MERCURY 900 ARIES 1000

EMISSION MONITORING: DETERMINATION OF THE MASS CONCENTRATION OF TOTAL GASEOUS ORGANIC CARBON.

MERCURY 900 (portable version) and **ARIES 1000** (fixed version) are the solution for the COV emission monitoring, in term of accuracy, simplicity and analytical stability.



Mercury 900



Aries 1000

COMPACT AND COMPLETE

We made a gas chromatographic solution with:

- FID detector and pressure regulators monitored by software
- Industrial PC
- LCD color display and high resistant keyboard interfaces
- Analogical and digital interfaces
- Methane separation analytical kit
- Hydrogen metal hydride gas cylinder (for Mercury only)
 All in one

PC EMBEDDED TECHNOLOGY

The industrial PC housed in the analyzer, beside monitoring and controlling the Detector, the thermoregulation and every operation, has the task of Data logger, saving the analysis in Excel® compatible format files. The Windows Embedded® operating system with the advanced software, guide and support you at all times. Any fault is detected and stored.

SAMPLING LOOP ANALYSIS

We use sampling valve with no mechanical moving parts, able to guarantee two exclusives advantages despite classical continue sample flows analytics through calibrated capillaries.

- Much more analytical stability in time
- Less maintenance frequency

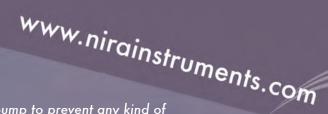
METHANE ANALYSIS

Performed via a catalytic converter directly housed into the instrument. Doesn't need any bulky and/or expensive accessory. The converter is automatically excluded in the event of an exceeding organic concentration that may overheat it. Carried out in accordance with European standard EN 25140:2010

NORMATIVE REFERENCES

The analyzers were found compliant with the following normative:

- Developed and tested according to EN 12619: 2013 for the analysis of VOCs, EN 25140: 2010 for methane analysis
- Certified for EN 12619: 2002 for the analysis of VOCs, QAL1 and CE.



SAMPLE SUCTION SYSTEMS AND VACUUM SENSORS

Mercury (portable system) use a head heated suction pump to prevent any kind of condensation in the sample.

Aries (Stationary system) use an ejector system (no maintenance required).

Both analyzers are equipped with a vacuum sensor which generate an alarm if any leakage or filter clogging occur during the analysis.

ACCESSORIES FOR ARIES (STATIONARY VERSION)

- Rack assembly, IP55 protection grade, equipped with air conditioning or heating system and an hydrogen leakage sensor interlocked with a safety valve.
- Customizable data logger, complete with software able to collect and elaborate data from different kind of monitors and plants.
- Customized heated sampling line with double internal PTFE pipes (one removable), power 90W/meter, powered and thermo-regulated from the rack.
- Additional sampling line to monitor the plant inlet COVs and calculate mass balances.
- **Filtering system** to use a company compressed air from network instead of pure air gas cylinders.

ACCESSORIES FOR MERCURY (PORTABLE VERSION)

- Customized heated sampling line with single or double internal PTFE pipes (one removable), power 70W/meter, auto regulated.
- Hydrogen metal hydride gas cylinder (14,8 \times 10,3 \times 2,5) cm, mounted on the back of the instrument and able to feed it up to 24 continuous working hours.
- •Basket for gas cylinders, steel made wheels with a maximum load of 20Kg each and black PVC coating. Housing for n°3 1L cylinder (Ø110mm max.) and n°1 5L (Ø150mm max.)

TECHNICAL DATA

UTILISATION UNIT ALLOWED **OPERATIVE TEMPERATURE** STORAGE AND TRANSPORT TEMPERATURE CALIBRATION DIAGRAM DURATION MAINTENANCE INTERVAL MEASUREMENT CYCLE DURATION SPAN DRIFT (0-20mg/m3) SPAN DRIFT (0-500mg/m3) ZERO DRIFT NOISE MINIMUM DETECTABLE MINIMUM DETECTABLE **ACCURACY** LINEARITY $(0-20 \,\mathrm{mg/m^3})$ LINEARITY (0.500mg/m^3) **REPEATABILITY** DATA AVAILABILITY ANALOGICAL OUTPUTS CONNECTIONS DISPLAY **POWER** SAMPLE SUCTION FLOW HYDROGEN GAS REQUIREMENT AIR GAS REQUIREMENT SPAN GAS (PROPANE AIR) HYDROGEN PRESSURE AND CONSUMPTION AIR PRESSURE AND CONSUMPTION

Aries: +5÷+40[°C]; Mercury: -20++50 [°C] Aries:-20++50[°C]; Mercury:-20++50 [°C] 6 Months 12[s] <1.00%/week <1.35%/week <0.5%/week <0.01 % F.S. \leq 0.2 (scala 0-20) [mgC/Nm³] \leq 1.1 (scala 0-500) [mgC/Nm³] <0.1 % F.S. <2,5 % F.S. <5 % F.S. Better than 1% F.S. <1 Year 0÷10[Vdc]; 4÷20[mA] (Optional for Mercury) 2xUSB, Ethernet 10/100 (Optional) LCD-TFT 6.5" resolution VGA 640x480 230Vdc; 110Vdc (Optional) 2500 [ml/min.] For gas cromatography, [99.995%min] For gas cromatography, [99.999%min] Suggested concentration at 80% F.S. >2 [bar]; 70ml/min. >4.5 [bar]; 400ml/min.



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