SPECIFICATIONS

Three ranges 0 -10 ppm 0 -100 ppm 0 -1000 pmm	 Display resolution 0.1 ppm Display resolution 0.1 ppm Display resolution 1 ppm Other range possible on request from 1 to 10000 ppm
Accuracy	0.5 % at full scale
Detection limit	< 0.05 ppm for the range 0-1 ppm
Drift	1% over 24 hours
Sample flow	Around 3 l/h
Max. input pressure	Working pressure from 0.3 to 15 Barg
Sampling gas	**N_2, Ar, He, Air, H_2, O_2 or CO_2**
Sample gas connection	1/8" Swagelok SS
Sample flow rate	Approximately 3 l/h
Sample pressure	from 0.3 to 15 Barg
Combustive gas	**Synthetic air**
Combustive gas connection	1/8" Swagelok SS
Combustive gas pressure	2 Barg
Combustive gas flow rate	20 l/h
Recommended quality	5.0
Fuel gas	**Hydrogen** (other mixtures available on request)
Fuel gas connection	1/8" Swagelok SS
Fuel gas pressure	1 Barg
Fuel gas flow rate	2 l/h
Recommended quality	6.0
Operating temperature	Around 20°C without wide temperature variations
Power supply	220 Vac, 50-60 Hz or 120 Vac, 60 Hz on request
Power consumption	500 VA
4-20 mA output	1 output for THC
RJ-45 connection	Computerised system maintenance
Output relays	(dry contacts, SPST 2A / 250 VAC) 1 STATUS contact relay (security alarm) 3 RANGE contact relays (active range) 1 process alarm contact relay (level 1) 1 process alarm contact relay (level 2) 2 contacts for automatic calibration 1 flow alarm contact relay 1 calibration in use contact relay

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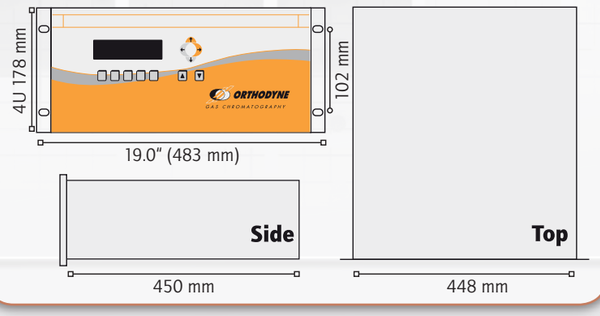
THC8000 series

Continuous THC analyser
*Analysis of **THC** in **PPM** level*

Dimensions

Standard rack mount 4U
Height > 178 mm | Depth > 450 mm | Width > 483 mm



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THC8000

Continuous THC analyser

The THC8000 is a continuous analytical system that measures the total hydrocarbon (THC) in ppm level in various gases, such as Oxygen, Air, Carbon Dioxide, Nitrogen, Argon, Helium and Hydrogen.

PRINCIPLE

The THC8000 module is composed of a flame ionization detector placed in a temperature regulated chamber and coupled with a continuous analysing technology.

Burning of the components containing hydrocarbons by the hydrogen flame generates an ion current proportional to the impurities introduced into the gas to be analysed.

This analyser is a standard 19 inch rack module, 4U in height and 450 mm in depth.

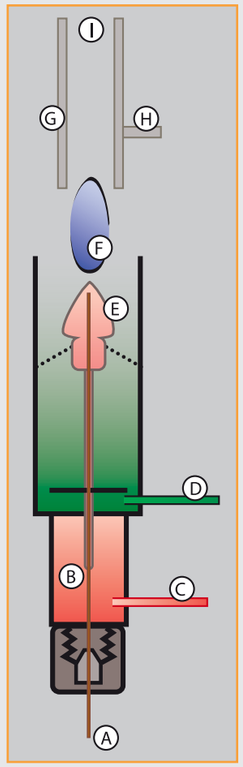
One analog ***4-20 mA*** output provides the total concentration of hydrocarbons impurities.

Type of configuration

- **THC 8000** : Only one configuration for the measurement of THC in Oxygen, Air, Carbon Dioxide, Nitrogen, Argon, Helium and Hydrogen.

Applications

- Air separation plants
- Gas purity certification
- Specialty gas laboratories
- Process control
- Steel industry



FID DETECTOR EXPLANATION

The above diagram shows the general construction of a FID.

Organic compounds from the separation column are injected into the detector housing where they are mixed with Hydrogen and Synthetic Air before entering the detector nozzle where the mixture is burned.

During this process, organic compounds are broken down into carbon fragments and acquire a positive charge (i.e., become ionized) at the surface of the anode.

Carbon fragments are detected by the collector.

The signal is then amplified and sent to the data processing system.

A > Sample inlet
B > Mixture between the sample and the Hydrogen
C > Hydrogen inlet
D > Synthetic Air inlet
E > Nozzle
F > Flame tip
G > Collector
H > Anode & Ignitor
I > Flame guard

FEATURES

- < 50 ppb resolution guaranteed on the 0-1 ppm range, if you request this type of range.
- Electronic flame-out guard circuit.
- Automatic fuel shut off system.
- Easy to use.
- Low sample flow.
- Lower power consumption.
- Alphanumeric screen 64 x 256 pixels.
- Adjustable alarm and oven settings.
- Fast response.
- Multifunctional and real-time software.
- CE marked.

System overview