

SONIMIX 4001

Ozone generator – Primary transfer standard

The **Sonimix 4001** is a stand alone ozone primary transfer standard able to generate ozone together with dry or wet air (optional) allowing to calibrate the ozone monitors in several points. It generates an outflow of 3 NI/min air containing 10 to 1000 ppb O₃, with stability and reproducibility of the concentration better than 1% relative. The extended range model generates 10 ppb to 10 ppm at 3 L/min and 10 ppm to 35 ppm at 0.9 L/min.

The **Sonimix 4001** is using pressure regulator and sonic nozzles and an ozone generator including thermostatisation and regulation by UV light photometer measurement with atmospheric pressure and temperature corrections (US EPA method of UV absorption by ozone, Beer-Lambert law). The ozone analyser is built with 1 reference UV light detectors that measure in alternance the UV intensity without any ozone and then the same UV light but through the generated ozone. With these 2 values, the processor calculates the amount of ozone generated.

Main applications

- Air pollution monitoring
- Laboratory (ozone transfer)

Main advantages

- ✓ Stable and accurate > 1% (rel.)
- ✓ Calibration with dry & wet air
- ✓ Included novel LED photodetector
- ✓ Ergonomic with LCD display





Specifications

Models: Sonimix 4001	6800 17 000 standard range	6800 17 001 extended range
General data		
Range	From 10 to 1000 ppb in 1 ppb steps @ 3 L/min	From 10ppb to 10 ppm @ 3 L/min + 10ppm to 35 ppm @ 0.9 L/min
Dilution principle	Sonic nozzles and high precision pressure regulators	
Dilution air	Dry air from internal zero air (option) or external dry air source	
Generated gas flow	3000 ml/min for range 1	900ml/min for range 2
Accuracy	10 ppb to 100 ppb : +/- 2 ppb >100 ppb : 1.5% relative	
Ozone Repeatability	Better than 1% relative	
Warm up time	< 45 min	
Stabilization time	< 15 min	
O3 regulation	Measure of the UV light absorption of the generated ozone by UV reference photometer. (US EPA method and Beer Lambert law). Including atmospheric pressure and room temperature corrections	
Dimensions	19cmx36cm, 50cm deep	
Net weight	15 Kg	
UV Section		
UV lamp life time	About 10'000 hours (with a mean concentration of 1 ppm)	
Zero Air section		
Life Time	Annual preventive maintenance	
Quality	O3, NO and NO2 < 1 ppb - H2O < -40°C dew point	
Communication		
Outlet Port	Teflon 1/4" Swagelok fitting	
Electrical data		
Power supply voltage	230V/50-60Hz – 117V/60Hz – 100V/60Hz	