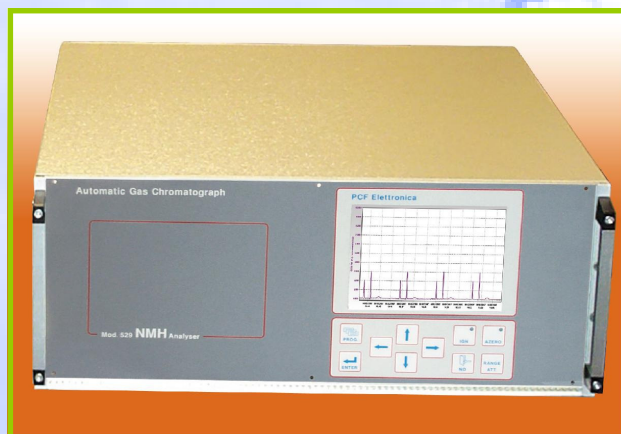


TOTAL AND NON METHANE HYDROCARBON GASCHROMATOGRAPHIC ANALYSER NMH MOD. 529

FOR CONTINUOUS AMBIENT AIR MONITORING



- **Proprietary micro FID detector**
- **Gas Chromatographic separation**
- **Chromatogram on display**
- **Built in auto ignition**
- **Easy to integrate in AQ M Ss**

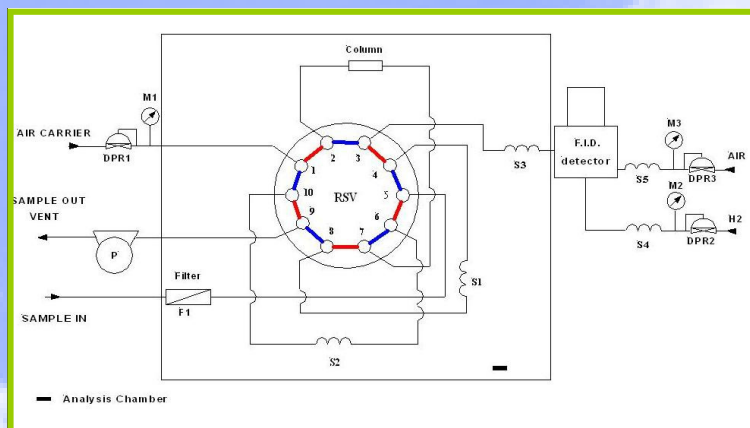
FID DETECTOR

The FID detector is a carbon atom counter. A sample is introduced into a micro flame lit by hydrogen and air (1:10 ratio), where the electrical charges generated by the oxidation of C_x to CO are proportional carbon content in the sample. The actual concentration is computed from a calibration employing 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

The PCF's Mod. 529 NMH (Non Methane Hydrocarbon) gas chromatographic analyser is intended for measurements of reactive hydrocarbons in ambient air by subtracting from the concentration of total hydrocarbons the methane fraction. The separation of methane fraction is based on the chromatographic technique. A sample pump on the back of the pneumatic circuit fills a calibrated capillary of about 0.6 ml 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. The separated CH_4 is sent to FID detector whose response is memorised by the in built micro processor. In the repair phase of the 10 port rotation valve a second sample is subsequently introduced into the FID detector to measure the total quantity of hydrocarbons (THC); the relevant electronic signal is also memorised by electronics. By subtracting methane fraction from the signal of total hydrocarbons the value of hydrocarbon less methane fraction in the sample is computed.

The auto zeroing of the instrument before each measuring cycle guarantees an high zero drift stability.



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TECHNICAL SPECIFICATIONS

- Active range : 0 - 10,000 ppm
- Measuring ranges CH₄, THC and NMH : (six ranges) 0-10/20/50/100/200/500 ppm (other ranges optional)
- Units : ppm or mg/Nm³
- Background noise : 0.01 ppm
- Lower Detectable Limit (LDL) : < 0.02 ppm
- Zero stability (24 hours) : < 0.01 ppm
- Span drift (24 hours) : < 0.02 ppm
- Measuring cycle : 180 seconds
- Response time : 180 seconds
- Linearity : better than 1% full scale
- Precision : $\pm 1\%$ full scale
- Sample flow rate : 500 ml/min.
- Operating temperature range : 0 – 40 °C
- Display : 640 x 200 pixel colour LCD graphic display touch screen
- Instruments configuration : from front panel
- Analogue outputs
 - CH₄ : 0-1 Vdc/4-20 mA
 - THC : 0-1 Vdc/4-20 mA
 - NMH : 0-1 Vdc/4-20 mA
- Digital I/O : 10 pin plug
- Serial output : RS 232 (9 pin connector)
- Zero drift : automatic compensation
- Zero/Span check : set from front panel and/or remote control
- Services
 - Hydrogen : 30 ml/min
 - Pure air : 300 ml/min
 - Service air : 4.5 Bar (63 psi)
- Suggested calibration gas cylinder : 3 ppm CH₄ + 1 ppm Propane, air balance
- Mounting : standard 19" rack and/or transportable bench top
- Dimensions : 480x190x560 mm (19"x7.6"x22", WxHxD)
- Weight : 15 Kg
- Standard power supply : 230/110 Vac 50/60 Hz (to be specified in order)
- Power consumption : 300 VA
- Pneumatic connections : 1/4" or 4/6 mm and 1/2 mm

How to order

CODE NUMBER	DESCRIPTION
091-0191	Mod. 529, Non Methane Hydrocarbon Analyser, 220 Vac 50 Hz
091-0192	Mod. 529 , Non Methane Hydrocarbon Analyser, 110 Vac 60 Hz
091-0181	Mod. 529/T, Total Hydrocarbon Monitor, 220 Vac 50 Hz
091-0182	Mod. 529/T, Total Hydrocarbon Monitor, 110 Vac 60 Hz
052-1001	Hydrogen generator
048-0001	Mod. 9588 UPP air generator
091-1023	Calibration gas cylinder
091-1101	Mod. 529 expendables kit
091-1102	Mod. 529T expendables kit
091-1111	Mod. 529 spare parts kit
091-1112	Mod. 529/T spare parts kit

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