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# H<sub>2</sub>

## HG PRO

### PEM Hydrogen generator

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)



**R Evolution**  
in Gas Generators

## Specifications



Model: HG PRO	120	180	260	350	500	700	900	1100	1300
<b>General data</b>									
Electrolytic cell					Long life Multilayer PEM technology				
Drying system					PSA (Pressure Swing Adsorption)				
H2 purity					>99.99999% *				
Outlet pressure					12 bars (174 psi) / 16 bars (232 psi) (optional)				
H2 flow-rate (Max)	120	180	260	350	500	700	900	1100	1300
Dimensions					27 x 44 x 41(H) cm				
Net weight (no water in tank)	16 Kg			19.5 Kg			21.5 Kg		
<b>Communication</b>									
RS-232 / USB / RS-485					Standard				
Digital I/O					Standard				
LAN					Optional				
<b>Software functions</b>									
Parallel mode					Ready on board				
Automatic tank refill					Standard				
Fill Hydride canister function					Standard				
<b>Water</b>									
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)				
<b>Electrical data</b>									
Type of connection					IEC 320-C13				
Power supply voltage					100-240 Vac 50/60 Hz				
Installed power (Max)					320W		600W		
Fuse rating (5x20)					4A – 250 Vac		6.3A – 250 Vac		
<b>Connections</b>									
Hydrogen outlet					1/8" compression fitting				
Water					Quick release push-in fitting				
<b>Operating/storage conditions</b>									
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 <-75°C

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

### Ordering codes

#### Gas Generators

6920.15.012	HG PRO 120
6920.15.018	HG PRO 180
6920.15.026	HG PRO 260
6920.15.035	HG PRO 350
6920.15.050	HG PRO 500
6920.15.070	HG PRO 700
6920.15.090	HG PRO 900
6920.15.105	HG PRO 1100
6920.15.130	HG PRO 1300

#### Consumable

6930.00.050

De-ionisation Cartridge



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