



New Instruments and Research for Analysis

MERCURY 903 ARIES 1003

MERCURY 903

EMISSION ANALYZERS TO MONITOR THE TOTAL GASEOUS ORGANIC CARBON

ARIES 1003 (fixed version) and **MERCURY 903** (portable version), are the right solution for the VOCs emission monitoring, in term of accuracy, simplicity and analytical stability.



COMPACT AND COMPLETE

- > FID detector and automatic pressure regulators driven by software
- > Industrial integrated PC equipped with Windows® OS
- > Touch screen display interface
- > Methane analytical kit with catalyst or packed columns
- > All in one

INTEGRATED PC EMBEDDED TECHNOLOGY

The industrial PC housed in the analyzer, in addition to monitor and control the Detector, the thermoregulation and every operation, has the task of Data logger and saves the analysis in an Excel® compatible format file. The Windows Embedded® operating system with his advanced software, guides and supports you at all times. Every fault is detected and stored.

SAMPLING LOOP ANALYSIS

We use sampling valve with no mechanical moving parts, able to guarantee two exclusives advantages despite the classic calibrated capillaries technology.

- More analytical stability.
- Less maintenance frequency.

METHANE ANALYSIS

Performed via a catalytic converter or packed column 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 may overheat it.

The catalyst analysis is carried out in accordance with European standard EN 25140:2010

ARIES 1003



AIR IN	NO _x IN	CO IN	CO ₂ IN	TEMP. IN	TEMP. OUT
5.72	1.59	4.75	5.71		
NO _x OUT	CO OUT	CO ₂ OUT	TEMP. OUT	TEMP. IN	TEMP. OUT
3.96	0.8	2.13	2.02	98.6	
AIR FLOW	NO _x FLOW	CO FLOW	CO ₂ FLOW	TEMP. FLOW	TEMP. FLOW
0.9	34.2		99.4		



SAMPLE SUCTION SYSTEMS & 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 condition occur.

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 VOC sampling line**, for example to monitor the plant inlet and calculate mass balances.
- **Pure air generator with additional filters** to use the compressed air from network instead of pure air gas cylinders.

TECHNICAL DATA

Operative temperature
Oven temperature
Type of detector
Maintenance interval
Response time
VOC ranges
Methane ranges
Detection limit
Accuracy
Linearity
Repeatability
Data availability
Analogical outputs
Connections
Display
Power supply
Sample flow
Hydrogen gas
Pure air gas
Span gas (Propane in air)
Service air gas

MERCURY 903

-20÷+50°C
0-180°C
FID
6 months
12[s]
0-100,1000,10000mgC/m³
0-100, 1000mg/m³
0.1 mg/m³
<0.1% f.s.
<2.0% f.s.
<1% f.s.
1000gg FIFO
4-20mA
2xUSB, Ethernet
LCD con touch screen
230Vdc o 110Vdc
2500ml/min.
3 bar al 99.995%, 50ml/min.
5 bar al 99.999% 400ml/min.
Concentration at 80% F.S
Not needed

NORMATIVE REFERENCES

- These two analyzers are compliant with the following regulations:
- > **EN 12619 and EN 15267-3/4** - construction and performance criteria for the analysis of VOCs.
 - > **EN 25140** - construction and performance criteria for the analysis of methane.
 - > **EN 14181 - QAL1**

ACCESSORIES FOR MERCURY (PORTABLE VERSION)

- **Customized heated sampling line with single or double internal PTFE pipes** (one removable), powered and thermo-regulated from the analyzer.
- **Pure air generator** with additional filters to use environmental air instead of pure air gas cylinders.
- **Metal hydride cylinder** to transport and supply safety the idrogen gas to the analyzer.

ARIES 1003

+5÷+40°C
50-180°C
FID
6 months
12[s]
0-100,1000,1000mgC/m³
0-100, 1000mg/m³
0.1 mg/m³
<0.1% f.s.
<2.0% f.s.
<1% f.s.
1000gg FIFO
0-10V o 4-20mA
2xUSB, Ethernet
LCD con touch screen
230Vdc o 110Vdc
500ml/min.
3 bar al 99.995%, 50ml/min.
5 bar al 99.999% 400ml/min.
Concentration at 80% F.S.
5 bar, 5m³/h