



## Sonimix 3080-plus Hydrogen + Zero Air Generators

### Description

The **SONIMIX 3080-plus** is composed of a hydrogen generator and a zero Air Generator (as option). The **SONIMIX 3080-plus** has been specially designed to aliment in H<sub>2</sub> and Air all the gas analyzer and gas chromatographs using a FID detector. The internal program and processor assure trough a simple and intuitive use the control of both generators and allow to check on line various functioning's parameters such as: water level, water purity, outlet pressure (H<sub>2</sub> & air), electrolyses current and voltage, CH<sub>4</sub> oven temperature... The functioning parameters and the alarm can be monitored through the RS232 remote command as well as through one dry relay (I/O Board Option). Using latest PEM membrane technology, the **SONIMIX 3080-plus** require less maintenance and does not use dangerous caustic solutions.



#### Functioning principle of hydrogen generator:

The hydrogen is produced with electrolyze of water going through a membrane in polymer. The electrolyse cell is alimented by distilled water contained in the intermediate internal tank, which is alimented by the main external tank. The produced hydrogen is dried by a PSA system (purity 99.9999% for carrier gas or Flame) or permapure (purity 99.999% for the FID flame) depending on the options) and the pressure regulated.

- Compact / small in size
- No cylinders
- PEM Membrane
- Original Swiss Made
- Purity 99.9999%

#### Functioning principle of zero air generator:

The Zero Air generator consists on a Palladium catalytic oven. The external compressed Air goes through a condenser with automatic drain system. The filtration of various CO, Hydrocarbons and methane is made with the help catalysis oven. A fine dust filter and a mechanical pressure regulator terminate to condition the air.

**Security:** in case of wrong internal functioning or opening of the H<sub>2</sub> circuit, the production of H<sub>2</sub> is stopped and an alarm is activated (automatic leak check). The suppression of dead volumes (<100ml) as well as an "on demand generation" avoid the stock of large quantity of hydrogen and enable the use of the instrument in area where hydrogen cylinders are restricted.

### Applications



The **sonimix 3080-plus** is the indispensable tool for the alimentation in air and hydrogen of all FID, BTEX, VOC and gas chromatographs.

The use of the **sonimix 3080-plus** avoid the use of two cumbersome and expensive gas cylinders.

## Specifications

User interface: Set points, system status, user parameter / touch screen / LCD graphic display  
 Remote command: RS232/485 as option (Need I/O board option)  
 Noise level: <45 dBA  
 Power consumption:

H2 flow	100	160	250	300	500	600	1000
NM type	90W	115W	125W	150W	200W	300W	400W
PG type	70W	95W	105W	130W	180W	280W	-
Air	from 50 to 150 W depending of the flow						

Power requirements: 230V/50-60Hz – 115V/60Hz – 100V/50-60Hz  
 Dimensions [cm]: 19" 3HE/84 TE, 500mm deep/portable casing in option  
 Shipping Dim [cm]: 41 x 51 x 50 (WxDxH)  
 Net weight [Kg]: 15 to 30 Kg depending on model  
 Shipping weight [Kg]: 17 to 32 Kg depending on model

Hydrogen Generator		Zero Air Generator	
Outflow generated [ml/min]	100-160-250-300-500-600-1000 for the 99.9999% purity 100-160-250-360-500-600 for the 99.999% purity	Outflow generated	0 to 5 l/min at atmospheric conditions Need compressed Air
Outlet pressure	Adjustable between 0.1 and 11 bar	Outlet pressure	1 outlet adjustable between 1 and 6 bar
Purity	>99.9999% (PSA dryer) >99.999% (Permapure dryer)	Remaining pollutant level	HCnm < 50ppb HCm < 50ppb
Life time of deionizer bag	6 months		

## Models-Options – Accessories – Spare parts

### Models:

	With Air option	Without Air Option
SX3080-plus PG with H <sub>2</sub> 99.999%	6800 56 AAA.B	6800 55 AAA.B
SX3080-plus NM with H <sub>2</sub> 99.9999%	6800 54 AAA.B	6800 53 AAA.B
SX3080-plus Air (No Hydrogen)	6800 57 010.B	

### AAA = flow rate

010 = 100 Nml/min  
 016 = 160 Nml/min  
 025 = 250 Nml/min  
 030 = 300 Nml/min  
 050 = 500 Nml/min  
 060 = 600 Nml/min  
 100 = 1000 Nml/min\*

### B = Voltage

1 = Voltage 230V/50-60Hz  
 2 = Voltage 110V/60Hz  
 3 = Voltage 100V/60Hz

\*(only available with SX3080-plus NM)

### Options:

6800 52 001 I/O board (including cascading capabilities & RS232/485)  
 6800 52 002 PC Software (require I/O Board)  
 6800 57 500 19 Inch Rack water tank (see specific datasheet)

### Consumables:

6700 21 762 Deionizer LE bag (incl. 2 standard bag)  
 6700 21 980 Water filter for the water tank  
 6700 21 981 Blue dust filter for the Water tank



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