

DUAL H₂S + CO₂ GAS ANALYZER (2-in-1)

CS Hound | ELECTROCHEMICAL & NDIR METHOD ON-LINE PROCESS ANALYZER



- H₂S & CO₂ real-time trend Analyzer
- Measure CO₂ & H₂S in nat gas, biogas, air
- Built for Division 2 (Zone 2) hazardous locations
- NDIR Sensor & Electrochemical cell technologies
- Low maintenance / limited moving parts
- No paper-tapes, solutions, or scrubber media

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 have for many years needed an accurate, dependable, efficient, and cost-effective trend H₂S and CO₂ 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 and NDIR principal of operation. The gas being analyzed for H₂S and CO₂ is regulated to 10 PSI, then a flowmeter regulates the flow to approx. 1.5 SCFH. Next, the sample is introduced to the electrochemical detection element and NDIR sensor which provides an output proportional to the concentration of H₂S and CO₂. The signal is then digitized and analyzed by the advanced microprocessor and related software. The color touch-screen 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.

KECO

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Typical Specifications

CO2 RANGE

- 0 - 500 ppm by vol, 0 - 0.5% (0 - 5000 ppm), 0 - 5%, 0 - 10%, 0 - 100% Vol.

H2S RANGE

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

CO2 RESOLUTION

- 0.01% for readings up to 10% volume
- 0.1% for readings from 10% up to 100% vol.
- 10 ppm for 0 - 500 ppm vol.

H2S RESOLUTION

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

CO2 & H2S REPEATABILITY

- ±3% of Full Scale

CO2 & H2S ACCURACY

- ±3% of Full Scale

CO2 PRESSURE

- ±5% of the calibration pressure to maintain accuracy limits

CO2 TEMP PERFORMANCE

- ±10% of reading up to 50% full scale and ±15% of reading from 50% to 100% full scale

CO2 & H2S 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

RELAY RATINGS

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

OPERATION TEMPERATURE

- -10°C to 50°C

OPERATION PRESSURE

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

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