_aserGas™ III Portable HF Analyzer





NEO Monitors LaserGas™ is using Tunable Laser Absorption Spectroscopy (TLAS) i.e. a non-contact optical measurement method employing solid-state laser sources.

The portable analyzer is compact, lightweight, and battery powered for HF measurement on the spot. With onboard pump and connections for Teflon tubing the target gas is continuously transferred into the internal measurement cell. The instrument 's low power design gives long operating time on each battery cycle.

Features

- Most advanced LaserGas[™] technology available (3rd generation)
- Portable (low weight)
- Low power usage <10 Watt
- Sub ppm HF detection
- No interference from other gases
- Stable calibration
- No zero drift

Applications

The LaserGasTM III Portable HF Analyzer is the solution for reliable detection of short-term HF concentrations, wherever diffuse emissions occur representing a risk to the work force.

Focused applications are:

- Aluminium smelters: Worker protectioduring active work
- Aluminium smelters: Mapping plant emissions
- Refinery alkylation plants: Worker safety

Customer benefits

- Flexible unit designed for measurement on the spot
- Allows fast and reliable operation to measure sub ppm and several hundred ppm HF concentrations
- Regular maintenance not required
- No cross interference from other gases
- Short-term HF peaks are uncovered with the LaserGasTM III portable
- Easy to carry
- Battery operated for several hours
- Internal storage of data

LaserGas™ III Portable HF Analyzer

Technical Data

Specifications

Detection limit (HF)*: 50 ppb **

Repeatability: 1% of range (gas &

application spesific)

Storage 3MB

Environmental conditions

Operating temperature: $-20 \,^{\circ}\text{C}$ to +55 $^{\circ}\text{C}$ Storage temperature: $-20 \,^{\circ}\text{C}$ to +55 $^{\circ}\text{C}$

Protection classification: IP65

Outputs

Analog output (3): 4 – 20 mA current loop

(concentration and

transmission)

Digital output: 10/100 Base T Eth-

ernet (Modus TCP),

RS-485

Ratings

Power consumption: Max. 10 W

4 – 20 mA output: 500 Ohm max. load impedance, not

isolated

Battery: Lithium Ion Battery

(14.4 V, 5 A, approx. 10 hours usage time per charge) Installation and Operation

Gas inlet / outlet: 6 mm SMC one touch

fittings (series KQG)

Sample gas flow: 3 l/min

Sample inlet pressure: +/- 50 mbar G / 0.8

PSIG (higher pressures possible with different

pump)

Sample inlet temperature:

Max 85 °C

Calibration: Check recommended

every 12 moths

Maintenance Instrument check by

Ethernet

Filter change Recommended every 3

months

Safety

Laser class: Class 1 according to

IEC 60825-1, eye safe

Physical

Dimensions: $110 \times 120 \times 250 \text{ mm}$

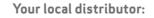
(4.3" x 4.7" x 9.8")

Weight (incl. battery): 2.3 kg (5 lbs)

Display: 2.7" colour LCD panel
Sample Cell: Teflon coated Aluminium

*** NOTE: Detection limits are specified as the 95% confidence interval for 1 m optical path and gas temperature / pressure = $25 \, ^{\circ}\text{C} / 1$ bar abs,

measured in N₂.









^{*} NEO Monitors reserve the right to change specifications without prior notice