

# Specification manual

## N2-MISTRAL-LCMS®

### THE LCMS Nitrogen Generators

**Model**

**N2-MISTRAL-LCMS**



**LNI-SCHMIDLIN AG**

MD Scientific is authorized distributor in Denmark for LNI-Schmidlin  
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**NOTICE:** This manual is intended to provide technical specifications of the LNI-SCHMIDLIN AG range of Nitrogen Generator N2-MISTRAL-LCMS Series. If you have any further questions, please contact:

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## ***INTRODUCTION***

### **Product Description**

**LNI-SCHMIDLIN AG N2-MISTRAL-LCMS** NITROGEN-GENERATOR (PSA technique) eliminates the need for costly, inconvenient high pressure cylinders in the laboratory.

Including integral oil-free air compressors as standard, the generators deliver a continuous stream of pure nitrogen gas of > 98.5% with a flow rate of 35 liter/min.

The **LNI-SCHMIDLIN AG N2-MISTRAL-LCMS** series of Nitrogen Gas Generators is ideal for operation as nitrogen gas supply for all kind of application for the LCMS technique (Liquid Chromatography / Mass Spectrometry) application. Certainly, there are other applications in laboratories where **N2-MISTRAL-LCMS** can be the ideal Nitrogen supplier for, like food packaging, blanketing, inertisation and many others.

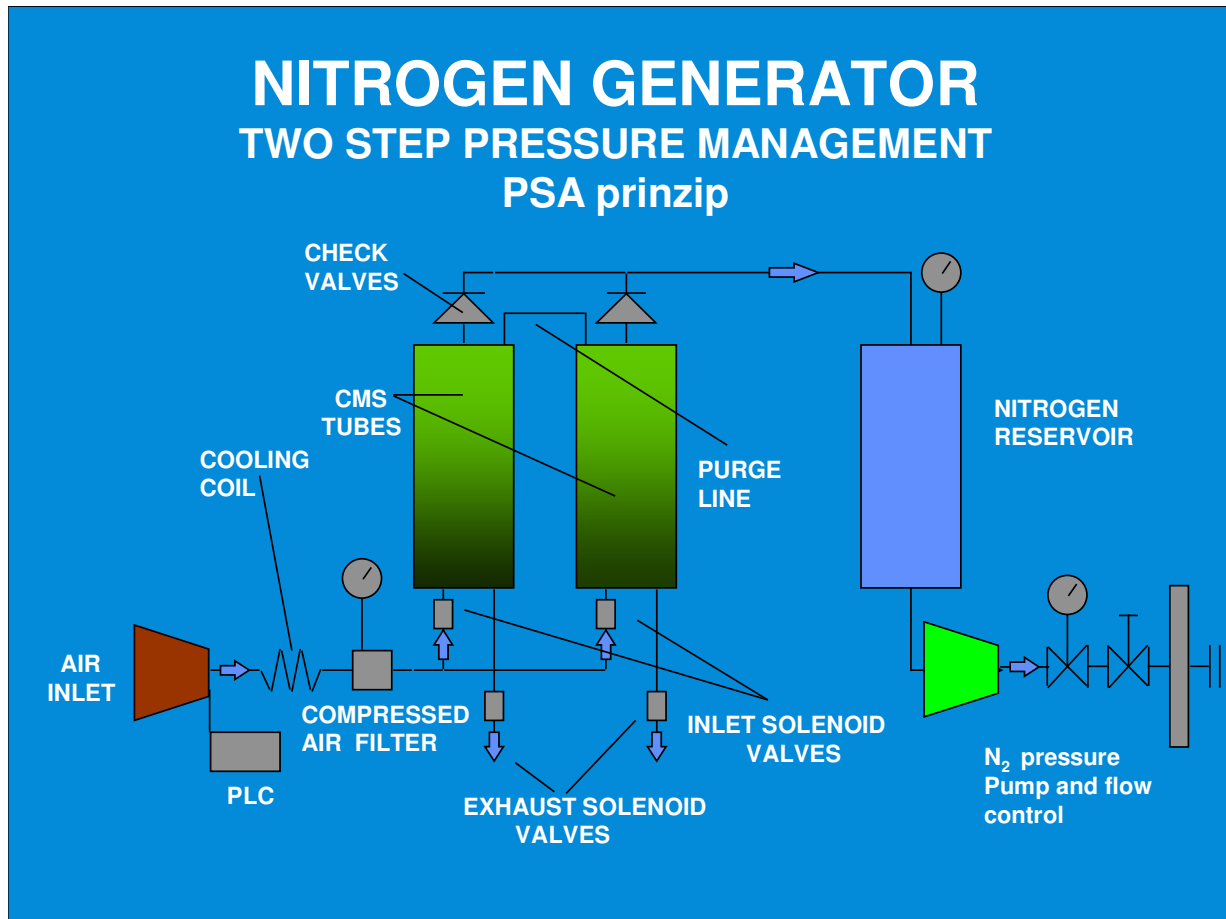
### **Technical**

**LNI-SCHMIDLIN AG N2-MISTRAL-LCMS** nitrogen gas generators use the pressure swing adsorption (PSA) system, as used in thousands of systems worldwide.

The PSA system removes oxygen, carbon dioxide and water from compressed air. The resulting stream of pure nitrogen gas (> 98.5%) is ideal for Laboratory applications like all LCMS techniques and other inert gas demanded applications.

All **LNI-SCHMIDLIN AG** gas generators are designed and manufactured within a rigorous ISO9001 quality system.

## Technical



The standard PSA technology is combined with a dual step pressure management. This allows getting high flow, high purity and high pressure all together in a very economical way without stressing the components. As a matter of fact, the live time for all the important components is extremely long.

**Specifications of the nitrogen generators N2-MISTRAL-LCMS series**

Type of production	<i>Standard PSA technology combined with 2 step pressure management</i>
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Nitrogen flow rate STP = Standard temperature and pressure (20°C and atmospheric pressure)	35 liter /min at approx 98.5% N2 purity
Outlet pressure	8 bar (120 psi)
Purity	<i>Approx. 98.5% (Oxygen content less than 2%)</i>
Weight	Net 121 kg                      transport 146 kg
Power consumption	1300 W
Input voltage	110 V +/- 10% / 60 Hz or 230V +/- 10% / 50 resp. 60 Hz
Circuit breaker	15 A for 110 V slow 10 A for 230 V slow
Pressure accuracy	0.2 bar ( $\pm 0.1$ bar)
Microprocessor controlled display	Graphic display, 128 x 64 pixels
Index of protection	IP2x
Operating conditions: - Temperature - Relative humidity	10 °C to +40 °C 0-80% rF, no condense 0-99% rF with condense drain
Over voltage category	II
Pollution degree	2
Heat dissipation	Approx 2700 Btu /h
Case dimensions	482 x 835 x 641 mm (WxDxH) Fit under the bench

## ***FEATURES***

- **Improved safety**

Nitrogen produced at low pressure and ambient temperature removes the need for high pressure cylinders or liquid dewars

- **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**

Up to 98.5%+ pure nitrogen gas produced as standard. No need for costly downstream secondary filtration

- **Security of supply**

Integral oil-free air compressors guarantee continuous gas supply, independent of in-house compressed air supply

- **Simple installation**

The gas generators can be installed in the laboratory

## ***MAINTENANCE***

- **Service Kit**

Every 4000 h of operation, the filters and silencer need to be changed. This operation can be performed quite simply by the user, and is described in detail in the user manual.

Every 24000 h of operation, we recommend to service the unit from trained service personal. Please contact your area representative or LNI-SCHMIDLIN AG at [www.schmidlin-dbs.com](http://www.schmidlin-dbs.com).

An in-built clock informs the user of the current operating hours, and a red light on the front panel indicates when the 4000 h threshold has been reached.