

CUSTOM-DESIGNED GAS FLOW MONITORS. UNMATCHED KNOWLEDGE.

INTRODUCTION

Since 1981, EMRC has been the leading brand in gas flow monitoring systems for custom applications. Featuring a simple design that provides nearly a full 100% uptime, the system is known for its high-quality components, reliability, and technical support.

APPLICATIONS

All EMRC gas flow monitors are custom-designed to match each gas flow stream condition and integrate with existing electronic components, including varying flow ranges, purge times, high moisture conditions and varying pitot lengths.

DETAILS

EMRC monitors include a wall or rack mounted unit and electronic interfacing so mass flow requirements can be met on a consistent and verifiable basis. The EMRC instrument package is located off-stack, allowing for ease of maintenance and control, and can be located in an indoor cabinet or outside cabinet, although a thermally controlled space is preferred for ease of maintenance and peak performance.

SPECIFICATIONS

✓ Size: EMRC will package to fit the needs of its customers
✓ Weight: Wall mount approx. 160-190 lbs. 19" rack mount approx 70 lbs.
✓ Power: 115v or 220v Operating Cabinet
✓ Temperature: 30° - 120°F (Some units have internal heaters)
✓ Probe Temperature: ~2000° F (functional limit of probe material)
✓ Recorder Outputs: 4-20 ma standard, all others upon request
✓ Performance Specifications Sensitivity: ~2fps
✓ Response Time: ~1-2 seconds to 100% of final reading
✓ Linearity: +/- 2% of full scale
✓ Repeatability: < 1% Zero Drift: ~2-3% of full scale Span Drift: ~2-3% of full scale
✓ Accuracy: ~2% of full scale

BENEFITS

EMRC monitors are designed by stack testers with over 40 years of combined experience and customized for each application. They were the first product of their kind to hit the market and have been proven over the last thirty years to be some of the most popular gas flow monitors on the market.

- Uptime typically exceeds 99.99%.
- The system can operate in explosion hazard situations because no utilities are required at the stack or duct.
- Calibration and purging are fully automated.
- There is no need to send the monitor back to the factory for periodic calibration. The design includes an onboard primary reference method for manual calibration.
- In situ sensors can be designed to operate in gas streams with extreme characteristics such as high corrosivity, temperature, moisture content, and particulate loading.
- Because the monitor is based on relatively basic physical principles, installation and maintenance costs are low.
- Application-specific monitor and installation design deliver flexibility and long-lasting accuracy.

FEATURES

Learn more about some of the features that set EMRC gas flow monitors apart.

IN-SITU SENSOR

The in-situ sensor is a stack or duct-mounted heavy duty S-type pitot, manufactured to withstand corrosion, high temperatures, and other hostile conditions. Plugging is avoided via back-purging as necessary.

Advantages include:

- Minimal sensor replacement cost.
- Methodology is EPA method #2.
- Only the sensor is mounted on the stack/duct, minimizing maintenance.

IN-SITU FLOW SENSOR

The in-situ flow sensor employs a variety of designs and appropriate materials to fit a wide range of flow measurement applications.

Subsystems include:

- Pressure signal conditioning interface.
- Differential pressure transducer.
- Temperature measurement (*type K thermocouple or RTD*).
- Primary reference and pressure auto-calibration subsystem.

INSTRUMENT EQUIPMENT

All instrument equipment is located at convenient locations.

Advantages include:

- Minimal maintenance, conducted under ideal conditions.
- Monitor can be centrally located with other monitoring equipment.
- Simplified operation and daily calibration.

MONITORS

Monitors are calibrated dynamically (auto-cal and manual primary reference).

Advantages include:

- Signal output is easily verified against EPA #2 standards via onboard manometer.
- Dynamic (pressure) auto-calibration is included.

LEARN MORE ABOUT THE EMRC GAS FLOW MONITOR FOR YOUR APPLICATION.

For more information about EMRC monitors, their applications, and our design capabilities, please visit our website to request a quote. For technical support, please contact **Sam Zierke** at **406.896.1716**.