Chlorine

Continuous Emission Monitoring

Wall Mount Unit

19" Rack Mount Unit

Chlorine is widely used in chemical processing and in virtually any industry where wastewater effluents are a concern, such as pulp and paper. Since it is both a corrosive and toxic compound, source emission monitoring regulations are currently in effect for some industries and geographical regions. However, there is growing federal concern to manage chlorine emissions on a national basis. In addition to these environmental concerns, continuous monitoring of chlorine emissions does yield economic benefits by increasing scrubber control and efficiency.

Continuous sampling methods for chlorine such as UV spectroscopy has limited measurement sensitivity. Electrochemistry requires carefully controlled environments and a high level of ongoing maintenance. Since the StackMaster-IMS® utilizes the Ion Mobility Spectrometry (IMS) analytical technique, it can provide low ppb sensitivity specific for chlorine. It is unaffected by changes in temperature and humidity and requires little or no routine maintenance.

The Molecular Analytics StackMaster-IMS® Analyzer is based on field-proven, patented IMS technology that is highly selective and sensitive. It provides low ppb direct source emission measurement of chlorine, even under the harshest environmental conditions. You get the data needed to help ensure compliance with various source emission regulations, and to control scrubber efficiency.

The StackMaster-IMS is designed and built for long-term continuous, unattended monitoring, having no optics to realign or consumables such as wet chemicals and paper tape to replace. Its electronics are completely solid- state and it is drift-free for long term stability and reliability. You are assured of maximum operating uptime as the analyzer requires little or no routine maintenance.

The low ppb sensitivity of the StackMaster-IMS Analyzer allows for the use of dilution sampling techniques to obtain the required concentrations needed for compliance measurements.

FEATURES

- Direct low ppb to ppm measurement
- Patented IMS technology and application
- Complete technical and service support
- Continuous, unattended operation in “wet” environments
- Long-term stability and reliability
- Solid-state electronics and no moving parts
- Low maintenance for maximum uptime
- No reagents, paper tape, or other expensive consumables required for operation

Plus we guarantee that our Chlorine StackMaster-IMS will meet your specified application requirements

Without measurement, there is no control.

Molecular Analytics
a division of Particle Measuring Systems

Specifications

Chlorine

Description:	Continuous emission monitor for chlorine, suitable for stack, vent, and scrubber monitoring. CE certified
Principle of operation:	Ion Mobility Spectrometry. A dilution or non-dilution type probe is used in some applications. Requires no wet chemicals and minimal consumables.
Standard range:	0-100 ppb, 0-10 ppm, 0-50 ppm, 0-200 ppm, (other ranges available on request)
Resolution:	0.5% of full scale increments
Lower detection limits:	1 ppb or 0.5% of full scale

Operational Specification

Operating ambient temp:	-40°F - 122°F (-40ºC - 50ºC)
Outputs:	Digital display, 4-20 mA loop, 2 alarm relay, 1 fault relay, RS-232
Maintenance schedule:	10 minute operation, every six (6) months

Analyzer Physical Specification

Dimensions (h, w, d):	Indoor/outdoor wall-mounted analyzer. NEMA 4X enclosure 20 x 20 x 9 in. (51 x 51 x 23 cm) 19" Rack Mount Unit 17 x 8 x 20 in. (43 x 20 x 51 cm)
Weight:	Approx. 50 lbs. (23 kg)

Utility Requirements

Power - voltage supply:	115 VAC, 50/60 Hz (230 VAC, 50/60 Hz)
Current consumption (peak):	5 amps (2.7 amps)
Instrument air:	-40°F (-40ºC) dewpoint, dust and hydrocarbon free (air clean-up units available) 5 liters/minute required for analyzer, 10-15 liters/minute required for dilution probe sampling system.

AUTHORIZED REPRESENTATIVE

CE

ISO 9001:2000
FM 40574

Registration applies to the Boulder, Colorado facility

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