

ENVENT MODEL 331S

H₂S & Total Sulfur Analyzer

The Model 331S H₂S Analyzer utilizes field proven tape based technology that provides a linear and interference-free output of H₂S. An optional Total Sulfur measurement can be added to the analyzer. Certified for Class I, Div 2, Groups A, B, C and D.

FEATURES

Benefits

- ✎ Fast Response times using Rapid Response Algorithm (RRA)
 - ~20 seconds to alarm
- ✎ No interference from other components in the sample
- ✎ Low power consumption < 3 Watts
- ✎ Extended tape life of 60-90 days
- ✎ Measures up to 5 times the calibrated range
- ✎ Quick delivery - as quick as 1 to 2 days for standard systems
- ✎ Full field service & training available

Application Flexibility

The Model 331S measures H₂S and/or Total Sulfur in natural gas, petrochemical streams, condensate, liquids, or LPG. Common applications include:

- ✎ Sales Gas
- ✎ Plant Inlet
- ✎ Pipeline Monitoring & Blending
- ✎ H₂S Scavenger Systems
- ✎ Wellhead Monitoring
- ✎ Acid Gas
- ✎ 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
- ✎ Easily configurable alarm processor and calculation processor
- ✎ 3 Mb event triggered archive storage
- ✎ Alarm/Event log
- ✎ Customizable serial RS-232 & RS-485 mapping
- ✎ Remote Display (optional)
- ✎ Numerous modes of communication including 4-20mA outputs, alarm outputs, solenoid drivers, serial Modbus and Modbus TCP

Additional Advantages

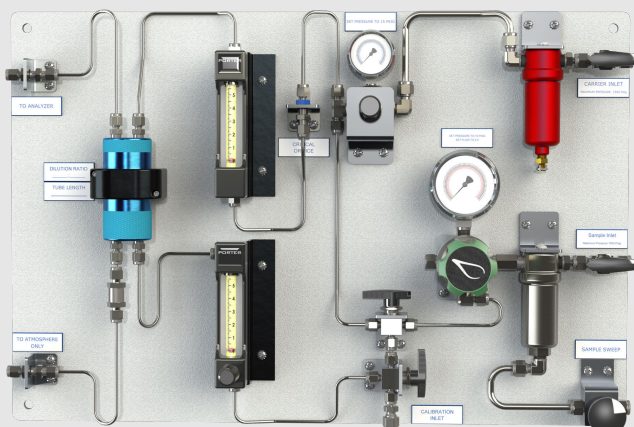
- ✎ Customized sample conditioning system.
- ✎ Analytical accessories: Sample Probes, Heated Bundles and Enclosures
- ✎ Analyzer Walk-in Shelters



331S H₂S Analyzer



331S H₂S-Total Sulfur Analyzer



Permeable Membrane Dilution System for Measuring High Range H₂S Samples



331S H₂S Analyzer with Standard Sampling System



331S H₂S Analyzer

SPECIFICATIONS

Power	12–24 VDC @ less than 3 watts or 100-240 VAC, 50/60Hz
Electrical Classification	Certified for Class I, Div 2 Grps A, B, C, & D
Ambient	0 to 50°C (32 to 122°F) 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	1.5% of full scale, 2% for Total Sulfur, 2.5% for Dilution >200ppm H ₂ S. 1.5% repeatability.
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 1/4" (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 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 ₂ S which allows analyzer to measure Total Sulfur.
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 ₂ S 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