



INSTRUMENTS
ANALYTICAL SOLUTIONS



HG PRO

PEM Hydrogen generator

HydroGEN

The HydroGen series **HG PRO** is able to generate up to 1300 cc/min of Hydrogen with purity better than 99.99999% and pressure up to 16 bar (232 psi). The **HG PRO** includes a new long life multilayer electrolytic cell with polymeric membrane (PEM) using distilled water. No acid or alkaline solutions are used.

The innovative gas drying system (two-column drying PSA system with automatic regeneration) ensures the maximum grade of hydrogen purity, it 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 using an external control box.

The touch-screen LCD interface provides simple and user-friendly management of all functions on the unit.

Main applications

- Carrier gas for GC and GS-MS
- 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 1300 cc/min
- High pressure up to 16 bar (232 psi)
- RS 232/485 and USB standard
- LAN optional
- Auto refill standard
- High purity: 99.99999%
- Dryer with no maintenance
- Safety routine and self monitoring
- Reduced foot print
- High pressure GLS electronically controlled (patented)

Specifications

HG PRO
PEM Hydrogen generator

HG PRO	120	180	260	350	500	700	900	1100	1300
General data									
Electrolytic cell	Long life Multilayer PEM technology								
Drying system	PSA (Pressure Swing Adsorption)								
H ₂ purity	>99.99999%*								
Outlet pressure	12 bars (174 psi)/16 bars (232 psi) (optional)								
H ₂ flow-rate (Max)	120	180	260	350	500	700	900	1100	1300
Dimensions	27x44x41(H) cm								
Net weight (no water in tank)	16 Kg			19,5 Kg			21,5 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								
Fill Hydride canister function	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)	320 W			600 W					
Fuse rating (5 x 20 mm)	4A – 250 Vac			6.3A – 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, dew point <-75°C

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

Gas Generators	
6920.15.012	HG BASIC 120
6920.15.018	HG BASIC 180
6920.15.026	HG BASIC 260
6920.15.035	HG BASIC 350
6920.15.050	HG BASIC 500
6920.15.070	HG BASIC 700
6920.15.090	HG BASIC 900
6920.15.105	HG BASIC 1100
6920.15.130	HG BASIC 1300
Consumable	
6930.00.050	De-ionisation cartridge

Ordering codes

