



ENVENT MODEL 331S

H₂S & Total Sulfur Analyzer

The Model 331S H_2S Analyzer utilizes field proven tape based technology that provides a linear and interference-free output of H_2S . An optional Total Sulfur measurement can be added to the analyzer. Certified for Class I, Div 2, Groups C & D (Group B optional, please consult factory for details).

FEATURES

- Fast Response times using Rapid Response Algorithm (RRA) ~20 seconds to alarm
- \sim No interference from other components in the sample
- \sim Low power consumption < 3 Watts
- ₻ Extended tape life of 60-90 days
- ∽ Measures up to 5 times the calibrated range
- ∇ Full field service & training available

APPLICATION FLEXIBILITY

The Model 331S measures H_2S and/or Total Sulfur in natural gas, petrochemical streams, condensate, liquids, or LPG. Common applications include:

- ₻ Sales Gas
- ♥ Plant Inlet
- ♥ Pipeline Monitoring & Blending
- $rac{}{\sim} H_2S$ Scavenger Systems
- ♥ Wellhead Monitoring
- ♥ Fuel Gas Monitoring
- 🔊 Bio Gas

USER INTERFACE

I.C.E. (Integrated Configuration Environment) is a Windows® based program that accompanies all 331S Analyzers for full configurability.

- √ Field friendly interface via front display panel
- ∽ 3 Mb event triggered archive storage

- ₻ Remote Display (optional)
- Numerous modes of communication including 4-20mA outputs, alarm outputs, solenoid drivers, serial Modbus and Modbus TCP

ADDITIONAL ADVANTAGES

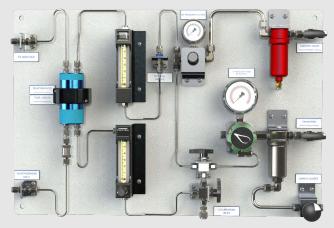
- └ Customized sample conditioning system
- ▷ Analytical accessories: Sample Probes, Heated Bundles and
- ₻ Enclosures
- ∽ Analyzer Walk-in Shelters



331S H₂S ANALYZER







$\begin{array}{l} \mbox{Permeable Membrane Dilution System for} \\ \mbox{Measuring High Range } H_2 \mbox{S Samples} \end{array}$



331S H_2S Analyzer with Standard Sampling System



331S H₂S Analyzer Tape Door/Swing Plate

	Specifications		
	Power	12–24 VDC @ less than 3 watts or 100-240 VAC, 50/60Hz	
	Electrical Classification	Class I, Div 2 Groups C & D. Group B is optional.	
	Ambient	0 to 50°C (32 to 122ºF) std. Contact for other requirements	
	Output Ranges	Standard Ranges: 0-5ppm to 0-100ppm, higher ranges without dilution available upon request. A dilution system is recommended with ranges over 400ppm. Custom Ranges: 0-50ppb to 0-100%	
	Response time	20-sec to alarm.	
	Accuracy	+/- 1% full scale for ranges 1 to 50 ppm +/- 1.25% full scale for ranges > 50 ppm +/- 1.5% full scale for ranges 0.5 to 1 ppm +/- 2.5% full scale for ranges < 0.5 ppm	
	Repeatability	+/- 1% full scale for ranges 1 to 50 ppm +/- 1.25% full scale for ranges > 50 ppm +/- 1.5% full scale for ranges 0.5 to 1 ppm +/- 2.5% full scale for ranges < 0.5 ppm	
	Inputs	4 digital inputs individually configurable.	
	Outputs	Dual isolated 4-20 mA (loop powered) (Modbus) serial RS-232 & RS-485 (Ethernet available) Four 5 amp SPDT alarm relays (high reading, high high reading, low tape, low pressure, low temperature, fault) Four solid state solenoid drivers (auto cal, total sulfur, stream switching, valve actuator)	
	Displays	128 x 64 Graphic Display Menu is scrolled by internal button	
	Dimensions	13"W x 15"H x 8"L (33.02W x 38.1H x 20.32L cm) Standard system and 331S are mounted on a 24"W x 16"H x ¼" (60.96 W x 40.64 H x 0.635 L cm) thick anodized panel	
	Configuration Software	Windows® software for customer configuration, archive retrieval, and Modbus mapping.	
	*	Product specifications subject to change without notice to improve reliability, function, design or otherwise.	
	OPTIONAL EC	NAL EQUIPMENT	
	SDS Dual Stream	The 331SDS Analyzer can measure two streams at the same time.	
	Total Sulfur	Total Sulfur furnace converts all sulfur compounds to H_2S which allows analyzer to measure Total Sulfur.	
1	CO2	Dual-beam IR bench. CO_2 concentration is displayed on the second line of display and can be configured as a 4– 20 mA analog output. CO_2 ranges from 0–20% to 0–100%	
	Auto Calibration	Allows user to initiate a calibration based on time or external switch	
	Stream Switching	Allows switching of four (4) input streams or from H ₂ S to Total Sulfur measurement	
	Dilution	Allows measurements up to 30% H_2S using permeable membrane dilution.	
	Liquid sampling	Liquid sample system to measure H ₂ S in Hydrocarbon liquids or water	
	Custom systems	Envent can design custom integrated systems to meet application requirements	