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.

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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



PEM technology	Model: HG BASIC	120	180	260	350	500	700	
Drying system H2 purity	General data							
H2 purity	Electrolytic cell	PEM technology						
Outlet pressure	Drying system	Static dryer						
H2 flow-rate (Max) 120 180 260 350 500 700								
Dimensions (W x D x H)	Outlet pressure							
Net weight (no water in tank) Communication RS-232 / USB / RS-485 Digital I/O LAN Optional Software functions Parallel mode Automatic tank refill Supply pressure (min, Max) Supply pressure (min, Max) Supply flow rate (min, Max) Internal tank capacity External tank capacity External tank capacity Fuser rating (5x20mm) Hydrogen outlet Water 1/8" compression fitting Water Operating/storage conditions Working Temperature Water Opelution degree rating Pollution degree rating Pollution degree rating Pollution degree rating Pollution degree rating Poptional Post Standard Standa	H2 flow-rate (Max)	120	180	260	350	500	700	
Communication RS-232 / USB / RS-485 Digital I/O LAN Optional Software functions Parallel mode Automatic tank refill Standard Water Quality Required Deionized, ASTM II, <0.1uS Supply pressure (min, Max) Supply pressure (min, Max) Supply flow rate (min, Max) Internal tank capacity External tank capacity Start at a Supply voltage Type of connection Power supply voltage Nominal power (Max) Fuse rating (5x20mm) Automatic tank refill Standard Fuse rating (5x20mm) Automatic tank refill Standard Deionized, ASTM II, <0.1uS Standard Deionized ASTM II, <0.1uS Standard Deionized ASTM II, <0.1uS Standard Deionized, ASTM II, <0.1uS Standard Deionized ASTM II, <0.1uS Standard Deionized, ASTM II, <0.1uS Standard Deionized ASTM III, <0.1uS Standard	Dimensions (W x D x H)							
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Digital I/O LAN Optional Software functions Parallel mode Automatic tank refill Water Quality Required Supply pressure (min, Max) Supply flow rate (min, Max) Internal tank capacity External tank capacity External tank capacity Flower supply voltage Nominal power (Max) Automatic tank refill Type of connection Fuse rating (5x20mm) Hydrogen outlet Water Operating/storage conditions Working Temperature Storage Temperature Noise Software functions Noise Sandard Ready on board Ready on board Ready on board Standard Peionized, ASTM II, <0.1uS Standard Opeionized, ASTM II, <0.1uS Standard Peionized, ASTM II, <0.1uS Standard II, Soft (1.4 psi), 1 bar (14 psi) Soft (1.4 psi), 1 bar (14 psi) Soft (1.4 psi), 1 bar (14 psi) Soft (1.4 psi), 2 bar (1.4 psi) Soft (1.4 psi), 2 bar (1.4 psi) Soft (1.4 psi), 2 bar (1.4 psi) Soft (1.4 psi) So	Communication							
Software functions Parallel mode Automatic tank refill Standard Water Quality Required Supply pressure (min, Max) Supply flow rate (min, Max) Internal tank capacity External tank capacity Type of connection Power supply voltage Nominal power (Max) Fuse rating (5x20mm) Hydrogen outlet Water Quick release push-in fitting Working Temperature Storage Temperature Humidity (max, non condensing) Pollution degree rating Possible Automatic Automatic compounds) Ready on board Ready on	RS-232 / USB / RS-485	Standard						
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Quality Required Supply pressure (min, Max) Supply flow rate (min, Max) Supply flow rate (min, Max) Supply flow rate (min, Max) O.2 l/min, 1.5 l/min Internal tank capacity External tank capacity Sor 10 L (optional) Electrical data Type of connection Power supply voltage Nominal power (Max) Fuse rating (5x20mm) AA (250VAC - T) Connections Hydrogen outlet Water Operating/storage conditions Working Temperature Storage Temperature Storage Temperature Noise Noise Noise Pollution degree rating Ocel I/4 psi), 10 ac (14 psi) D.2 bar (1.4 psi), 10 bar (14 psi) Storage (1.4 psi), 10 bar (1.4 psi) Storage (1.4 psi), 10 bar (14 psi) Storage (1.4 psi), 10 bar (1.4 psi) Storage (1.4 psi	Automatic tank refill							
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Hydrogen outlet Water Quick release push-in fitting Operating/storage conditions Working Temperature Storage Temperature Humidity (max, non condensing) Noise Noise Pollution degree rating 1/8" compression fitting Quick release push-in fitting 5-40°C (41-104°F) *2 1-50°C (34-122°F) 70% Your degree rating 1-50°C (34-122°F) 1-50°C (34-122°F) 70% (35dB(A) (P20) Pollution degree rating 2 (with no aromatic compounds)	Fuse rating (5x20mm)	4A (250VAC – T)				6.3A (250VAC – T		
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Noise < 35dB(A) IP rating IP20 Pollution degree rating 2 (with no aromatic compounds)	Storage Temperature	· · ·						
IP rating IP20 Pollution degree rating 2 (with no aromatic compounds)	Humidity (max, non condensing)			7	0%			
IP rating IP20 Pollution degree rating 2 (with no aromatic compounds)	Noise	< 35dB(A)						
, , ,	IP rating							
		2 (with no aromatic compounds)						
	Altitude				•			

^{*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

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

