

# TOTAL SULFUR + H<sub>2</sub>S GAS ANALYZER

## CONTINUOUS ON-LINE PROCESS

Series 1700-150



**Explosion Proof - Division I & II**

### FEATURES

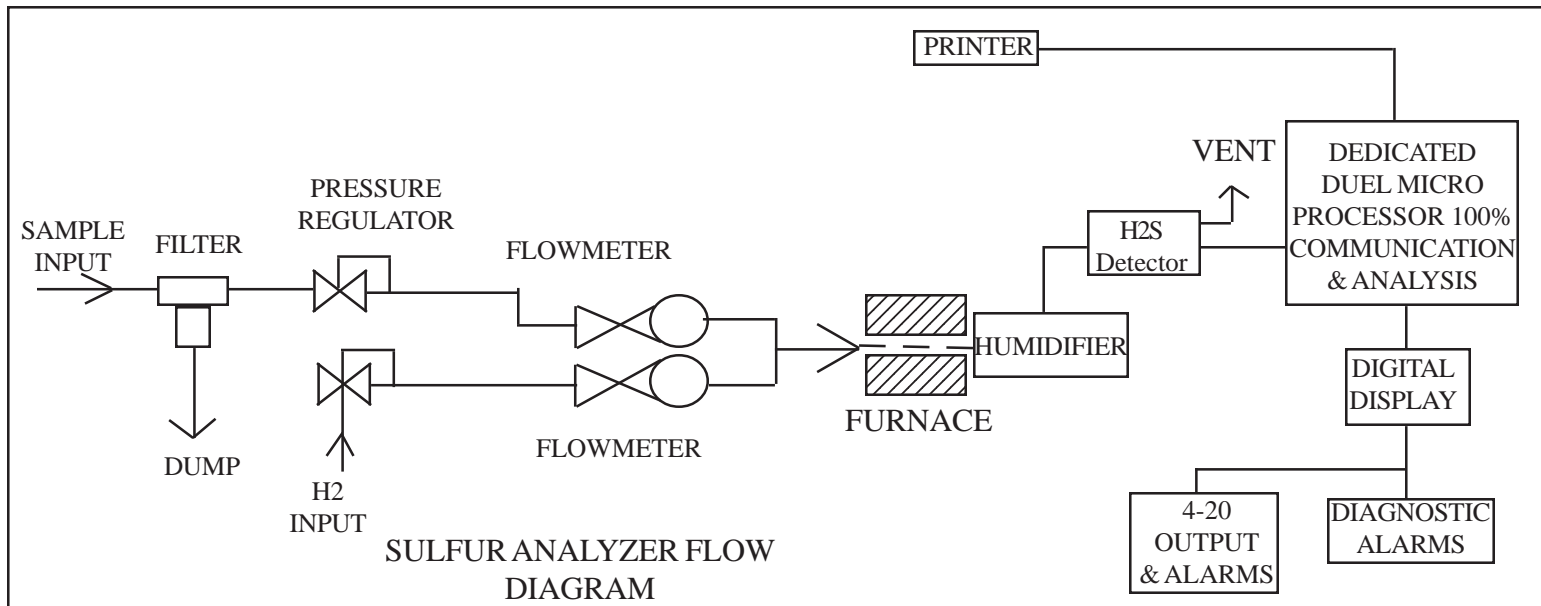
- **ASTM Approved Methods**
- **Only requires 4 to 6 Tape changes per year**
- **Automatic self-zero**
- **Does not suffer from sensor 'drift'**
- **Dual Processors for 100% Analysis & Communication**
- **Fault Diagnostics**
- **Cost-Effective**
- **Explosion Proof Configuration**
- **Remote Operation and Access**
- **24-Bit A/D Converter with Faster Response, Lower Detectable Limits, and Less Tape Consumption**
- **Automatic Calibration**
- **Specific to Sulfur Only**

### Description & Principle of Operation

The petrochemical, gas processing, and gas pipeline industry has required an accurate, dependable, low maintenance, and cost-effective sulfur analyzer for quality and process control purposes. With over twenty-five years of experience in developing and manufacturing sulfur analyzers and associated parts and supplies, Analytical Systems International Keco (ASI) has met these requirements with their proven microprocessor based analyzer. The Model 1700-150 System measures total sulfur and H<sub>2</sub>S by hydrogenation similar to that as described in ASTM Method D3031, D4084-82, D4468-85 and 4045-81. The sulfur sample is precisely metered into a continuous flowing stream of hydrogen gas. The sample and hydrogen are heated in the furnace up to 1,315° C resulting in thermal cracking of the sulfur that are reduced to short chain hydrocarbons. These reactions result in the formation of H<sub>2</sub>S. After complete humidification of the sample, the H<sub>2</sub>S comes in direct contact with the lead acetate tape and produces a darkening of lead sulfide that is immediately measured by the photodiode/LED optics and rate-of-reaction digital electronics to provide an accurate and reproducible total sulfur and H<sub>2</sub>S analysis with PPB or PPM sensitivity up to 100%. The LCD display provides the current reading, any alarm condition, procedure prompts (i.e., calibration procedure), and failure indicators (local and remote capability). Quality materials are selected for their compatibility and utilized through fabrication. Special attention is given to wetted parts that come in contact with the process stream and are selected to be non-reactive with H<sub>2</sub>S/sulfur.



(281) 516-3950 • FAX (281) 351-8925  
www.asikeco.com • Sales@asikeco.com



## SERIES 1700 TYPICAL SPECIFICATIONS

### **POWER INPUT (CUSTOMER SPECIFIED)**

110/240 VAC 50/60 Hz

### **TEMPERATURE**

5C to 50C (operating)

-0C to 70C (storage)

### **PERFORMANCE**

Range: Customer Specified

ppb thru ppm up to 100% Sulfur

Resolution: 1 ppb

Accuracy:  $\pm 2\%$  of Full Scale

Repeatability:  $\pm 1\%$  of Full Scale

Linearity:  $\pm 1\%$  of Full Scale

Drift: Less than 1% of FS

Temp. Coefficient: .01% / C

Analysis Time: Less Than 1 Second

Interference: None

### **ALARMS (Optional)**

Solid State 30 ma 24V

Mechanical Relay 5a 220V

Normally Opened / Normally Close

Diagnostic & Concentration

### **DISPLAY**

Alpha Numeric LCD

Pixel Graphics 128x64

### **ANALOG**

4-20ma Isolated Output (optional)

4-20ma Output (standard)

### **AREA CLASSIFICATION OPTIONS**

Class I, Div II

Class I, Div I

General Purpose - Series 1600-150

### **DIMENSIONS & WEIGHT**

30"H x 50"W x 12"D or 76cmH x 127cmW x

30cmD

200 lbs or 90 kg appx.

### **ACCESSORY OPTIONS**

Automatic Calibration

Sample Probe and Regulator

Fugitive Emissions Control

Chart Recorder

Heater & Thermostat

Sampling Systems

RS-232/485

Modem Communications

### **Quotation Information:**

Analytical Systems International provides design and application engineering assistance for the User's analyzer requirements. For a quotation, please complete ASI Analyzer Quote Request Form at [www.asikeco.com](http://www.asikeco.com)