

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 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)



Smart **Gas** Generators



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Specifications

Model: HG BASIC	120	260	350	500	700
General data					
Electrolytic cell			PEM technology		
Drying system			Static dryer		
H2 purity			>99.9999%*		
Outlet pressure			10 bars (145 psi)		
H2 flow-rate (Max)	120	260	350	500	700
Dimensions			27x44x41(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)			0.2 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)			280W	560W	
Fuse rating (5x20)			4A - 250VAC		
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			< 25dB(A)		
IP rating			IP20		
Pollution degree rating			2 (with no aromatic compounds)		
Altitude			< 2000m		

* referred to O2, dew point <-20°C

** with temperature > 35°C 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

6930.00.050	De-ionisation Cartridge
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