

PCF ELETTRONICA Srl

PCF YOUR PARTNER IN VOC MONITORING

MOD. C 2011, Dual Hot FID, TCOV + CH₄ IN REAL TIME

PORTABLE MONITOR WITH PARALLEL FIDs FOR TOTAL (TCOV) and METHANE (CH₄) AT HIGH TEMPERATURES

For both continuous source and industrial hygiene applications

Detection procedure according to CEE UNI 12619: 2013 and UNI EN ISO 25140 regulations

Topics:

- Two FIDs, Flame Ionization Detectors, 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.

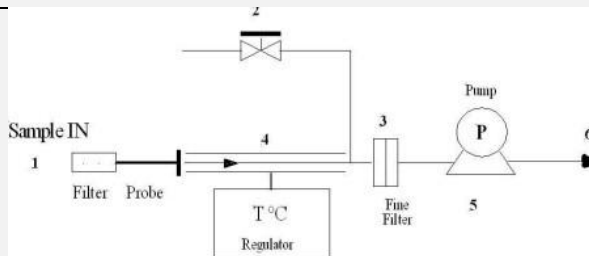
FID DETECTOR

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. C 2011 with top lead open



Schema del campionamento a caldo

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 sent continuously to the two FID detectors, therefore the response of TVOC and CH₄ is immediate. In the measurement of the Methane Fraction, in this case the sample passes through a catalytic converter based on Hopcalite. 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.

The option is available to have the NMH (Non Methane HC) value in real time.

TECHNICAL SPECIFICATIONS

The specified features were

- Detectors	obtained experimentally. : 2 x F.I.D.s, Flame Ionisation at high temperature (180 °C).
- Measuring ranges	: 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 .
- Back ground 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 secondo al 90 % del fondo scala.
- Lag time	: 2 second for 3 m heated sampling tube.
- sample Flow Rate	: 800 ml/min .
- Sample Circuit Temperature	: 180 – 200 °C
- Working Temperature	: 5 – 40 °C
- Display	: 5,5" TFT-LCD a colori (320x200 pixels).
- Alarms	: 2 settable within the full measuring selected scale
- Services	: Hydrogen (H ₂) IP, 28 cc/min : UPP Air, 280 cc/min, in built Generator.
- Carrying box	: Reinforced Aluminum box with shoulder strap.
- Analogue Outputs	: 0 – 10 Volt e 4-20 mA.
- Digital Outputs	: RS-232, opzionale RS 485, USB.
- Power Supply	: 230V 50Hz (possible 110 Vac 60Hz).
- Dimensions	: 19" Rack Module. 400x500x600 mm (16 » x12"x 6", WxDxH).
- Consumption	: 800 VA, during heating up phase.
- Pneumatic connections	: 1/4" or 4/6 mm and 1/8" or 1/2 mm tubes.
- Weight	: 18 Kg

It is the most advanced of the 2000 series and finds application both in the control of chimneys, process efficiency and environmental analysis for medium-high concentrations, when instantaneous measurement of the two parameters is required.

The standard work equipment includes a stainless steel probe,

Despite its complexity, with two parallel measurement lines, the instrument is designed to be easy to use, to require easy and rare maintenance.

All component parts are industrial type and readily available.

according to UNI 10263 r 3 m of electrically heated sampling line.

CODE NR.

048-9001

048-9000

041-6031

041-6013

041-6011

048-9004

048-9005

DESCRIPTION

Mod. C 2011, portable VOC/THC/CH₄ monitor, 220 Vac 50 Hz .

Mod. C 2011, portable VOC/THC/CH₄ monitor, 110 Vac 60 Hz .

Gas Cylinder Carrying Basket, 2 positions.

Mini GC of Hydrogen, 10 l with pressure reducer.

Mini GC of Calibration, 10 l with pressure reducer.

Consumables Kit.

Spare Parts Kit.