

LaserGas[™]III Portable HF Analyser

Cutting edge technology



Key Features

Gen. 3 compact LaserGas electronics

Portable close to 2 kg weight

Low power < 10 Watt

Sub ppm HF detection in seconds

No interference from other gases

Stable calibration, no zero drift

Other gases on request

The TDLS portable Solution

NEO Monitors new portable analyser is compact, lightweight, and battery powered for HF measurement on the spot (other gases such as HCI, NH3, H2S on request). With on-board pump and connections for Teflon tubing the target gas is continuously transferred into the internal measurement cell. Due to the instrument's digital low power design it may be operated for an entire working shift with one battery charge.

Fast and Reliable

The LaserGas III Portable HF Analyser T allows for fast and reliable operation with sufficient dynamic range to measure sub ppm and several hundreds ppm HF concentrations. The laser scans the absorption line in milliseconds. The results are averaged and subsequently output every second. In contrast to many other measurement techniques short-term HF peaks are uncovered with the LaserGas III. The LaserGas III is our most reliable and repeatable gas sensor with all electronics designed according to IEC 61508, SIL 2 (safety integrity level).

State of the Art Technology

NEO Monitors LaserGas is using Tuneable Diode Laser Spectroscopy (TDLS) i.e. a non-contact optical measurement method employing solid-state laser sources. Therefore, the sensor remains unaffected by contaminants and corrosives and does not require regular maintenance. The highly selective laser source scans a single gas absorption line specific to the target gas, thus eliminating cross interference from other gases.

Key Application Areas

The LaserGas III Portable HF Analyser is the solution for reliable detection of shortterm HF concentrations, wherever diffuse emissions occur representing a risk to the work force. Focused applications are:

- Aluminium smelters: Worker protection during active pot work
- Aluminium smelters: Mapping plant emissions
- Refinery alkylation plants: Worker safety
- HF stack gas testing

LaserGas[™]III Portable HF Analyser

Instrument Data

Detection limit (HF)* 50 ppb ** Response time 1 - 2 sec Hepeatability +/. Detection limit or +/. 1% of reading, whichever is greater Linearity < 1% Environmental conditions Operating temperature Operating temperature -20 °C to +55 °C Protection classification IP65 Outputs Analogue output (2) Analogue output (2) 4 - 20 mA current loop, source or sink Digital output 10/100 Base T Ethernet (Modbus TCP), USB, RS-485 Ratings Power consumption Max. 10 W 500 Ohm max. load impedance, not isolated Lithium Ion Battery (14.4 V, 5 A, approx. 10 hours usage time per charge) Imitianian on the pressure Installation and Operation Gas inter/ outlet 6 mm SMC one touch fittings (series KQG) Sample inlet pressure 3 // Nin Sample inlet pressure 4' 00 hour G / 0.8 PSIG (higher pressures possible with different pump) Security Laser class Calas 1 according to IEC 60825-1, eye safe CE Certified Conformant with directive 2004/108/EC Physical Dimensions Dimensions 110 x 120 x 250 mm (4.3" x 4.7" x 9.8")	Specifications		
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Sample Cell Teflon coated Aluminium	Display	2.7" colour LCD panel (touch screen)	
* Other gases on request	Sample Cell	Teflon coated Aluminium	
	* Other generation		

** At gas temperature / pressure = 25 °C / 1 bar abs.

neo monitors as

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