



# SONIMIX 4001 Gerador de Ozônio Portátil

# SONIMIX 4001 A

## Portable Ozone generator Primary standard

The **LNI SONIMIX 4001A** is a portable and stand alone **ozone primary standard**, designed to transfer ozone concentrations between the network's laboratory reference and the air pollution monitoring stations.

The SONIMIX 4001 uses the US EPA method of UV absorption by ozone (Beer-Lambert law).

With its 2 references UV photometers, the device measure in alternance the UV intensity without any ozone ( $I_0$ ) and then the same UV light but through the generated ozone ( $I$ ). With this 2 values, the processor calculate the amount of ozone generated ( $\sim I/I_0$ ).

The instrument generates an outflow of 2.5NL/min AIR containing 10 to 1000 ppb O<sub>3</sub>, with stability and reproducibility of the concentration better than 1% relative.

The device is able to generate the ozone together **with dry or wet air** . This able to easily diagnosticate an eventual interference of the **humidity** on the ozone monitors.

Ready for use a few minutes only after the power is switched on, the SONIMIX 4001A does not need any external gas cylinder (together with the option OP0 : internal zero Air Generator) and allows to calibrate the ozone monitors in several points.

To transfer the calibration values from the National Standards, the SONIMIX 4001A includes a function of self linearisation.

Due to it's LCD touch pad display and it's menus, the SONIMIX 4001 is a highly user friendly device.

The precision, stability and the reproducibility of the generated mixtures are due to the joint use of critical orifices, mechanical pressure regulator and the 2 reference UV detector.

The **SONIMIX 4001A** is mainly composed of :

- \*\* a complete self-regenerable Zero Air generator, including compressor, drying filter and O<sub>3</sub>, NO, NO<sub>2</sub> scrubber (OP0) and an air humidificator.
- \*\* a constant flow Air generator (using pressure regulator and sonic nozzles)
- \*\* an Ozone generator with thermostatisation and regulation by UV light measurement; it also includes atmospheric pressure and temperature corrections
- \*\* one ozone analyser built with 2 reference UV light detectors.
- \*\* a set of electronic boards with microprocessor and one LCD touch pad display.



- ✓ **Stable and accurate**
- ✓ **Calibration with dry and humid Air**
- ✓ **Users friendly**
- ✓ **portable**
- ✓ **Easy to use**

### Options and accessories:

#### Option and accessoires

SONIMIX 4001A  
SONIMIX 4001AOP0  
SONIMIX 4001AOP1  
SONIMIX 4001AOP2

#### Descriptions

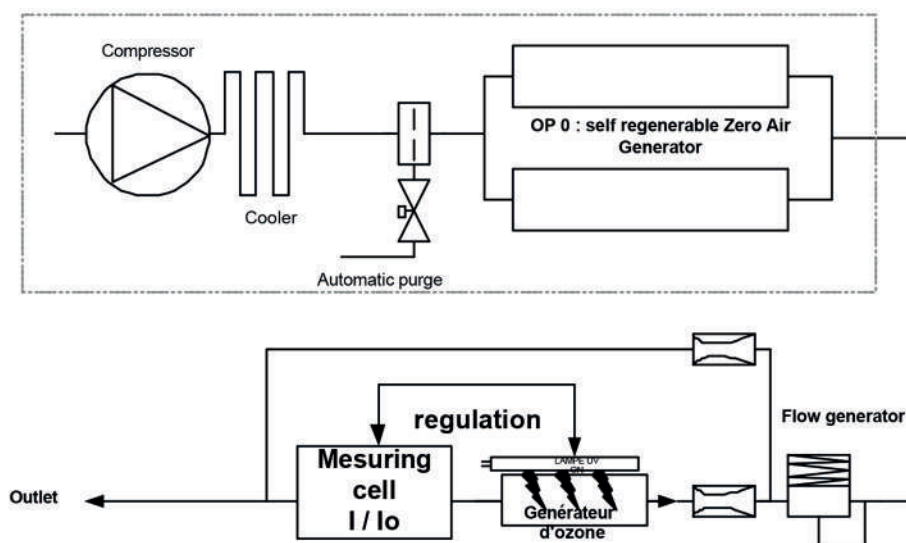
Multi points ozone generator  
Internal self regenerable Zero Air Generator  
Range from 10 à 1000 ppb O<sub>3</sub> @ 2.5 NL/min (*default option*)  
Range from 100 à 10000 ppb @ 1 NL/min (*alternative to the OP1*)



## Main technical data

Generated gas flow	2500 Nml/min for the mixture 1000 NL/min (Air) for the NIST traceability
Dilution Air	With humid or dry Air (if OP0 is installed)
Range of ozone generation :	From 10 to 1000 ppb in 1 ppb steps + the zero (100 to 1000 ppb as alternative)
Accuracy	Better than 1 % relative
Repeatability of the ozone concentration:	Less than 1 ppb (over 24H)
Long term stability (3 months)	Less than 2%
Concentration stabilisation time (T99)	inferior to 5 minutes
Start up time	30 minutes, (depending of the ambient temperature)
O3 setting	by selection of the desired value with the LCD touch pad display
O3 regulation	Measure of the UV light absorption of the generated ozone by 2 UV reference photometer. (US EPA method and Beer Lambert law). Including atmospheric pressure and room temperature corrections
UV lamp life time:	About 10'000 hours
Zero AIR generator life time :	Annual preventive maintenance
Zero Air Quality :	O3, NO and NO2 < 1ppb H2O < -40°C dew point
Outlet port:	Teflon 1/4 " SWAGELOK fitting
Power consumption:	115 or 230 VAC / 130W
Functioning position:	Vertical or horizontal
Over all dimensions ( h x w x d )	15cm x 28cm x 34cm ( handle not included )
Weight :	about 15 kg

## DRAWING



REPRESENTANTE:



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**Caso queira adaptar este produto a suas necessidades  
usando um sistema de condicionamento, uma  
automação ou formando um produto, contate:**

**COMERCIAL@ENGEZER.COM.BR**

*\*para mais informações ou preços*



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