

UHC-VOC

 $CH_4$ 

NMTHC

 $C_2H_6$ 

Formaldehyde

THC

 $CO_2$ 

CO

# CHROMA<sup>THC</sup> ppm

Monitoring and analysis of Methane and Non-Methane Hydrocarbons (**NMTHC**) by **flame ionisation detection** (ppm level analysis)



Model: C21000

### Applications of the instrument include:

- VOC / UHC monitoring (Industrial Hygiene)
- Total Hydrocarbons
- Impurities in pure gas processing
- Emissions monitoring
- Filter integrity monitoring (paint processes)

Column separation allows full speciation of all compounds

*Chromatotec is specialised in VOC, Sulfur and permanent gases analysis at trace and ultra trace levels (ppm, ppb, ppt). Please visit our website for more details.*

## CH<sub>4</sub> and Non Methane Total HydroCarbon (NMTHC) Monitoring and analysis of Methane and Non-Methane Hydrocarbons by **flame ionisation detection** (ppm level analysis).

### Principle:

The CHROMA<sup>THC</sup> is an automated isothermal industrial gas chromatograph dedicated to the analysis of volatile organic compounds in air (indoor, outdoor, combustion), industrial hygiene, pure gas like N<sub>2</sub>/CO<sub>2</sub>/O<sub>2</sub>.

- As a fully automatic instrument, the CHROMA<sup>THC</sup> allows **un-attended operation after commissioning 24/24**.
- The injection is made via a **loop** and **valve** installed in an **isothermal oven** at a standard 80°C.
- The separation between CH<sub>4</sub> and (C<sub>2</sub>H<sub>6</sub> for UHC) and NMTHC is achieved using a **column with back flush**.

### Unlike other similar analysers, there is no interference from oxygen.

To eliminate issues with flame fluctuation, a valve regulates carrier gas (hydrogen or Nitrogen or air).

The retention time drift is less than 0,3 %.

- The instrument has a flame ionization detector (FID) heated at 150°C with **auto ignition**.

### VISTACHROM © software:

Chromatotec developed software system allows:

- Remote monitoring
- Full traceability through archiving of results and QC
- Set up and control of threshold alarms
- Export of data MODBUS / MGS1 / 4-20mA / 0-10V

### Options:

- MODBUS / JBUS communication protocol
- 4-20 mA or 0-10 V analog output
- **Automatic validation**
- **air generator (air without VOC) ref AXX021**
- 24 V power supply
- Pressurised housing **Exp** for area 1
- Multiple stream selector (2 to 6)
- **Hydrogen generator: XXX916 3U**
- CHROMA<sup>THC</sup> 4U – controlled by BTX analyzer with inbuilt computer
- CHROMA<sup>THC</sup> 4U – controlled by wall mounted computer, reference XXX023
- CHROMA<sup>THC</sup> 5U, reference C21022, with inbuilt computer
- **Note : one computer, reference ending in...022, can control up to 3 Chromatotec analyzers**

### Technical specifications:

#### CH<sub>4</sub> and non-methanic compound analysis:

- CH<sub>4</sub> and NMHC or THC or UHC

#### Lower Detection limit:

- 50 ppb methane
- NMHC 50 ppb as propane
- CH<sub>4</sub> in ambient air = 1800ppb

#### Detection range:

- 0/20 ppm as standard
- option 0/200 or 0/2000 ppm

#### FID Linearity:

- 20 years experience and tested by official institute
- +/- 1 % of span
- **Automatic flame sensing and ignition**

#### Relative Standard Deviation:

- < 0.3 % over 48h (RT)
- < 2 % over 48 h (Span Concentration)

#### Results:

- Data storage for traceability
- 4-20mA or 0/10 V output (options)
- MODBUS / JBUS or MGS1 communication protocol (option)
- **Ethernet connectivity for remote access**
- Memory for increased data storage

#### Cycle time:

- **180-300secs dependent on application**
- **Automatic zero in each cycle**
- **Autocalibration**

#### Gas supply:

- H<sub>2</sub> (FID and carrier gas): 30 ml/min (Inlet 2 bars)
- Air (FID): 180 ml/min (inlet 3 bars )
- Sample flow adjustable; inlet (vacuum pump)

#### Sample volume:

- injection loop. **Range specific**

#### Automatic calibration and span check:

#### Power supply:

- Main: 230V / 115V or 50 / 60 Hz
- Battery: 24V (option)

#### Electrical consumption:

- 150 VA

#### Dimensions / Weight:

- Rack: 19" (4U)
- Height: 180mm
- Width: 482mm
- Depth: 600mm
- Net weight: 17 kg

### For ordering:

- ChromaTHC - ppm (CH<sub>4</sub>/NMTHC) (possibility to add inbuilt computer ref. XXX022) - 4U

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