

## Protect Your Workers with Ambient Air Monitoring Solutions from Emerson

There are numerous gases found in industrial process plants that are harmful should a gas leak occur, such as sulfur dioxide, hydrogen sulfide, vinyl chloride monomer (VCM), benzene, 1, 3-butadiene, and others.

These gases may be highly flammable, highly explosive, and/or highly toxic. Inhaling these compounds can result in conditions like oxygen deprivation, pulmonary edema, or even death. An ambient air monitoring system is essential, and it is required by state and federal regulations. Install a process gas chromatograph from Rosemount Analytical to guard against harm caused by gas leaks.

Rosemount Analytical's family of gas chromatographs provides reliable, accurate analysis of fugative gases. A Rosemount Analytical Process Gas Chromatograph offers a four-minute cycle-time and sensitivity of < 1 ppm. It can sample multiple streams at 100 % humidity, and even dusty samples will not deter accurate analysis. With three detector offerings to choose from, customers will find the right air monitoring strategy for their applications.

- Micro-flame Ionization Detector ( $\mu$ FID)
- Flame Photometric Detector
- Thermal Conductivity Detector



### Micro-flame Ionization Detector ( $\mu$ FID)

The micro-flame ionization detector, with its detector pre-amplifier /electrometer board, permits measurement of trace hydrocarbons in a variety of samples at parts-per-billion (ppb) concentrations.

The  $\mu$ FID is unique in the industry because of its small size (less than 3" high) that fits inside the explosion-proof housing of the Rosemount Analytical Model 700 Process Gas Chromatograph. Typical applications include measuring trace impurities in gases and light hydrocarbons, as well as ambient air monitoring.

### Flame Photometric Detector (FPD)

The flame photometric detector module enables the measurement of trace sulfur compounds when integrated with Rosemount Analytical Model 700 or Model 500 Process Gas Chromatographs. The FPD and associated electronic boards are installed in temperature-controlled, flame-proof enclosures and mounted on a stand complete with flame air and hydrogen controls. This design eliminates the need for instrument air and ambient temperature control — greatly reducing installation cost of the process gas chromatograph system. The FPD module comes fully integrated into a Rosemount Analytical Model 500 or Model 700 Process Gas Chromatograph.

### Thermal Conductivity Detector (TCD)

The thermistor TCD is the detector of choice for most applications due to its universal response to all compounds. Emerson's Rosemount Analytical TCD is able to go well beyond the normal measuring ranges seen in other designs by being able to do many applications with low parts-per-million measurement requirements. This greatly simplifies the process gas chromatograph design when a simple and rugged TCD can be used.

## Huge Savings with Field Mountable Gas Chromatographs from Rosemount Analytical

Rosemount Analytical Process Gas Chromatographs do not require any shelter. They are proven for rugged durability and can withstand virtually any field conditions. This eliminates installation and lifetime costs (no heater/AC, no instrument air, reduced electricity) of climate-controlled shelters.

With the field-mounted design, Rosemount Analytical Process Gas Chromatographs can be located near the sample source, eliminating costly fast-loop bypasses and reducing long sample run lines.

## Count On the World's Most Advanced Analysis Solutions

Rosemount Analytical's leading technologies have been developed based on our years of experience as problem solvers and innovators. Our systems are engineered to meet almost any plant classification, and tailored to meet your exact needs — without compromise and with proven versatility.

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