

MODEL

330 H₂S and Total Sulfur Analyzer

This uniquely rugged and simple design by Envent utilizes a lead acetate based sensing system that provides a linear and interference-free output of H₂S and total sulfur concentration

APPLICATIONS

Measures H₂S in natural gas, petrochemical streams, condensate, or LPG.

FEATURES

- Ranges from 0–50 ppb to 0–100%
- 1.5% accuracy, 1% repeatability
- Modbus Serial communications,
- Displays up to 5 times full scale
- Dual Isolated 4–20 mA outputs
- less than 20-second response time to alarm
- Interference-free Lead acetate sensor
- 60–90 day tape (longest tape life in the market)
- Optional CO₂ sensor
- Optional Total Sulfur

VALUE

The 330 measures H₂S in natural gas or other process streams. The unit has dual 4–20 mA outputs, dual measurement alarms, plus trouble and fault alarm relays. An external magnetically-driven interface allows operator functions without opening any covers. The 330 displays H₂S concentration in user specified units and as well will auto range to 5 times the lower calibrated range. Calibration is performed manually via the operator interface or automatically when connected to a calibration bottle with the optional auto calibration solenoid. The 330 is available with a number of optional sample systems and accessories to handle various applications such as high range H₂S, total sulfur or H₂S in liquids

Lead Acetate Sensors: Lead acetate is essentially interference free from other sulfur compounds. This is why it is used by the vast majority in the industry when accurate measurement is required. The linear output enables the user to perform a single point calibration.

Longest Tape Life: The 330 offers the longest tape life in the market by using a proprietary tape advance algorithm to make complete use of the 300 foot tape. The unit will accept up to a 350-foot roll. Envent sensing tape is the strongest in the market.



SPECIFICATIONS

Power	12–24 vdc @ less than 3 watts or 100–240 VAC 50/60 HZ
Electrical classification	Class 1, Div1 Groups C & D certified to CSA standards
Ambient Temperature	0–50 °C (std) consult factory for other requirements
Output Ranges	H ₂ S 0–50 ppb to 0–100 ppm are standard. Higher concentrations require optional dilution sample system.
Response time	20-sec alarm
Accuracy	+/- 1.5% of full scale (H ₂ S only); +/-3% (Total Sulfur and Dilution)
Inputs	24 bit A/D Microprocessor-based sensor block Low Tape Alarm Remote calibrate, Stream switch, or Low pressure alarm
Outputs	Dual isolated 4–20 mA (loop power required) Modbus serial RS-232 & RS-485 Four 5 amp SPDT alarm relays (high reading, high high reading, low tape, failure) Four solid state solenoid drivers (auto cal, total sulfur, stream switching, valve actuator)
Displays	2 x 16 character LCD with backlight Menu is scrolled by internal button or external magnetic switch
Configuration Software	A Windows™-based program for analyzer configuration, archive retrieval, Modbus mapping

OPTIONAL EQUIPMENT

Total Sulfur	Total sulfur furnace converts all sulfur compounds to H ₂ S allowing the analyzer to measure total sulfur. (Requires AC power)
Auto Calibration	Enables the user to initiate a calibration based on time or external switch
Stream Switching	Allows switching of two input streams or from H ₂ S to total sulfur measurement
Dilution	Allows measurements up to 100% H ₂ S using a permeable membrane and H ₂ S free carrier gas
Liquid sampling	Liquid sample system to measure H ₂ S in liquids
Custom systems	Envent can design custom integrated systems to meet your application requirements
Cabinets	30" x 36" fiberglass or stainless steel
Panels	Standard system without cabinet is mounted on a 24"W x 32"H x 1/4" thick anodized panel
CO₂	CO ₂ measurement 0–2% to 0-100%
H2 Saver	Reduces hydrogen consumption on H ₂ S/TS systems



Model 330 Total Sulfur Monitor



Permeable membrane dilution system