

## PG-Plus H<sub>2</sub> Generator

### Description

**NEW PRODUCT !**

The **PG-Plus** employ the newest PEM membrane technology available for electronic production of pure hydrogen, including exclusive static drying system technology and cascading capabilities. Only pure water, distilled or deionized, is required to provide trouble free long-term operation.

The small contained volume (< 40ml) makes the **PG-Plus** safe for operation in spaces where hydrogen cylinders are restricted. An auto shut-off procedure places the unit in standby in the event of an internal error and selectable alarms inform the user whenever operating conditions vary from the set point.

### Functioning principle:

The internal long life pump forces the distilled water to flow from the external water tank to the PEM electrolysis cell. On the way to the cell, the water is filtered, deionized through a special cartridge and its conductivity is measured. The humid hydrogen goes through the membrane and is first dried by the gas liquid separator and then by static dryer (no maintenance). Then the hydrogen pressure level is measured and regulated at the set pressure by a feedback of current to the cell.

An automatic refill kit is available for longer autonomy of the instrument.



- ☒ **LCD Touch screen interface**
- ☒ **Earthquake / shock sensor**
- ☒ **No Maintenance**
- ☒ **No Caustic solution**
- ☒ **Exclusive cold dryer technology**
- ☒ **Purity 99.999%**

### Applications

The **PG-Plus** is ideal for operation with gas analyzers, as fuel gas for flame ionization detectors (FID).

Due to its small size and its non maintenance drying system, the PG-Plus is the preferred source of hydrogen fuel gas for GC and FID analyzers. With its low hydrocarbon contents (less than 0.1 ppm) the PG-Plus will give excellent and stable base lines to any chromatograph on the market.

Applications are fuel as hydrogen for:

- GC-FID
- GC-FPD
- THC
- Sulfur analyzers



## Specifications

Hydrogen purity :	99.999% / hydrocarbon free < 0.1 ppm
Electrolysis cell :	Solid Polymer Membrane type (PEM)
Auto drying system :	Static dryer (No maintenance)
Delivery pressure :	20 – 155 psig / 1.4 – 11 barg
Fitting :	1/8" for the H2 outlet
Safety :	Auto shut-off / low internal volume of H2 (< 40 ml)
User interface :	Set points, system status, user parameter / touch screen / LCD graphic display
Remote command :	RS232 / 485 as option
Cascading :	Up to 10 units (if the option is installed)
Water :	Deionized or distilled < 10 uS conductivity
Dimensions :	23x43x36 cm (W x H X D)
Weight:	25 Kg
Shipping dimensions :	40x58x57 cm (W x H X D)
Shipping weight:	35 Kg
Power requirements :	230V/50-60Hz - 110V/60Hz – 100V/60Hz

## Options – Accessories – Spare parts

**PG-Plus article numbers : 6800 51 AAA . B**

<b>AAA = flow rate</b>	<b>B = Voltage</b>
010 = 100 Nml/min	1 = Voltage 230V/50-60Hz
016 = 160 Nml/min	2 = Voltage 110V/60Hz
025 = 250 Nml/min	3 = Voltage 100V/60Hz
030 = 300 Nml/min	
050 = 500 Nml/min	
060 = 600 Nml/min	

*Example : 6900 51 010.1 = PG-Plus 100Nml/min, voltage 230V/50-60Hz*

### Options:

6700 21 736	Desiccant cartridge + fittings + refill
6710 02 113	Cascading Hardware kit standard (with LNI PR)
6710 02 114	Cascading Hardware kit standard (with low cost PR)
6710 02 118	On off and non return valve as a single part
4731 03 007	Buffer reservoir 1 liter as a single part
6710 02 111	LNI PR with pressure gauge
6710 02 112	SMC PR with pressure gauge
6800 52 001	I/O board (including cascading capabilities & RS232/485)
6800 52 002	PC Software (require I/O Board)
6900 52 003.1	Autorefill kit (including Pump, external water compressor, fluidic & electrical connections)

### Consumables:

6700 21 762	Deionizer LE bag (incl. 2 standard bags)
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