COSMOS RACK.H2

Hydrogen Gas Generator 19”

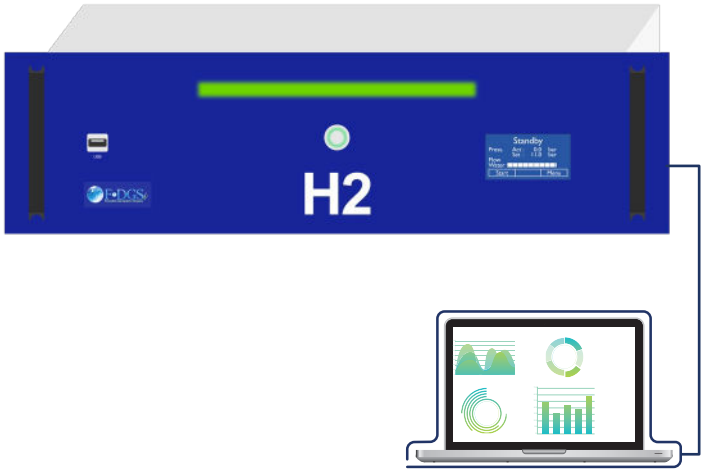
Reference : COSMOS.RACK.MB.H2.[Flow rate] or
COSMOS.RACK.MF.H2.[Flow rate]

Description

The COSMOS RACK-H2 hydrogen generators use the **exclusive electrolyte membrane technology (PEM cell) 100% full titanium** to produce high grade purity H2 gas.

The exclusive cold dual dynamic regeneration dryer on RACK.MF series is completely maintenance free and allows continuous operation 24 hours a day. The automatic checking for internal leaks whenever starting the unit and constant control of operating paameters guarantee maximum safety.

The drying system is different following the model:
- **COSMOS RACK.MB.H2 Series**: use a Drying system: static, maintenances-free
- **COSMOS RACK.MF.H2 Series**: use an exclusive cold dual dynamic regeneration dryer



UNIQUE AND INTELLIGENT OPERATOR INTERFACE WITH REMOTE ACCESS

Applications

GC-FID | GC-FPD | GC-NPD | GC-TCD | ICP-MS | THA | Fuel cell | GC-Carrier gas | Hydrogenation | Synthetic Diamond (CVD)

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

- Two models available :
  - **RACK.MB.H2**: use a Drying system : static, maintenances-free
  - **RACK.MF.H2**: exclusive cold dual dynamic regeneration dryer
- Flow rate: 100 to 1500 cc/min
- Pressure up to 11 bar (160 psi)
- LCD touch screen: with indication in real time: H2 outlet pressure, H2 flow rate, water quality, water level, system status with auto-diagnostics of breakdown with alarms
- LED indicators status (Ready, Stand-by, Alarm, Off)
- Remote PC monitoring via USB to interface the unit with customer’s PC software (allow the end user to be connected with the manufacturer for remote diagnostics)
- Up to 32 units can be controlled in cascading mode



H2

MODELS	RACK.MB.H2.100 / 110 / 160 / 170 / 250 / 300 / 500 / 600	RACK.MF.H2.100 / 110 / 160 / 170 / 250 / 300 / 500 / 600 / 1000 / 1200 / 1350 / 1500
GENERALS INFORMATIONS		
H2 flow rate - cc/min	100, 110, 160, 170, 250, 300, 500, 600	100, 110, 160, 170, 250, 300, 500, 600, 1000, 1200, 1350, 1500
Electrolytic cell	Long life Multilayer PEM technology	
H2 purity	> 99.9996% (O2 < 1 ppm, dewpoint H2O < -30°C (-22°F))	> 99.99999% (O2 < 0.1 ppm, dewpoint H2O < -75°C (-103°F))
Delivery pressure	0.1 - 11 bar (1 - 160 psi)	
H2 dryer	Drying system: static, maintenances-free	Exclusive cold dual regeneration dryer (PSA dryer)
Cold Palladium Catalyst (Option)	Reduces O2 < 0.01 ppm and moisture < 1 ppm	
Temperature range	From 5 - 35°C (41 - 95°F) and humidity 80% to 25°C (77°F)	
Touch screen	Digital screen with (operating parameters, system status, alarms) with LED indicators (Power on/ off; ready or errors)	
Dimensions	Standard 19" Rack 3U - depth 50 cm	
Weight (kg/lbs)	17 / 37.5	20 / 44
Electrical supply	220 - 240 V 50 Hz	
	110 - 120 V 60 Hz	
WATER		
Water Quality Req.	Deionized, ASTM II, < 1.0 µS Conductivity	
Supply pressure	Max. 6 bar	
Internal water tank	300 ml with automatic refill via an internal sucking water pump	
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	Standard	
RS232/RS485	Option	
SPECIAL FUNCTION		

[F-DGSi Care]

The products are guaranteed 24 months*. Beyond, your investment continues to be supported by our maintenance program **[F-DGSi Care]**. 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**

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Certified Product

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