

Mercury Calibrator MC-3000

Calibration Gas Generator for Mercury Vapor



- Generates elemental mercury vapor
- 15 ... 350 $\mu\text{g}/\text{m}^3$ 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 a mercury vapor loaded gas stream in order to check or calibrate mercury analyzers. It is also suitable for all those applications where a gas stream with a preset and constant mercury concentration is needed.

Principle of Operation

An exactly adjustable carrier gas stream (normally air) is loaded with mercury in a first step. In a second step the gas is supersaturated by cooling. Subsequently the excess mercury is condensed in a special

cell to get exactly saturation. The gas is then automatically diluted, the dilution ratio is continuously controlled by the microprocessor that a set concentration is obtained.

Construction

The input keys and display are mounted onto the front panel and are easily accessible. For mobile use the aluminium case has two carrying handles. The mercury containers are mounted inside of the case. The quantity of mercury is sufficient for the whole life time of the calibrator.