

HG PRO LN

PEM Hydrogen generator

H₂

N

The HydroGen series **HG PRO LN** is able to generate up to 1500 cc/min of Hydrogen with purity better than 99.99999% a pressure up to 16 bar (232 psi) and a N₂ content < 1 ppm.

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 checks 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
- CVD application for diamond production

Main advantages

- ✓ New long life multilayer PEM cell
- ✓ High flow rate up to 1500 cc/min
- ✓ High pressure up to 16 bar (232 psi)
- ✓ N₂ content < 1 ppm
- ✓ 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

Model: HG PRO LN	700	900	1100	1300	1500
General data					
Electrolytic cell	Long life Multilayer PEM technology				
Drying system	PSA (Pressure Swing Adsorption)				
H2 purity	>99.99999% *1				
Outlet pressure	12 bars (174 psi) / 16 bars (232 psi) (optional)				
H2 flow-rate (Max)	700	900	1100	1300	1500
N2 content	< 1 ppm				
Dimensions (W x D x H)	27 x 44 x 41 cm				
Net weight (no water in tank)	23.5 Kg	26 Kg			27 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 (1.45 psi), 0.5 bar (7.25 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-C14				
Power supply voltage	100-240 Vac (±10%) 50/60 Hz				
Nominal power (Max)	640W			750W	
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	< 35dB(A)				
IP rating	IP20				
Pollution degree rating	2 (with no aromatic compounds)				
Altitude	< 2000m				

*1 referred to O2, dew point <-80°C (< -112°F), Atmospheric Dew Point (ADP)

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

Ordering codes

Gas Generators

6920.15.070.1

6920.15.090.1

6920.15.105.1

6920.15.130.1

6920.15.150.1

Consumable

6930.00.091

HG PRO 700 LN

HG PRO 900 LN

HG PRO 1100 LN

HG PRO 1300 LN

HG PRO 1500 LN

Deionizer water filter



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