



**Leman Instruments**

SWISS TECHNOLOGY

## LISAS H2 - HIGH PURITY HYDROGEN GENERATOR



# H<sub>2</sub>

### APPLICATIONS

- ✓ Combustion gas for FID Analyzers
- ✓ Carrier
- ✓ gas for Gas Chromatographers
- ✓ Protection gas
- ✓ Any application that require H<sub>2</sub> at this purity

### DESCRIPTION

The models LISAS H2 are designed to supply any analytical application that require this purity and outflow of H<sub>2</sub>. This model is to be used exclusively in a laboratory environment. With this generator the customer will never be closest to his Hydrogen production.

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 (ZEROWATER). This process can be started on demand and does not require any caustic solution.

The produced Hydrogen is available 24/7 with constant purity at **99.999%** with an output flows of **250 or 500 Ncc/min** based on the model choice. The H<sub>2</sub> output pressure is regulated electronically and can be set from 0.5 to 10 bar (7 to 140 psig).

Each instrument is equipped with an Ethernet and WIFI communication system 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 LISAS H2 generators are easy to install, reliable, safe and extremely simple to operate.

### BENEFITS

- ✓ Reduces in operation costs. Return on investment within 6 months (based on a daily use).
- ✓ 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.
- ✓ 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.

# LISAS H2 - HIGH PURITY HYDROGEN GENERATOR

## SPECIFICATIONS

|  |   |
|--|---|
| <b>Models</b>                            | <b>LISAS H2-250, LISAS H2-500</b>   |
| H2 Outflow<br>@ 1013/20°C                | LISAS H2-250 = 250 Nml/min<br>LISAS H2-500 = 500 Nml/min  |
| H2 purity                                | <b>&gt;99.999% (maximum HC content: 0.1ppm )</b>  |
| Dew point                                | -40°C   |
| Outlet Pressure                          | From 0.5 to 10 bar (7 to 140 psig), adjustable by software.   |
| Water quality                            | High purity deionised water. TOC free.  |
| Water source                             | 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, over temperature.   |
| Manual control                           | Through a 4.3" TFT-LCD color display with touch screen, 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,<br>Communications        | <ul style="list-style-type: none"><li>■ Trough Ethernet 10/100 network</li><li>■ Trough WLAN (WIFI)</li></ul>   |
| H2 outlet fitting                        | Stainless steel 1/8" OD compression   |
| Power supply                             | Automatic switching from 90VAC to 260VAC, 47 to 63 Hz   |
| Power consumption<br>( max at full flow) | LISAS H2-250 : maximum 150W<br>LISAS H2-500 : maximum 300W  |
| Ambient temperature                      | +5 to +35°C, non condensing.  |
| Dimensions                               | W=210mm/8.2ins, H=160mm/16ins, D=430mm/16ins, stackable   |
| Net weight (Kg/lbs)                      | LISAS H2-250: 9 Kg / 20 Lbs<br>LISAS H2-500: 14Kg / 28Lbs   |
| Certification                            | CE  |

## ORDERING NUMBERS

| Model        | Article # |
|--------------|-----------|
| LISAS H2-250 | 75-8002   |

| Model        | Article # |
|--------------|-----------|
| LISAS H2-500 | 75-8004   |

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