

Technical data of Nitrogen Generation Membrane Module

Model : MN2-00112

1. Product : Hollow fiber membrane type module

2. Use : Nitrogen generation

3. Dimensions and Weight

Length	Dimension	Weight
359 mm	55 mm	0.9 kg

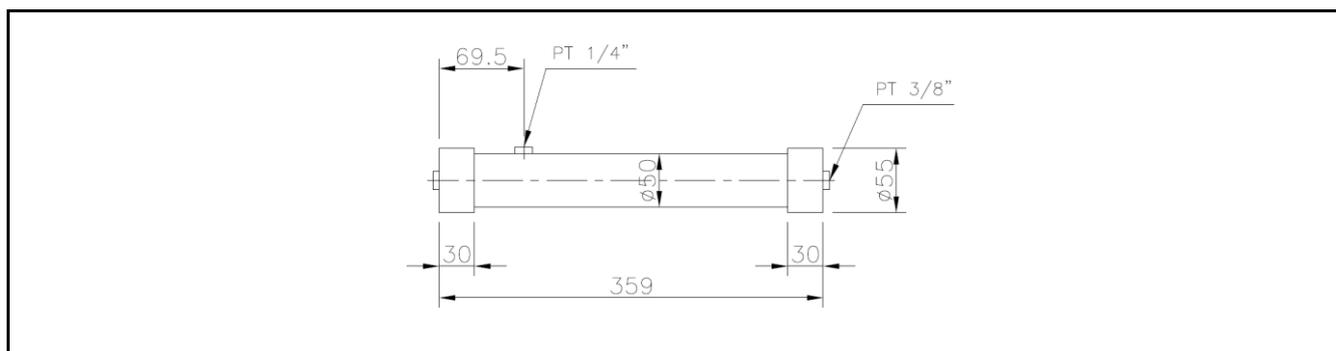
4. Fittings

Air inlet	N2 product outlet	O2 enriched air outlet
Rc3/8" (PT)	Rc3/8" (PT)	Rc1/4" (PT)

5. Components

Cap / Casing	Hollow fiber	Potting materials	Sealing O-Ring
Aluminium	Polysulfone	Epoxy	NBR

6. Module Configuration



7. Operating Conditions

Item	Unit	Condition
Operation Pressure	barg	Max. 13
Temperature(Min/Max)	°C	5 / 55
Relative humidity	%	Less than 60 (at Operating pressure and temperature, Remove moisture with air drier)
Particles	mg/m ³ (0 °C, 101.3 kPa)	Less than 0.1 (Remove particles with 3µm gas filter and 0.01µm mist separator)
Residual oil		Less than 0.01 (Remove oil with 3µm gas filter and 0.01µm mist separator)
Hydrocarbons		Less than 0.01 (Remove hydrocarbons with activated carbon if necessary)

8. Performance

Operating Temperature : 25 °C

Pressure	MN2-00112	Nitrogen product flow rate and Air feed required (Nm ³ /hr)					
	Oxygen density (%)	0.5	1	2	3	4	5
5 barg	Nitrogen	0.047	0.065	0.095	0.125	0.158	0.190
	Air	0.259	0.285	0.320	0.354	0.395	0.436
7 barg	Nitrogen	0.081	0.112	0.164	0.216	0.270	0.324
	Air	0.406	0.441	0.505	0.570	0.624	0.678
9 barg	Nitrogen	0.112	0.160	0.233	0.307	0.382	0.458
	Air	0.505	0.570	0.691	0.756	0.838	0.920
11 barg	Nitrogen	0.149	0.207	0.302	0.397	0.495	0.592
	Air	0.665	0.726	0.864	0.963	1.063	1.179
13 barg	Nitrogen	0.183	0.255	0.372	0.488	0.607	0.726
	Air	0.812	0.881	1.037	1.166	1.298	1.432

Operating Temperature : 35 °C

Pressure	MN2-00112	Nitrogen product flow rate and Air feed required (Nm ³ /hr)					
	Oxygen density (%)	0.5	1	2	3	4	5
5 barg	Nitrogen	0.049	0.069	0.101	0.133	0.167	0.201
	Air	0.285	0.314	0.352	0.390	0.435	0.480
7 barg	Nitrogen	0.086	0.119	0.174	0.229	0.286	0.343
	Air	0.447	0.485	0.556	0.627	0.687	0.746
9 barg	Nitrogen	0.119	0.169	0.247	0.325	0.405	0.485
	Air	0.556	0.627	0.760	0.832	0.922	1.012
11 barg	Nitrogen	0.158	0.220	0.321	0.421	0.524	0.627
	Air	0.732	0.798	0.950	1.060	1.169	1.297
13 barg	Nitrogen	0.194	0.270	0.394	0.517	0.643	0.769
	Air	0.893	0.969	1.140	1.283	1.428	1.575

Operating Temperature : 45 °C

Pressure	MN2-00112	Nitrogen product flow rate and Air feed required (Nm ³ /hr)					
	Oxygen density (%)	0.5	1	2	3	4	5
5 barg	Nitrogen	0.056	0.078	0.114	0.150	0.189	0.228
	Air	0.332	0.365	0.409	0.453	0.506	0.558
7 barg	Nitrogen	0.097	0.135	0.197	0.259	0.324	0.389
	Air	0.520	0.564	0.647	0.730	0.799	0.868
9 barg	Nitrogen	0.135	0.192	0.280	0.368	0.459	0.550
	Air	0.647	0.730	0.885	0.968	1.073	1.178
11 barg	Nitrogen	0.179	0.249	0.363	0.477	0.594	0.710
	Air	0.852	0.929	1.106	1.233	1.360	1.510
13 barg	Nitrogen	0.220	0.306	0.446	0.586	0.728	0.871
	Air	1.040	1.128	1.327	1.493	1.662	1.833

Operating Temperature : 55 °C

Pressure	MN2-00112	Nitrogen product flow rate and Air feed required (Nm ³ /hr)					
	Oxygen density (%)	0.5	1	2	3	4	5
5 barg	Nitrogen	0.060	0.083	0.122	0.160	0.203	0.245
	Air	0.365	0.401	0.450	0.498	0.556	0.614
7 barg	Nitrogen	0.104	0.145	0.211	0.278	0.347	0.417
	Air	0.571	0.620	0.711	0.802	0.878	0.954
9 barg	Nitrogen	0.145	0.206	0.300	0.395	0.492	0.589
	Air	0.711	0.802	0.972	1.063	1.179	1.294
11 barg	Nitrogen	0.192	0.267	0.389	0.511	0.636	0.762
	Air	0.959	1.026	1.216	1.346	1.480	1.655
13 barg	Nitrogen	0.236	0.328	0.478	0.628	0.781	0.934
	Air	1.178	1.261	1.449	1.653	1.816	1.987