



## AIOLOS II

### The intelligent mixer, diluter & injector

**To save money and gain in flexibility, many laboratories use Aiolos - dynamic gas mixer from AlyTech - to perform multi-point calibration, linearity checks, LOQ/LOD validation.**

The Aiolos II is the latest generation of this popular product in GasMix™ family designed and produced by AlyTech since over 10 years. By mixing and / or diluting two to four gases the system generates calibration gas on site at the desired concentration, even to very low levels.

High accuracy and reproducibility of the prepared gas standards make Aiolos II an accomplished tool, well-accepted by users concerned with metrological performances.

GasMix™ are unique diluters on the market capable to deliver a certificate for the produced concentration.

#### BENEFITS :

- Dedicated, user-friendly and intuitive software
- Less operator time: programmed injection sequences are a great time-saver for routine quality procedures
- Full automation: by synchronizing dilutions, injection, flushing timings with an external analyzer
- Improved accuracy: multipoint MFC calibration curves for each used gas
- Rigorous metrology: full traceability, documentation, certification of the concentration accuracy
- Complies to ISO 6145-7
- Equipped with AURA, Aiolos II becomes unique and universal Gas & LPG sampler and Injector

**The GasMix™ provides an automated, cost effective way of on-site gas preparation and helps in the management of the following aspects :**

- Reducing the gas consumption
- Optimizing the efficiency of gas cylinders
- Reducing the number of necessary gas standards
- Reduction of operator bench time
- Managing cylinder expiration dates



# Excellent metrology, controlled and certified uncertainty at any set point within the range

## Dedicated software

Made by experts, GasMix™ has its dedicated, user-friendly and intuitive software. Easy to handle, the software controls the operation of the system, calculates the flow, handles the calibration tables, communicates with an analyzer, and much more.

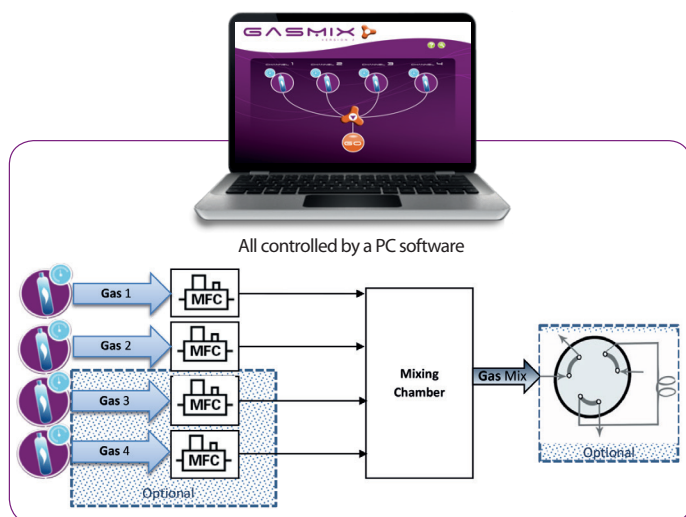
User can easily automate the process by synchronizing dilutions, injection, flushing timings with an external analyzer, like gas chromatograph, pre-concentrator, spectrometer, gas analyzer or other system and store it in a preprogrammed sequence.

## Metrology

Every individual Mass Flow Controller (MFC) used in GasMix™ instrument undergoes a rigorous factory calibration procedure with 20 set points across the whole range ensuring highest accuracy and linearity with particular attention to low and high end. The procedure is repeated for every gas matrix on customer choice (He, Ar, CH<sub>4</sub>, H<sub>2</sub>, N<sub>2</sub>, Air, ...). Multipoint calibration tables for every gas are stored in the software and applied automatically for selected gas in use.

Following highest metrology requirements the instrument not only accurately prepares the gas mixtures, but it also automatically calculates and reports maximum relative uncertainty for every delivered concentration.

The Audit Trail function performs complete traceability of the operations carried out.



## Typical Applications:

- Petrochemical - Calibration of GC,  $\mu$ GC, Elemental analyzers, Spectrometers
- Environmental – Calibration of ambient air monitor and gas detectors
- Food & Flavour - Quality control
- Specialty Gases : Customized secondary standards
- Research: Generation complex gas mixtures



## TECHNICAL SPECIFICATIONS

- Number of gas channels: 2 to 4
- Inlet Gas Pressure: 3 bars nominal, max 8 bars
- Outlet Pressure: atmospheric, higher on request
- Connections: Swagelok 1/8" ,other on request
- Gas compatibility: pure gases, concentrated gas mixtures, most of aggressive and reactive gases (for specifics, contact us)
- Mixing: mixing up to 4 channels simultaneously
- Dilution ratio of the initial concentration: up to 1:10000
- MFC operation range: 2 to 100% FS
- Flow accuracy:  $\pm 1\%$  of setpoint all over the scale
- Repeatability: less than 0.1% of setpoint
- Response time to the setpoint <5 sec
- 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 l x h (cm): 43x25x46;
- Weight: approx. 14 kg (depends on configuration)

\* Note: Specifications subject to change without notice

## OTHER OPTIONAL EQUIPMENT:



**AURA:** The AURA is a LPG vaporizer device equipped with a heat regulator to set optimal evaporation temperature and heated transfer lines. It makes Aiolos II a Unique Universal Gas & LPG Sampler/Diluter.



**Multiplex:** Driven by GasMix software, the Multiplex is an automated gas selector of up to 16 gases without unplugging the tubings. This solution improves safety, increases automation and avoids operator errors.



**FReD:** Optional automatic flow regulator to be placed downstream of the diluter. The output flow rate can be set and accurately controlled directly by GasMix™ software.