

# 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
General data							
Electrolytic cell				PEM technology			
Drying system				Static dryer			
H2 purity				>99.9999% *1			
Outlet pressure				10 bar (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		
Communication							
RS-232 / USB / RS-485				Standard			
Digital I/O				Standard			
LAN				Optional			
Software functions							
Parallel mode				Ready on board			
Automatic tank refill				Standard			
Water							
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)			
Electrical data							
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)
Connections							
Hydrogen outlet				Double ferrule compression fitting, tube 1/8"			
Water				Quick release push-in fitting			
Operating/storage conditions							
Working Temperature				5-40°C (41-104°F) *2			
Storage Temperature				1-50°C (34-122°F)			
Humidity (max, non condensing)				70% [5-40°C (41-104°F)]			
Noise				< 35dB(A)			
IP rating				IP20			
Pollution degree rating				2 (with no aromatic compounds)			
Altitude				< 2000m			

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

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

### 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 for HG BASIC/PRO/KUBE last series with silver
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**LNI Swissgas**

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