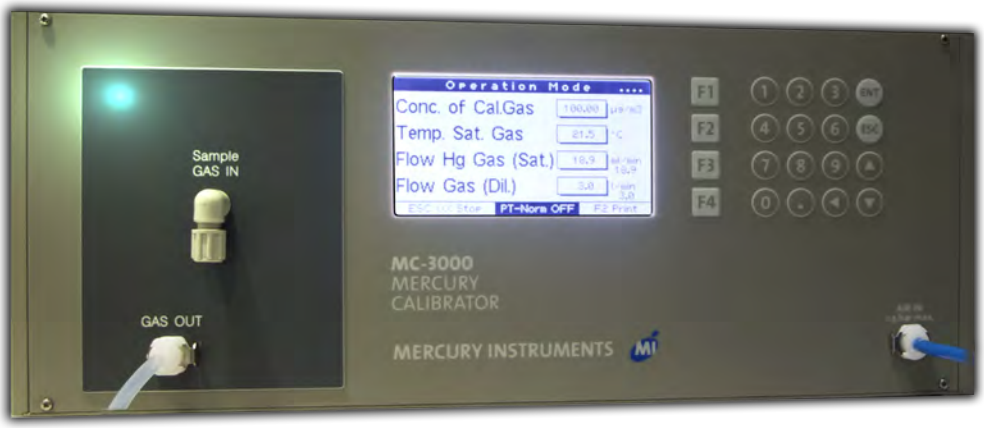
Mercury Calibrator MC-3000

AMBIENT

Generates elemental mercury vapor



- 15 ... 500 µg/m³ Hg° concentration range
- Microprocessor controlled
- Compact sized and portable
- Based on mercury vapor saturation of air
- Vapor pressure calculation according to NIST recommendation

Applications

The MC-3000 is used for generating a continuous stream of mercury vapor loaded gas in order to check or calibrate mercury analyzers. It is also suitable for all applications requiring a flow of preset and constant mercury concentrations.

Principle of operation

A carrier gas stream (air) is first charged with mercury vapor. The mercury loaded gas is then saturated by cooling. Excess mercury is condensing in a special cell thus achieving equilibrium.

After having been saturated with mercury the gas is diluted to get lower mercury concentrations as needed for calibration of instruments. The dilution ratio is continuously controlled by a microprocessor in order to obtain a flow of calibration gas with a constant mercury concentration.

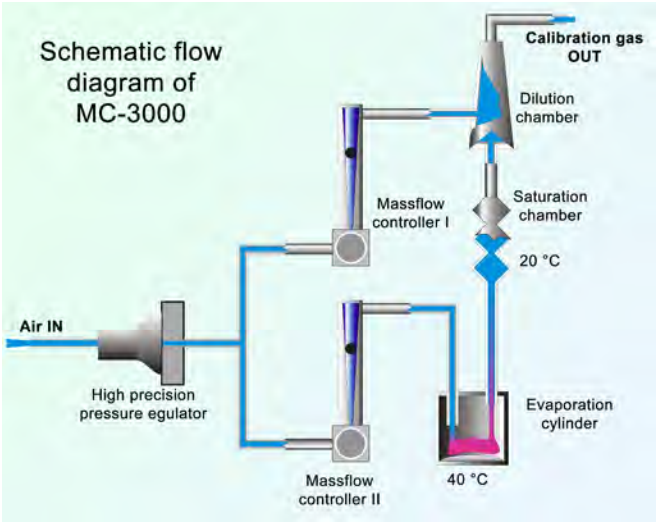
Construction

Keypad and display are mounted on the front panel for easy access. Two carrying handles at the sides of the aluminum case guarantee easy transport.

The mercury containers are firmly mounted inside. There is enough mercury in the MC-3000 to last for the lifetime of the instrument.

Operation

Using the MC-3000 is easy:
The device is placed on a flat surface and connected to instrument air. A portable air compressor with a tank is available as an accessory. The MC-3000 is switched on and the desired calibration gas concentrationis set. The total calibration gas flow can also be set. After allowing the instrument to stabilize for about 30 minutes the MC-3000 delivers a constant flow of calibration gas with exactly the concentration of elemental mercury that has been set before.



Technical Specifications MC-3000

Concentrations created	approx. 15 ... 500 µg / m³ Hg°; others optional
Generated calibration gas flow	1 ... 9 l / min
Carrier gas	air
Carrier gas flow	max. 12,5 l / min
Carrier gas pressure	1 ... 2 bar (8 ... 15 psi)
Particulate filter	built-in, 0.2 µm
Mercury absorption filter	sulphur doted activated carbon
Temperature sensors	Pt-100 with 1 / 10 ° accuracy
Flow controllers	mass flow, electronic, 1% precision
Connectors	for tubing 4 mm i.d. / 6 mm o.d.
Power supply	230 VAC / 50 Hz 110 VAC / 60 Hz
Power consumption	max. 125 VA
Dimensions	45 x 15 x 35 cm (W x H x D)
Weight	approx. 7 kg
Accessories	Air compressor

As a leading supplier of high precision analytical equipment,we strive at all times to offer top quality solutions. Our quality management system is certified according to ISO 9001.

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