

# PCF ELETTRONICA S.R.L.

## VOC/THC PORTABLE GAS CHROMATOGRAPHIC ANALYSER MOD. 8807

**For both continuous source and ambient air monitoring**



- **Proprietary micro FID detector**
- **Multi method capabilities**
- **MMC memory data card**
- **Easy to configure , to use, to maintain**

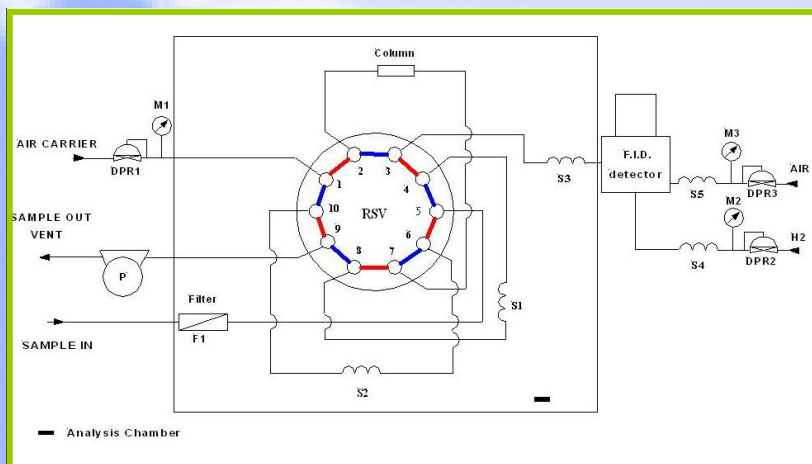
### FID DETECTOR

The FID detector is a carbon atom counter. A sample is introduced into a micro flame lit 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. The actual carbon concentration is computed from a calibration with a traceable reference gas mixture. The electrical charges are collected by two polarised electrodes and converted by an electrical circuit into an electronic signal.

### DESCRIPTION

PCF's Mod. 8807 is mainly intended for measurements of reactive hydrocarbons in ambient air and/or source gas by subtracting from the total concentration of hydrocarbons the methane fraction.

The analyser however can easily be reconfigured for specific hydrocarbon measurements. A sample pump on the back of the pneumatic circuit fills a calibrated capillary, whose content is injected via a 10 port rotation valve into a chromatographic column filled with PQS or a most suitable substrate that allows separation of methane fraction from the total hydrocarbons.



Built in zeroing of the instrument, before each measuring cycle, guarantees a high zero drift stability.

All electronic signals are visible on display as well as available on the analogue outputs of the instrument.

Gas chromatogram is shown on LCD colour display.

An INTEL microprocessor manages all functions relative to analytical sequences as well as data management.

Built in self diagnostic software package controls preconditioning phase, analytical sequences and alarm status.

Through the firmware recorded on MMC

memory located on the card inserted from the front panel, the instrument can easily be set for specific hydrocarbons, e.g. aromatics, ethylene oxide, solvents, acetone etc., up to maximum of eight species. The chance of replacing the program card as well as the chromatographic column makes Model 8807 the best solution for monitoring any type of polluting hydrocarbon species.

Measured and status data are recorded on a 512 Mbytes MMC Memory card. The latter inserted in a PC allows any type of data management and memorisation.

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## **TECHNICAL SPECIFICATIONS:**

- Active range : 0 - 10,000 ppm
- Measuring ranges CH<sub>4</sub>, THC and NMH : (six ranges) 0-10/20/50/100/200/500 ppm  
(other ranges optional)
- Units : ppm or mg/Nm<sup>3</sup>
- Background noise : 0.01 ppm
- Lower Detectable Limit (LDL) : < 1% full scale
- Zero stability (24 hours) : ± 0.5%
- Span drift (24 hours) : ± 1%
- Measuring cycle : from 20 up to 180 sec. max.
- Response time : from 20 up to 180 sec. max.
- Linearity : better than 1% full scale
- Precision : ± 1%
- Sample flow rate : 600 ml/min.
- Operating temperature : 5 – 40 °C
- Digital display : 640 x 200 pixel colour LCD graphic display  
touch screen
- Data Storage : by MMC card easily readable by PC
- GC configuration : recorded MMC card to be inserted in front panel  
slot
- Memory card : Standard MMC (512 Mbytes included)
- Data management : Standard SW packages for 98/NT windows O.S.
- Analogue outputs for each component : 0-1 VDC 4-20 mA (optional)
- Serial output : standard RS 232, 9 pin connector
- Zero drift : self compensated
- Zero/Span control : set from front panel and/or remote control
- Services : Hydrogen : 30 ml/min (from transportable gas cylinder)  
Pure air : 300 ml/min (from transportable gas cylinder)  
Service air : 4.5 Bar (63 psi)
- Calibration, by traceable gas cylinder : 3 ppm CH<sub>4</sub> + 1 ppm C<sub>3</sub>H<sub>8</sub>, air balance
- Mounting : transportable reinforced aluminium box
- Dimensions : 150x216x360 mm (6"x8.5"x 14", HxWxD)
- Weight : 13 Kg
- Standard power supply : 230/110 Vac, 50/60 Hz, 300 VA (to be specified in  
order)
- Pneumatic connections : 1/4" or 4/6 mm and 1/8" or 1/2 mm

## **How to order:**

CODE NUMBER	DESCRIPTION
041-4001	Mod. 8807, portable VOC/THC/CH <sub>4</sub> monitor, 230 Vac 50Hz
041-4002	Mod. 8807, portable VOC/THC/CH <sub>4</sub> monitor, 110 Vac 60 Hz
041-4031	Mini cylinder carrying basket (three cylinders)
041-4013	Hydrogen cylinder, 1 l with pressure reducer
041-4012	Pure air cylinder, 5 l with pressure reducer
041-4011	Calibration gas cylinder, 1 l with pressure reducer
041-4021	Expendables kit
041-4022	Spare parts kit

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