

Datasheet 20140905

Sonimix 3012/3022

Multigas calibrator with GPT, ozone & self re-generable zero air generator

Description

The multigas calibrator with GPT, ozone and self re-generable zero air generator, Sonimix 3012/3022, is an instrument designed to calibrate manually or by remote control up to 6 monitors installed in an air pollution monitoring station, such as SO₂, HC, BTX, CO, NO_x and O₃. Due to the included self re-generable zero air generator, the instrument needs neither maintenance nor expensive and cumbersome zero air pressurised cylinders.

Functioning principle:

The Sonimix 3012/3022 is equipped with an inlet for high concentration mixtures of diluted gases such as NO, NO₂, SO₂, CO, HC, BTX or mixtures of several compatible pollutants in the same cylinder.

A zero air generator composed of an internal compressor with self re-generable filters removes moisture, O₃, NO_x, SO₂, HC, BTX and optionally CO and CH₄.

The instrument is also composed of a binary gas dilutor with two inlets (diluted gas and air), based on sonic nozzles (ISO 6145-6 technology) and mechanical pressure regulators that can generate 3 or 10 dilution points. The input pressures are monitored by two pressure switches.

The ozone generator is regulated by UV-light feedback and compensated from the atmospheric pressure and ambient temperature variations, with alarm on the drift of UV-light as well as the circuits for the GPT.

The precision, stability and reproducibility of the generated mixtures are due to the joint use of sonic nozzles and high precision mechanical pressure regulators.



- ☒ **Multin functions & Convivial**
- ☒ **Attractive price**
- ☒ **Excellent quality**
- ☒ **Using Sonic Nozzles**
- ☒ **No cylinders**

Applications



The Sonimix 3012/3022 is used for:

- calibration of air Pollution Monitoring (APM) Station
- reference for APM laboratories

Specifications

Carrier gas :	High grade zero air from internal zero air generator or from cylinder DP < -40°C - NO, NO ₂ , O ₃ , SO ₂ < 1ppb - BTEX < 1 ppb CH ₄ < 50 ppb & CO, HCnm < 50 ppb if catalysis oven is installed
Diluted gas :	High concentrated premixtures SO ₂ in Air - NO in N ₂ - CO in Air - HC or BTX in Air Mixtures of several compatible pollutants in the same cylinder
Input pressure :	3 bar +/- 0.3 bar rel
Fixed dilution ratio realised Sx3012/3022 3pts :	1/166, 1/250, 1/500 (100, 200, 300 ppb with 50 ppm at inlet)
Fixed dilution ratio realised Sx3012/3022 10pts :	1/200 to 1/2000 or 1/100 to 1/1000
Accuracy of the dilution ratio :	+/- 0.6% relative
Global no –repeatability of dilution ratio :	< 0.3% relative
Stabilisation time of the mixtures :	< 3 min
O ₃ concentration:	Between 25 and 500 ppb, adjustable by software
Accuracy of O ₃ concentration (during 30 days) :	Better than +/- 2 ppb from 25 to 200 ppb
Repeatability of O ₃ concentration (during 30 days) :	Better than +/- 1% rel from 201 to 500 ppb Better than +/- 2.5 ppb (at 250 ppb O ₃)
Total outflow of mixture :	About 3000 Nml/min, other values upon request
Command modes:	
- local mode (LOCAL)	By key board and VFD display
- remote command :	RS232, Mode4 compatible with ISO7186/ADEME
- remote command :	dry relay
Power consumption :	230V/50-60Hz – 117V/60Hz – 100V/60Hz
Gas connections:	By 1/4" and 1/8" Swagelok fittings
Dimensions :	19" 3HE/84TE, 500mm deep
Weight :	About 20Kg

Options – Accessories – Spare parts

Models:

6800 12 000	Sx 3012/3022 3 points precision calibrator*
6800 12 010	Sx 3012/3022 10 points precision calibrator. Dilution rate 1/100 to 1/1000*
6800 12 020	Sx 3012/3022 10 points precision calibrator. Dilution rate 1/200 to 1/2000*

* Module for 4 gases inlets (3 additional inlets) included

Options:

6800 12 030	Ozone generator from 25 to 500 ppb & circuit for the GPT
6800 08 015	Integrated self re-generable zero air generator
6800 08 017	Catalyser oven for CO & CH ₄
6800 10 004	Cold filter for CO
6800 12 040	Remote interface by dry relays
6800 11 001	Remote interface by serial RS232
6809 00 300	PC Software program to drive the Sx 3012/3022
6800 10 000	Portable casing



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