

# HG PRO 4000

## PEM Hydrogen generator

The HydroGen series **HG PRO 4000** is able to generate up to 4000 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 two-column PSA drying system with automatic regeneration ensures the maximum grade of hydrogen purity, and is completely maintenance-free. The HG PRO 4000 is the ideal Hydrogen for all GC-FID detectors. The on-board CPU constantly controls the operating parameters to guarantee full safety. 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
- Gas sensing
- Fuel cell
- ICP-MS collision gas

### Main advantages

- ✓ New long life multilayer PEM cell
- ✓ Easy use
- ✓ High flow rate up to 4000 cc/min
- ✓ High pressure up to 16 bar (232 psi)
- ✓ RS 232/485 and USB standard
- ✓ Auto refill standard
- ✓ High purity: 99.99999%
- ✓ Dryer with no maintenance
- ✓ Safety routine and self monitoring
- ✓ High pressure GLS electronically controlled (patented)





## Specifications

Model: HG PRO	4000	4000 LN
<b>General data</b>		
Electrolytic cell	PEM technology	
Drying system	PSA (Pressure Swing Adsorption) / TSA (Thermal Swing Adsorption)	
H2 purity	>99.99999%*1 Dew-point -75°C	>99.99999%*1 Dew-point -80 °C
Outlet pressure	12 bars (174 psi) / 16 bars (232 psi) (optional)	
H2 flow-rate cc/min (Max)	4000	
Dimensions (W x D x H)	44.5 x 66 x 66.5 cm	
Net weight (no water in tank)	52 kg	53 kg
N2 content	< 3 ppm	< 1ppm
<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 (max)	0 bar (0 psi), 0.5 bar (7.25 psi)	
Flow rate (max)	0.25 l/h	
Internal tank capacity	20 L	
<b>Electrical data</b>		
Type of connection	IEC 320-C14	
Power supply voltage	240 Vac (±10%) 50/60 Hz	
Nominal power (Max)	1450W	
Fuse rating (5x20mm)	6.3A (250 Vac – T)	
<b>Connections</b>		
Hydrogen outlet	1/8" compression fitting	
Water	Quick release push-in fitting	
H2 vent	1/8" BSPP female thread (quick fitting for tube 6mm)	
O2 vent	1/4" BSPP female thread (quick fitting for tube 10mm)	
<b>Operating/storage conditions</b>		
Working Temperature	5-40°C (41-104°F)*2	
Storage Temperature	1-50°C (34-122°F)	
Humidity (max, non condensing)	70%	
Noise	< 50dB(A)	
IP rating	IP20	
Pollution degree rating	2 (with no aromatic compounds)	
Altitude	< 2000m	

\*1 referred to O2, dew point atmospheric Dew-point (ADP)

\*2 with temperature > 35°C (> 95°F) the H2 purity could be less

### Ordering codes

#### Gas Generators

6920.15.400

6920.15.400.1

#### Consumable

6930.00.112

HG PRO 4000

HG PRO 4000 LN

Deionizer water filter for HG PRO 4000



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