

HYDRO70 R

Ultimate Purity Hydrogen generators to aliment FIDs & GCs, fuel cell, and crystal growing installations



DESCRIPTION:

LEMAN Instruments designed the HYDRO70R product line of Ultimate Purity Hydrogen generators to aliment FIDs & GCs, fuel cell, and crystal growing installations close to the consumer in an elegant 19" casing with full-color display and touchscreen.

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, H₂ is dried and purified by an exclusive No-Maintenance Double Column Purifier module (PSA). H₂ is available 24/7 with constant purity >99.99999%.

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 100, 160, and 300 Nml/min H₂ outflows 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.

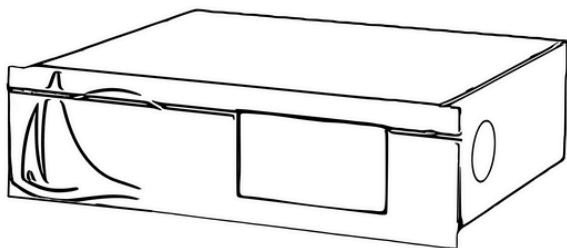


APPLICATION TYPES:

- Combustion gas for FID Analyzers
- Carrier gas for GC and GC/MS-MS
- Reaction gas for ICP-MS
- Protection gas
- MOCVD or Gems Growing

FEATURES:

- Reduces in operation costs. Return on investment within 6-8 months.
- Improves resolution and detection limit versus Helium-only usage. Provides High-pressure stability.
- H₂ is available 24/7 at constant purity. No contamination.
- Independent source of Hydrogen
- Remote control
- Low functioning noise
- Our product guarantees 100% 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	HYDRO70 R-100 HYDRO70 R-160 HYDRO70 R-300
LMP Outflow @1013 HPA / 20°C	HYDRO70 R-100: 0.100 LMP HYDRO70 R-160: 0.160 LMP HYDRO70 R-300: 0.300 LMP
H2 purity	99.99999%
Outlet Pressure	From 0.5 to 7 bar (7 to 102 psig)

Dimensions cm / in	L: 35cm/1: 41.5cm/H: 12cm (3U) L: 13.7in /1:16.lin /H: 4.7in (3U)
Net weight (kg/lbs)	15kg/ 33lbs

Water quality	<ul style="list-style-type: none">• High-purity deionized water (DI water)• TOC free• Conductivity < 1µS/cm
Water source	By external 5L tank or Direct line deionized water consumption
Water consumption	12L water generates about 12 m3 of Hydrogen
Safety	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 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">• RS485 (Mod-Bus), USB• Through Ethernet 10/100 network• Logbook download by USB
Input & Output fittings	Stainless steel 1/4" OD compression
Power supply	Automatic switching from 90 to 260 VAC, 47 to 63 Hz
Power consumption (max at full flow)	maximum 150W
Ambient temperature	+5 to +35°C, non condensing

