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 KEKO) 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 1315°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/sulfur.

FEATURES
- ASTM Approved Methods
- 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
- 18-Bit A/D Converter with Faster Response, Lower Detectable Limits, and Less Tape Consumption
- Automatic Calibration
- Specific to Sulfur Only

Explosion Proof - Division I & II

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 KEKO) 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 1315°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/sulfur.
SERIES 1700 SPECIFICATIONS

**POWER INPUT (CUSTOMER SPECIFIED)**
110/240 V AC  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.asikeco.com

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