



# HYDROGEN GAS GENERATORS SERIE FID-H2 COMBINE HYDROGEN/ ZERO AIR GENERATOR SERIE H2/AIR FID STATION



The FID-H<sub>2</sub> hydrogen generators use the latest polymer electrolyte membrane (PEM) technology to produce pure hydrogen.

The H<sub>2</sub>/AIR FID Station combine the hydrogen series FID-H<sub>2</sub> and Zero air ZA series generators in one unit. The H<sub>2</sub>/AIR FID station produces both zero air from house compressed air (< 0.05 ppm THC) and 99.995% pure hydrogen

The FID-H<sub>2</sub> and H<sub>2</sub>/AIR FID Station series are ideal for:

- \* Ionization flame detector (FID)
- \* Flame photometric detector (FPD)
- \* Total hydrocarbon analysers

## Benefits and Savings

### ■ Improved chromatograph result

The reduction of hydrocarbons on zero air part, including methane to < 0.05 ppm decreases the background noise level and gives the baseline much better stability, considerably increasing detector sensitivity and ensuring precise analytical results.

### ■ 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.

### ■ Save money

The unit only requires connection to a suitable socket and to external source of compressed air for the zero air part.

The investment can be paid back in less than one year

### ■ Improved safety

The very limited internal volume (less than 50 ml for H<sub>2</sub>) 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

## Standard Features

### Module H2

- FID-H<sub>2</sub> models : 120, 180, 260, 400 cc/min
- H<sub>2</sub> Purity > 99.995%, Dewpoint < -30°C,
- Electronic pressure up to 12 bar
- Patented gas/water separator electronically controlled
- LCD touch screen : real time outlet pressure, water quality, water level, autodiagnosics with alarms
- Remote PC monitoring in standard via RS232 or RS485 to interface the unit with customer's PC software
- Water tank protected and filtered
- Autorefill included in standard
- Remote wireless display control in option

### Module ZERO AIR

- ZA models: 1500, 3000 cc/min
- Purity : HC free < 0,05 ppm , CO < 0.05 ppm
- Outlet pressure : 6,5 bar
- External clean and dry air compressor required at maxi. 7 bar



# HYDROGEN GAS GENERATORS

## SERIE FID-H2

### COMBINE HYDROGEN/ ZERO AIR GENERATOR

### SERIE H2/AIR FID STATION

**Hydrogen** is produced using distilled or deionised water from hydrolysis, through a polymer membrane.

Electrolytic dissociation separates the water into its two main components: hydrogen ready for analytical use, and oxygen that is released into the air.

H2 gas pass through a permapure tube (nafion) before been delivered on the outlet.

No acid nor alkaline solutions are used in the hydrogen generation cycle.

**Zero Air part** use three steps to transform ambient air into analytical grade air.

**Step 1: Pre-filtration.**

The external oil-free compressor delivers air through a high efficiency filter that traps any particles that may damage the system. The filter has an automatic purge and traps oil, water and any other particles larger than 5 microns in size.

**Step 2: HC and CO trapping.**

The air leaving the filter enters a high-temperature platinum catalyst, which through oxidation eliminates hydrocarbon molecules down to < 0.05 ppm.

**Step 3: Final filtration.**

A high-efficiency filter is used to prevent any kind of particles from entering the instrument.

H2-FID	FID-H2-120	FID-H2-180	FID-H2-260		FID-H2-400	
<b>H2 flow rate cc/min</b>	120	180	260		400	
<b>H2/AIR FID STATION*</b> <small>Note : ZA part need to be connected to an external clean and dry</small>	FID-H2/AIR-120-1500	FID-H2/AIR-180-1500	FID-H2/AIR-260-1500	FID-H2/AIR-260-3000	FID-H2/AIR-400-1500	FID-H2/AIR-400-3000
<b>Zero Air flow rate L/min</b>	1.5	1.5	1.5	3.0	1.5	3.0
<b>H2/AIR purity</b>	H2 > 99.995% / Dewpoint < -30°C ZERO AIR : CH4 < 0,05 ppm , CO < 0.05 ppm					
<b>H2 Delivery pressure</b>	1 - 12 barg					
<b>AIR Delivery pressure</b>	Up to 6.5 barg					
<b>Internal water tank</b>	2,3 liters with autorefill included					
<b>Temperature range</b>	From 5°C to 35°C					
<b>LCD touch screen</b>	Resolution 128x64 touch screen ( operating parameters, system status, alarms)					
<b>In series</b>	communication port : RS-232, RS-485, USB, LAN					
<b>Options</b>	- Remote wireless display control - Possible to work in parallel mode					
<b>Water quality</b>	Deionised or distilled > 10MΩ					
<b>Dimensions (L x H x P)</b>	40x73x43 cm					
<b>Inlet port</b>	1/4 " NPT Female compressed air supply					
<b>Outlet ports</b>	1/8 Swagelock					
<b>Weight</b>	From 20 to 35kg depends of model					
<b>Power consumption</b>	From 200W to 800W depend of model					
<b>Certification</b>	CE					

