Fast HCl measurements.

Anywhere.

Hydrogen Chloride Analyzer (HCl, H_2O)

Features and Benefits

- Fastest response: 1-Hz continuous measurements allow observation of transient and time varying flows
- Measures a wide range of concentrations
- High-resolution absorption spectra always viewable
- Low power: ideal for field applications
- New Enhanced Performance model provides ultra-low drift and unsurpassed precision

LGR's Hydrogen Chloride Analyzer (HCl Analyzer) continuously measures HCl in ambient air or in industrial process flows with extremely high precision and sensitivity. No longer do you have to spend a lot of money or wait a long time to measure hydrogen chloride gas with high sensitivity – LGR's Hydrogen Chloride Analyzer provides measurements every second with ppb-level precision. In addition, the analyzer can report measurements quickly over a very wide range of HCl mole fractions.

LGR's HCl Analyzer is available in two packaging options to allow users to select the configuration most suitable for their needs. LGR's standard rackmount package fits in a 19" wide instrumentation rack and requires an external keyboard, mouse, and video monitor. For highest performance, the HCl Analyzer is now available in LGR's "Enhanced Performance" (or EP) package. The EP package incorporates proprietary internal thermal control for ultra-stable measurements with unsurpassed precision, accuracy and drift.

The HCl Analyzer uses LGR's patented Off-axis ICOS technology, a fourth-generation cavity enhanced absorption technique. Off-axis ICOS has many advantages over conventional cavity ringdown spectroscopy (CRDS) techniques such as being alignment insensitive, having a much shorter measurement time, and not requiring expensive and power consuming auxiliary components.

As with all LGR instruments, the HCl Analyzer includes an internal computer (Linux OS) that can store data practically indefinitely on its internal hard drive (for unattended long-term operation), and that can send real-time data to a data logger through its analog, digital (RS232) and Ethernet outputs.

Furthermore, the HCl Analyzer may be controlled remotely via the Internet. This capability allows the user to operate the analyzer using a web browser anywhere.

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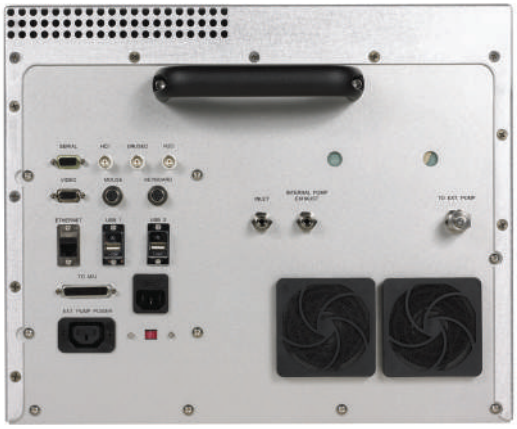

Performance Specifications

Repeatability / Precision (1-sigma):
HCl: <0.4 ppb (1 sec), <0.25 ppb (10 sec), <0.1 ppb (100 sec)

Response Time (flow time through meas. cell):
<2 s (with external N920 vacuum pump)

Measurement Range:
HCl: 0.3 – 2000 ppb

Operational Range:
HCl: 0 – 10 ppm
H_2O: 10 – 20000 ppm (non-condensing)

Outputs:
Digital (RS232), Analog, Ethernet, USB

Data Storage:
Internal Hard Disk Drive (optional Solid State Drive)

Ambient Humidity:
0 – 100%

Operating Temperature:
5 – 45 °C
0 – 50 °C

Inlet / Outlet Fittings:
¼", ⅜", and ½" Swagelok®

Power Requirements:
115/230 VAC, 50/60 Hz
100 W (Standard Model)
300 W (Enhanced Performance)

Dimensions:
8.75" H x 19" W x 24" D (Standard Model)
15.75" H x 19" W x 24" D (Enhanced Performance)

Weight:
29 kg (Standard Model)
40 kg (Enhanced Performance)

Ordering Information

907-0037: Rackmount Package

911-0037: Enhanced Performance Package

Accessories

908-0003-9001: Multiport Inlet Unit – 16-inlet port multiplexer

908-0003-9002: Multiport Inlet Unit – 8-inlet port multiplexer

904-0002: Data Logging System – multi-channel data logging system records and synchronizes serial (RS-232) outputs from multiple LGR analyzers and other devices (GPS, anemometers)

Instrument complies with 21 CFR 1040.10 and 1040.11

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