

# PG-PLUS Hydrogen Generator



## PG-PLUS > 99,9996% H<sub>2</sub> (Grade 5.6)

| MODELS                        | PG-100 PLUS  | PG-160 PLUS | PG-250 PLUS | PG-500 PLUS |
|-------------------------------|--|-------------|-------------|-------------|
| Part Number                   | N9308577   | N9308578    | N9308579    | N9308580    |
| Flow mL/min.                  | 100  | 160         | 250         | 500         |
| Purity                        | 99.9996%   | 99.9996%    | 99.9996%    | 99.9996%    |
| Dewpoint at Seven Bar         | -25 °C (-77 °F)  |             |             |             |
| Outlet Pressure Bar (psi)     | 0.5 to 11 (7 to 160)   |             |             |             |
| Technology                    | PEM (Proton Exchange Membrane) - 100% Titanium cell  |             |             |             |
| Drying System                 | Regenerative Permeation Membrane   |             |             |             |
| Deionised Water Quality       | Minimum <1 micro S/cm @ 25 °C - 1 Mohm-cm @ 25 °C – ASTM II<br>Recommended <0.2 micro S/cm @ 25 °C – 5 Mohm-cm @ 25 °C – ASTM II |             |             |             |
| Internal Water Tank (Litres)  | 2.5  |             |             |             |
| Safety                        | Automatic shut down - internal/external hydrogen leak, overpressure and low water  |             |             |             |
| Display                       | Touch screen with operating parameters, system status and safety alarms  |             |             |             |
| Led Indicators                | Power on / off, system ready, errors   |             |             |             |
| Interface                     | USB mod A  |             |             |             |
| Electrical Supply             | 110-120V 60Hz / 220-240V 50Hz  |             |             |             |
| Power Consumption Watts       | 75   | 95          | 140         | 190         |
| Dimensions mm (in.)           | 230W x 480H x 370D (9W x 19H x 15D)  |             |             |             |
| Product Weight kg (lb)        | 13 (28.5)  | 13 (28.5)   | 13 (28.5)   | 15 (33)     |
| Shipping Box Dimensions       | 580W x 570H x 400D (22.8W x 22.4H x 15.7D)   |             |             |             |
| Shipping Weight kg (lb)       | 17 (37.5)  | 17 (37.5)   | 17 (37.5)   | 19 (42)     |
| Operating Temperature °C (°F) | 15 to 35 (59 to 95)  |             |             |             |
| Outlet Connection             | 1/8" Compression   |             |             |             |
| Certification                 | CE, MET, FCC   |             |             |             |
| OPTIONS                       |  |             |             |             |
| Auto Water Refill             | Continuous water feed from an external water supply  |             |             |             |
| Cascading                     | Up to 10 units – built in redundancy for guaranteed up-time  |             |             |             |
| Interface                     | RS232 / RS485, external contacts, PC control and intranet  |             |             |             |

## Applications

### GC Applications

- **Gc-Fid** Fuel Gas
- **Gc-Npd** Plasma Gas
- **Gc-Fpd** Fuel Gas

### Analyzer Applications

- **Total Hydrocarbon Analyzer (Tha)** Fuel Gas

### Other Lab Applications

- **Hydrogenation Reactors**
- **Hydrogen Fuel Cells**

## Increase Laboratory Efficiency

A constant gas supply with a guaranteed purity, eliminates interruptions of analyses to change cylinders and reduces the amount of instrument re-calibrations required.

## Improve Safety

Gas is produced on demand, which allows for the safe use of the hydrogen generator when cylinders are prohibited or regarded as potentially dangerous. Sophisticated software control and full alarm capability, including for hydrogen leaks, gives the users full control of the gas supply.

## Enhance Instrument Performance

Gas generators can be installed in the laboratory close to the instrument, eliminating the need for long gas lines from external cylinder supplies. A constant guaranteed high purity gas supply improves stability and ensures greater reproducibility of results.

The PerkinElmer hydrogen generators offer the optimum combination of safe operation, reliability and performance. Designed as a hazard free alternative to high pressure cylinders, all that is required is deionised water and a standard electrical supply for weeks of continuous operation.

Utilizing the propriety prepared field proven PEM (Proton Exchange Membrane) incorporated inside a 100% titanium cell, provides superior generator performance and cell life. The unique high pressure Nafion membrane drying system eliminates the requirement for desiccant cartridges along with the associated downtime and cost. Innovative software control allows unrivalled operational performance and safety as well as the additional options of auto water feed, remote networking and cascading for built in redundancy.

With a maximum output capacity of 600 ml/min, one generator can supply up to 14 GC's. The compact design allows the generator to be installed directly in the laboratory eliminating the requirement for long gas lines and guaranteeing the delivery of high purity gas to your GC.

A sophisticated control system connected to a touch screen control, continuously monitors the vital operating parameters to ensure a safe and consistent performance. Built in sensors will shut the generator down if internal/external leaks are present, contaminated water, low water or over pressure. This is why our generators meet the strict safety guidelines to be certified for CE, MET and FCC.

## Features

- Produces a continuous supply of hydrogen
- On demand supply 24/7
- Flow rate: 100 to 600 ml/min
- Purity: 99.9996%
- Pressure: 11 bar
- Proprietary 100% titanium cell technology
- Unique Nafion membrane drying system
- USB connectivity
- Two year complete cell and product warranty
- Easy to install, operate and maintain

## Benefits

- Eliminates dangerous high pressure cylinders helping to keep your employees safer
- Removes the logistics, inconvenience, downtime and costs of a cylinder system
- Flow capacity to match your specific instrument demands
- Ideal for all GC detector applications
- Meets and exceeds the requirements for the most demanding GC applications
- Superior hydrogen production with reliable long life cell
- Minimal maintenance - no desiccant cartridges to change
- PC monitoring for maintenance, diagnostics and remote connection
- Peace of mind
- Improve your laboratory work flow and productivity

PerkinElmer, Inc.  
940 Winter Street  
Waltham, MA 02451 USA  
P: (800) 762-4000 or  
(+1) 203-925-4602  
[www.perkinelmer.com](http://www.perkinelmer.com)



For a complete listing of our global offices, visit [www.perkinelmer.com/ContactUs](http://www.perkinelmer.com/ContactUs)

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