

nSTREAM 6000-N2

ppm and ppb analysis using Advanced Plasma Detector (APD)



The new ISATEC nSTREAM 6000-N2 is based on the unrivalled Advanced Plasma Detector. This detector is both highly accurate and reliable for the continuous monitoring of N₂ in Ar or N₂ in He. The Advanced Plasma Detector provides measurements to less than 10 ppb with speed. Using the large colour interactive touch screen, the nSTREAM 6000-N2 analyser is straightforward to use and set-up with all functionality easily accessible and navigable.

The precise results obtained from this analyser can be transmitted via an array of communication modules such as: 4-20mA (2off), mV Signal, USB (2 off) and VGA outputs. Active 4-20mA, Ethernet, RS-232 and RS-485 outputs are also available as optional extras. This allows the analyser to be integrated seamlessly into all analytical infrastructures worldwide.

The modular design with a drop-down front panel for easy access to the electronics allows for trouble-free maintenance and servicing. It is both cost effective and reliable with a low cost of ownership due to the low gas and power consumption. Therefore, this robust system ensures an excellent stability, sensitivity and a long working life.

KEY FEATURES:

- Advanced Plasma Detector (APD)
- Finely-tuned Detector with minimal drift and noise
- Highly Sensitive to < 10 ppb
- Fast Detector Response <5 seconds (T90)
- Large Colour 6.5" LCD Touch Screen
- Long Term Stability & Sensitivity
- Integrated Configurable Alarms System with Alarm Record
- Added Sample Flow Alarm
- Integrated Diagnostics System
- Flow Sensors and Pressure Release Valve
- Voltage free contacts for switching in calibration gas inputs externally
- Internal storage of results up to 24 months and data trending via PC
- Economical Power Usage (< 100 Watts) & Gas Consumption (minimum inlet pressure of only 10 kPA)

TYPICAL APPLICATIONS:

- ✓ Air Separation Units
- ✓ Filling Stations for Cylinders and Trucks
- ✓ Semiconductor Industry
- ✓ Steel Industry
- ✓ Chemical Plants
- ✓ Argon or Helium Purification plants

SAMPLE HANDLING

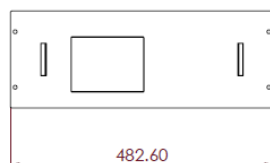
The nSTREAM 6000-N2 Analyser requires a Moisture Trap on the Sample Inlet connection. This will protect against the detrimental effect of H₂O on the measurement in terms of quenching, and subsequently reduces the drift and noise.

A Zero Calibration Gas is also essential and use of the ISATEC nPURIFIER Zero Gas Purifier is recommended. This 19" Rack (3U) Purifier links seamlessly with the nSTREAM 6000-N2 analyser and guarantees a stable supply of zero calibration gas (purified to Grade N6.5 or better) with low ppb impurity levels. This ensures that consistent and highly accurate readings are achieved which, in turn, leads to a longer instrument life span. Furthermore, better sensitivities are achieved, which is essential for the successful operation of the ISATEC nSTREAM 6000-N2 analyzer.

TECHNICAL SPECIFICATIONS

Detector	Advanced Plasma Detector (APD) with Spectral Compensation
Typical Ranges for N₂	0-1 ppm, 0-10 ppm, 0-100 ppm
Limit of Detection	< 10 ppb
Precision	± 1% of Range
Repeatability	± 1% of Range
Drift	Zero Drift: <1% FS Span Drift: <1% FS
Response Time	<5 seconds for 90% step change @ 75 mL/min
Interface	6.5" Industrial Grade Colour Touch Screen Control
Outputs/Communications	2 x 4-20 mA outputs (isolated) 1 x mV Signal output 1 x RS 232 2 x USB VGA Optional: RS 485 (Modbus/Profibus), Ethernet, 1 x 4-20mA Active
Alarms	7 x Voltage Free Alarm Relay Contacts (including one for sample flow) Alarm Record
Calibration	Voltage Free contacts for switching in the calibration gas inputs externally Calibration Record Optional: Auto Calibration Routine
Data/Results	Data Trending via PC connection and 24 months internal storage
Gas Connections	1/8" VCR Face Seal Fittings
Sample Flow	5 mL/min to 200 mL/min Flow sensors installed
Inlet Pressure Range	10 kPA to 50 kPA
Operating Temperature	5°C to 45°C
Power Supply	100 - 120 VAC/ 220 -240 VAC, 50/60 Hz
Power Consumption	≤ 100 Watts
Weight	9 kg
Dimensions	482 (W) x 511 (D) x 177 (H) - 4U 19" Rack

FRONT VIEW



SIDE VIEW

