

Freon

Benzene

Hydrofluoro-chlorocarbons

Acetone

CO2

Toluene

Siloanes

DET QMS

Analysis of up to 123 compounds from PAMS / TO15 / biogenic VOCs / Oxygenated VOCs in combination with airOzone expert



Model : D30000



Example of mini-cabinet integration

SCAN or CLICK ME



Environnement

- Urban/Non urban area pollution control
- Indoor measurements
- BTEX / PAMS / CE analysis
- Plant / process emissions



Process

- Industrial Hygiene
- Fence line monitoring

Other applications

Wastewater plant, Purge and trap (method 502-2 or 524), Ambient air control (PAMS and TO14)

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.

DET QMS

Analysis of up to 123 compounds from PAMS / TO15 / biogenic VOCs / Oxygenated VOCs in combination with airMOzone expert



Principle :

The DET QMS is an online process mass spectrometer using a quadrupole with pre-filter, electronic impact for ionisation and an SEM discrete dynode for detection.

Chromatotec® proposes the DET QMS : a universal mass spectrometer system for fast, precise and sensitive online gas analysis with uptimes close to hundred percent.

The DET QMS is a powerful tool for reliable process monitoring and process control. Routine analysis is performed with a controlled sample flow and extremely good and long-term stability. This instrument is well suited for various different industrial processes.

Advantages of the system :

- Design to couple with 1 or multiple gas chromatography systems
- Miniaturization, sensitivity, mobility and flexibility are its main features. Everything, from primary vacuum pump until detector and electronics are in a 19" in rack 10U.
- Flexible analysis system for a broad range of applications
- Full automatic operation
- Outstanding analytical performance
- Measurement of main components and trace components in gas mixtures in one step
- Measurements of chemical reactive and corrosive gas components possible
- Customized hardware and software configurations
- Excellent long term stability and reproducibility of the analytical results
- High availability
- Low cost of ownership

Options :

- On-line results are transmitted via a MODBUS / JBUS or MGS1 communication protocol
- Analog output 4-20 mA or 0-10 V

To order : DET QMS

Model : D30000



Product technical specifications

Analyser :

- 1-300 amu
- 6x100 mm rod-system with pre filter
- Faraday cup (high concentrations - % and for service)
- SEM dynode (low concentrations - down to ppb)

Detection limit :

- Direct MS < 50 ppb for Benzene
- GCMS (after airMOVOC C6 C12 expert) <10 ppt for Benzene

Detection range (in GCMS mode) :

- With airMOVOC from 0.01 ppb until 10000 ppb

Mass Axis Stability :

- > 0.2 UMA/year

Relative Standard Deviation for GC MS mode (after airMOVOC expert) :

- RSD < 5 % on concentration over 48H
- RSD < 0.6% on retention time over 48H

Number of channels for direct MS :

- 64 channels (mass numbers) in one analysis cycle

Detector dynamic range :

- 7 decades dynamic range 0,1 ppm – 100 %

Measuring speed / cycle times :

- 4 ms – 60 s (in standard)

Response time of the gas inlet system :

- 300 ms – 2 s (depending on the gas inlet system)

Reproducibility (main components) :

- < 1.10⁻³ (0,1 %)

Number of sampling point :

- From 1 to 32 in standard (can be heated)

Operational Conditions :

- Temperature: +10 - +40°C (Storage: -10 - +60°C)
- Humidity: <75% non-condensing
- Particles :< 2µm

Libraries :

- Chromatotec VOCs library based on NIST spectrum (for GC coupling)
- Full NIST library in option

Results :

- Data Storage (timestamp)
- 4-20mA current output (option)
- MODBUS / JBUS or MGS1 communication protocol (option)

Power supply and power consumption

- Main (230V / 115V 50 Hz/60Hz)
- 1 K VA

Dimensions and weight :

- Rack: 19" (10 U)
- Height: 444 mm
- Width: 482 mm
- Depth: 600 mm
- Net weight: 55 kg

Chromatotec® is continuously improving its products, therefore these specifications are subject to change without notice

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