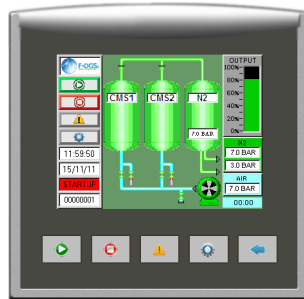




## NITROGEN GAS GENERATOR SERIE NG/ZNG

F-DGS's range of laboratory Nitrogen Gas Generators are some of the best designed PSA Nitrogen Gas Generators available. Utilizing the reliable and efficient PSA technique of separating Nitrogen and Oxygen is used to produce high quality Nitrogen Gas at various flows and purities (see performance data). The Generator is controlled using the latest in HMI touch screen technology to display the process in real time, inlet/outlet pressures and oxygen level (optional).



Application :

- GC
- ELSD / CORONA
- ICP
- COT
- SAMPLE EVAPORATION

### Benefits and 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

Pure nitrogen gas produced as standard

#### ■ Improved safety

Nitrogen 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

- \* **Various flow rate**
- \* **Options:**
  - Integral oil free air compressor
  - Oxygen analyser
  - Catalyst module for hydrocarbons level < 0.05ppm
- \* **Auto start**
- \* **Alarm display with help menu**
- \* **Audible alarm sounder**
- \* **Outlet flow indicator**
- \* **Trend graphs for QA reporting**
- \* **Energy saving Mode**
- \* **Compressor over temperature alarm**
- \* **Remote access to screen using internet or GSM**

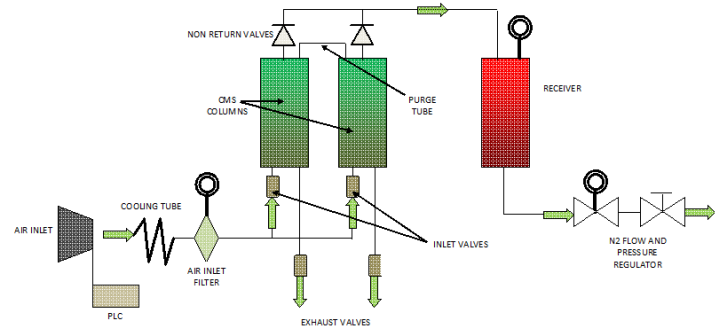
#### ENERGY SAVING MODE:

The generator has a real-time calendar and clock which can be easily updated no matter where you are in the World. By using the Auto-Run function you can select when the generator runs giving you complete control of your gas supply and saving energy.

Example: If your laboratory working hours is 8am to 6pm, set the generator to start at 5am to ensure you have high quality gas at 8am and have it switch off at 7pm, reducing running time and energy by some 55%.

The Nitrogen generator use pressure swing adsorption technology (PSA) to produce pure nitrogen gas.

This technique uses a bed of carbon molecular sieve (CMS) to selectively remove oxygen and other contaminants from atmospheric air. The bed alternates between purification and regeneration modes to ensure continuous nitrogen production. The gas generator is designed to take compressed air at 7 or 10 barg (depend on models) from an integral oil free air compressor which is firstly pre filtered. This filtered compressed air stream is then passed to the CMS bed currently in purification mode. Whilst passing through the bed, the oxygen, carbon dioxide, moisture and some hydrocarbons are removed from the compressed air, resulting in a product stream of clean, dry, high purity nitrogen gas.



### Technical Specifications

Nitrogen Outlet Flow rate—L/min vs Oxygen Concentration									
Model	5ppm	100ppm	0.1%	0.5%	1.0%	2.0%	Outlet Pressure	Dims (-) Without compressor	Dims (-1) With compressor
NG1*	1.0	2	-	-	-	-	5 barg	Size 1	Size 2
NG3*	3.0	4.0	-	-	-	-	5 barg	Size 3	Size 3
NG4 SC	-	-	3.0	4.0	-	-	5.5 barg	Size1	Size 2
NG4 DC	-	-	-	6.0	-	-	5.5 barg	Size 1	Size 2
NG5	-	4.0	6.0	8.0	10.0	12.0	5 barg	Size 3	Size 3
NG6	5	8	15.0	30.0	35.0	40.0	7 barg	Size 3	Size 3
NG7	-	-	10.0	15.0	20.0	25.0	7 barg	Size 3	Size 3

\* option ZERO NITROGEN ( ZNG ) : include a catalyst : HCs< 0.05 ppm

### Technical Data

Ambient Temp range	5-35°C (41-95°F)
Maximum air Inlet Pressure	8 barg (116 psig)
Nitrogen Outlet Pressure	See above table
Air Inlet Requirement (units without compressor)	Dewpoint: -40°C (-40°F) Particulate: <1 micron Oil: <0.01 mg/m <sup>3</sup>
N2 Dewpoint at full flow	<-55°C If the flow is 50% less than the nominal flow, the N2 dewpoint will be < -70°C
Electrical Supply	220v a.c. / 1ph / 50Hz or 110v a.c. / 1ph / 50-60Hz
Inlet / Outlet connections	G 1/4" (BSP) Female

### Dimensions and Weights

Enclosure Size	Height mm (ins)	Width mm (ins)	Depth mm (ins)	Weight Kg (*)
Size 1	650 (25)	320 (12.5)	300 (11.8)	30
Size 2	600 (25)	320 (12.5)	650 (25.5)	45
Size 3	725 (28.5)	450 (17.7)	665 (26.1)	80

