

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.

Specification

Electrical requirements: None

Dewpoint: -50°C

Particles >0.01 µm: None

Max oil content: <0.003 mg/m²

Inlet pressure: max 10 bar

Max pressure drop:
ca. 0.1—0.2 bar

Inlet temperature: 20°C
(recommended)

Ambient temperature: +5-45°C

Ambient pressure: ca. 1013 mbar

Outlet port: 'Push-in-' 1/4" OD
(6mm OD on request)

Inlet: 'Push-in-' 10mm OD
(3/8" female on request)

Ordering Information

Part no.	Description, recommended N ₂ flow	Specification
NGM-11 LCMS	Nitrogen generator, membrane type, 0-23 Sl/min	Integrated flow meter, gas inlet/outlet manometer, shut off valve
NGM-22 LCMS	Nitrogen generator, membrane type, 0-52 Sl/min	
NGM-33 LCMS	Nitrogen generator, membrane type, 0-84 Sl/min	
NGM-44 LCMS	Nitrogen generator, membrane type, 0-104 Sl/min	
NGM-68 LCMS	Nitrogen generator, membrane type, 0-145 Sl/min	
Spares		
NGM-SET	Complete set of filter elements	

Please specify the LC-MS instrument(s) so outlets can be configured correctly

Custom designs available for optimum flow and purity in special applications

Part no.	Purity of Nitrogen % - flow rates at inlet pressure 7 bar				
	99.7	99	98	97	96
NGM-11 LCMS	11	12	17	23	28
NGM-22 LCMS	22	30	42	52	67
NGM-33 LCMS	33	45	65	84	103
NGM-44 LCMS	44	60	84	104	120
NGM-68 LCMS	68	88	125	145	150

Weights and Dimensions

Dimensions (w x h x d) mm:

NGM-11: 400 x 960 x 400

NGM-22: 400 x 1200 x 400

NGM-33: 400 x 1200 x 400

NGM-44: 400 x 1200 x 400

NGM-68: 400 x 1200 x 400

Weights net:

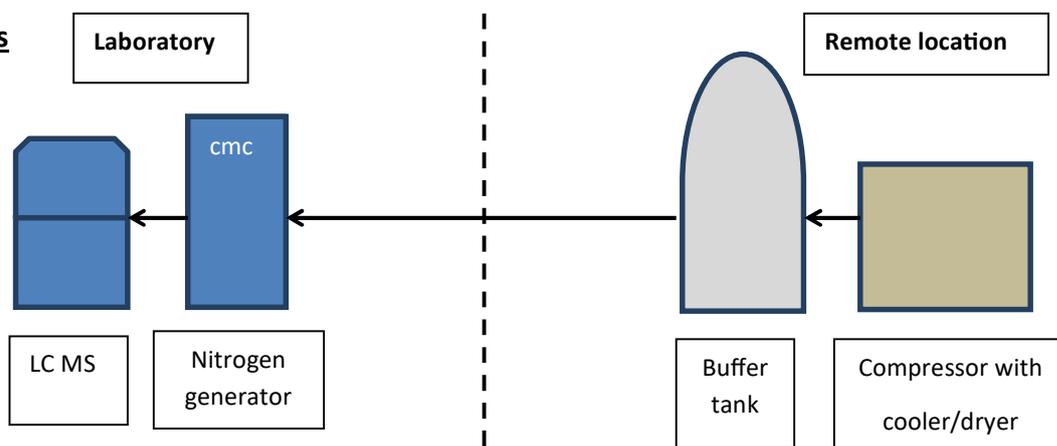
NGM-11: 32kg

NGM-22: 43kg

NGM-33: 49kg

NGM-44: 56kg

NGM-68: 65kg



Where no in-house compressed air supply is available cmc Instruments recommend a remote compressor and buffer tank. The heavy duty compressor has a low load and needs to run for less than 25% of the time in normal duty. An integral cooler/dryer ensures there is no moisture in the resultant compressed air. This mode of operation results in low maintenance on the compressor, typical interval to first service is 2.5 years. Buffer tanks are available in three sizes dependent on air demand.