

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)



Specifications



Model: HG BASIC		120		180		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		180		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)					0.2 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
6920.10.018
6920.10.026
6920.10.035
6920.10.050
6920.10.070

Consumable

6930.00.050

HG BASIC 120
HG BASIC 180
HG BASIC 260
HG BASIC 350
HG BASIC 500
HG BASIC 700

De-ionisation Cartridge



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