COSMOS MB.H2

Hydrogen Gas generator for GC

Reference : COSMOS.MB.H2.[Flow rate]

Description

The COSMOS MB.H2 generator is designed for GC-detectors requiring H2 fuel gas such as FID, FPD, NPD and TCD.

The Hydrogen gas is produced from deionised water using **the exclusive 100% titanium Proton Exchange Membrane (PEM)** technology, which provides a very high reliability, new longer life and better purity.

The COSMOS MB.H2 series use a unique static membrane dryer, maintenance free, which allow to dry the H2 gas and increase the purity.
The automatic checking for internal leaks whenever starting the unit and constant control of operating parameters, guarantee maximum safety.

The touch screen interface provides simple and user-friendly management of all functions on the unit.

UNIQUE AND INTELLIGENT OPERATOR INTERFACE WITH REMOTE ACCESS

Applications

GC-FID | GC-FPD | GC-NPD | GC-TCD | ICP-MS | THA | Hydrogenation | Fuel cell

Benefits & Savings

IMPROVED CHROMATOGRAPH RESULT

The use of hydrogen as a carrier gas allows lower temperature elution, thus extending the life of the chromatograph column. 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.

INCREASED LABORATORY EFFICIENCY

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

IMPROVED SAFETY

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

SIMPLE INSTALLATION

Gas generators can be installed in the laboratory, on or under a bench, eliminating the need for long gas lines from cylinders secured elsewhere.

Standard Features

- Flow rate : 110, 170, 260, 300, 400, 500, 600 cc/min
- Purity > 99.9996%
- Pressure up to 11 bar (160 psi)
- Exclusive 100% titanium multilayer PEM cell : longer life/ better gas purity
- Touch screen with indication in real time : H2 outlet pressure, H2 flow rate, water quality, water level, auto-diagnostics of breakdown with alarms.
- Automatic checking for internal leaks to guarantee maximum safety
- LED indicators status (Ready, Stand-by, Alarm, Off)
- Remote PC monitoring and diagnostic analysis via USB to interface the unit with customer's PC software (allow to carry out checks and maintenance effectively, only via a remote connection)
- Compact, space-saving stackable design
- Capabilities allowing to work in cascading mode
  - Higher flow rates up to 6 L/min
  - Automatic flow compensation in the event of unplanned down-time
  - Continuous operation for critical applications

H2

MODELS	MB.H2.110	MB.H2.170	MB.H2.260	MB.H2.300	MB.H2.400	MB.H2.500	MB.H2.600
GENERALS INFORMATIONS							
H2 flow rate - cc/min	110	170	260	300	400	500	600
Electrolytic cell	Long life Multilayer PEM technology						
H2 purity	> 99.9996 % (O2 < 1 ppm, Dew Point < -20°C (-4°F))			> 99.9996 % (O2 < 1 ppm, Dew Point < -30°C (-22°F))			
Delivery pressure	1 - 7 bar (14 - 101.5 psi)			1 - 11 bar (14 - 160 psi)			
H2 dryer	Static membrane dryer, maintenance free						
Temperature range	From 5 - 35°C (41 - 95°F) and humidity 80% to 25°C (77°F)						
Touch screen	Touch screen (operating parameters, system status, alarms) with LED indicators (Power on/off; ready or errors)						
Dimensions (W x H x D)	27 x 44 x 38 cm (10.5" x 17" x 15")						
Weight (kg/lbs)	18 / 39					19 / 42	
Power consumption	75 W	95 W	140 W	180 W		190 W	230 W
Electrical supply	110 - 120 V 60 Hz / 220 - 240 V 50 Hz						
WATER							
Water quality	Deionised, ASTM II, < 0.1 µS Conductivity						
Supply pressure	Max. 6 bar						
Internal water tank	2.3 liters						
External water tank capacity (Optionnal)	5 or 10 liters						
CONNECTIONS							
Hydrogen outlet	1/8 Swagelock						
Water inlet	Quick release push-in fitting						
COMMUNICATION							
USB/PC Control	N/A			In series			
RS232/RS485	N/A			Option			

ACCESSORIES	Water tank 5 liters	Water tank 10 liters
Part Number	water.tank.005	water.tank.006

Gold Service
Satisfaction Guaranteed

The products are guaranteed 24 months*. Beyond, your investment continues to be supported by our maintenance program **[Gold Service]**. Our wold class technical assistance offers Programmed preventive maintenance to ensure optimal performance of your Gas generator F-DGSi and a priority intervention in case of failure.

***Year 2 of warranty subject to generator being serviced at end of the first year by a F-DGSi-approved agent in accordance with fixed annual maintenance schedule. For full terms and conditions, visit www.f-dgs.com**

GS: TECNOLOGIA APLICADA

Certified Product

Copyright 2019 F-DGSi - COSMOS MB.H2 - Ver.1 2019 - Commercial documentation