



HYDROGEN GENERATOR



The hydrogen generator is designed to produce Hydrogen for laboratory use and must comply with the limits for a class B digital device, pursuant to part 15 of the Federal Communications Commissions (FCC) rules.

It produces pure Hydrogen (and Oxygen as a by-product) by the electrolysis of water. The key element is an electrochemical cell assembly which contains a solid polymer electrolyte filled by deionized or pure distilled water, and no free acids or alkaline are used. The conductivity of the water used in the generator must not exceed $2\mu\text{S}/\text{cm}$.

It must be placed on a flat level with vibration and shock-free surface. It should not be in contact with any other objects on any side, and the air inlet must not be blocked. 30 cm of free space at the rear side must be left for ventilation.

Pure dry Hydrogen at regulated pressure is available at the Hydrogen outlet port at the rear of the generator. The pressure at this port is adjusted and shown on the display. The Hydrogen relief port and the Hydrogen vent at the rear of the unit can be connected to an exhaust hood or another venting system.

On the front side, it is equipped with a water level indicator.

It has an LCD display to provide the final user all the important information to manage the unit in a simple and safe mode, and the following parameters can be also configured:



- To set the clock
- To set low pressure
- To set pressure rise
- To set pressure drop delay
- To set Auto start
- To set the beeper
- To set pre alarms
- To set pressure unit
- To set temperature unit
- To set volume unit
- To set the lock keyboard
- To set default values.

and tests such as internal and external leak tests, flow test, and complete system test.

The hydrogen generator has the following technical specifications:

- Hydrogen flowrates at STP (Standard Temperature and Pressure) (20°C, 1barg):
0 ÷ 100cc/min,
- Max. Outlet pressure: 11bar (160psi),
- Purity: 99.9999%,
- Power consumption: 130W,
- Weight dry: 13kg,
- Input voltage: 100 ÷ 240V/50 ÷ 60Hz,
- Fuse: 4A,
- Pressure accuracy: 0.1bar ($\pm 0.5\%$),
- μ Processor controlled display: graphic display, 128x64pixels,
- Index of protection: IP2x,
- Operating conditions:
 - Temperature: 15°C to 40°C,
 - Relative humidity (non-condensing): 0 ÷ 80%,
- Over voltage category: II,
- Noise level: 46dB (A),
- Pollution degree: 2.

It is supplied with the following elements:

- Instruction USB key,
- Deionizer triangle bag,
- Water drain with flexible tubing,
- Power cable,
- USB cable.

and a detailed manual in English language.