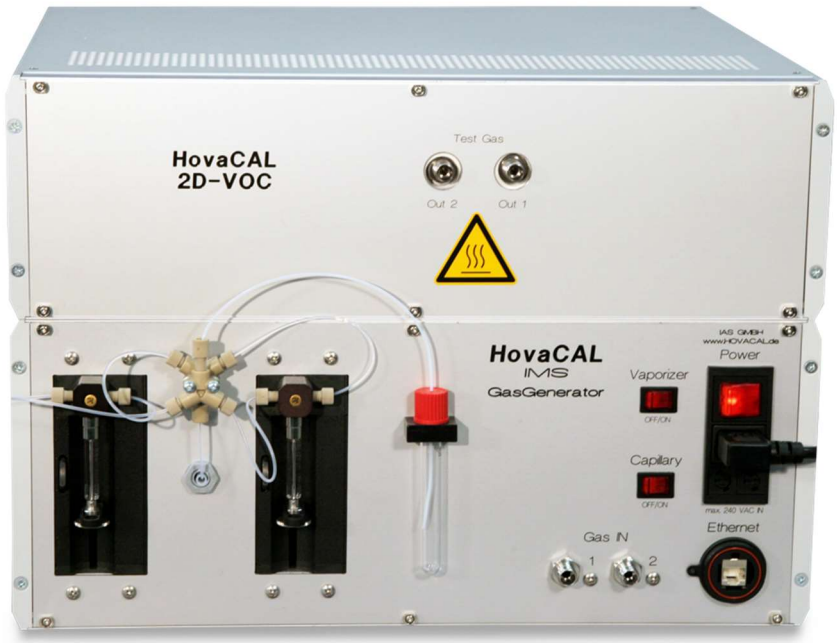
HovaCAL® IMS GasGenerator

Calibration Gas Generator for Ion Mobility Spectrometers



For the generation of span gases with defined concentration of volatile organic compounds and humidity

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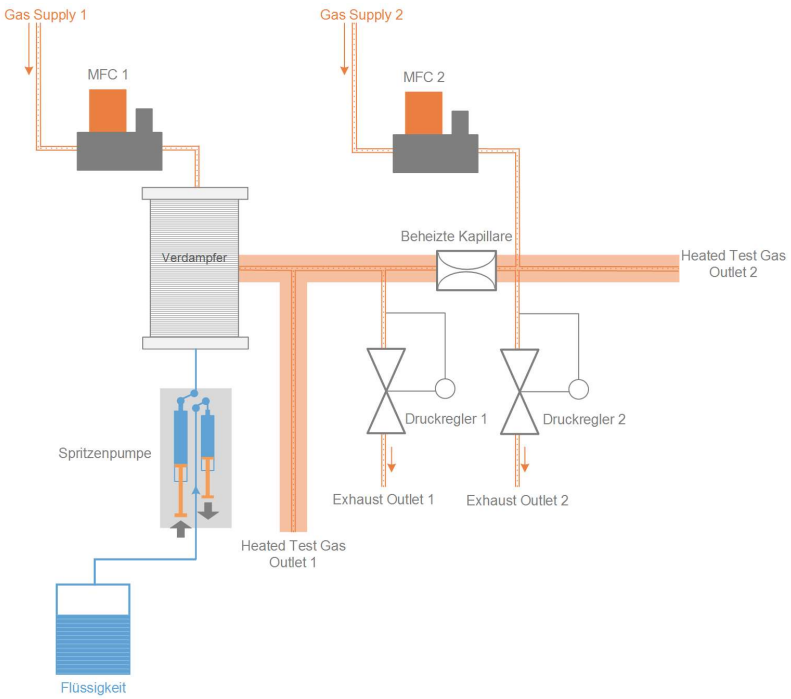
Technical Advantages

- ✓ Wide concentration range (ppt to 1000 ppm)
- ✓ Concentration traceable to primary standards
- ✓ Direct indication of gas and vapor concentration
- ✓ Evaporation of liquid analytes
- ✓ Evaporation of multi-compound mixtures
- ✓ Adjustable humidity (optional)
- ✓ Multi component mixtures, independent adjustable (optional)

What is HovaCAL® IMS?

HovaCAL® IMS is a calibration gas generator based on the continuous evaporation of liquid organic and inorganic analytes. A wide concentration range is achieved by evaporation of liquid analytes and mixing a carrier gas in the first stage and gas dilution in further stages. By the use of pressure controlled and heated capillaries combined with mass flow controllers, accurate dilution ratios can be achieved. No valves or sensors are in contact with the calibration gas.



HovaCAL® IMS with one analyte pump, one dilution stage and no humidifying.

With one dilution stage, a dilution ratio between 10 to 100 or 100 to 1000 is achievable.

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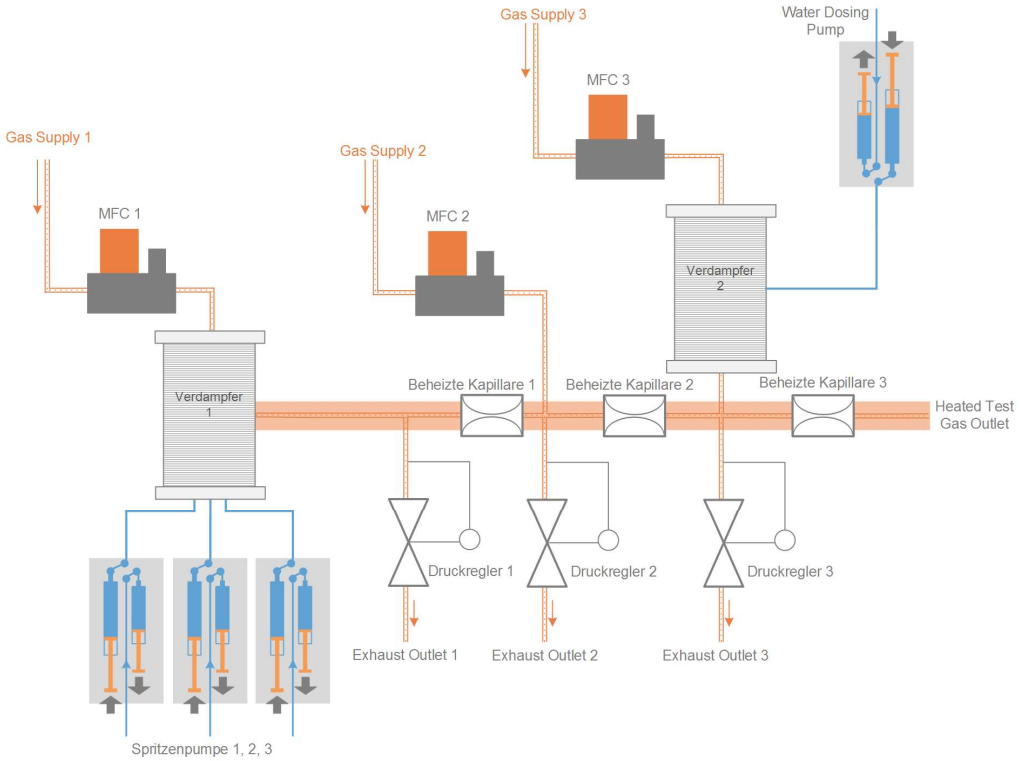
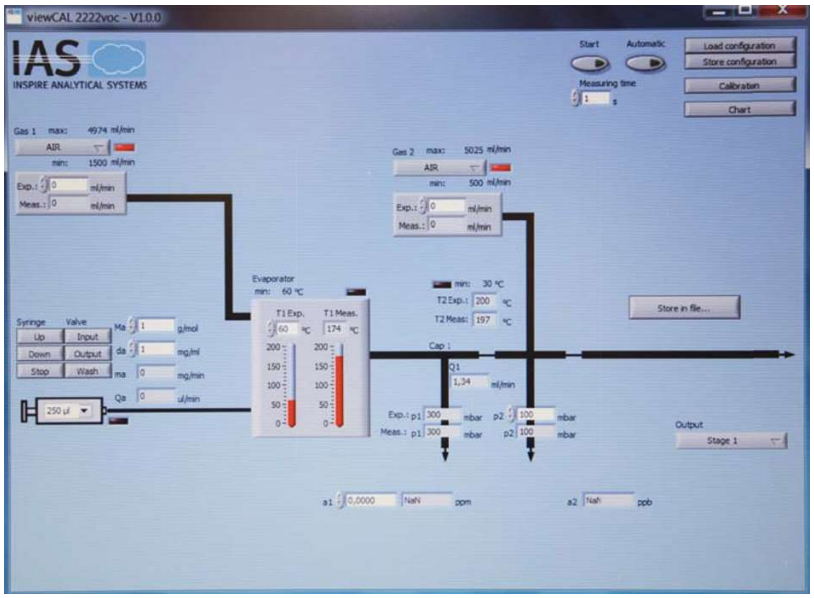
If more analytes, higher dilution ratios and humidifying are required, the device can be expanded.



HovaCAL® IMS with three analyte pumps, two dilution stages and humidifying

Operation

HovaCAL® IMS can be operated via remote control from notebook/PC with software viewCAL.



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Specification

Flow ranges

Carrier gas flow	1.0 – 5.0 Nl/min
Dilution gas flows	0.5 – 5.0 Nl/min
Calibration gas flows	100 – 250 ml/min
Other flow ranges on request	

Concentration ranges components

Stage 1, evaporation	10 – 1000 ppm (depending on analyte)
Stage 2, dilution stage I	10 ppb – 100 ppm
Stage 3, dilution stage II	10 ppt -100 ppb
Other concentration ranges on request	

Concentration ranges humidity

Stage 1, evaporation	dry to 100 %rH @ adjustable temperatures
Stage 2, dilution stage I	dry to 100 %rH @ adjustable temperatures
Stage 3, dilution stage II	dry to 100 %rH @ adjustable temperatures
Other dilution ranges on request	

Temperature calibration gas outlet

Stage 1, evaporation	180 °C
Stage 2, dilution stage I	100 °C
Stage 3, dilution stage II	100 °C
Other temperatures on request	

Power supply

Voltage	110 V or 230 V, 48 – 62 Hz
Power consumption	max. 1000 W

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