

H₂S GAS ANALYZER

SulfurHound | ELECTROCHEMICAL METHOD ON-LINE PROCESS ANALYZER



- Measure H₂S in nat gas, biogas, air, etc
- Built for Division 2 & Zone 2 hazardous locations
- Automatic Calibration
- Low maintenance / few moving parts
- No paper-tapes, solutions, or scrubbers

Applications

• Gas Processing Facilities • Natural Gas Pipeline • Chemical Plants • Gas Well Testing & Analysis • Landfills & Biogas

Product Description

The petrochemical, gas processing, biogas, landfill and gas pipeline industries has for many years needed an accurate, dependable, efficient, and cost-effective trend H₂S analyzer for quality and process control purposes. Now, KECO has met these requirements with a proven microprocessor based technology which provides continuous on-line analysis based on the electrochemical principal of operation. The gas being analyzed for H₂S is regulated to approx. 10 PSI, then a flowmeter regulates the flow to 1.5 SCFH. Next, the sample is introduced to the electrochemical detection element which provides an output proportional to the concentration of H₂S. The signal is then digitized and analyzed by the advanced microprocessor and related software. The color touchscreen LCD display provides the current reading, previous reading, historical and real-time charts, any alarm condition, procedure prompts (such as calibration procedure), and failure indicators (local and remote capability). Quality materials are selected for their compatibility and are utilized throughout fabrication. Special attention is given to wetted parts that come in contact with the process stream and are selected to be non-reactive and appropriate for H₂S service.

KECO

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Typical Specifications

RANGE

- 0-10, 0-50, 0-100, 0-200, 0-1000, & 0-2000 ppm by vol.

RESOLUTION

- <0.05 ppm for ranges up to 200 ppm
- <0.5 ppm for ranges above 200 ppm

REPEATABILITY

- $\pm 3\%$ of Full Scale

ACCURACY

- $\pm 3\%$ of Full Scale

OVERGAS LIMIT

- Maximum 500 ppm for ranges up to 200 ppm
- Maximum 10,000 ppm for ranges above 200 ppm

TEMP PERFORMANCE

- $\pm 10\%$ of reading up to 50% full scale and $\pm 15\%$ of reading from 50% to 100% full scale

RESPONSE TIME

- T90 = less than 60 seconds

POWER

- 110/220VAC 50/60 Hz or 24VDC

OUTPUT

- 4-20mA DC (self-powered)
- RS-485 Modbus
- TCP/IP Ethernet Modbus
- Concentration alarms via Modbus & one relay per sensor:
High (SPDT, 250 VAC @ 5 Amps)
- Diagnostic Alarms via Modbus & one relay per sensor
(SPDT, 250 VAC @ 5 Amps)

ELECTRICAL CLASS

- Class I, Div 2 (Zone 2) Groups B, C, D

HUMIDITY

- 15-90% RH non-condensing

*analyzer performance based on laboratory conditions

RELAY RATINGS

- 3 SPDT Relays, 250 VAC at 10 amps (high alarm, diagnostic alarm, remote cal relay)

OPERATION TEMPERATURE

- -10°C to 50°C

OPERATION PRESSURE

- Max pressure input 100 psig (optional pressure regulator/gauge available)
- Minimum pressure input 10 psig

DIMENSIONS

- Height: 24 inches
- Width: 16 inches
- Depth: 8 inches

WEIGHT

- Approx. 60 Lbs (27 Kg)

FEATURES

- Automatic Calibration (AutoCal) including remote activation of calibration (SPDT relay, 24VDC)
- Data Logger (SD card separate)
- NEMA 4X enclosure for outdoor environments (UL listed, CSA rated, IP66)

OPTIONS

- Sample pressure alarm (in case of sample loss)
- Additional relay alarms (concentration)
- Isolation of 4-20 mA and Ethernet.
- Solar System (panels, mounting pole, batteries, controller)
- H2S Scrubber for vent
- Fugitive Emission Control Unit for vent
- Sampling System (Simple): Pressure regulator/gauge
- Sample System for Gasses Entrained with Light Liquids: Pressure regulator/gauge, Liquid Block, by-pass with needle valve
- Sampling System for LPG, LNG (heated)
- Sample Probe to be installed at tap point
- Self standing rack (includes sun/rain shield, drip pan, fork lift holes, foundation mount holes). Can mount analyzers on front and back)

The SulfurHound H2S Analyzer may respond to other gasses in addition to H2S. For example, given 100 PPMv of the following gasses present, response will be approximately: Methyl mercaptan 40 PPMv, Carbon monoxide 4 PPMv, Hydrogen 1 PPMv, Sulfur dioxide 18 PPMv. For a complete list contact KECO.

KECO provides design and application engineering assistance for the user's analyzer requirements. For a quotation, please complete Analyzer Quote Request Form at www.LiquidGasAnalyzers.com/quote