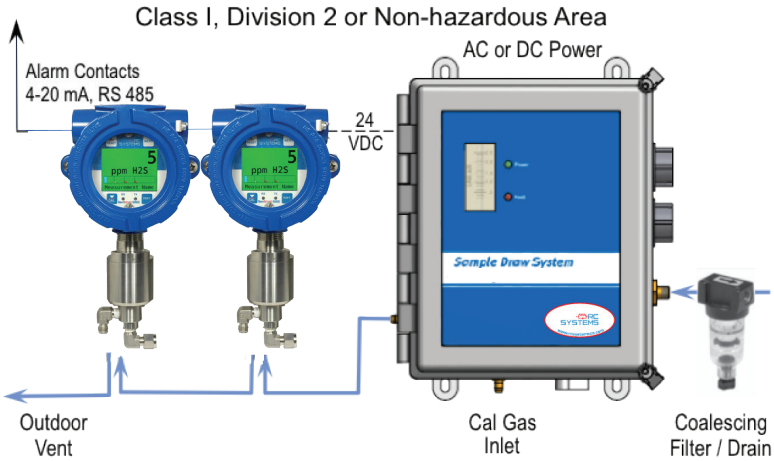
The RC Systems Sample Draw System samples air from remote locations pulling a sample to gas detection transmitter(s) and is offered as a diaphragm pumped or an air operated aspirator unit. It is designed for placement in a Class I, Division 2 Hazardous (Classified) area to sample from a Class I, Division 1 Hazardous (Classified) area, Groups C and D. A Division 2 approval eliminates the need for flame arrestors and reduces related maintenance caused by dirt and moisture.

Flow rate is easily adjustable and a rotameter is provided for visual indication of flow. A fail-safe flow switch can de-actuate the relay and provide a signal on loss of flow or power. A two-way valve permits the application of calibration standards to the gas sensor(s) for routine preventative maintenance.

The Sample Draw System is housed in a wall-mount fiberglass enclosure and rated NEMA 3R. The system power supply is capable of operating the pump and multiple in-line transmitters, enabling up to four gas sensors placed downstream of the sample for monitoring different gases. This integral power source enhances capabilities for remote applications such as pumping stations, large laboratories, and gas hoods while significantly reducing installation costs.

FEATURES

- Class 1, Division 2 Rated for Sampling from a Class 1 Division 1 Area
- FM Listed for NFPA 820 Compliance
- Pumped or Air Aspirated Versions
- Flow Sensor with Relay that Fails Safe
- Internal Power Switch and Flow Adjust
- 24 VDC Power Source for Gas Detectors
- Fiberglass Wall-mount Enclosure



SPECIFICATIONS

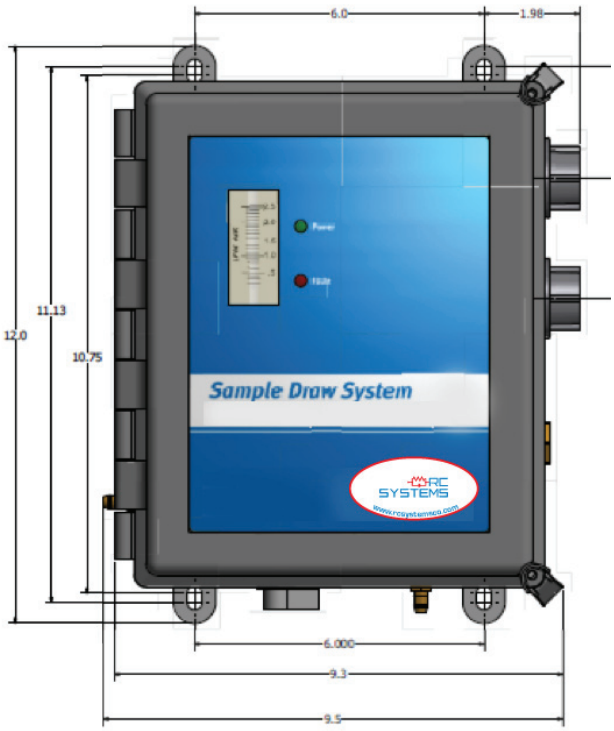
Indicators/ Controls	**External:** Flowmeter, green power LED and red fault/low flow LED **Internal:** On-Off switch, voltage out adjust and flow rate adjust **Outputs:** Two 24 VDC power terminals, SPDT fault/low flow relay contact **Power In/Out:** 85–264 VAC, 47-63 Hz, 1.2 Amps; 24 VDC, 1.1 Amp max
Environmental	Temperature: -4° to 104°F (-20° to 40°C, Humidity: 5-95% RH, non-condensing for indoor or outdoor locations
Housing	NEMA 3R Fiberglass wall mount with two 3/4" conduit entries
Dimensions	11" (H) X 10" (W) X 6.375" (D) (27.9cm X 25.4cm X 16.2cm), 6.6 lbs (3.0 kg)
Approvals	**Hazloc:** FM approved for Class I, Division 2, Groups C & D location to sample from Class I, Division 1, Groups C & D; **DC Supply:** UL60950-1, UL508, UL1310(3), EN60950-1, CE Mark **Pump:** Diaphragm type rated at 1.0 lpm @ 40" H2O at pressurized leak rate of < 1.0 inch wc drop in 5 seconds at 25 inches wc **Wetted parts:** Polycarbonate, Neoprene, Tygon 2075, Silicone Silastic, 304/316ss, Buna-N, Brass, PVC, Glass, Acrylic and User Tubing
Warranty	5 year limited warranty For sensor warranty see sensor specifications sheet
Caution	Do not use for Acid gases such as Cl2, ClO2, HCl, HF, HCN, NO2, SO2 and others since the PPM gases are absorbed by the tubing,moisture and various wetted parts slowing or completely eliminating response to the target gas. Do not attempt to use below freezing without heat tracing and a means to keep the system above 32ºF (0º C). Excessive condensation will occur when sampling from a higher to a lower temperature.

Sample A & E Specification

Furnish and install an FM listed sample draw system in compliance with NFPA 820, FM approved for installation in Class I, Division 2 hazardous (classified) areas to sample from a Class I, Division 1 hazardous (classified) area. Flame traps or arrestors are not permitted due to their high maintenance requirements.

The system shall have a fail-safe flow switch with a SPDT relay, a front panel flowmeter and LED indicators for low-flow/fault and power on. An air operated aspirator or a diaphragm sample pump shall be capable of pulling a 0.75 to 1.0 LPM sample against 40 inches water column pressure. An integral two-way valve will be furnished for the application of calibration standards. A coalescing filter must be supplied to remove excess water in the gas sample.

A universal AC to DC power supply shall be furnished capable of powering the sample draw unit, associated gas detection, communications, alarm relays and annunciation.



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