



## *FID portable heated Volatile Organic Compounds analyzers*

### **GRAPHITE 700 :**

Total VOC monitoring

### **GRAPHITE 730 :**

Cyclic measurement of Total VOC, methane and non-methane

### **Compact portable VOC analyzers**

- Designed for independent use wherever light weight and compactness are required
- Favors monitoring at measuring points with difficult access



*In compliance with NF EN 12619*

### **Major fields of applications :**

- Automotive exhaust gas analysis
- Combustion monitoring in all fields
- Laboratories and research centers
- Certification bodies
- Solvent monitoring (printing and pharmaceutical industries)
- Cleaning and degreasing of mechanical parts
- Paint Box/Coating Monitoring
- Degasification control (pyrolysis)
- Thermal treatment
- Petrochemical and chemical fields

### **Exclusives features**

- Total VOC-nMHC-CH<sub>4</sub> and Total VOC versions
- Heated sample at 180 °C
- Compact and light
- Short response time
- Ease of operation and short set-up time
- Internal zero and burner air generator
- Long-life catalysator with high efficiency
- No oxygen interference



# GRAPHITE 700/730

## FID portable Heated Volatile Organic Compounds Analyzers

### Specifications :

- Ranges: 0-10/0-100/0-1 000/0-10 000 ppm
- Accuracy: 1% of the F.S
- Lower detectable limit: < 1 ppm on the 100 ppm range
- Noise: < 1% of the F.S
- Response time: < 3 sec
- Zero drift: < 1% / 7 days
- Span drift: < 1% / 7 days
- Linearity: > 1% of the F.S
- Temperature of the heated block: 180°C
- Dimensions: 225 x 400 x 290 mm (W x L x H)
- Weight: 12 kg / 26 lbs
- Power : 230 V, 50 Hz
- Power consumption: 450 VA during warm-up and 150 VA during continuous duty without heated sample line
- Operating temperature: 5 - 45 °C
- Autonomy: 50 hours with a B1 cylinder of H<sub>2</sub>/H<sub>e</sub> at 150 bar
- Output Signal
  - 10V (GRAPHITE 700)
  - 1V (GRAPHITE 730)
- Auxiliary gases:
  - Span gas : C<sub>3</sub>H<sub>8</sub> or CH<sub>4</sub>
  - Burner supply : H<sub>2</sub> or H<sub>2</sub>/He
- Connection: By manual stainless steel snap coupling
- Scan frequency: 20sec. (GRAPHITE 730)

### Options and accessories :

- External dilution system for high concentrations
- Heated sampling line (up to 5m) with internal regulator
- 6µ heated filter with sampling tube
- Carrying frame and gas cylinders
- Transport case
- Data acquisition system

### Measurement principle

The gas to be analyzed is sampled by a heated pump and brought to the burner supplied with hydrogen and air filtered and purified through a built-in generator. The sample hydrocarbon atoms release a ionizing current when thermally dissociated in the tip of the high temperature burner. This current, directly proportional to the number of atoms of carbon in the sample, is computed to determine the hydrocarbon concentration.

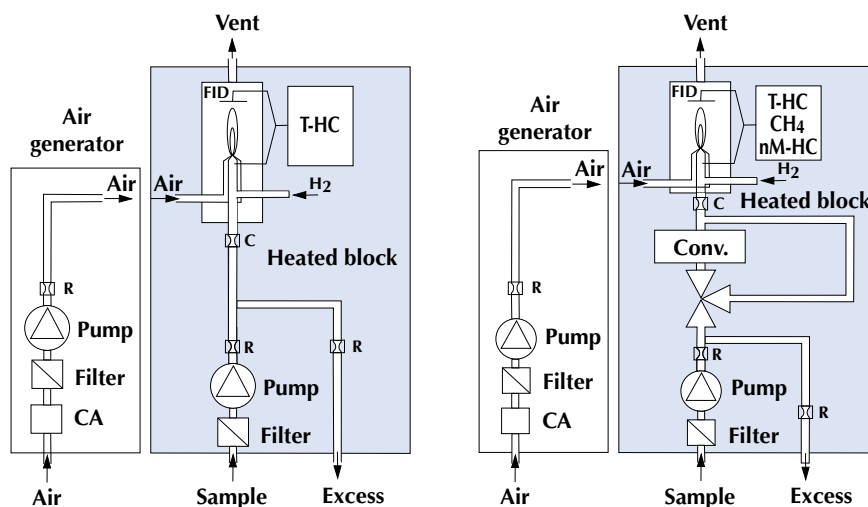
### Descriptions

Ease of operation and short set-up time make the GRAPHITE perfectly suited for both continuous and short monitoring of hydrocarbons. The dynamics of the ranges which cover 10 ppm up to 10 000 ppm equivalent carbon enable the GRAPHITE 700 and 730 to be used for most measuring applications: VOC released during combustion or at the outlet from a trapping, transformation or solvent recovery device or that of an incinerator.

Fitted with a carrying grip, it can be completed with a frame for carrying a cylinder of fuel gas and calibrating gas. The snap action input coupling of the sample is designed to be easily connected, if needed, to a temperature regulated heated line.

The analyzer comprises an internal air-purifying unit to supply the burner with purified air. Input couplings can supply the burner with synthetic air from external air cylinders. Equipped with high precision regulators offering a wide range of use, the GRAPHITE is immune to variations in the pressure of the oxidant and fuel supplying the burner.

The jet-effect type design of the burner eliminates crossed sensitivity caused by the oxygen concentration. By keeping the temperature above 180 °C in all elements in contact with the sample gas upstream from the flame ionization detector, all risk of the hydrocarbons condensing at a condensation point below this temperature is eliminated.



Graphite 700

Graphite 730

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