

Heated FID Volatile Organic Compounds Analyzer Model GRAPHITE 52M

3 different
versions to meet your
analytical requirements

GRAPHITE 52M-S
Total VOC monitoring

GRAPHITE 52M-D
Simultaneous Total VOC
and methane monitoring

GRAPHITE 52M-W
Total VOC monitoring
on 2 independent lines

Reduced maintenance

- Easy access to all components
- Traceability of parts and consumables
- Remote maintenance and troubleshooting



Remote Control



NF EN 12619 compliant / meets MCERTS requirements

Major fields of application :

- Exhaust gas analysis
- Standard Reference Method for Emission monitoring
- Laboratories and research centers
- Process control in all fields
- Combustion monitoring in all fields

Exclusives features :

- Burners placed in a heated furnace, up to 191°C allowing measurement of high concentrations of heavy hydrocarbons
- Ultra short response time
- Graphic Liquid Crystal Display (LCD)
- Interactive menu driven software with enhanced speed display
- Real time calibration graph
- User adjustable response time and averaging time
- Long-life catalysator with high efficiency
- Built-in storage of 2 months 1/4 h average data (up to 1 year with the optional memory extension)
- Internal zero and burner air scrubber
- Built-in double serial interface (RS 232/RS 422) for remote control & maintenance
- Ethernet network connection

Heated FID Volatile Organic Compounds Analyzer

Specifications :

- Ranges: 0-10/100/1 000/10 000 ppm
- Or user programmable range up to 50 000 ppm
- Accuracy: < 1% of the displayed value between 15% and 100% of the F.S.
- Noise: < 0.5% of the F.S.
- Lower detectable limit: 0.05 ppm on the 10 ppm range
- Response time: < 1 sec. (T90)
- Zero drift: < 1% / 24 h F.S.
< 2% / 7 days F.S.
- Span drift: < 1% / 7 days F.S.
- Linearity: < 1 % for concentrations between 10 % and 90% of the scale
- Temperature of the heated block: up to 191 °C
- Converter efficiency: >99%
- Sample flow rate: From 0.7 to 2 l/min
- Internal heated sampling pump

Auxiliary gases:

- Span gas: C₃H₈ or CH₄
- Burner supply: H₂/He
- Purified air

Chassis

- Presentation: 19" Rack - 4U.
- Dimensions: 483 x 480 x 177 mm (L x W x H)
- Weight: 22 kg / 48 lbs
- Power: 230 V, 50 Hz
- Power consumption: 500 VA during start-up
- Operating temperature: 5 - 45 °C

Communication

- Digital output: 2 RS 232 or RS 422
- AK communication protocol

Options and Accessories

- External dilution system for high concentrations up to 100 000 ppm
- Internal zero and burner air scrubber
- External air compressor / generator
- Heated line temperature regulation (up to 3m)
- Memory extension

Communication

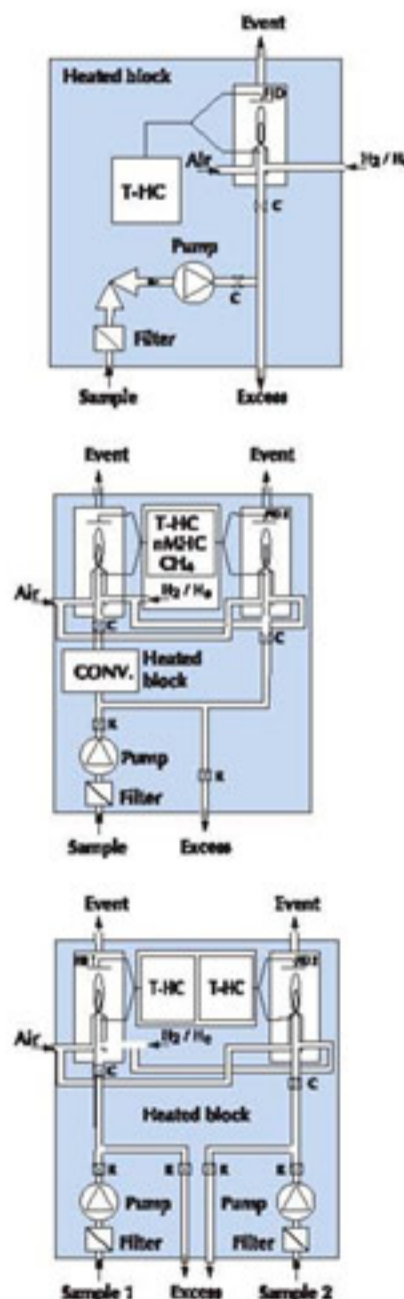
- Ethernet network connection
- ESTEL electronic board (1 or 2) with :
 - 4 independent analog inputs
 - 4 independent analog outputs
 - 4 remote control inputs
 - 6 dry contacts outputs
- User programmable ranges
- SOREL electronic board with :
 - 4 dry contacts outputs
 - 4 dry contacts inputs

Measurement principle

The gas to be analyzed is sampled with a heated pump and led to the burner supplied with a H₂/He mixture and air filtered and purified through an internal generator. The separation of the hydrocarbon molecules at high temperature in the cone of the flame provides a ionizing current, the strength of which is directly proportional to the number of atoms of carbons of the analyzed mixture. This signal is electronically processed to obtain an accurate measurement of the concentration of VOC.

Description

All elements in contact with the sample located upstream the detector are heated among which the pump, the ionization detector, filters, tubes and capillaries. The geometry of the burner has been designed to obtain an output signal linear whatever the concentration measured for any measurement scale. The design of the burner is the of "jet" effect type that eliminates the cross sensitivity due to oxygen.



TOC / Total VOC monitoring - S version

Equipped with one burner placed in a heated block, the GRAPHITE 52M allows continuous and accurate Total VOC monitoring

Simultaneous measurement of Total VOC and methane - D version

Equipped with two burners and a catalysator, the GRAPHITE 52M allows the automatic or manual simultaneous measurement of the sample Total VOC that are not oxidized and the methane on the oxidized sample. The GRAPHITE 52M is ideally suited to follow transient phenomena during which simultaneous evolution of non methanic hydrocarbons and methane values are to be controlled.

Simultaneous monitoring of Total VOC on 2 independent channels - W version

Equipped with 2 burners and an internal double fluid circuit, the GRAPHITE 52M allows real-time simultaneous pre & post catalyst monitoring of Total VOC

Distributed by :



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