

Technical Information

SEPURAN® N₂ - 4 inch short

CONTENT

MODULE

• **N2 100x870 P1.5N 4 16AE**

SAP-No.: 99102931

Dimension:	4 inch short
Feed/Retentate port:	¾" NPT-Thread
Permeate port:	1½" NPT-Thread
Operating pressure:	≤ 16 barg ≤ 232 psig
Housing material:	SS 304 - 1.4301
Housing certification:	PED / ASME

CONTENT

GLOSSARY PRESSURE EQUIPMENT CERTIFICATION

EN ... PED	- European Pressure Equipment Directive 2014/68/EU
AS ... ASME	- ASME Boiler and Pressure Vessel Code Section VIII, Div.1
CN ... SELO	- China Special Equipment Licensing Office (SELO)
AE ... PED / ASME	- European Pressure Equipment Directive 2014/68/EU, ASME Boiler and Pressure Vessel Code Section VIII, Div.1
CA ... ASME / CRN	- ASME Boiler and Pressure Vessel Code Section VIII, Div.1 and Canadian Registration Number (CRN)
EC ... PED / ASME / CRN	- European Pressure Equipment Directive 2014/68/EU, ASME Boiler and Pressure Vessel Code Section VIII, Div.1 and Canadian Registration Number (CRN)
NR ... ASME / NR13	- ASME Codes and National Regulation 13

Technical Information

SEPURAN® N₂ Module

SEPURAN® – N₂ 100x870 P1.5N 4 16AE



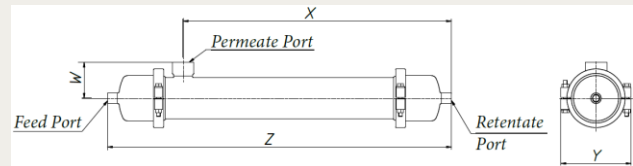
SEPURAN® N₂ module (sample picture)

Associated documents:

- User manual SEPURAN® N₂ module
- Technical drawing

SEPURAN® N₂ is a hollow fiber membrane gas separator that is used to remove oxygen from compressed air, resulting in N₂ purities between 95–99.5%. The polymer is specially tailored for nitrogen generation. Unlike other gas separation membranes, **SEPURAN® N₂** 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



Permeate port – W	91 mm 3.58 inch
Permeate port – X	682 mm 26.85 inch
Max diameter – Y	178 mm 7.01 inch
Total length – Z	875 mm 34.45 inch
Feed / Retentate connection	NPT–Thread ¾"
Permeate connection	NPT–Thread 1½"
Weight	10.4 kg 22.9 lbs
Drawing number	EVK–Mod 4S–1 1.5–3/4N 4 16AE–C–V01–A

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

SPECIFICATIONS

Design, manufacturing and testing acc. to	EN / ASME
External material housing	SS 304 – 1.4301
Operating pressure Feed- / Retentate side	≤ 16.0 barg ≤ 232.0 psig
Operating pressure Permeate side	≥ 0.0 barg ≥ 0.0 psig
Transmembrane pressure¹	≤ 16.0 bar ≤ 232.0 psi
Max. actual permeate flow rate	≤ 35.0 Am ³ /h ≤ 20.6 acfm
To be used with	Pre-treated pressurized air
Other Gases	Contact the supplier
Permitted temperature range	1 – 70°C 34 – 158°F
Inlet air requirements	Particles, aerosols: ISO 8573-1:2010 class [1:-:1]
	Condensation of water must be avoided

¹The specified transmembrane pressure (TMP) must not be exceeded under any circumstances.

CHARACTERISTIC PERFORMANCE DATA

	N2 produced in Nm ³ /h at 7 barg; 25°C in scfm at 102 psig; 77°F ²	Air / N2 ratio
99%	4.3 2.7	3.7
98%	6.2 3.9	2.9
97%	7.8 4.9	2.5
96%	9.5 5.9	2.3
95%	11.3 7.0	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
99102931	SEPURAN® – N2 100x870 P1.5N 4 16AE

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

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