PCF ELETTRONICA Srl

PCF YOUR PARTNER IN

VOC MONITORING

MOD. 529/NR/S
SPECIFIC COMPOUNDS ANALYSER
(Aromatics, Ethylene and Propylene Oxides, Alcohols, Acetone, Formaldehyde ….)

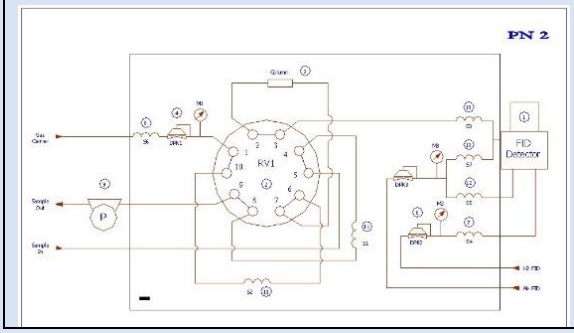
- FID Flame Ionization Detector.
- Analysis progress shown on the display.
- Integrated auto diagnostic system.

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 Cx = 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. 529/NR/S Front Pan

Video Display (details)



WORKING PRINCIPLE

The automatic PCF Elettronica analyzer Mod. 529 /NR/S performs the continuous analysis of Specific Compounds by FID detector and GC separation. A second injection directly into the detector determines the Total VOC.
An INTEL industrial microprocessor oversees the management of all the analyzer functions and the processing of the analysis data, including:

- Control of operational parameters and alarms.
- Check that the instrument is fully operational.
- Automatic ignition of the flame.
- Activation of alarms in case of flame extinction or pressure drop in the H_2 circuit.

TECHNICAL SPECIFICATIONS	**The specifications are based on NMH analysis.**
All the technical specifications outlined were experimentally obtained.	
- Measuring range:	0 – 10.000 ppmV TVOC.
- Programmable measuring scales:	6 scales possible as from 0-5 ppmV VOC. E.g. 0-5/10/50/100/500/1,000 ppmV VOC- Each specific Compound has its own ranges.
- Measuring units :	: ppmV (or mg/m^3).
- Background noise	
R(0)	: 0,01 ppmV.
R (80% f.s.d.)	: 0,01 ppmV.
- Lower Detectable Limit (LDL)	: 0,02 ppmV.
- Zero signal variation VZ12 (12 hours)	: ± 0,01 ppmV.
- Zero signal variation VZ24 (24 hours)	: ± 0,02 ppmV.
- Measuring signal variation VM20	: ± 0,01 ppmV.
- Measuring signal variation M80	: ± 0,02 ppmV.
- P20 Precision	: ± 0,02 ppmV.
- P80 Precision	: ± 0,03 ppmV.
- Measuring cycle	: 180 - 300 s (shorter if needed).
- Linearity	: > 1 % (f.s.d.).
- Sample flow rate	: 500 ml/min.
- Working temperature	: 0 – 40 °C.
- Display	: 640 x 200 pixel LCD color graphic display; touch screen with analysis seen in real time.
- Analog outputs	
Specific Compound	: 0-10 Vdc/4-20 mA .
TVOC	: 0-10 Vdc/4-20 mA .
Difference of above signals	: 0-10 Vdc/4-20 mA .
- Serial output	: RS 232 (9 pin connector)
- ZERO drift	: Automatically compensated
- Zero/Span check	: From front panel (or remote contact)
- Services	
Hydrogen	: 30 ml/min.
FID Air	: 300 ml/min.
Service Air	: 4.5 Bar (63 psi) to be supplied locally.
- Suggested calibration gas cylinder	: 3 ppmV CH4 + 1 ppmV C3H8, in AIR.
- Dimensions	: 480x190x560 mm (19"x7.6"x22"), WxHxD.
- Weight	: 15 Kg.
- Power Supply (specify in order)	: 230/110 Vac, 50/60 Hz.
- Consumption	: max 300 VA.

CODICE	**DESCRIZIONE**,
041-0198	**Mod. 529/NR/NMH** Total TCOV (THC) Analyser.
052-1001	Hydrogen Generator.
048-0001	Mod. 9588 UPP Air Generator.
041-1023	Calibration Gas Cylinder.
041-1101	Mod. 529/NR/NMH consumables kit.
041-1111	Mod. 529/NR/NMH Spare Parts kit.

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