



# **SONIMIX 6000 C1**

## **Calibrador Multigás**

# SONIMIX 6000C1 MULTIPOINT MULTIGAS CALIBRATOR

The **MULTIPOINT MULTIGAS CALIBRATOR**, model **LNI SONIMIX 6000C1** is an instrument designed to calibrate manually or by remote control up to 5 gas monitors installed in an Air pollution monitoring station, such as SO<sub>2</sub>, HC or BTX, CO, NO<sub>x</sub> and O<sub>3</sub>. With the **optional GPT** circuitry it is possible to verify the coherence of NO, NO<sub>2</sub> and O<sub>3</sub> measurements, and to determine the converter's efficiency of the NO<sub>x</sub> analyser

The **SONIMIX 6000C1** is equipped with an interface designed to be directly compatible with the Data Acquisition stations with the ISO7168 protocol, or with the analysers. That feature allows in Remote mode, to receive and to interpret for each gas, the instructions MEASURE, ZERO and CALIBRATION. In Local mode, the interface allows to Configure the calibrator and to perform the manual operations of calibrations and GPT necessary after the maintenance process on the monitors. All internal parameters such as voltage on MFCs ; ozone generator UV light and current, temperature, pressure, permeation ovens temperatures and converters temperature are readable on the display and transmitted through the RS232 remote interface.

The basic configuration of the **SONIMIX 6000C1** is mainly composed of 2 parts :

- \*\* a binary gas dilutor, based on high precision mass flow controllers and mechanical pressure regulators, with glass dilution chamber and fluidics for perfect homogeneity. Input pressures monitored by two pressure switches.
- \*\* an interface, based on the 80537 micro-controller, able to receive and execute the instructions emitted by the monitors or a compatible data acquisition system; instructions transmitted by RS232 or materialised by closed or opened relays; the power supplies for the valves, the keyboard and the 2 X 20 characters fluorescent display.

## Several additional features are available as options

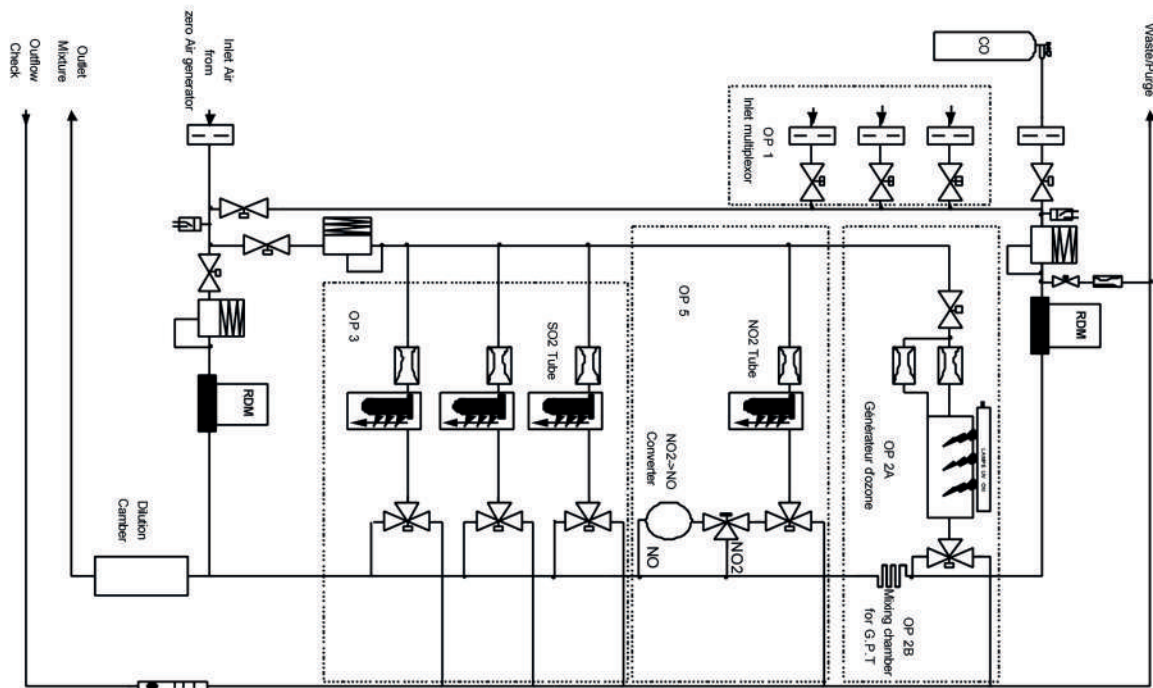
- OP1 : a selector allowing to choose one high concentration gas input among four.
- OP2A : an Ozone generator regulated by UV-light feedback and compensated from the atmospheric pressure and ambient temperature variations, with alarm on the drift of UV-light intensity.
- OP2B : Gaseous Phase Titration circuits and internal software access
- OP3 : permeation module for a single tube ; with oven, fluidics and oven electronic controls. (a maximum of 5 modules could be assembled on the same calibrator)
- OP4 : permeation module for up to 5 tubes on the same oven ; with oven, fluidics and oven electronic controls.
- OP5 : permeation module for a NO<sub>2</sub> tube ; with oven, NO<sub>2</sub> to NO converter, fluidics and electronic controls for oven and converter





## TECHNICAL DATA

Carrier gas	: High grade ZERO Air from pressurised cylinders or from the LNI ZERO AIR Generator SONIMIX 3054C
Diluted gases	: mixtures of   SO <sub>2</sub> in AIR (25 to 100ppm) NO in N <sub>2</sub> (25 to 100ppm) CO in AIR (1000 to 10000ppm) HC or BTX in AIR
Total outflow of mixture	: about 3500 Nml/min, other values upon request
Flow of carrier gas	: 0 to 3500 Nml/min Air
Flow of diluted gas	: 0 to 35 Nml/min Air
Dilution ratio range	: 1/1000 to 1/30
Flow generation accuracy and linearity	: better than 0.5% FS, due to recorded response curve and calculations
Repeatability of flow generated	: better than 0.2% FS
Stabilisation time of the mixtures (T99)	: <1 minute
O <sub>3</sub> concentration (option2)	: between 50 and 500 ppb, adjustable by software, remote and local. Other values upon request
Repeatability of the O <sub>3</sub> concentration	: better than +/- 2 ppb (at 200 ppb O <sub>3</sub> )
Temperature of the permeation tube oven	: 45°C
Temp. stability of the permeation tube oven	: 0.05°C
SO <sub>2</sub> permeation tube	: 100 to 500 ppb (standard values)
NO <sub>2</sub> permeation tube	: 100 to 500 ppb (standard values)
BTX permeation tubes	: 10 to 50 ppb (standard values)
Remote command signals	: 16 up to isolated digital input channels 8 dry relay output channels, and/or bi-directional RS232 communication (to be defined when ordering)
Alimenting pressures	: 2.5+/- 0.3 bar ( 35 +/- 5 psig)
Operating temperature	: 5 to 40°C
Operating altitude	: from sea level to 4000m
Power consumption	: 110V/60Hz or 230V/50Hz / 200W
Gas connections	: by 1/4" and 1/8" Swagelok fittings
Dimension:	



REPRESENTANTE:



Tel.: (21) 2128.5300 – Fax: (21) 2128.5330  
 engezer@engezer.com.br  
 www.engezer.com.br

**Caso queira adaptar este produto a suas necessidades  
usando um sistema de condicionamento, uma  
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**COMERCIAL@ENGEZER.COM.BR**

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