



ATMO

Calibrate 3 analyzers in a row automatically !

GasMix™ ATMO calibration gas generator is well suited for air monitoring agencies, and not only.

Developed in collaboration with French air monitoring agencies, this unique system automates multi-point calibration, repeatability and linearity checks in compliance with EN standards. Typical air monitors analyzers, like SO₂, NO-NO_x and CO analyzers, are calibrated all 3 in the row by switching span gases, and future diluting it with air zero gas. The ATMO helps operators saving time and cost of routine checks, while assuring high accuracy and traceability.

BENEFITS :

- Unique design on the market
- Application driven, economical solution
- Handles 3 span gases and dilution Air-zero gas with just 2 x MFCs
- Dilution ratio: up to 1:10000 of the initial concentration
- Can automatically calibrate up to 3 analyzers
- Factory calibrated MFCs to all gas matrices
- Calibration tables automatically switched to a selected gas
- Compliant to ISO 6145-7 standard

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

- Significant saving of operator time and cost of routine QA/QC
- Optimizing the cost and efficiency of gas cylinders
- Reducing the number of necessary gas standards
- Managing cylinder expiration dates



The GasMix™ ATMO system is Linear, Accurate and Repeatable

Current standards like EN 14181 and ISO 14385 describe the quality assurance procedures for calibration and ongoing quality control needed to ensure that automated measuring systems (AMS) installed to measure emissions of greenhouse gases to air are capable of meeting the uncertainty requirements on measured values specified.

Quality assurance for AMS requires a linearity calibration, over at least 6 additional points equally divided across the measuring range.

When it comes to multi-point calibration, GasMix™ ATMO shows its strong values.

Span gases switching and routine sequences of gas mixtures generation are defined through the ATMO control interface, giving the ability to create projects adapted to every need and every procedure (repeatability, linearity...). These sequences are used to assess the linearity of analyzers on their measuring range in six or more concentrations (for example; 80%, 40%, 0%, 60%, 20% and 95%) and repeatability on three concentrations levels (zero, 95% and national calibration concentration).

Automation of these routine quality assurance procedures saves time and cost while assuring high accuracy of the calibration. For the linearity check the residuals are calculated from real concentrations generated by a GasMix™ with its uncertainty. An Audit Trail function included in the software guarantees the operation traceability.

Calibration of analyzers for monitoring of ambient air pollutants concentration according to standard methods:

- EN 14211 NO₂ and NO by chemiluminescence;
- EN 14212 SO₂ by UV fluorescence;
- EN 14626 CO by NDIR spectroscopy.

The ATMO can be used for other methods.



TECHNICAL SPECIFICATIONS

- Number of gas channels: 3
- Inlet Gas Pressure: 3 bars nominal, max 8 bars
- Number of outlet gas channels: 3
- Outlet Pressure: atmospheric
- Connection: 1/8" Swagelok – 1/4" for the diluent gas
- Gas compatibility: pure gases, non-aggressive gases
- 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
- Software: PC Windows 7 or higher, Ethernet port communication
- Optional 19" rack housing
- Operation temperature: 10 - 50°C
- Power supply: 90-260Vac, 1,5-4A, 50-60Hz
- Dimensions : L x l x h (cm) : 42 x 22 x 46 ;
- Weight: 16 kg

* Note: Specifications subject to change without notice

