PGX-H_2 Plus Pure Gas Hydrogen Generators

Pure gas hydrogen generator employ the newest membrane technology available for the safe production of pure hydrogen gas. This patented design is ideal for operation with gas analyzers, as fuel gas for flame tools, or as a source for pure hydrogen in plasma chambers and other isolated environments. Electrolytic membrane technology is preferred over alternative hydrogen generating techniques because it is clean, requires less maintenance and there is no need to store chemicals to maintain operation. The generators offer silent operation and require only deionized or distilled water with no caustic solutions which can affect the purity of the hydrogen.

Technical Specifications for PGX-H_2 Plus Models

Specifications	
Purity	99.999% / hydrocarbon free < 0.1 ppm
Delivery Pressure	20 - 1555 psig / 1.4 - 11 barg
Height	43 cm (16.9 in)
Width	23 cm (9.1 in)
Depth	36 cm (14.2 in)
Weight	20 kg (44 lbs)
Ambient Temperature Range	-20 °C to + 60 °C (-4 °F to + 140 °F)
Water Quality	Deionized or distilled <10 uS conductivity
Supply Voltage Range	230V/50-60Hz - 110V/60Hz - 100V/60Hz
Fitting	1/8" for the H2 outlet

PGX-H_2 Plus Generator Models

Flow Rate	Part No.
100 mL/min	**N9308577**
160 mL/min	**N9308578**
250 mL/min	**N9308579**
500 mL/min	**N9308580**
1000 mL/min	Not Available

PGX-H_2 Plus Generator Replacement Parts

Description	Part No.
Desiccant Cartridge, Fitting and Refill Kit	**N9306064**
Desiccant Refill (sufficient for 3 cartridge refills)	**N9306065**
Deionizer Bag	**N9307097**

NM-H_2 Plus Pure Gas Hydrogen Generators

A Safe Source of Hydrogen

Both the PGX-H_2 and the No Maintenance Hydrogen Generators have an auto shutoff procedure that places the units in standby in the event of an internal error and selectable alarms allow the user to be informed whenever operating conditions vary from the set point.

The No Maintenance (NM-H_2) Hydrogen Pure Gas Generators employ the newest membrane technology available for electrolytic production of pure hydrogen gas, including exclusive no maintenance auto-drying technology.

Technical Specifications for NM-H_2 Plus Models

Specifications	
Purity	99.9999% / hydrocarbon free < 0.1 ppm
Delivery Pressure	20 - 1555 psig / 1.4 - 11 barg
Height	43 cm (16.9 in)
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Water Quality	Deionized or distilled <10 uS conductivity
Supply Voltage Range	230V/50-60Hz - 110V/60Hz - 100V/60Hz
Fitting	1/8" for the H2 outlet

NM-H_2 Plus Generator Models

Flow Rate	Part No.
100 mL/min	**N9308581**
160 mL/min	**N9308582**
250 mL/min	**N9308583**
500 mL/min	**N9308584**
1000 mL/min	**N9308585**

NM-H_2 Plus Generator Accessories

Description	Part No.
I/O Board	**N9307094**
Cable for Cascading*	**N9307093**
Remote Control RS-232 (includes converter, cables and sofware)*	**N9307095**
Auto Refill *	**N9307096**

* Requires I/O Board

NM-H_2 Plus Generator Replacement Parts

Description	Part No.
Deionizer Bag	**N9307097**
Triangle Deionizer Bag	**N9307098**

High Purity Hydrogen Generators - Parker Domnick Hunter

The Parker Domnick Hunter high purity hydrogen gas generators offer the optimum combination of safe operation, reliability and performance. Utilizing field proven PEM cell technology, hydrogen is produced on demand from deionized water and electricity at low pressure and with minimal stored volume. Innovative control software allows unrivalled operational safety and reliability. These models ideally supply fuel gas to all known GC combustion detectors used in today's laboratory workflows.

Technical Specifications

Specifications	
Purity	99.999%
Delivery Pressure	5 - 100 psi/g
Height	46 cm (17.9 in)
Width	35 cm (13.5 in)
Depth	44 cm (17.2 in)
Weight	20 kg (41.9 lbs)
Ambient Temperature Range	+5 °C to +40 °C (+41 °F to +104 °F)
Water Quality	Deionized, ASTM® II, >1MΩ, <1 µS, filtered to <100 µm
Supply Voltage Range	Universal 120/230 V ± 10% (60/50 Hz)
Fitting	Hydrogen Outlet: 1/8" compression fitting Water Drain: quick release push in fitting

High Purity Generator Models

Flow Rate	Part No.
160 mL/min (20H Model)	**N9303225**
250 mL/min (40H Model)	**N9303226**
500 mL/min (60H Model)	**N9303227**
1000 mL/min	Not Available

Ultra High Purity Hydrogen Generators - Parker Domnick Hunter

The Parker Domnick Hunter high purity hydrogen gas generators offer the optimum combination of safe operation, reliability and performance. Utilizing field proven PEM cell technology, hydrogen is produced on demand from deionized water and electricity at low pressure and with minimal stored volume. Innovative control software allows unrivalled operational safety and reliability. These models ideally supply fuel gas to all known GC combustion detectors used in today's laboratory workflows.

Technical Specifications

Specifications	
Purity	99.99995%
Delivery Pressure	10 - 100 psi/g
Height	46 cm (17.9 in)
Width	35 cm (13.5 in)
Depth	47 cm (18.5 in)
Weight	21 kg (45.2 lbs)*
Ambient Temperature Range	+5 °C to +40 °C (+41 °F to +104 °F)
Water Quality	Deionized, ASTM® II, >1MΩ, <1 µS, filtered to <100 µm
Supply Voltage Range	Universal 120/230 V ± 10% (60/50 Hz)
Fitting	Hydrogen Outlet: 1/8" compression fitting Water Drain: quick release push in fitting

* 1100 mL/min model is 24 kg (51.8 lbs)

Ultra High Purity Generator Models

Flow Rate	Part No.
160 mL/min (20H-MD Model)	**N9303201**
250 mL/min (40H-MD Model)	**N9303202**
500 mL/min (60H-MD Model)	**N9303203**
1100 mL/min (110H-MD Model)	**N9303204**

FID STATION PLUS -

All in one Hydrogen / Air generator

Generatore di idrogeno e aria due in uno

PATENT PENDING

DBS

FID STATION PLUS

PATENT PENDING

UNIQUE FEATURES

- Save lab bench space, place the FID Station Plus UNDER your GC. (Between GC and Bench)
- Built-in Water tank capacity : 7 lit
- No need of external water tank
- Single Plug connection 220V or 110V for both instrument
- H2 No maintenance thanks to exclusive no-heated dryer
- Easy Change deionizer bag without need to switch off
- In case of service, the "core unit" is easily extractable. Easy service thanks to internal rails and sliders.

OTHER FEATURES

- H2 Generator + Zero Air Generator All-In-One
- Automatic Easy refill
- Cascading available up to 32 units
- PC Remote Software control via USB or RS232
- Remote alarms/management
- Optional H2 sensor

CARATTERISTICHE UNICHE

- Design salva-spazio: il FID STATION Plus va collocato tra il banco e il GC.
- Autonomia 7lt d'acqua demineralizzata tramite sistema interno di serbatoi
- Non necessita di taniche esterne
- Alimentazione unica per entrambi gli strumenti (220v o 110V)
- Sezione Idrogeno priva di manutenzione, grazie all'esclusivo dryer non riscaldato
- Semplice sostituzione sacchetto deionizzante, senza attrezzi e senza spegnere lo strumento
- Facilmente estraibile grazie alle apposite guide.

ALTRE CARATTERISICHE

- H2 Generator + Zero Air Generator All-In-One
- Refill Automatico facilitato
- Opzione Cascading fino a 32 unità
- Software per il controllo remoto dell'unità via USB o porta RS232
- Allarmi e controllo remotabili
- Sensore H2 (forno GC) opzionale

DESCRIPTION
DESCRIZIONE

The **FID STATION PLUS** hydrogen and air generator uses the new and latest technology in polymer membrane (PEM) for the production of pure hydrogen. Ideal for use in gas chromatographic detectors such as:

- **FID / NPD / TCD**
- **Reagent gas for ELCD / HALL.**

Its orizontal format allows positioning in over the laboratory bench while it provides you a support for set your GC, optimizing the space you need. Its 17 cm–only-height guarantee the best access to the injectors of any GC in the market. Generator is equipped with an automatic loading of de-ionized water from a smart internal system tanks that give to the customer a 7 litres of water autonomy, it means that with a FID standard flow, the FID STATION PLUS can provide up to 7000 litres of H2 before the user refills it. Moreover, the practical system of internal de-ionizing cartridge replacement greatly simplifies the only maintenance recommended.

Generator is available in the usual flows of H2 production up to 600cc/min with a purity of 6.0 or 7.0. It is also available for all models, the Zero Air generator that provides 1.5lt of Zero Air with a contents of HC around 0.5ppm. It integrates, a filtration system HC-H2O air into the Hydrogen Generator Rack (oil-free compressor not included). The FID STATION PLUS is the best solution for the GC-FID systems. The system is available in the version:

- **H2 Generator**
- **H2 Generator + Zero Air Generator**

in the same core unit and with the same dimensions.

Il generatore d'idrogeno ed aria **FID STATION PLUS** utilizza la nuova e più recente tecnologia a membrana polimerica (PEM) per la produzione d'idrogeno puro. Ideale per l'utilizzo per rivelatori gas cromatografici quali:

- **FID / NPD / TCD**
- **Gas reagente per: ELCD / HALL.**

Lo sviluppo orizzontale della FID STATION PLUS ne permette il posizionamento sopra il banco da lavoro consentendo nel contempo un piano d'appoggio per un GC o GC-MS ottimizzando così lo spazio. La sua altezza di soli 17 cm garantisce il completo accesso agli iniettori di qualsiasi modello GC presenti sul mercato. Il generatore è provvisto di un sistema automatico di caricamento acqua de-ionizzata tramite un intelligente sistema di taniche interne che garantiscono all'utente una capienza superiore ai 7 litri di acqua demineralizzata. Il pratico sistema di sostituzione del sacchetto deionizzante semplifica notevolmente l'unica operazione di manutenzione consigliata senza la necessità di spegnere lo strumento.

Il generatore è disponibile con flussi di produzione H2 sino a 600 cc/min con purezza sino a grado 7 e pressione di 11 bars. Nel sistema è integrato anche il purificatore d'aria Zero capace di erogare sino a 1500 cc/min di Aria pura. Il sistema FID STATION PLUS è disponibile nella versione:

- **Generatore di H2**
- **Generatore di H2 + Generatore d'Aria**

nello stesso chassis e con le medesime dimensioni ridotte.

CONTROL

- Full microprocessor control
- LCD touch screen interface or push bottons: real time outlet pressure, water quality, autodiagnostics
- Leak detectors, water level and quality sensors
- Optimized powerful water pump for PEM cell

EASY AND QUICK USE

- No caustic solution used and automatic cold dryer regeneration
- Low energy consumption
- Remote Software Control via RS232, USB, Intranet, (also for cascading system)
- Automatic Stand-By mode controlled Hydrogen sensor (optional) in case of leaks (LEL oven GC)

CONTROLLO

- Microprocessore Interfaccia di controllo LCD touch screen con visualizzazione in tempo reale di: pressione erogata, qualità dell'acqua, autodiagnostica con allarmi rivelatori di perdite H2, livello e qualità dell'acqua.
- Massima silenziosità operativa.

SEMPLICITÀ D'USO

- Totale assenza di soluzioni caustiche e rigenerazione statica (purezza 6) o dinamica (purezza 7) dell'essicatore
- Accelerometro standard antischock
- Porta USB standard
- Display di controllo parametri idrogeno e manometro controllo Aria Zero facilmente visibili e gestibili.

CE, CSA,
ATEX, FCC

CERTIFICATIONS
CERTIFICAZIONI

PATENT PENDING

IMPROVED CHROMATOGRAPH RESULTS
MIGLIORI RISULTATI CROMATOGRAFICI

Hydrogen as a carrier gas is faster and more sensitive than the more expensive helium. Run time savings of 25% to 35% without a decline in resolution.

L'idrogeno quale gas di trasporto è più veloce e sensibile rispetto al costoso elio. Notevole risparmio di tempo d'analisi senza perdita di risoluzione.

SAFETY
SICUREZZA

The very limited internal volume (less than 50 ml) allows safe use of the gas generators where the use of cylinders is risky or prohibited.
The application of tested safety technologies stops the unit in the event of leaks or malfunctions. An optional hydrogen sensor is available for monitoring the oven-LEL of the GC. The DBS Plus serie includes also, additional security features like the shock sensor against shocks provocked by earthquake.

Il limitato volume interno di H2 inferiore a 50 ml rende il funzionamento sicuro in spazi dove l'utilizzo delle bombole è rischioso o proibitivo.
L'utilizzo di comprovate tecnologie di sicurezza bloccano il sistema in tutti i casi di malfunzionamento o perdite. Un sensore opzionale è disponibile per l'installazione nel forno del gascromatografo. La serie DBS Plus dispone di accelerometro standard in grado di bloccare il generatore qualora siano presenti forti scosse (es. terremoto).

SERBATOIO DA
7 l

FINO A CIRCA
6 MESI
DI ANALISI FID

LA PIÙ GRANDE AUTONOMIA OFFERTA SUL MERCATO*

SAVINGS
RISPARMIO

Hydrogen gas generators avoid the need for expensive installation of gas pipelines from the cylinder storerooms to the labs, as well as the need to repeatedly change the bottles.
The dual configuration H2 or H2 + Air, available in all-in-one instrument, saves space and costs.

L'uso del generatore d'idrogeno evita costosi impianti per il trasporto del gas dal bunker esterno all'utenza finale, oltre alla continua sostituzione di bombole per il successivo riempimento. La doppia configurazione H2 o H2+Aria, disponibile in un solo rack di dimensioni ridotte, consente di ottimizzare gli spazi ed i costi.

* senza l'ausilio di taniche esterne

LAB PRODUCTIVITY
PRODUTTIVITÀ

Continuous operation 24 hours a day allows maximum lab productivity, cutting dead time for gas bottle changeover and maintenance of the drying

Il continuo funzionamento h24/7 consente la massima produttività del laboratorio, evitando perdite di tempo nella sostituzione delle bombole e per la manutenzione del sistema essiccante.
Il sistema "Cascading" inoltre permette di collegare fino a 32 unità e di controllarle semplicemente da una singola unità (MASTER) o da un PC.

EASY MAINTENANCE
SEMPLICITÀ DI MANUTENZIONE

The only maintenance is facilitated by the deionizer bag access system. The system allow to change the deionizer bag without tools or power off the instrument.

Il sistema di accesso al secchetto de-ionizzante permette una sostituzione dello stesso rapida e semplice, senza necessità di attrezzi o di dover spegnere lo strumento.

GC-FID STATION

	R-PG 150	R-PG 260
Flow ml/min	100	220
Weight (kg)	from30 to 40	from30 to 40
Cascading	Yes (up to 32)	Yes (up to 32)
Membrane	Polymer Electrolyte Membrane (PEM)	Polymer Electrolyte Membrane (PEM)
Purity	99,9999%	99,9999%
Outlet Pressure	1-160 psig/0.1-11 barg	1-160 psig/0.1-11 barg
Internal Volume	<50 ml max pressure	<50 ml max pressure
Display	Operating parameters, system status, alarms and touchscreen	Operating parameters, system status, alarms and touchscreen
LED indicators	Power on/off, system ready, errors	Power on/off, system ready, errors
Connection	USB mod A	USB mod A
Options	RS232/RS485 and USB, external contacts, Pc software Manage&Control, Intranet	RS232/RS485 and USB, external contacts, Pc software Manage&Control, Intranet
Water quality	Deionized or demineralized (<2uS)	Deionized or demineralized (<2uS)
Internal water tank system	7 lt Autorefill included	7 lt Autorefill included
Power	110-120 60 Hz/220-240 50 Hz	110-120 60 Hz/220-240 50 Hz
Dimensions (mm)	HxWxD 150x690x680	HxWxD 150x690x680
Connections	1/8 Swagelock	1/8 Swagelock
Certifications	CE, CSA, Atex, FCC	CE, CSA, Atex, FCC
Tested weight support Kg	80	80

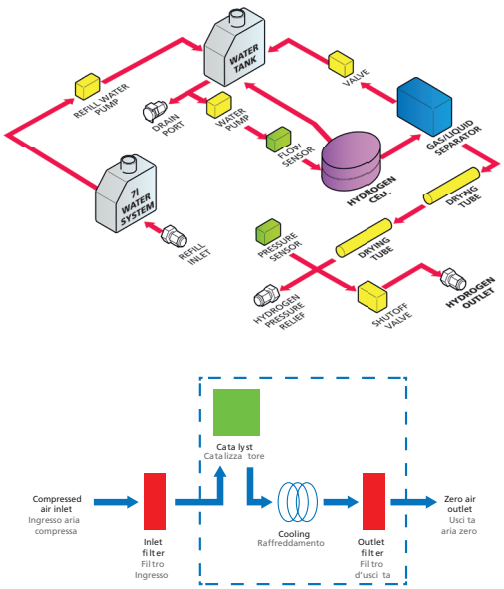
GC-FID STATION CARRIER

	R-NM 150	R-NM 350	R-NM 650
Flow ml/min	100	300	600
Weight (kg)	from 30 to 40	from 30 to 40	from 30 to 40
Cascading	Yes (up to 32)	Yes (up to 32)	Yes (up to 32)
Membrane	Polymer Electrolyte Membrane (PEM)	Polymer Electrolyte Membrane (PEM)	Polymer Electrolyte Membrane (PEM)
Purity	99,99999%	99,99999%	99,99999%
Dryer	Exclusive cold dual dynamic regeneration system	Exclusive cold dual dynamic regeneration system	Exclusive cold dual dynamic regeneration system
Outlet Pressure	1-160 psig/0.1-11 barg	1-160 psig/0.1-11 barg	1-160 psig/0.1-11 barg
Internal Volume	<50 ml max pressure	<50 ml max pressure	<50 ml max pressure
Display	Operating parameters, system status, alarms and touchscreen	Operating parameters, system status, alarms and touchscreen	Operating parameters, system status, alarms and touchscreen
LED indicators	Power on/off, system ready, errors	Power on/off, system ready, errors	Power on/off, system ready, errors
Connection	USB mod A	USB mod A	USB mod A
Options	RS232/RS485 and USB, external contacts, Pc software Manage&Control, Intranet	RS232/RS485 and USB, external contacts, Pc software Manage&Control, Intranet	RS232/RS485 and USB, external contacts, Pc software Manage&Control, Intranet
Water quality	Deionized or demineralized (<2uS)	Deionized or demineralized (<2uS)	Deionized or demineralized (<2uS)
Internal water tank system	7 lt Autorefill included	7 lt Autorefill included	7 lt Autorefill included
Power	110-120 60 Hz / 220-240 50 Hz	110-120 60 Hz / 220-240 50 Hz	110-120 60 Hz / 220-240 50 Hz
Dimensions (mm)	HxWxD 150x690x680	HxWxD 150x690x680	HxWxD 150x690x680
Connections	1/8 Swagelock	1/8 Swagelock	1/8 Swagelock
Certifications	CE, CSA, Atex, FCC	CE, CSA, Atex, FCC	CE, CSA, Atex, FCC
Tested weight support Kg	80	80	80

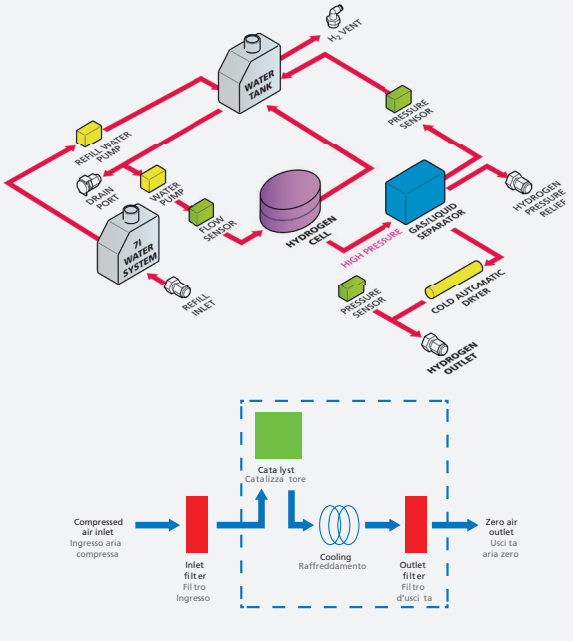
AIR GENERATOR PART

Flow ml/min	1500 ml/min
Weight (kg)	2 kg
HC & CO out	<0.1
Max CO in	50 ppm
Max HC in	100 ppm
Max temp. in	40°C
Pressure in	4.5-10 bar
Pressure drop	<1 bar
Stability (min)	45
In/out connections	1/4 OD, 1/8 OD
Power	110-120 60Hz / 220-240 50 Hz
Working temp.	Amb. +15°C

GC-FID STATION



GC-FID STATION CARRIER



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