

airmoCAL

Calibration device inside 19" and 4U/5U rack

Designed for automatic validation of results at different concentration levels

ZERO / Sample / Cylinder / CALIB / dilution points



Rack 4U



Rack 5U

Calibration instrument piloted by Vistachrom software from the GC



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.

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Benzene

Toluene

Formaldehyde

Naphthalene

DMS

Fluorene

N-decane

1,3-butadiene

PGMEA

Designed for automatic validation of results at different concentration levels
ZERO / Sample / Cylinder / CALIB / dilution points by MFC or critical orifice

Principle:

The airmoCAL is designed for automatic validation of results. The calibration is ensured by permeation tubes (e.g. butane, hexane, benzene for airmoOzone application) and/or by cylinder.

The permeation tubes swept by a constant pure air stream are installed in a precisely regulated temperature oven. These two parameters allow a full control of the emitted gas concentration. A certified cylinder can also be used for the calibration and validation of results.

For linearity, we use dilution points (e.g. If cylinder is 100 ppb BTEX: linearity curve will be: 0 /20 /40 /60 /80 /100 ppb (also for 1ppm) with 0 and 100 ppb corresponding to ZERO and Cylinder methods). We have in option:

- airmoCAL-D: the dilution is ensured by a critical orifice.
- airmoCAL-MFC: multiple dilution points, the dilution is ensured by two Mass Flow Controllers (MFC): to control air and cylinder flow input. These MFC allow doing a big range of dilution points.

The system is controlled by Vistachrom software and multiple methods can be programmed for the calibration: ZERO, Cylinder, dilution points, sample and CALIB

Multi-oven option:

CALIB: Sample generated by 3 permeation ovens. Each permeation oven contains up to 3 certified permeation tubes (e.g.: N-Butane, N-Hexane, Benzene, H2S, DMS...). Other permeation tubes are available upon request; a maximum of 6 tubes may be placed in one permeation oven. ZERO: Sample of dilution gas (Zero Air or pure N2) to verify the quality of the dilution gas or for analyzer cleaning.

The ovens were designed to be adapted to different permeation tubes size (ovens dimensions: 50 × 185 mm)

Multiplexer option:

This multiplexer is made with inert tubes and will be linked to different lines (one line with one METHOD.). The total number of methods is 16 (multiplexer + CALIB + Cylinder + ... + ...)

It allows to analyse on automatic sequence or to choose any of the different METHOD in manual mode.

It purges the different lines that are not in analysis to lower the sampling time for the next analysis and to avoid for any compound to be adsorbed in the line.

To check the stability of the flow, a flow meter is installed on the front panel. It is important to control the flow every year with a flowmeter calibrated at ± 1%.

airmoCAL 200 option:

Specific with heated valve for semivolatile calibration. It includes heated sampling line from the airmoCAL to the analyzer.

VISTACHROM software:

Chromatotec® developed software system which enables:

- Remote control
- Full traceability with on board archiving of results
- Programation and control of threshold alarms
- Ponctual (laboratory) or continuous measurement
- Data export by MODBUS / JBUS / MGS1 / 4-20mA / 0-10V

Options:

- Gas purifier
- Module 4 x analog output 4-20 mA or 0-10 V.
- Alarms module
- Automatic results validation.
- 24 V power supply.
- Zero Air or Nitrogen generator
- Sampling pump in 24V DC or airmoPUMP (XXX901 or XXX915)
- Pressure and temperature measure
- Syringe injection
- Automatic internal standard injection in all samples

Product technical specifications:

Permeation tubes available:

- N-Butane, N-Hexane, Benzene, DMS in standard and short delivery time
- Others upon request

Oven temperature:

45°C ± 0.1°C in standard

Mass Flow Controllers Range:

- MFC sample: 0-10 mL/min
- MFC dilution gas: 0-1 000 mL/min
- Accuracy: ±1% reading

Air stream flow:

- Depending on the expected calibration concentration

Programmation:

- The airmoCAL is fully controlled by Vistachrom software

Cycle time :

- Depending on the analyzer or required sensitivity

Gas supply:

- Air zero or nitrogen for dilution

Power supply:

- Main (230V / 115V 50 Hz/60Hz)

Electrical consumption:

- Average : 100 VA

Dimensions and weight:

- Rack: (19") 4U (or 5U if airmoCAL-M)
- Height: 177 mm
- Width: 482 mm
- Depth: 660 mm
- Net Weight: 20 kg

To order:

airmoCAL (4U)	XXX922
airmoCAL-D (4U)	XXX922-D
airmoCAL MFC (4U)	XXX922-MFC
airmoCAL-M (5U integrated computer)	922022
airmoCAL-200-MFC (4U)	XXX922-200-MFC

Model:

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

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