



INSTRUMENTS
ANALYTICAL SOLUTIONS



HG BASIC

PEM Hydrogen generator

HydroGEN

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 check 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

HG BASIC

PEM Hydrogen generator

HG BASIC	120	260	350	500	700
General data					
Electrolytic cell	PEM technology				
Drying system	Static dryer				
H ₂ purity	>99.9999%*				
Outlet pressure	10 bars (145 psi)				
H ₂ flow-rate cc/min (Max)	120	260	350	500	700
Dimensions	27 x 44 x 41(H) cm				
Net weight (no water in tank)	14.5 kg			18 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 (1.4 psi), 1 bar (14 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-C13				
Power supply voltage	100-240 VAC 50/60 Hz				
Installed power (Max)	280 W			560 W	
Fuse rating (5 x 20 mm)	4 A - 250 VAC				
Connections					
Hydrogen outlet	1/8" compression fitting				
Water	Quick release push-in fitting				
Operating/storage conditions					
Working Temperature	5-40°C (41-104°F)**				
Storage Temperature	1-50°C (34-122°F)				
Humidity (Max, non condensing)	70%				
Noise	<25 dB(A)				
IP rating	IP20				
Pollution degree rating	2 (with no aromatic compounds)				
Altitude	<2000 m				

* Referred to O₂ - DewPoint <-20°C

** with temperature >35°C the H₂ purity could be less

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	
6930.00.050	De-ionisation cartridge

Ordering codes

