

NGM series: Nitrogen Membrane Generators (LCMS)

Superior performance in LC-MS applications



Features:

- **99.7% Nitrogen**
- **Easy to use**
- **4 pre-filtration stages**
- **Long life membrane**
- **Low cost of ownership**
- **Virtually maintenance free**

Applications

- **LC-MS**
- **Gloveboxes**
- **Tank Purging**
- **Metal sparging**
- **HPLC**

Nitrogen generators from cmc Instruments are designed with longevity in mind. The NGM series uses membrane technology to provide up to 99.7% nitrogen with a continuous, high flow rate.

Not all nitrogen generators are the same inside. All NGM series generators have three particle filters resulting in very low stress on the smallest. The hollow fibre membrane is designed and engineered by cmc Instruments.

Not all nitrogen generators are the same on the outside. All NGM generators feature flowmeter, gas inlet and outlet pressure, flow adjustment and shut-off valve on the front of the generator. Compare this ease of use to other manufacturers.

An integral compressor risks heat and/or vibration and/or condensation affecting both the quality of the gas and the lifetime of the system. cmc Instruments approach is to use a remote compressor or in-house compressed air supply.

Low cost of ownership and minimal maintenance is the result. There are no moving parts and an occasional filter check/change is all that is required. Extended warranty agreements and expensive service contracts are a thing of the past.

The NGM series is available in 4 standard capacities designed to run one, two, four or six LC-MS instruments. Larger capacities are built on request.

Different fittings and outlets are available to make the nitrogen generator instantly compatible with the LC-MS. cmc Instruments nitrogen generators have been successfully installed on all leading manufacturers instruments including AB Sciex, Thermo Fisher, Agilent/Varian, Waters, Shimadzu and Bruker.

Designed and manufactured in Germany these products represent quality at an affordable price. Perhaps more importantly, the excellent reliability and almost zero downtime that can be expected over many years brings with it peace of mind.

NGM series: Nitrogen Membrane Generators (LCMS)



Features	NGM 11 1 LC-MS	NGM 22 ≤ 2 LC-MS	NGM 33 ≤ 3 LC-MS	NGM 44 ≤ 5 LC-MS	NGM 68 on request
Purity ¹⁾	99.7 %	99.7 %	99.7 %	99.7 %	99.7 %
Max Flow & Pressure	30L/min 7-10bar	70 L/min 7-10bar	105 L/min 7-10bar	120 L/min 7-10bar	150 L/min 7-10bar
Pressure Drop	Max. 0.2 bar	Max. 0.2 bar	Max. 0.2 bar	Max. 0.2 bar	Max. 0.2 bar
Electrical Power Supply	None	None	None	None	None
Out-let & Pressure Regulator	Up to 3	Up to 6	Up to 9	Up to 12	Up to 15
Dimensions (h x w x d) cm	96x 40 x 40	120 x 40 x 40	120 x 40 x 40	120 x 40 x 40	120 x 40 x 40
Weight (kg)	32	43	49	56	65
Connections N ₂ -Outlet ²⁾	multiple out-lets ¼" or 6mm	multiple out-lets ¼" or 6mm	multiple out-lets ¼" or 6mm	multiple out-lets ¼" or 6mm	multiple out-lets ¼" or 6mm
Connections Air-Inlet ³⁾	10mm, others on request	10mm, others on request	10mm, others on request	10mm, others on request	10mm, others on request



Purity of Nitrogen	NGM 11	NGM 22	NGM 33	NGM 44	NGM 68
	Flow rate in Sl/min				
99.7%	11	22	33	44	68
99%	12	30	45	60	88
98%	17	42	65	84	125
97%	23	52	84	104	145
96%	28	67	103	120	150

¹⁾ Inlet Pressure at 7bar @ 20°C; +5° to + 45°C ambient temperature.

²⁾ The out-lets units are available to be set according to customers application.

³⁾ Requirements compressed air: Both systems require compressed air in the following conditions (ISO 8573-1:2010 [1:4:1]). In case of no local compressed air supply, these systems are recommended to be accomplished with the cmc SC Series — the scroll line of cmc compressors. The Series offers 100% oil-free scroll compressors with external refrigerant air dryer and receiver, which is known for the efficiency and low-cost operation, typical first service required after approximately 3 years.