



## HYDRO60LS – HIGH FLOW, ULTRA HIGH PURITY HYDROGEN GENERATOR



### APPLICATIONS

- ✓ Carrier gas for Gas Chromatographs
- ✓ Fuel Cell research, Protection gas

### DESCRIPTION

**PEUS-Instruments** designed the **HYDRO60LS** product line of **High Flow, Ultra High Purity Hydrogen Generator** to aliment GCs, for research on fuel cell and to fit almost any type of application which needs H<sub>2</sub> production close to the consumer in an elegant 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, H<sub>2</sub> is dried first by a passive dryer and then purified and dried by passing through a No Maintenance PSA module. H<sub>2</sub> is available 24/7 with constant purity **>99.9999%**. Output pressure is regulated electronically and could be set from 0.5 to 8 bar. This process can be started on demand and does not require any caustic solution. The device is composed of one or two independent modules (1.2 L/min by module), connected in parallel and controlled by an RS485 internal bus (cogeneration). In case of failure, each module could be switched off and removed from the device.

Models with outflows of **1.2 and 2.4 L/min** H<sub>2</sub> are available.

Each instrument is equipped with high performance communication interfaces RS485, Ethernet and WLAN 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 **HYDRO60LS High Flow, Ultra High Purity Hydrogen Generators** are easy to install, reliable and pleasant to operate.

### BENEFITS

- ✓ Reduces in operation costs. Return on investment within 1.5 year.
- ✓ 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> 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 I-pad.
- ✓ 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. No cylinder rental fee.
- ✓ Extended autonomy with internal 12L water tanks or connection to water distribution network (opt).

# HYDRO60LS HIGH FLOW, ULTRA HIGH PURITY HYDROGEN GENERATOR

## SPECIFICATIONS

<b>Models</b>	<b>HYDRO60LS-1200, HYDRO60LS-2400.</b>
H2 Outflow @ 1013/20°C	HYDRO60LS-1200 = 1200 Nml/min ; HYDRO60LS-2400 = 2400 Nml/min
H2 purity	<b>&gt;99.9999% (HC&lt;0.1ppm)</b>
Dew point	< -70°C
Outlet Pressure	From 0.5 to 8 bar (7 to 110 psig), adjustable by software.
Water quality	High purity distilled + filtered water. TOC free.
Water alimentation	Internal tank, 12L or central distribution network (option)
Water consumption	12L water generates about 14 m <sup>3</sup> Hydrogen
Safety	Low H2 stored volume; over pressure valve; leak test; automatic shut down; maximum current limit, water quality
Sound pressure	< 50 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.
Remote control, Communications	<ul style="list-style-type: none"> <li>■ Trough Ethernet 10/100 network (option)</li> <li>■ Trough WLAN network, with PC, I-Phone, I-Pad (option)</li> <li>■ Log book download by USB.</li> </ul>
H2 outlet fitting	Stainless steel 1/4" OD compression
Power supply	Automatic switching from 90VAC to 260VAC, 47 to 63 Hz
Power consumption ( max at full flow)	HYDRO60LS-1200 : maximum 500W; HYDRO60LS-2400: maximum 1000W
Dimensions	W=23cm, H=60cm, D=50cm
Net weight, without water	HYDRO60LS-1200 : 28Kg; HYDRO60LS-2400 : 40Kg
Certification	CE

## ORDERING NUMBERS

Model	Article #
HYDRO60LS-1200	741211
HYDRO50LS-2400	741212

Model	Article #
LAN interface option	741281
WLAN Interface option	741283
Central distribution network (option)	741251

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