

NITROGEN-GENERATOR IMT-PN OnTouch

> NITROGEN GENERATION WITH "PRESSURE SWING ADSORPTION" UP TO 99,9999% (6.0) / 1.0 PPM (RESIDUAL O₂)

INMATEC OnTouch technology enables nitrogen to be supplied in a purity of up to 6.0/1.0 ppm (residual oxygen) and quantities of 0.5 – 10,000 Nm³/h.

PERMANENT N₂ SUPPLY

PROCESS:

The production of high-purity to ultra-pure nitrogen is what makes INMATEC PSA nitrogen generators stand out. In this process, the clean compressed air flows through the adsorption containers. In this pressure swing adsorption process, the high-quality activated carbon binds the oxygen molecules, while the free nitrogen molecules flow unhindered into the product tank. This production process removes carbon dioxide molecules as well as oxygen molecules. The dry and high-purity nitrogen can now be used in a wide range of applications.

BENEFITS:

Constant quality control is ensured by measuring nitrogen purity. All measured values are recorded on our user-friendly INMATEC touch control panel and can be monitored remotely from anywhere in the world with internet access.

The effectiveness of the new technology promises savings from the very first minute.

Low-maintenance valve technology and compact design are further benefits in addition to the constant availability of high-purity nitrogen.

A multilingual touch control panel, remote control via PC and iPad, long-term data storage and inlet and outlet filtration all come as standard.



> ONSITE IS OUR WORLD



Options:

Measured values:

- Flow
- Pressure dew point
- Inlet pressure
- Temperature

Interfaces:

- Modbus
- Profibus
- GSM
- VMC

Availability:

- Redundant
- Load change control
- Modular extension
- Recipe control

High pressure:

- up to 300 bar
- System control





NITROGEN-GENERATOR

IMT-PN OnTouch

Calculation of the compressed air requirements

Multiplying the nitrogen capacity by the air factor indicated below gives the compressed air requirements.

| Nitrogen content (%) | 95,00 | 97,00 | 98,00 | 99,00 | 99,50 | 99,90 | 99,99 | 99,999 | 99,9999 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|--------|-----------|
| Air factor | 1,9 | 2,1 | 2,3 | 2,5 | 2,9 | 3,9 | 5,5 | 8,0-10 | 10,0-12,0 |

Compressed air specification

Temperature range: +5 to +50°C
Air quality: ISO 8573.1, Class 1: dirt and oil, Class 4: water
Pressure dew point: +3°C

Ambient conditions

Temperature range: +5°C to +40°C
Option:
Temperature range: -50°C to +60°C

Technical dimensions and connections

Dimensions H x W x D (mm):
925 x 560 x 1285 (PN-1150 up to PN-1280)
1000 x 1000 x 1710 (PN-1350 and PN-1450)
1000 x 1000 x 1900 (PN-1550), from PN-1650
special dimensions on request

Operating pressure: 11 bar
Electrical connection: 110-230 V/60-50 Hz (shock-proof plug)
Noise level: from 55 to max. 85 dB(A)

Special design

Stainless steel, explosion protection, Atex, IP 65, ASME



ISO 9001:2008

Zertifiziert nach ISO 9001:2008 und nach Druckgeräterichtlinie 93/27/EG

Capacity (Nm³/h)

| Nitrogen content (%) | 95,0 | 97,0 | 98,0 | 99,0 | 99,5 | 99,9 | 99,99 | 99,995 | 99,999 | 99,9999 |
|-------------------------------|------|------|------|--------|-------|-------|-------|--------|--------|---------|
| Quality | | | | 2,0 | 2,5 | 3,0 | 4,0 | 4,5 | 5,0 | 6,0 |
| Residual O ₂ (PPM) | | | | 10.000 | 5.000 | 1.000 | 100 | 50 | 10 | 1 |

| | | | | | | | | | |
|-------------|---------|---------|--------|--------|--------|--------|--------|--------|-------|
| IMT-PN 1150 | 5,70 | 4,70 | 4,10 | 3,20 | 2,60 | 1,60 | 0,90 | 0,70 | 0,40 |
| IMT-PN 1250 | 10,80 | 8,70 | 7,90 | 5,80 | 5,10 | 3,20 | 1,30 | 1,10 | 0,85 |
| IMT-PN 1280 | 16,50 | 13,40 | 12,00 | 9,00 | 7,70 | 4,80 | 2,40 | 1,80 | 1,30 |
| IMT-PN 1350 | 20,80 | 17,10 | 15,80 | 12,60 | 9,50 | 6,30 | 3,20 | 2,50 | 1,80 |
| IMT-PN 1450 | 31,20 | 25,60 | 23,70 | 18,90 | 14,20 | 9,50 | 4,80 | 3,60 | 2,40 |
| IMT-PN 1550 | 49,20 | 40,10 | 35,60 | 28,40 | 22,10 | 12,60 | 6,30 | 4,80 | 3,20 |
| IMT-PN 1650 | 84,00 | 59,90 | 53,80 | 46,60 | 37,80 | 23,20 | 11,70 | 8,80 | 5,80 |
| IMT-PN 1750 | 105,00 | 84,00 | 76,00 | 64,00 | 51,80 | 32,60 | 16,50 | 11,90 | 7,30 |
| IMT-PN 2000 | 140,70 | 116,50 | 98,30 | 77,50 | 63,00 | 38,80 | 19,40 | 14,60 | 9,70 |
| IMT-PN 2150 | 211,10 | 174,30 | 146,50 | 115,00 | 94,50 | 57,80 | 29,00 | 21,80 | 14,50 |
| IMT-PN 2250 | 260,40 | 215,30 | 188,00 | 143,90 | 116,60 | 73,40 | 35,80 | 26,90 | 18,00 |
| IMT-PN 3000 | 372,80 | 308,70 | 269,90 | 205,80 | 167,00 | 102,90 | 51,40 | 38,60 | 25,80 |
| IMT-PN 4000 | 442,10 | 366,50 | 320,30 | 244,70 | 198,50 | 121,80 | 60,90 | 45,80 | 30,60 |
| IMT-PN 5000 | 630,00 | 522,90 | 457,80 | 348,60 | 283,50 | 174,30 | 87,20 | 65,40 | 43,60 |
| IMT-PN 6000 | 913,50 | 756,00 | 661,50 | 504,00 | 409,50 | 252,00 | 126,00 | 94,50 | 63,00 |
| IMT-PN 8000 | 1370,30 | 1134,00 | 992,30 | 756,00 | 630,00 | 378,00 | 189,00 | 142,00 | 95,00 |

All values apply at 7 bar inlet pressure and 20°C ambient temperature.

on request