

UHC-VOC

 CH_4

NMTHC

 C_2H_6

Formaldehyde

THC

 CO_2

CO

CHROMA^{THC} 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.

CH₄ 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^{THC} 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 N₂/CO₂/O₂.

- As a fully automatic instrument, the CHROMA^{THC} 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 CH₄ and (C₂H₆ 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^{THC} 4U** – controlled by BTX analyzer with inbuilt computer
- CHROMA^{THC} 4U** – controlled by wall mounted computer, reference XXX023
- CHROMA^{THC} 5U**, reference C21022, with inbuilt computer
- Note : one computer, reference ending in...022, can control up to 3 Chromatotec analyzers**

Technical specifications:

CH₄ and non-methanic compound analysis:

- CH₄ and NMHC or THC or UHC

Lower Detection limit:

- 50 ppb methane
- NMHC 50 ppb as propane
- CH₄ 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:

- H₂ (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 (CH₄/NMTHC) (possibility to add inbuilt computer ref. XXX022) - 4U

Model:

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