

Technical Information

# SEPURAN® N<sub>2</sub> – 2 inch standard

## CONTENT

I.	SEPURAN® – N <sub>2</sub> 50x610 P0.5N P 10	99139665
II.	SEPURAN® – N <sub>2</sub> 50x610 P0.5N A 12	99139664

## Technical Information

# SEPURAN® N<sub>2</sub> Module

### SEPURAN® – N<sub>2</sub> 50x610 P0.5N P 10



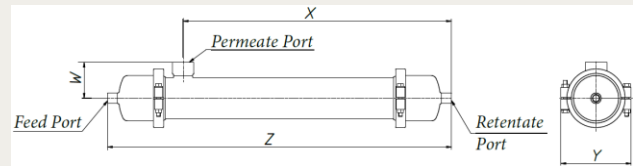
SEPURAN® N<sub>2</sub> module (sample picture)

#### Associated documents:

- User manual SEPURAN® N<sub>2</sub> module
- Technical drawing

**SEPURAN® N<sub>2</sub>** is a hollow fiber membrane gas separator that is used to remove oxygen from compressed air, resulting in N<sub>2</sub> purities between 95–99.5%. The polymer is specially tailored for nitrogen generation. Unlike other gas separation membranes, **SEPURAN® N<sub>2</sub>** membranes are characterized by a very high flow capacity with a very good air factor, resulting in the optimization of compression and operating cost.

## DIMENSIONS



<b>Permeate port – W</b>	50 mm   1.97 inch
<b>Permeate port – X</b>	524 mm   20.63 inch
<b>Max diameter – Y</b>	117 mm   4.61 inch
<b>Total length – Z</b>	614 mm   24.17 inch
<b>Feed / Retentate connection</b>	NPT-Thread ½"
<b>Permeate connection</b>	NPT-Thread ½"
<b>Weight</b>	1.9 kg   4.2 lbs
<b>Drawing number</b>	EVK-Mod C2N-1 1/2-1/2N P-C-V01-A

For more specific dimensions of the system, please use the corresponding technical drawing.

## SPECIFICATIONS

<b>Design, manufacturing and testing acc. to</b>	PED – Art. 4 (3)
<b>External material housing</b>	PVC / Aluminium / SS304 – 1.4301
<b>Operating pressure Feed- / Retentate side</b>	≤ 10.0 barg   ≤ 145.0 psig
<b>Operating pressure Permeate side</b>	≥ 0.0 barg   ≥ 0.0 psig
<b>Max. actual permeate flow rate</b>	≤ 4.5 Am <sup>3</sup> /h   ≤ 2.7 acfm
<b>To be used with</b>	Pre-treated pressurized air
<b>Permitted temperature range</b>	1 – 40°C   34 – 104°F
<b>Inlet air requirements</b>	Particles, aerosols: ISO 8573-1:2010 class [1:-:1] Condensation of water must be avoided

## CHARACTERISTIC PERFORMANCE DATA

	<b>N2 produced</b> in Nm <sup>3</sup> /h at 7 barg; 25°C   in scfm at 102 psig; 77°F <sup>2</sup>	<b>Air / N2 ratio</b>
<b>99%</b>	0.47   0.29	3.8
<b>98%</b>	0.68   0.42	3.0
<b>97%</b>	0.87   0.54	2.6
<b>96%</b>	1.07   0.66	2.3
<b>95%</b>	1.27   0.79	2.1

The composition of the product was determined by measurement of the residual oxygen content. The “N2 produced” value is the inert gas content. The pressure is the retentate pressure, namely N2 produced stream discharge pressure. The inlet air divided by “N2 produced” gives the air factor or air/N2 ratio. The lower the air factor, the lower the investment and operating costs.

## CAUTION

Nitrogen gas is colorless, odorless and nonflammable. It is non-toxic but may cause asphyxiation by displacement of oxygen. Ensure proper ventilation. Oxygen is a colorless, odorless and oxidizing gas. It is non-toxic, but at high concentrations in the atmosphere it accelerates combustion and increases the risk of fire and explosion of combustible or flammable materials.

## OPERATION

The proper operation of **SEPURAN® N2** modules is described in the associated user manual.

PRODUCT CODE	PRODUCT NAME
99139665	SEPURAN® – N2 50x610 P0.5N P 10

<sup>2</sup> Norm = 0°C, 1 atm | 32°F, 1 atm;  
Standard = 15.5°C, 1 atm | 60°F, 1 atm

## Disclaimer

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

## Evonik (China) Co., Ltd.

Unit D1-0-1005A, No. 5 Building, 19 Dongfang East Road,  
Chaoyang District  
100600 Beijing, P.R.China

sepuran@evonik.com  
[www.evonik.com/sepuran](http://www.evonik.com/sepuran)  
[www.membrane-separation.com](http://www.membrane-separation.com)

Technical Information

## SEPURAN® N<sub>2</sub> Module

### SEPURAN® – N<sub>2</sub> 50x610 P0.5N A 12



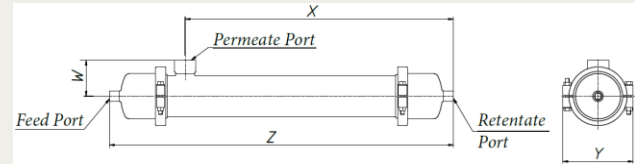
SEPURAN® N<sub>2</sub> module (sample picture)

Associated documents:

- User manual SEPURAN® N<sub>2</sub> module
- Technical drawing

**SEPURAN® N<sub>2</sub>** is a hollow fiber membrane gas separator that is used to remove oxygen from compressed air, resulting in N<sub>2</sub> purities between 95–99.5%. The polymer is specially tailored for nitrogen generation. Unlike other gas separation membranes, **SEPURAN® N<sub>2</sub>** membranes are characterized by a very high flow capacity with a very good air factor, resulting in the optimization of compression and operating cost.

### DIMENSIONS



<b>Permeate port – W</b>	28 mm   1.10 inch
<b>Permeate port – X</b>	514 mm   20.24 inch
<b>Max diameter – Y</b>	117 mm   4.61 inch
<b>Total length – Z</b>	614 mm   24.17 inch
<b>Feed / Retentate connection</b>	NPT–Thread ½"
<b>Permeate connection</b>	NPT–Thread ½"
<b>Weight</b>	2.3 kg   5.1 lbs
<b>Drawing number</b>	EVK–Mod C2N–1 1/2–1/2N A–C–V01–A

For more specific dimensions of the system, please use the corresponding technical drawing.

## SPECIFICATIONS

<b>Design, manufacturing and testing acc. to</b>	PED – Art. 4 (3)
<b>External material housing</b>	Aluminium / SS304 – 1.4301
<b>Operating pressure Feed- / Retentate side</b>	≤ 12.0 barg   ≤ 174.0 psig
<b>Operating pressure Permeate side</b>	≥ 0.0 barg   ≥ 0.0 psig
<b>Max. actual permeate flow rate</b>	≤ 4.5 Am <sup>3</sup> /h   ≤ 2.7 acfm
<b>To be used with</b>	Pre-treated pressurized air
<b>Permitted temperature range</b>	1 – 70°C   34 – 158°F
<b>Inlet air requirements</b>	Particles, aerosols: ISO 8573-1:2010 class [1:-:1] Condensation of water must be avoided

## CHARACTERISTIC PERFORMANCE DATA

	<b>N2 produced</b> in Nm <sup>3</sup> /h at 7 barg; 25°C   in scfm at 102 psig; 77°F <sup>2</sup>	<b>Air / N2 ratio</b>
<b>99%</b>	0.47   0.29	3.8
<b>98%</b>	0.68   0.42	3.0
<b>97%</b>	0.87   0.54	2.6
<b>96%</b>	1.07   0.66	2.3
<b>95%</b>	1.27   0.79	2.1

The composition of the product was determined by measurement of the residual oxygen content. The “N2 produced” value is the inert gas content. The pressure is the retentate pressure, namely N2 produced stream discharge pressure. The inlet air divided by “N2 produced” gives the air factor or air/N2 ratio. The lower the air factor, the lower the investment and operating costs.

## CAUTION

Nitrogen gas is colorless, odorless and nonflammable. It is non-toxic but may cause asphyxiation by displacement of oxygen. Ensure proper ventilation. Oxygen is a colorless, odorless and oxidizing gas. It is non-toxic, but at high concentrations in the atmosphere it accelerates combustion and increases the risk of fire and explosion of combustible or flammable materials.

## OPERATION

The proper operation of **SEPURAN® N2** modules is described in the associated user manual.

PRODUCT CODE	PRODUCT NAME
99139664	SEPURAN® – N2 50x610 P0.5N A 12

<sup>2</sup> Norm = 0°C, 1 atm | 32°F, 1 atm;  
Standard = 15.5°C, 1 atm | 60°F, 1 atm

## Disclaimer

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

## Evonik (China) Co., Ltd.

Unit D1-0-1005A, No. 5 Building, 19 Dongfang East Road,  
Chaoyang District  
100600 Beijing, P.R.China

sepuran@evonik.com  
[www.evonik.com/sepuran](http://www.evonik.com/sepuran)  
[www.membrane-separation.com](http://www.membrane-separation.com)