



Leman Instruments

HYDRO65L – ULTRA HIGH PURITY HYDROGEN GENERATOR



H₂

APPLICATIONS

- ✓ Combustion gas for FID Analyzers
- ✓ Carrier gas for GC and GC/MS
- ✓ Reaction gas for ICP-MS
- ✓ Protection gas

BENEFITS

- ✓ Reduces in operation costs. Return on investment within 2 years.
- ✓ No Maintenance.
- ✓ Improves resolution and detection limit versus Helium only usage. Provides High pressure stability.
- ✓ H₂ available 24/7 at constant purity. No contamination.
- ✓ Independent source of Hydrogen that does not require any piping and can be easily moved around the laboratory. Remote control from PC, I-phone and tablets
- ✓ Stackable casing for low footprint gas generator network assembly.
- ✓ 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.

DESCRIPTION

LEMAN-INSTRUMENTS designed the **HYDRO65L** product line of **Ultra High Purity Hydrogen Generator** for FID, Carrier Gas for GC and GC/MS, to fit almost any type of application which needs H₂ production close to the consumer in laboratory environment, without trouble of regular maintenance.

Based on the field proven Solid Polymer Electrolyte (PEM) cell technology, Ultra pure Hydrogen is produced at low pressure from electricity and high quality distilled water. This process can be started on demand and does not require any caustic solution.

The produced Hydrogen is available 24/7 with constant purity of **99.99995%** at output flows of **100 to 600 Ncc/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, Ethernet, WLAN) to create a very flexible gas network with local or central control.

Due to the software being focused on safety, automatic regulation and reliable communications, the **HYDRO65L Ultra High Purity Hydrogen Generators** are easy to install, reliable, safe and pleasant to operate.

ULTRA HIGH PURITY HYDROGEN GENERATOR

SPECIFICATIONS

Models	HYDRO65L-100, HYDRO65L-160, HYDRO60L-250, HYDRO65L-300, HYDRO65L-500, HYDRO60L-600.
H2 Outflow @ 1013/20°C	HYDRO65L-100 = 100 Nml/min ; HYDRO65L-160 = 160 Nml/min HYDRO65L-250 = 250 Nml/min ; HYDRO65L-300 = 300 Nml/min ; HYDRO65L-500 = 500 Nml/min ; HYDRO65L-600 = 600 Nml/min
H2 purity	>99.99995% (HC=0 ppm, CO<1ppm) < 0.05ppm CH4
Dew point	-65°C / -105°F
Outlet Pressure	From 0.5 to 7 bar (7 to 102 psig), adjustable by software.
Water quality	High purity distilled+filtered water. TOC free. Conductivity < 1µS/cm
Water capacity	5L external tank or auto-refill (option) .
Water consumption	5L water generates about 6000L Hydrogen
Safety	Low H2 stored volume; over pressure valve; internal leak test; automatic shut down; maximum current limit, water quality
Manual control	Through a 4.3" TFT-LCD color display with touchpad, located on the front panel. Display of major parameters, pressure, functioning status and alarms. Intuitive navigation to functions by menus and sub menus. (option)
Remote control, Communications	<ul style="list-style-type: none"> ■ USB. RS485 (Mod-Bus) or Display.. ■ Trough Ethernet 10/100 network ■ Trough WLAN network, with PC, I-Phone, tablets (option) ■ Log book download by USB.
H2 outlet fitting	Stainless steel 1/8" OD compression
Ambient temperature	+5 to +35°C, non condensing.
Power supply	Automatic switching from 90VAC to 260VAC, 47 to 63 Hz
Power consumption (max at full flow)	HYDRO65L-100 to HYDRO65L-300: maximum 150W HYDRO65L-500 and HYDRO65L-600: maximum 250W
Dimensions	W=220mm/8.3ins, H=135mm/5.3ins, D=360mm/14.2ins
Net weight (Kg/lbs)	HYDRO65L-100 to HYDRO65L-300: 10 Kg / 22 Lbs HYDRO65L-500 to HYDRO65L-600: 12 Kg / 26 Lbs
Certification	CE

ORDERING NUMBERS

Model	Article #
HYDRO65L-100	731401
HYDRO65L-160	731402
HYDRO65L-250	731403
WLAN Interface option	731281

Model	Article #
HYDRO65L-300	731404
HYDRO65L-500	731406
HYDRO65L-600	731407
Ethernet Interface option	731282

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