

# HG BASIC

## PEM Hydrogen generator



The HydroGen series **HG BASIC** is able to generate up to 700 cc/min of Hydrogen with purity better than 99.9999% and pressure up to 10 bar (145 psi). The HG BASIC includes a new long life multilayer electrolytic cell with polymeric membrane (PEM) using distilled water. No acid or alkaline solutions are used.

The innovative drying system ensures the maximum grade of hydrogen purity, protects the GC thanks to its innovative humidity safe guard, HG BASIC is completely maintenance-free and allows continuous operation, 24 hours a day.

The on-board CPU automatically checks for internal leaks and constantly control the operating parameters to guarantee full safety. Up to 20 units can be connected in parallel mode using an external control box.

The touch-screen LCD interface provides simple and user-friendly management of all functions on the unit.

### Main Applications

- GC-FID / GC-NPD / GC-FPD / THA
- ICP-MS collision gas
- Refilling metal hydride tanks for use with fuel cells

### Main advantages

- ✓ New long life multilayer PEM cell
- ✓ High flow rate up to 700 cc/min
- ✓ High pressure up to 10 bar (145 psi)
- ✓ RS 232/485 and USB standard
- ✓ LAN optional
- ✓ Auto refill standard
- ✓ High purity: 99.9999%
- ✓ Static dryer no maintenance
- ✓ Safety routine and self monitoring
- ✓ Reduced foot print
- ✓ Smart humidity safe guard (patented)
- ✓ High pressure GLS electronically controlled (patented)





## Specifications

Model: HG BASIC	120	180	260	350	500	700
<b>General data</b>						
Electrolytic cell	PEM technology					
Drying system	Static dryer					
H2 purity	>99.9999% *1					
Outlet pressure	10 bars (145 psi)					
H2 flow-rate (Max)	120	180	260	350	500	700
Dimensions (W x D x H)	27 x 44 x 41 cm					
Net weight (no water in tank)	19 kg				20 kg	
<b>Communication</b>						
RS-232 / USB / RS-485	Standard					
Digital I/O	Standard					
LAN	Optional					
<b>Software functions</b>						
Parallel mode	Ready on board					
Automatic tank refill	Standard					
<b>Water</b>						
Quality Required	Deionized, ASTM II, <0.1uS					
Supply pressure (min, Max)	0.1 bar (1.45 psi), 0.5 bar (7.25 psi)					
Supply flow rate (min, Max)	0.2 l/min, 1.5 l/min					
Internal tank capacity	3 L					
External tank capacity	5 or 10 L (optional)					
<b>Electrical data</b>						
Type of connection	IEC 320-C14					
Power supply voltage	100-240 Vac (±10%) 50/60 Hz					
Nominal power (Max)	320W				640W	
Fuse rating (5x20mm)	4A (250VAC – T)				6.3A (250VAC – T)	
<b>Connections</b>						
Hydrogen outlet	1/8" compression fitting					
Water	Quick release push-in fitting					
<b>Operating/storage conditions</b>						
Working Temperature	5-40°C (41-104°F) *2					
Storage Temperature	1-50°C (34-122°F)					
Humidity (max, non condensing)	70%					
Noise	< 35dB(A)					
IP rating	IP20					
Pollution degree rating	2 (with no aromatic compounds)					
Altitude	< 2000m					

\*1 referred to O2, dew point <-20°C (< -4°F), Atmospheric Dew Point (ADP)

\*2 with temperature > 35°C (> 95°F) the H2 purity could be less

**DASTEC S.R.L.**

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**LNI Swissgas**

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### Ordering codes

#### Gas Generators

6920.10.012

HG BASIC 120

6920.10.018

HG BASIC 180

6920.10.026

HG BASIC 260

6920.10.035

HG BASIC 350

6920.10.050

HG BASIC 500

6920.10.070

HG BASIC 700

#### Consumable

6930.00.091

Deionizer water filter

LNI Swissgas Srl

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