



Leman Instruments

HYDRO 65R : NO MAINTENANCE ULTRA HIGH PURITY HYDROGEN GENERATOR



H₂

APPLICATION

- ✓ **Combustion and carrier gas for FID and GC**

DESCRIPTION

LEMAN-Instruments designed the **HYDRO65R** product line of **Non Maintenance Ultra High Purity Hydrogen generator** to aliment an FID and GC, close to the consumer in an elegant 19" casing with full color display and touchpad.

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 system. H₂ 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 and does not require any caustic solution.

Models with outflows of **100, 160, 250, 500 & 600 Nml/min H₂** are available.

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

Due to the software being focused on safety, automatic regulation and intuitive and reliable communications, the **HYDRO65R** is easy to install, reliable, safe and pleasant to operate.

BENEFITS

- ✓ Reduces in operation costs. Return on investment within 15 months.
- ✓ Improves resolution and detection limit versus Helium only usage. Provides High pressure stability.
- ✓ H₂ available 24/7 at constant purity. No contamination.
- ✓ **NO Maintenance on dryer and purification module**
- ✓ Independent source of Hydrogen, can be easily moved around the laboratory.
- ✓ Remote control from PC
- ✓ Low functioning noise < 45dB(A).
- ✓ Very safe operation, internal leak-test, automatic shut-down, over-pressure valve, current and voltage limits.
- ✓ No handling and storage of cumbersome gas cylinders. No cylinder rental fee.
- ✓ Extended autonomy with 5L water tank.

HYDRO 65R

SPECIFICATIONS

Models	HYDRO65R-100 ; HYDRO65R-160 HYDRO65R-250 ; HYDRO65R-500 HYDRO65R-600
Outflow capacities @ 1013/20°C	HYDRO65R-100 : 100 Nml/ min H2 HYDRO65R-160 : 160 Nml/ min H2 HYDRO65R-250 : 250 Nml/ min H2 HYDRO65R-500 : 500 Nml/ min H2 HYDRO65R-600 : 600 Nml/ min H2
H2 purity	>99.99995% (maximum HC content: 0.05ppm) <0.05ppm CH4 Dew point <-65°C
Outlet Pressures	H2: from 0.5 to 7 bar (7 to 100 psig), adjustable by software.
Water quality	High purity distilled+filtered water. TOC free. Conductivity < 1µS/cm
Water capacity	5L external tank. Generates about 6000L Hydrogen
Safety	Low H2 stored volume; over pressure valve; internal leak test; automatic shut down; maximum current limit, water quality, over temperature.
Sound pressure	< 45 dB(A), measured at 1m
Manual control	Through a 4.3" TFT-LCD color display with touchpad, located on the front panel. Display of major parameters, functioning status and alarms. Intuitive navigation to functions by menus and sub menus.(option)
Remote control, Communications	<ul style="list-style-type: none"> ■ Through 2 potential free relay contacts (I/O) ■ USB. RS485 (Mod-Bus) or Display ■ Trough Ethernet 10/100 network ■ Log book download by USB.
Outlet fittings	Stainless steel 1/8" OD compression .
Ambiant temperature	From 5+ to +35°C, non condensing.
Power supply	Automatic switching from 90VAC to 260VAC, 47 to 63 Hz
Power consumption (max at full flow)	HYDRO65R-100 & 160: maximum 80W HYDRO65R-250 : maximum 130W HYDRO65R-600 : maximum 250W
Dimensions	W=483mm/19ins, H=132mm/5.2ins (3U), D=500mm/20ins
Net weight	HYDRO65R-100 to HYDRO65R-250 : 13.5 Kg HYDRO65R-500 & 600: 15.5 Kg
Certification	CE

ORDERING NUMBERS

Model	Article #
HYDROSTATION60R-100	721401
HYDROSTATION60R-250	721403
HYDROSTATION60R-600	721404

Model	Article #
HYDROSTATION60R-160	721402
HYDROSTATION60R-500	721405

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