

Model 15C Gas Filter Correlation HCl Analyzer

Advanced Technology

Thermo Electron's Model 15C HCL analyzer has exhibited reliability and minimal maintenance to its operators for over a decade. The addition of the "C" Series technological advances to the field proven Model 15 optical system provides a powerful hydrogen chloride measurement device.

User software facilities include field programmable measurement ranges and HCL concentration value storage by date and time.

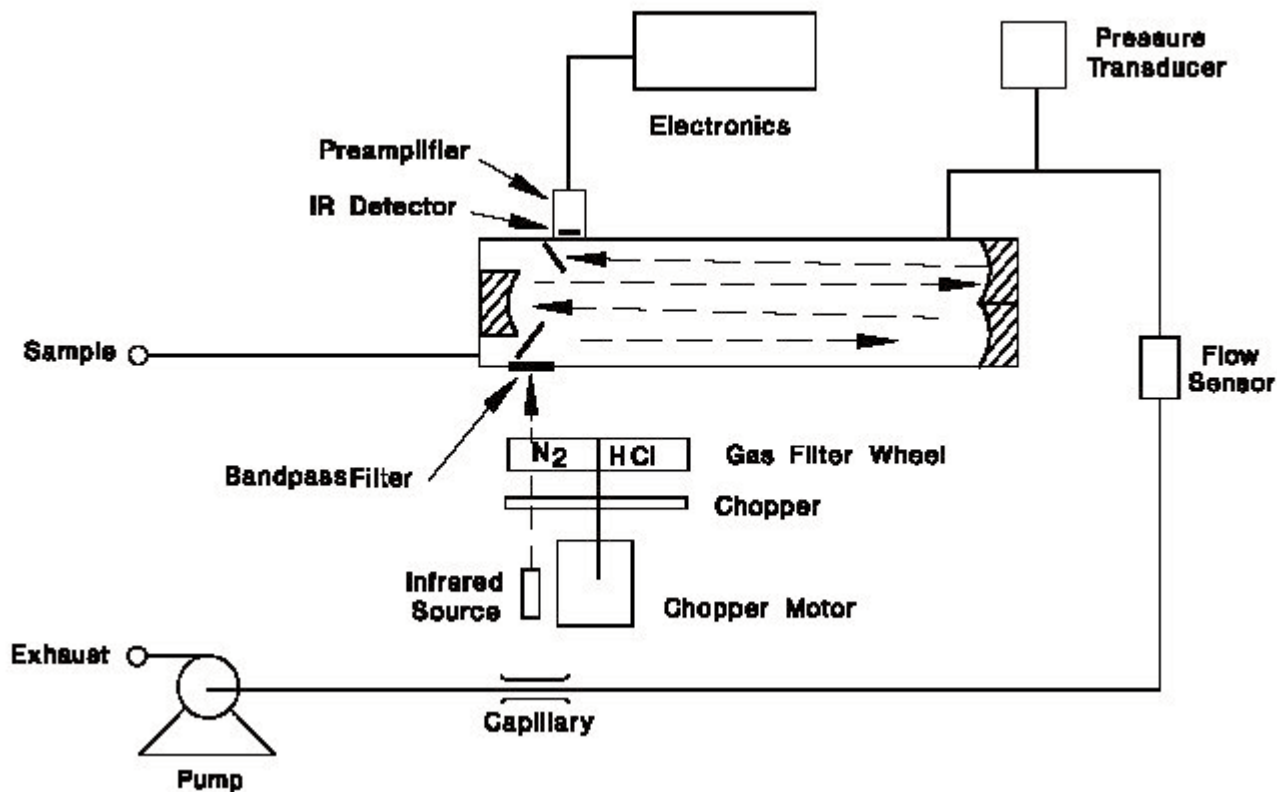
Extended troubleshooting diagnostics now provide instantaneous indication of instrument operating parameter status, including, pressure, flow, DC supply voltages, internal temperature, optical bench temperature, installed (active) options, and light intensity.

Key Features

- Gas filter correlation selectivity
- Electronic diagnostic transducers
- Multi-line alpha numeric display
- Dedicated communications processor
- Remote performance diagnostics



Preset Ranges	0-5, 10, 20, 50, 100, 200, 500, 1000, 2000 and 5000 ppm 0-10, 20, 50, 100, 200, 500, 1000, 2000, 5000 and 7500 mg/m ³
Custom Ranges	0-5 to 5000 ppm 0-10 to 7500 mg/m ³
Zero Noise	0.1 ppm RMS (5 minute time setting)
Lower Detectable Limit	0.20 ppm
Zero Drift (24 hour)	+/-0.2 ppm
Span Drift (24 hour)	+/-2% full scale
Response Time	120 seconds (30 second time setting)
Linearity	+/-2% full scale # 1000 ppm +/-5% full scale > 1000 ppm
Sample Flow Rate	0.5-2 liters/min.
Operating Temperature	5°C - 45°C
Power Requirements	105-125 VAC @ 50/60Hz 220-240 VAC @ 50/60Hz, 100 Watts
Size and Weight	16.75" (W) x 8.62" (H) x 23" (D), 45 lbs.
Outputs	HCL selectable voltage 4-20 mA, RS-232, RS-485



Proven Analytical Design

The Model 15C is an instrument of unsurpassed reliability and overall performance. This is attributed to utilization of quality components and design technology. For instance, the Model 15C analytical design is comprised of a HCL specific Gas Filter Correlation non dispersive spectrometer, self aligning optics, heated multi-pass optical bench, and vibration protection.

As illustrated in the diagram above, radiation from an infrared source is chopped and passes through a gas filter which alternates between HCL and N2 due to rotation of the filter wheel. The radiation then passes through a narrow band-pass filter and a multiple optical pass sample cell where absorption by the sample gas occurs. The IR radiation exits the sample cell and falls on a solid state IR detector.

Other gases do not cause modulation of the detector signal since they absorb the reference and measure beams equally. Thus Gas Filter Correlation System responds specifically to HCL.

ABOUT THERMO

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