

PCF ELETTRONICA Srl

PCF YOUR PARTNER IN

VOC MONITORING

MOD. 2001, Hot FID, TCOV + CH₄ PORTABLE MONITOR

PORTABLE MONITOR OF TOTAL HYDROCARBONS (TCOV) and METHANE (CH₄) AT HIGH TEMPERATURES

Made in compliance with the UNI 12619: 2013 standard.

TUV accredited in accordance with the provisions of Legislative Decree 152/06 part V titles I and II

Topics:

- FID Flame ionization detector, heated to 180 ° c.
- Built according to an industrial concept.
- Easy to use and maintain.
- • High response speed, from 0 to 90% of the scale in 1 second.

FID DETECTOR

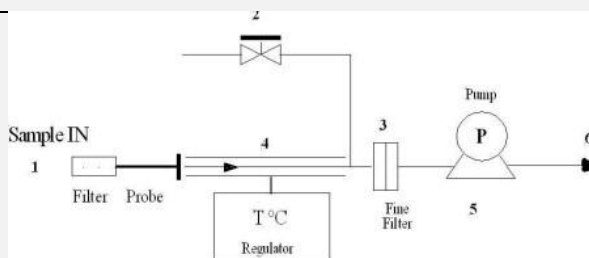
The FID detector is a 'carbon atom counter'.

The sample is sent to a micro flame fed with hydrogen and air. The organic carbon contained in the measurement gas is split into carbon ions and hydrogen ions.

The H ions bind to the oxygen in the air generating water, while the C ions that are formed as a result of the oxidation $C_x = CO$, are proportional to the concentration of hydrocarbons present; moving in an electrostatic field (anode and cathode) they are attracted to one of the polarities, triggering an ionic current proportional to the concentration of the sample.



Mod. 2001 C with open cover



Heated sampling schematics

WORKING PRINCIPLE

The sample is taken, by means of a hot head pump (180-200 ° C) in the analyzer, through a variable length probe equipped with a ceramic filter placed on top and a heated PTFE tube at a temperature of 150 - 200 ° C. A second heated filter is placed to protect the analytical circuit for introducing the sample to the detector.

The sample is continuously sent to the FID detector, so the response is immediate. The operator can manually select whether to measure the TCOV or the Methane Fraction, in this case the sample passes through a catalytic converter.

An internal Data Logger with color display displays the traces of the analytical diagrams, the working temperatures, the status of the analyzer and the diagnostic alarms.

The outputs can be connected to peripherals via serial port or USB port.

The acquired data, which can be exported in Excel format, are stored on compact flash memory and then processed and processed for historical archives, average trends, etc.

TECHNICAL SPECIFICATIONS

The specified characteristics were obtained experimentally.

- Detector	: Heated F.I.D. Flame Ionisation Detector (180 °C).
- Measuring range	: 0 – 10.000 mg/m ³ .
- Measuring scales	: 0-100/1000/10000 mg/m ³ . others possible, e.g. 0- 20/200/2000 mg/m ³ .
- Background noise	: ± 0,2 % of f.s.d.
- LDL, Lower Detectable Limit	: ± 0,4 % of f.s.d.
- Precision	: ± 1 % of f.s.d.
- ZERO Signal Variation (24 h)	: ± 1 % of f.s.d.
- SPAN Signal Variation (24 h.)	: ± 1 % of f.s.d.
- Response time	: 1 second from 0 to 90 % of f.s.d.
- Sample Flow Rate	: 1,000 ml/min.
- Sampling Circuit Temperature	: 180 – 200 °C
- Working Temperature	: 5 – 40 °C
- Display	: 5,5" TFT-LCD a colori (320x200 pixels).
- Alarms	: 2 sets, placed within the selected measuring scale
- Services	: Hydrogen (H ₂) IP, 28 cc/min : UPP (Pure) Air, 280 cc/min, in buil generator.
- Carrying case	: Reinforced Aluminum case.
- Analogue Outputs	: (Optional) 1: 0 – 10 Volt and 4-20 mA
- Digital Outputs	: RS-232, (Optional) RS 485, USB
- Power Supply	: 230V 50Hz (110 Vac 60Hz possible).
- Dimensios	: 19" Rack Module 400x300x 150 mm (16"x12"x6", WxDxH)
- Consumption	: < 500 VA
- Pneumatic connections	: 1/4" or 4/6 mm and 1/8" or 1/2 mm tubes.
- Weight	: 15 Kg

It is the best-selling of the 2000 series and finds wide applications both in the control of chimneys, process efficiency and environmental analysis for medium-high concentrations.

Allows you to occasionally check the

CODE NR.

041-6001

041-6002

041-6031

041-6013

041-6011

041-6021

041-6022

level of the Methane Fraction.

The instrument is designed to be easy to use, to require easy and rare maintenance.

All component parts are industrial type and readily available.

DESCRIPTION

Mod. 2001, portable VOC/THC/CH₄ monitor, 220 Vac 50 Hz

Mod. 2001, portable VOC/THC/CH₄ monitor, 110 Vac 60 Hz

Carrying basket, 2 positions.

Mini cylinder of Hydrogen, 10 l, with pressure reducer.

Calibration gas cylinder, 10 l, with pressure reducer.

Consumable parts Kit.

Spare parts Kit.