

CONTINUOUS TOTAL SULFUR ANALYZER

Reduction & Tape Method

SERIES 1700



Explosion Proof - Division I & II

FEATURES

- **ASTM Method References**
- **Interference Free Detection**
- **Continuous Analysis**
- **Automatic Calibration**
- **Explosion Proof - Div. I & II**
- **Direct Read LCD**
- **Single LED Light Source**
- **Digital Electronics**
- **Dual Processor Power 100% Analysis**
- **18-bit A/D Conversion For Faster Response, Lower Detection Limits & Less Tape Consumption**
- **Fault Diagnostics**
- **Specific for Sulfur Only**

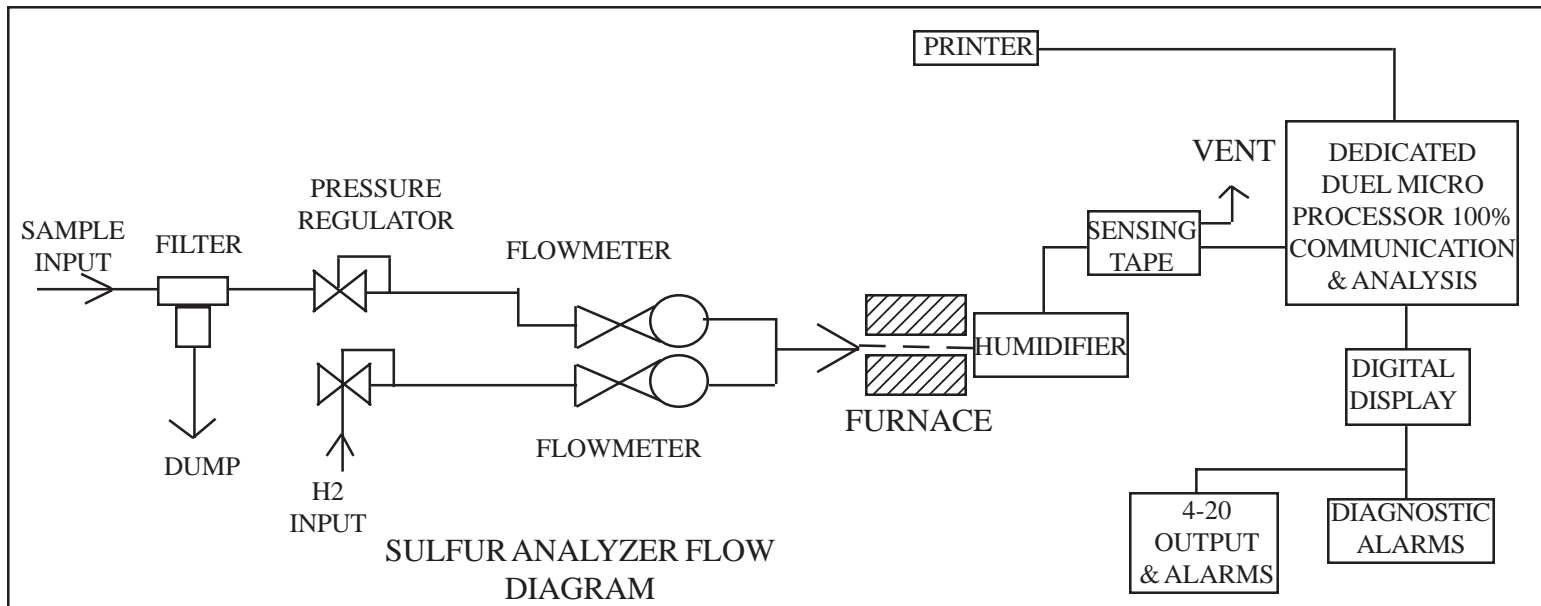
Description & Principle of Operation

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 (ASI) has met these requirements with their proven microprocessor based analyzer. The Model 1700 System measures total sulfur 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 H₂S. After complete humidification of the sample, the H₂S 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 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 H₂S.



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SERIES 1700 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: +2% of Full Scale

Repeatability: +1% of Full Scale

Linearity: +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

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.ASIWebPage.com

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