

Technical Information

SEPURAN® N₂ – 4 inch short

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Technical Information

SEPURAN® N₂ Module

SEPURAN® – N₂ 100x870 P1.5N 4 16AE



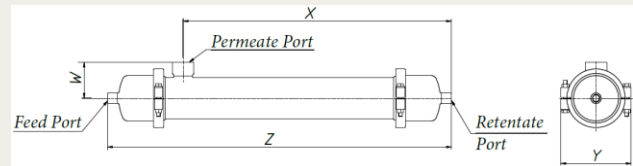
SEPURAN® N₂ module (sample picture)

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 | ≤ 18.0 Am ³ /h ≤ 10.6 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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