HYDRO65 LS

Analytical Grade Hydrogen Generator

Leman Instruments

DESCRIPTION:

LEMAN Instruments designed the HYDRO65LS product line of Analytical Grade Hydrogen Generator modules, the analytical grade of the range, for GC-MS carrier gas, trace analysis and fuel-cell research applications close to the consumer.

Based on the field-proven Solid Polymer Electrolyte (PEM) cell technology, pure Hydrogen is produced at low pressure from electricity and high-quality deionized water (Zero Water). This process can be started on demand without a caustic solution. The instrument could be alimented directly from a bi-distilled water distribution network (option).

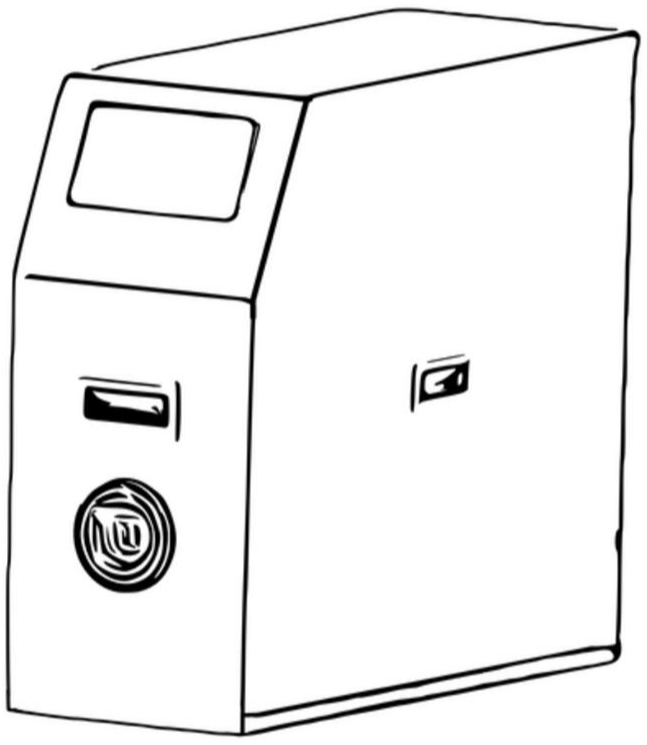
The produced Hydrogen is available 24/7 with a constant purity of >99.99995%, a full order of magnitude cleaner than the standard grade, with non-methane hydrocarbons and methane each below 0.05ppm, at output flows of 1 to 2 NL/min (depending on the model). The H2 output pressure is regulated electronically and can be set from 0.5 to 7 bar (7 to 102 psig).

Each instrument is equipped with high performance communication interfaces RS485, USB and Ethernet, empowering you to create a very flexible gas network with local or central control.



APPLICATION TYPES:

- Carrier gas for GC-MS
- Trace analysis, method conversion from Helium
- Fuel Cell Research, Protection gas



FEATURES:

- Reduces in operation costs. Return on investment within nine months.
- Improves resolution and detection limit versus Helium-only usage. Provides high-pressure stability.
- A full order of magnitude cleaner than the standard grade — built for GC-MS carrier gas and trace work.
- H2 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.
- Smallest footprint on the market.
- Our hydrogen generator ensures a very safe operation with its internal leak-test, automatic shut-down, over-pressure valve, and current and voltage limits.
- No handling and storage of cumbersome gas cylinders. There is no cylinder rental fee.

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MODELS	HYDRO65 LS-1 HYDRO65 LS-2
LMP Outflow @1013 / 20°C	HYDRO65 LS-1: 1 LPM HYDRO65 LS-2: 2 LPM
H2 purity	>99,99995% NMHC & CH4 <0.05ppm each
Dew point	-70°C
Outlet Pressure	From 0.5 – 7 bar (7 – 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)	40–50kg / 88–110lb

Water quality	High-purity deionized water (DI water). TOC free
Water source	2L external tanks or auto-refill
Water consumption	5L water generates about 6000L Hydrogen
Safety	Low H2 stored volume; overpressure valve; internal leak test; automatic shut down; maximum current limit; water quality; over temperature.
Manual control	Through a 7″ TFT-LCD color display with a touch screen on the front panel. Display of significant parameters, pressure, functioning status, and alarms. Intuitive navigation to functions by menus and sub-menus.
Remote control, Communications	• Through Ethernet 10/100 network • Through the WLAN network • Logbook download by USB
H2 outlet fitting	Stainless steel 1/8″ OD compression
Power supply	Automatic switching from 90VAC to 260VAC, 47 to 63 Hz
Power consumption (max at full flow)	LS-1: max 500W LS-2: max 800W
Ambient temperature	+5 to +35°C, non condensing

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