

# PCF ELETTRONICA S.R.L.

# HOT FID BASED VOC PORTABLE ANALYSER mod.2005

For both continuous source and ambient air monitoring Procedure according to CEE UNI EN 13526 — UNI EN 12619 regulations



- Easy to use and maintain
- In built Zero air supply
- In built screen data logger with 5.5" colour display
- Data management through USB port
- Data storage on compact flash memory

PCF's mod. 2005 is a very versatile, compact and light portable hot FID VOC monitor.

It represents one of the best solution both in emission and ambient air controls. The hot FID analysis is continuous with a very fast response time (from 0 to 98% of full scale in 1 sec.).

Alla analytical devices are lodged in a rugged aluminium case with a strong strap to make transportation easy.

### FID DETECTOR

The detector is a carbon atom counter. Sample is introduced into a micro flame lighted by hydrogen and air, where the electrical charges generated by the oxidation of Cx to CO are proportional to the hydrocarbon content in the sample. Actual carbon concentration is computed out of a calibration with a traceable reference gas mixture. The electrical charges are collected by two polarised electrodes and converted by an electrical circuit into normalised electronic signal.



#### **DESCRIPTION**

PCF's Mod. 2005 VOC analyser has been designed, developed and built according to the UNI EN 13526 - UNI EN 12619 European directives for the detection of Volatile Organic Carbon at emissions. The sample is extracted through a variable length probe carrying a ceramic filter on the top, an heat traced PTFE tube at 150-180°C and an heated head sucking pump. A farther SS sintered heated filter is placed in front of the sample capillary. The sample is continuously fed into the FID detector, therefore the response is fast and continuously active. The whole sample way from up the sampling filter down to the FID detector is kept at controlled high temperature. Detector electronic signal output is amplified and normalised to 0-1 Vdc standard signal. An in built data logger with colour display represents the friendly interface with the operator.

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# TECHNICAL SPECIFICATIONS:

Accuracy Precision

Linearity

Background noise

Response time

Sample flow rate

Digital display Data storage

Serial output

Dimensions

Carrying case

Standard power supply

Power consumption

Weight

Data management Instrument configuration

Lag time

Zero drift (24 hours) Span drift (24 hours)

Lower Detectable Limit (LDL)

Operating temperature range

Measuring ranges  $: 0-20/200/2,000 \text{ ppm and/or mg/Nm}^3$ 

 $: 0-50/500/5,000 \text{ ppm and/or mg/Nm}^3$ 

(other ranges optional)

: ± 1% of full scale

 $: \pm 1\%$ 

: better than 1%  $: 0.2 \text{ mg/Nm}^3$ 

 $: 0.4 \text{ mg/Nm}^3$ 

 $: \pm 1\%$  of full scale  $: \pm 1\%$  of full scale

: 1 second

: 2 seconds (3 m heat traced sample line)

: 800 ml/min : 0-40°C

: 320x200 pixel 5.5" colour TFT-LCD display

: 64 Mb compact flash card (higher capacities available) : standard SW package Win 2000 or XP professional

: either from front panel or via USB port

: USB port (RS 232 as option)

Services Hydrogen

: 300 ml/min, from in built generator Air Suggested calibration gas cylinder

: 10 ppm propane, air balance

: 390x290x200 mm (16"x11.5"x8", WxDxH)

: IP 25 ml/min from external gas cylinder

: 9.5 Kg

: reinforced aluminium box with carrying strip : 220/110 Vac 50/60 Hz (to be specified in order)

: 500 VA

Pneumatic connections : 1/4" or 4/6 mm and 1/8" or 1/2 mm tubes

Standard supply includes the 316 SS sampling probe, according to UNI 10263 norms, as well as 3m heat traced sampling line.

# **HOW TO ORDER:**

|   | CODE NUMBER | DESCRIPTION   |
|---|-------------|---|
|   | 041-6004    | Mod. 2005, portable VOC monitor, 220 Vac 50 Hz      |
|   | 041-6005    | Mod. 2005, portable VOC monitor, 110 Vac 60 Hz      |
|   | 041-6031    | Mini cylinder carrying basket (two cylinders)       |
|   | 041-6013    | Hydrogen cylinder, 1 l with pressure reducer        |
| ı | 041-6011    | Calibration gas cylinder, 1 1 with pressure reducer |
| ı | 041-6021    | Expendables kit                                     |
| ı | 041-6022    | Spare parts kit                                     |
|   |             |   |

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