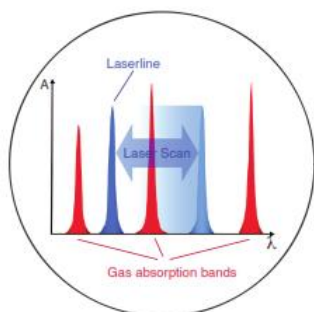




## Landfill Methane Emission Monitoring

•HCl continuous emissions monitoring system (CEMS) applications have been around for several years – starting primarily in the waste or trash incineration processes. The chlorines in the plastics that are burned in trash incinerators will combine with the moisture in the trash to form HCl during the combustion process. HCl, in addition to other acid gases, has typically been controlled by post combustion clean up systems, such as acid gas scrubbers (either wet or dry). These systems will typically address several acid gases in addition to various air toxics. Exhaust levels of HCl downstream of the pollution control devices are typically low on most applications – single digit ppm levels or below 30 ppm typically.



## Key features

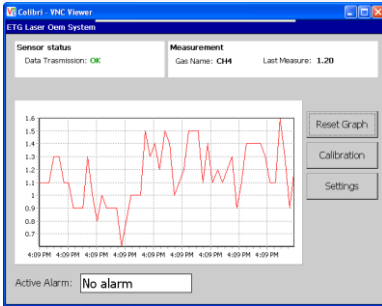
- Very fast CH<sub>4</sub> detection
- Tunable Diode Laser based technology
- Sample pump inside
- 19" rack mounting
- Zero & Span Calibration
- Continuous sensor status monitoring
- Low cost-of-ownership
- Expandable in a multipoint system
- Type of installation Plug & Play
- Touch Screen monitor
- Ethernet and USB Remoting
- Modbus, Profibus, Ethernet output
- Arm processor based
- Digital Input/output
- Signal analog output 4-20 mA

## The technology

ETG uses a technology-enhanced TDLS for gas detection, where a 0.1 nm narrow bandwidth diode laser beam is scanned across an absorption band of the target gas, performing a high-resolution near-infrared absorption measurement.

ETG 6900 thus present a clear alternative to current sub-optimal detection solutions and combine precise, contact-less optical measurements with high target gas selectivity, calibration-free operation, low-cost-of-ownership

# ETG 6900 Software

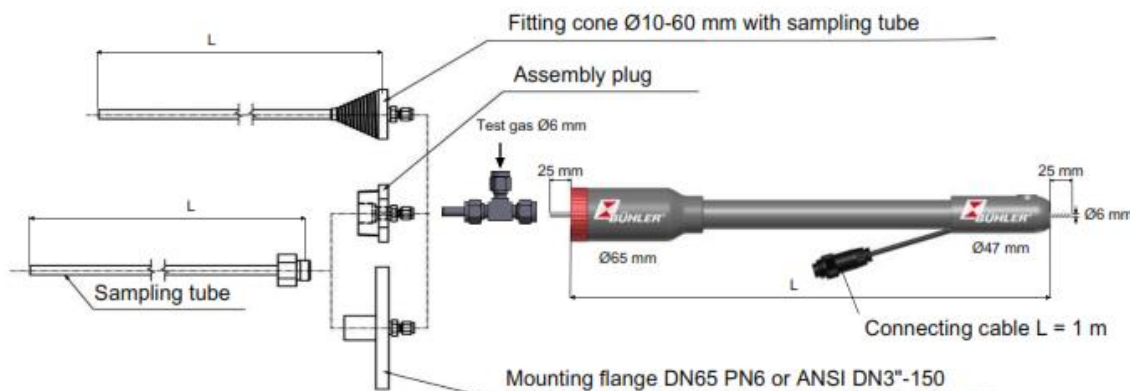


The program will displays graph, in real-time measurement. The origin of the axis time is made to coincide with the beginning of the measurement session. You will see real time data in the upper side of the window ("Last Measure").

In the same screen of the software indicates the presence of any alarms with a reference code (that's need to be communicated to ETG for troubleshooting)

## Specifications

Parameter	Unit	Value / Range
Gas	-	HCl (H2O)
Principle of detection	-	Tunable Diode Laser Spectrometry (TDLs)
Measuring range	ppm	HCl Min. 0-50 Max 0-100 ppm
Accuracy	-	± 2% full scale reading depending on integration stability (temperature & pressure)
Precision 2σ	ppm	HCl 0,8 ppm
Measurement type	°C	extractive 190°C
Zero drift over 2 h period	-	within accuracy
Span drift over 8 h period	-	within accuracy
Max. error on temp. comp.	%	of < 0.1 reading/°C
Linearity & Repeatability	-	included in the accuracy
Cross talk/interference	-	Gas matrix and application dependent
Displayed resolution	ppm	0.1 (negative values can also be displayed)
Refresh rate	s	1 (integration time can be selected, max. 120 s) up to 2 s in case no target gas is present
T90 time	s	2 (at gas flow rate of 3 L/min)
Ambient temp. compensat.	°C	-10 ... 65 (as narrow as possible)
Meas. gas max. humidity	%	abs. H2O needs calibration
Probe material	-	Stainless Steel
Electrical supply	Vac	220-230/115 50/60 Hz
Bag Dimensions	cm	50 x 28 x 40 cm
Weight	Kg	7.2
Pneumatic connections	-	Swagelok 6 mm O.D.
Sample pump	-	Internal
Heated hose	-	3 or 5 mt length 180°C thermocontrolled



ETG reserve the right to change without notice data, drawings and imagine of this bulletin