

PRODUCT BROCHURE

# ATOM EIM-1000

Innovative External Injection Module  
for Total Sulfur and Total Nitrogen  
Measurement of LPG and Gas Samples



**Safe**

**Fast**

**Reliable**

- All-in-One Module – Easy to Use
- Fits a variety of applications and industries
- Designed for ASTM D6667 and D4629 Applications
- Compact design reduces benchtop space needed

ATOM Instrument offers tools and accessories to meet the growing challenging needs and demands of the analytical world. The ATOM EIM-1000 External Injection Module is built for safe, fast and reliable handling of gas and LPG samples with seamless integration to the ATOM XT Series laboratory Total Sulfur/Total Nitrogen analyzer. The efficient and compact design reduces required benchtop space to a minimum, while allowing easy access to internal module components. The EIM-1000 combined with the XT series analyzers

provides unmatched analytical performance making it suitable for a wide variety of applications and industries.

- Meets ASTM D6667 and D4629 Requirements
- Exceptional Analytical Performance
- All-in-One Gas and LPG Module
- Full Integration with XT Series Software
- Electrically Actuated Valves
- Safe Operations
- Small Overall Size

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## Efficient Design

The XT Series utilizes patented EUVF technology which achieves high detection sensitivity with minimal nitrogen interference. Coupled with proprietary signal processing technology enables the XT analyzers to achieve the highest dynamic range of any analyzer available on the market. These technologies enable extremely high precision and stable results across all measurement ranges.

## Built-in Safety

- Relief valves ensure equipment integrity and operator safety
- Sample vent to allow discharge of unused product before removing samples
- All 24 VDC system to minimize electrical risks
- Heating elements below T3 temperature rating, typical of hydrocarbon autoignition temperature
- Electric valves to reduce instrument air usage

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## All-in-One Module

The EIM-1000 can be used for both gas and LPG samples. Conveniently located valves and flowmeters allows users to adjust sample flow rate\* for consistent sampling. The EIM-1000 incorporates the capability to provide pad pressure for sample cylinders to maintain compositional integrity of product.

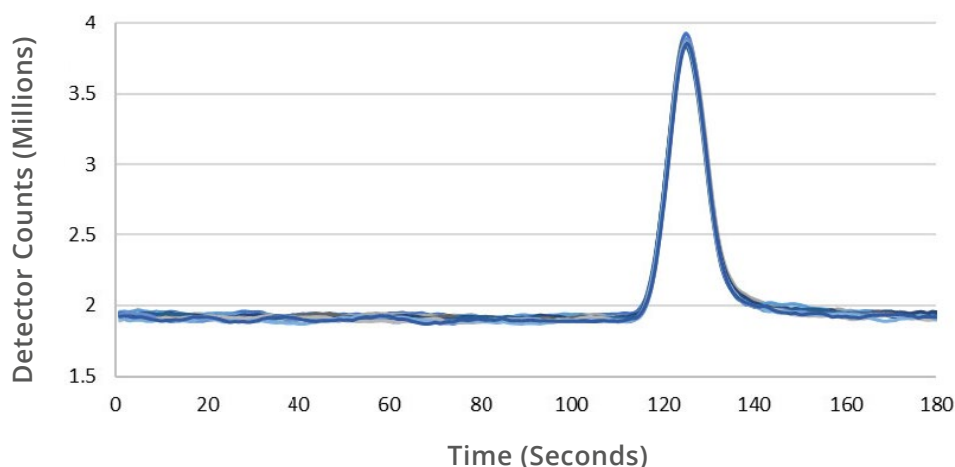
## Easy to Use

The EIM-1000 operation is fully integrated with the XT Series and managed directly through the Laboratory User Interface (LUI). The LUI software operates the electrically actuated gas and LPG valves independently while giving users full control over the analyzer operations.

\* On selected models

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## 10 ppm Total Sulfur in Butane Analysis



Run	1	2	3	4	5	6	7	8	9	10
Result (ppm)	10.10	9.91	9.91	10.10	9.91	9.90	10.00	9.89	10.13	9.86
Average 9.97			SD 0.096				RSD (%) 0.97			

## Outstanding Analytical Performance

The table above displays results of a 10.0 ppm/wt. dimethyl sulfide in instrument-grade butane sample acquired with an XT-2000 combined with the EIM-1000. The 10 run-graph above showcases the analytical performance and high speed of analysis of the XT-2000/EIM-1000 system.

## SPECIFICATIONS

### Analytical Performance with XT-2000 Analyzer

**Measurement Method:** Total Sulfur – Excimer UV Fluorescence (EUVF)  
Total Nitrogen – Chemiluminescence

**ASTM Methods:** Total Sulfur – D6667, D7551  
Total Nitrogen – D4629

**Measurement Range:** Total Sulfur – 0-10%\*  
Total Nitrogen – 0-1%\*

**Repeatability:** Total Sulfur – 30 ppb or 2% whichever is greater  
Total Nitrogen – 30 ppb or 2% whichever is greater

**Analysis Time:** 3 minutes (typical)

**Typical Sample Size:** 10 µL for LPG, 2.5 mL for gases

## Utility Requirements

**Power:** 90-240 VAC, 50/60 Hz

**Gases:** Air or Argon Carrier at 25 SCCM, 3 bar (40 psig)

## Physical Parameters

**Dimensions:** 304 mm (12.0 in) Wide x 381 mm (15.0 in) Deep x 414 mm (16.3 in) High

**Weight:** 9 kg (20 lbs)

\* Dependent on user application

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