

# HYDRO65 LS

High-Flow, Low-Maintenance Ultra-High-Purity  
Hydrogen Generators to aliment GCs



## DESCRIPTION:

LEMAN Instruments designed the HYDRO65LS product line of High-Flow, Low-Maintenance Ultra-High-Purity Hydrogen Generators to aliment GCs for research on fuel cells and to fit almost any type of application that needs H<sub>2</sub> production close to the consumer in an elegant casing with full-color display and touch screen.

Based on the field-proven Solid Polymer Electrolyte (PEM) cell technology, pure Hydrogen is produced at low pressure from electricity and high-quality distilled water. After production, H<sub>2</sub> is dried by a passive dryer and then purified and dried by an exclusive system. H<sub>2</sub> is available 24/7 with constant purity >99.99995%. Output pressure is regulated electronically and could be set from 0.5 to 7 bar. This process can be started on demand without a caustic solution.

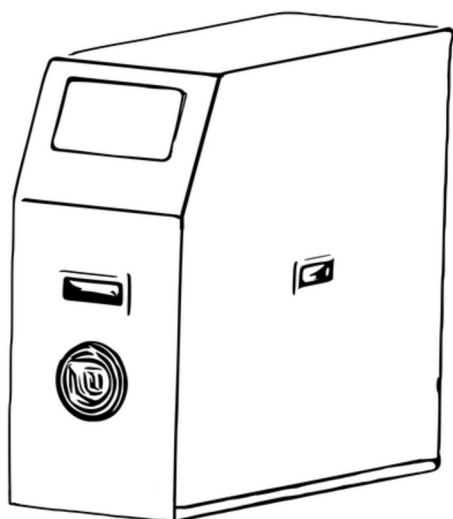
Models with outflows of 1 & 2 L/min H<sub>2</sub> are available. Each instrument is equipped with high-performance communication interfaces, such as USB, RS485, and Ethernet, to create a very flexible gas network with local or central control.

Due to the software's focus on safety, automatic regulation, and intuitive and reliable communications, the HYDRO65LS High Flow, Ultra High Purity Hydrogen Generators are easy to install, reliable, and pleasant to operate.



## APPLICATION TYPES:

- Combustion gas for FID Analyzers
- Carrier gas for Gas Chromatographer
- Fuel Cell Research, Protection gas



## FEATURES:

- Reduces in operation costs. Return on investment within 1.5 years.
- No Maintenance. Easy supervision and diagnosis by module.
- Improves resolution and detection limit versus Helium-only usage.
- Provides high-pressure stability.
- H<sub>2</sub> is available 24/7 at constant purity. No contamination.
- Independent source of Hydrogen that does not require complex piping and can be easily moved around the laboratory.
- Remote control
- Very safe operation, internal leak-test, automatic shut-down, over-pressure valve, H<sub>2</sub>-cell current, and voltage limits.
- No handling and storage of cumbersome gas cylinders. There is no cylinder rental fee.
- Extended autonomy with external 5L water tanks or connection to deionized water distribution network (opt).



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MODELS	HYDRO65 LS-1 HYDRO65 LS-2
LMP Outflow @1013 HPA / 20°C	HYDRO65 LS-1: 1 LMP HYDRO65 LS-2: 2 LMP
H2 purity	>99.99995% (HCnm<0.05 ppm, CH4<0.05 ppm)
Outlet Pressure	From 0.5 to 7 bar (7 to 102 psig)

Dimensions cm / in	L: 60cm / l: 22.5cm / H: 50cm L: 23.6in / l: 8.6in / H: 19.6in
Net weight (kg/lbs)	40kg-50kg / 88lb-110lb

Water quality	High-purity deionized water. TOC free. Conductivity < 1µS/cm
Water source	5L external tank or auto-refill
Water consumption	5L water generates about 6000L Hydrogen
Safety	Overpressure valve; internal leak test; automatic shut down; maximum current limit, water quality
Manual control	Through a 7" TFT-LCD color display with a touchpad located on the front panel. Display of major parameters, pressure, functioning status, and alarms. Intuitive navigation to functions by menus and sub-menus
Remote control, Communications	<ul style="list-style-type: none"> <li>• RS485 (Mod-Bus), USB</li> <li>• Through Ethernet 10/100 network</li> <li>• Logbook download by USB</li> </ul>
Input & Output fittings	Stainless steel 1/8" OD compression
Power supply	Automatic switching from 90 to 260 VAC, 47 to 63 Hz
Power consumption (max at full flow)	HYDRO65LS-1: maximum 500W HYDRO65LS-2: maximum 750W
Ambient temperature	+5 to +35°C, non condensing

