



LIQMIX

Generate your gas standard from a liquid

Some analytical fields need gas standards which are not easily commercially available in gas cylinders. AlyTech has developed LiqMix specifically for those applications when you need to produce a standard gas from a liquid or liquid mixture.

The system vaporizes in precisely controlled manner a liquid into a gas stream generating a gas standard at multiple concentrations with good accuracy, high repeatability and full traceability. Rich remote control functionalities of the software and automated programmed sequences enable full automation by synchronising the mixer/diluter with a gas chromatograph, pre-concentrator, spectrometer, gas analyser or other system.

BENEFITS :

- Creating gas phase standards from a gas, liquid or liquid cocktail mixture
- Wide range of concentrations from % down to ppm
- Dedicated LiqMix software does all calculations and devices control
- Build, save, run complex automated sequences of mixing/diluting
- Robust design, simple in use, fully automated operation
- Full automation of the process provides real time-saving for the operator
- Heated lines prevent condensation and maintain the vapors in gas phase

Automated, cost effective way for on-site generation of gas standards for chemicals that are not commercially available in cylinders, like unstable, reactive compounds in complex multicomponent mixtures. LiqMix is a simple and reliable way to perform multi-point calibrations, linearity and hysteresis checks, LOQ / LOD validation with gas standards such as BTEX, other hydrocarbons mix, siloxanes, ethanol and phenol, and others.



Advanced automated system for mixing/diluting gases and vaporized liquids

Operation principle of LiqMix is based on the proven technology of Mass Flow Controllers (MFC) for gases and liquids. MFCs are perfectly factory calibrated by Alytech and traceable to NIST.

A liquid is delivered to a vaporiser with precise control by a Coriolis MFC that can handle any type of liquid or liquid mixture and not dependent on ambient conditions (pressure, temperature density, conductivity and viscosity). The vaporiser is regulated at user-defined temperature. Liquid vapors are diluted by a carrier gas and further transferred to a mixing chamber where it can be mixed or diluted again by up to 4 optional gas channels. This allows generation of complex mixtures at multiple concentrations in a wide range.

All interconnections and outlet line are heated in order to maintain the vapors in gas phase avoiding re-condensation up to the delivery point.



TECHNICAL SPECIFICATIONS

- Number of liquid channels: 1
- Liquid MFC Coriolis technology, from 5g/h to 200 g/h FS
- Liquids: Pure liquid or a liquid mixture (ex.: water, organic solvents) without precipitation, polymerization or salt formation (for specifics, please contact us)
- Liquid flask (optional) should be pressurized by inert gas
- Number of gas channels: up to 5
- Inlet Gas pressure: stable and regulated within 3-8 bar
- Gas compatibility: pure gases, concentrated gas mixtures, most of aggressive and reactive gases (for specifics, contact us)
- Dilution ratio of the initial concentration: up to 1:10000
- Accuracy of output flow: less than 2% all over the scale
- Heated output line standard length 2 m
- Outlet Gas Pressure: atmospheric, higher pressure possible
- Connectors: Swagelok 1/8", other on request
- Software: required PC with Windows 7 or higher, Ethernet port communication
- Operation temperature: 10 - 50°C
- Power supply: 90-260Vac, 1,5-4A, 50-60Hz
- Dimensions: L x W x H 42x22x46 cm
- Weight: approx. 25 kg (depends on configuration)

* Note: Specifications subject to change without notice

