



# Leman Instruments

## GC STATION XL LC: HIGH PURITY HYDROGEN & ZERO AIR & NITROGEN GENERATORS WITH ON BOARD COMPRESSOR



# H<sub>2</sub> + AIR + N<sub>2</sub>

### APPLICATION

- ✓ Combustion, carrier and make up gases for GC and GC/MS

### DESCRIPTION

**LEMAN-INSTRUMENTS** designed the **GCSTATION XL LC** product line of **High Purity Hydrogen & Zero Air & Nitrogen generators with compressor** to supply independently all gases necessary to aliment GC and GC/MS, close to the consumer in an elegant casing with full color display and touchscreen.

The GCStation is composed of an Ultra High purity Hydrogen generator, an Ultra Zero Air and Nitrogen generators and an AIR compressor system.

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. It is available 24/7 with constant purity >99.999%. 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.

Compressed AIR is first dried and passes throughout a hot catalytic chamber to remove HC, CO and CH<sub>4</sub> (if option Methan (CH<sub>4</sub>) Scrubber is chosen) then ZERO AIR passes through a Pressure Swing Adsorption (PSA) module to dry and filter it from pollutant gases. Based on the same concept, Nitrogen is then extracted from a set of filters filled up with CMS.

Both Output pressures are regulated electronically from 0.5 to 5 bar.

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

### BENEFITS

- ✓ Reduces in operation costs. Return on investment within 12 months.
- ✓ Improves resolution and detection limit versus Helium only usage. Provides High pressure stability and constant purity of gases
- ✓ H<sub>2</sub>, Zero Air and N<sub>2</sub> available 24/7 at constant purity. No contamination.
- ✓ Independent source of Hydrogen, Zero Air and Nitrogen, does not require any piping and can be easily moved around the laboratory. Remote control from PC
- ✓ Low noise compressor
- ✓ 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.
- ✓ Long life compressor with power economy function.

# GC STATION XL LC

## SPECIFICATIONS

<b>Models</b>	<b>GCSTATION XL LC-1000/5000/1000 (minimum configuration, customizable)</b>
Outflow capacities @ 1013/20°C	GCSTATION XL LC-1000/5000/1000 : 300 Nml/ min H2 & 3000 Nml/min AIR & 2500 Nml/min N2
H2 purity	>99.999% (maximum HC content : 0.05ppm )
AIR purity	< 400ppm H2O (<-30°C DP / -28°F DP) ; if option Methan (CH4) Scrubber then < 50 ppb HC ; < 50 ppb CO and CH4; Particulates <0.1µm
N2 purity	> 99.999% N2, < -60°C dew point, < 10ppm O2, particulates <0.1µm
Outlet Pressures	H2 : from 0.5 to 7 bar (7 to 100 psig), adjustable by software. AIR& N2: from 0.5 to 5 bar (7 to 70 psig), adjustable by software.
Water quality	High purity distilled+filtered water. TOC free.
Water source	5L tank or auto-refill (option)
Water capacity	5L water generates about 6000L Hydrogen, possibility of ON BOARD WATER TANK.
Compressed Air	Supplied by internal oil free piston compressor
Safety	Low H2 stored volume; over pressure valve; internal leak test; automatic shut down; maximum current limit, water quality, over temperature.
Sound pressure	< 55 dB(A), measured at 1m
Manual control	Through a 4.3" TFT-LCD color display with touch screen, located on the front panel. Display of major parameters, pressure, water level, functioning status and alarms. Intuitive navigation to functions by menus and sub menus.
Remote control, Communications	<ul style="list-style-type: none"> <li>■ USB. RS485 (Mod-Bus) or Display</li> <li>■ Trough Ethernet 10/100 network</li> <li>■ Trough WLAN network, with PC, I-Phone, I-Pad (option)</li> <li>■ Log book download by USB</li> </ul>
Outlet fittings	Stainless steel 1/8" OD compression
Power supply	90 to 120 VAC, 50-60Hz or 220 to 260 VAC, 50-60Hz
Power consumption ( max at full flow)	GCSTATION XL-LC: maximum 1000W
Ambient temperature	+5 to +35°C, non condensing.
Dimensions	Max : W=550mm, H=700mm, D=600mm with castors
Net weight	GCSTATION XL LC-xx/xx/xx : min 65 Kg
Certification	CE

## ORDERING NUMBERS

Model	Article #	Model	Article #
GCSTATION60LC-XL	743210		

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