

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
General data		
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 61.5 cm	
Net weight (no water in tank)	52 kg	53 kg
N2 content	< 3 ppm	< 1ppm
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 (max)	0 bar (0 psi), 0.5 bar (7.25 psi)	
Flow rate (max)	0.25 l/h	
Internal tank capacity	20 L	
Electrical data		
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)	
Connections		
Hydrogen outlet	1/8" compression fitting	
Water	Quick release push-in fitting	
Operating/storage conditions		
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

HG PRO 4000

6920.15.400.1

HG PRO 4000 LN

Consumable

6930.00.112

Deionizer water filter for HG PRO 4000



LNI Swissgas

www.lni-swissgas.eu

LNI Swissgas Srl

Registered office: Via Sassoferrato 1, 20135 Milano MI

Logistics centre: Via E. Mattei 9, 35038 Torreglia PD