

# Z.PROSPERO

## Zero Nitrogen/Zero Air Gas Generator for GC

Reference : Z.PROSPERO.[Flow rate]/0 (Without compressor)  
Z.PROSPERO.[Flow rate]/1 (With compressor)



### Description

The combined Zero Nitrogen/Zero Air delivers a continuous stream of High Purity Nitrogen gas (> 99.9995%) and grade purify Air with Hydrocarbon content (< 0.1 ppm), ideal for application such as GC-Carrier gas, Make up and GC-FID. The Z.PROSPERO is available without or with integrated oil free air compressor using the **Energy Saving Technology mode (EST)**. It is extremely compact and quiet in operation. The generator is controlled using the latest in color touch screen technology to display the process in real time, inlet / outlet pressure, ZN2/Air Flow and status of the system with remote access for diagnostic control. Utilizing **Advanced technology PSA** of separating Nitrogen and O2 to produce high quality Nitrogen gas and activated alumina column to produced purify Air on demand 24/7. For the Z.PROSPERO, a heated catalyst oxidises CH4 from the Nitrogen gas flow providing Zero Nitrogen with Total hydrocarbon less than 0.05 ppm.



UNIQUE AND INTELLIGENT OPERATOR INTERFACE WITH REMOTE ACCESS

### Applications



### Benefits & Savings

#### 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 ECONOMY

Zero Nitrogen and Zero Air gas produced as standard.

#### IMPROVED SAFETY

Zero Nitrogen and Zero Air produced at low pressure and ambient temperature removes the need for high pressure cylinders.

#### SECURITY OF SUPPLY

Integral oil free air compressor as an option guarantees continuous gas supply, independent of in house compressed air supply.

#### 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

- Intelligent color touch screen to provide simple and user friendly management of all functions of the unit
- Fully regenerative PSA technology
- Without or with integral oil free air compressor
- Quiet thanks to the Soundproofed compressor box and anti-vibration features
- Option:  
Oxygen sensor: Online N2 Purity monitoring capability
- Catalyst module: THC < 0.05 ppm
- Auto start
- Fast start-up purity < 60 min
- Audible alarm display and Visual maintenance indication with history log
- Outlet Nitrogen/Zero Air flow indicator
- Energy Saving Technology (EST):
  - Switch off the compressor when gas supply is not required
  - Allowing low energy consumption and increasing durability of the compressor
- 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 design
- Fit with wheels



MODELS	Z.PROSPERO.1		Z.PROSPERO.3		Z.PROSPERO.5
Compressor	0 (Without)	1 (With)	0 (Without)	1 (With)	1 (With)
<b>GENERALS INFORMATIONS</b>					
Max Nitrogen Flow rate	1 L/min		3 L/min		1.5 L/min
Max Zero Air Flow rate	1.5 L/min		3 L/min		5 L/min
Max N2/Air pressure	6 bar (87 psi)				
Zero Nitrogen purity	> 99.9995% (< 5 ppm O2); Total HCs < 0.05 ppm				
Zero Air purity	HCs < 0.1 ppm; Air Dew Point < -60°C (-76°F)				
Particles	0.01 µ				
Inlet Air flow required @ 8 bar (116 psi) max	16 L/min	N/A	42 L/min	N/A	
Min Inlet Air quality	ISO8573 - 1:2010 1.4.1	N/A	ISO8573 - 1:2010 1.4.1	N/A	
Touch screen	Touch screen (operating parameters, system status, alarms and maintenance)				
Max Relative Humidity	80% RH @ 25°C (77°F)				
Temperature range	From 5 - 25°C (41 - 77°F)				
Max Altitude	3000 Meters				
Noise level @ 1M	25 dB (A)	50 dB (A)	25 dB (A)	52 dB (A)	
Dimensions (W x H x D)	47.5 x 66.2 x 65 cm (18.7" x 26" x 25.6")		47.5 x 66.2 x 79 cm (18.7" x 26" x 31")		
Weight (kg/lbs)	59 / 130	66 / 145	101 / 223	113 / 249	
Power consumption	430 VA	630 VA	430 VA	1130 VA	
Electrical supply	220 - 240 V ac / 1 ph / 50 - 60 Hz				
	110 - 120 V ac / 1 ph / 50 - 60 Hz				
Fuse	10A				
<b>CONNECTIONS</b>					
Zero Nitrogen/Zero Air outlet	G 1/4" (BSP) Female				
Air Inlet	G 1/4" (BSP) Female	N/A	G 1/4" (BSP) Female	N/A	
<b>COMMUNICATION</b>					
USB/PC Control	In series				

## [F-DGSi Care]

The products are guaranteed 24 months\*. Beyond, your investment continues to be supported by our maintenance program [F-DGSi Care]. Our world 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](http://www.f-dgs.com)

**F-DGSi France**  
 365 Avenue de Rio - 77127 Lieusaint, France  
 Tel. : +33(0)1 64 98 21 00  
 Fax. : +33(0)1 64 98 00 43

Email : [info@f-dgs.com](mailto:info@f-dgs.com)  
 Web : [www.f-dgs.com](http://www.f-dgs.com)

Certified Product

