

# nSTREAM 6000-FID

ppb, ppm and % analysis using Flame Ionisation Detector



Designed to continuously measure and monitor concentrations of Hydrocarbons in a gas stream, it can also measure CO & CO<sub>2</sub> using a methaniser. It will provide accuracy with long term performance for applications ranging from gas producers to laboratory uses. For ppb applications, the internal cabinet is heated to provide a stable ambient temperature to offset any working temperatures and the Flame Ionisation Detector provides measurements to less than 30 ppb with speed. Using the large colour interactive touch screen, ISATEC nSTREAM 6000-FID analyser is straightforward to set-up and use with all functionality easily accessible and navigable with minimal training required.

With the integration of Pressure Sensors and voltage free alarm relay contacts, all critical monitoring is automated and provides peace of mind to the operator. Should the flame be extinguished, the analyser will automatically shut off the Sample and Fuel lines to the FID and an alarm will be activated. Further verification is provided by voltage free contacts for switching in calibration gas inputs externally to support the auto-calibration routine. Both Calibration and Alarm records are maintained also with a fall-back option to restore factory settings.

The precise results obtained can be transmitted via an array of communication modules such as: Passive 4-20mA (2 off), 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. ISATEC Engineering Team will custom design and test an analytical solution to meet your application and all systems are designed with volume optimised pipe work using only 1/8" Swagelok® fittings. Therefore, this robust system ensures an excellent stability, sensitivity and a long working life.

## KEY FEATURES:

- Flame Ionisation Detector
- Finely-tuned Detector with Minimal Drift
- Highly Sensitive to < 30 ppb
- Fast Detector Response: < 30 seconds
- Long Term Stability & Sensitivity
- Large Colour 6.5" LCD Touch Screen
- Fully Automated use
- Integrated Configurable Alarms System (7 Alarm Relays) with Alarm Record
- Automatic shutdown of sample & fuel lines if the flame extinguishes
- Integrated Diagnostics System
- Pressure Sensors
- Voltage free contacts for switching in calibration gas inputs externally
- Auto-Calibration Routine with Calibration Record
- Internal storage of results up to 24 months and data trending via PC
- 2 x 4-20mA, 1 x mV Signal, VGA & USB Outputs
- Active 4-20 mA option
- Increased Connectivity with Ethernet, RS-232 and RS-485 options
- Modular System Design & Drop-Down Front Panel for easy maintenance and servicing
- Cost Effective and Reliable
- Economic Power Usage & Gas Consumption
- Restore Factory Settings function for peace of mind

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## TECHNICAL SPECIFICATIONS

Measurement technique	Flame ionisation Detector - FID
Available measuring range	0.01 - 20,000 ppm (Higher ranges available upon request)
Analyser Configurations	6000-23 (%) 6000-24 (ppm) 6000-25 (ppm with Methaniser for CO/CO <sub>2</sub> (Single Reading))
Resolution	< 0.01 ppm
Linearity	0.01 - 20,000 ppm
Zero Drift	< 30 ppb
Minimum Detectable Level	< 30 ppb
Response Time	< 30 seconds
Warm up time	1 hour typical
Interface	6.5" Industrial Grade Colour Touch Screen Control
Outputs / Communication Modules	2 x 4-20mA outputs (Isolated) 1 x mV Signal output 1 x RS-232 2 x USB VGA RS-485 (Modbus/Profibus) - optional Ethernet - optional 1 x 4-20mA output (Active) - optional
Alarms	7 x Voltage Free Alarm Relay Contacts (including one for sample flow) Alarm Record
Calibration	Auto-Calibration Routine Voltage Free contacts for switching in the calibration gas inputs externally Calibration Record
Data / Results	Data Trending via PC connection and 24 months internal storage
Gas Connections	1/8" Swagelok® Fittings
Gas Requirements: Fuel Gas Fuel Mix Zero Air Sample Gas	Zero Grade H <sub>2</sub> @ 30 mL/min 40/60% mixture @ 75 mL/min 300 mL/min 0.5 bar (200 kPa) / Sample Flow Monitored by Flow Sensor
Flame Ignition	Stable Flame Ignition Circuit If activated, the Flame Out Alarm will automatically shut off the fuel & sample flow Flame Arrestors available for ATEX applications
Operating Temperature	5° to 45° Celsius
Power Supply	100 - 120 VAC / 220 - 240 VAC, 50/60 Hz
Power Consumption	≤ 350 Watts
Dimensions	482 (W) x 511 (D) x 177 (H) - 4U 19" Rack