

Freon

Benzene

Hydrofluoro-
chlorocarbons

Acetone

CO₂

Toluene

Siloxanes

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

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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