Envent
Knowledge by Analysis

Envent 330S and 331S

H_2S & Total Sulfur Analyzer

The Model 330S/331S H_2S analyzer utilizes field proven tape-based measurement 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, Division 1 Groups B, C and D (330S) and Class I, Division 2, Groups B, C and D (331S).

Envent Model 331S H_2S Analyzer

Features

- Fast Response times Rapid Response Algorithm (RRA) ~ 20 seconds to alarm
- No interference from other components in the sample
- Low power consumption
- Extended tape life of 60 to 90 days
- Measures up to 5 times the calibrated range
- Quick Delivery
- Full field service & training available

Application Flexibility

The model 330S/331S measures H_2S and/or Total Sulfur in natural gas, petrochemical streams, condensate, water, or LPG. Common applications include:

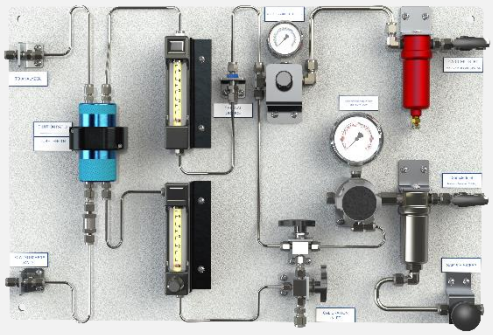
- Sales Gas
- Plant Inlet
- Acid Gas
- Fuel Gas Monitoring
- Bio Gas
- Pipeline Monitoring & Blending
- H_2S Scavenger Systems
- Wellhead Monitoring

Envent Model 330S with Standard Sample Conditioning and Total Sulfur Oven

User Interface

I.C.E. (Integrated Configuration Environment) is a Windows based program that accompanies all Envent 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)
- Communications including 4 – 20 mA outputs, alarm outputs, solenoid drivers, serial Modbus, and Modbus TCP/IP (optional)



Permeable Membrane Dilution System for Measuring High Range H_2S and Total Sulfur Samples

Envent Model 330S Analyzer

331S H2S Analyzer with Standard Sampling System

Specifications

Analysis Method	Hydrogen Sulfide measured as per ASTM D-4084
Power	12 – 24 VDC @ less than 3 watts or 100 – 240 VAC, 50/60 Hz (300 Watts when total sulfur option is included)
Electrical Classification	330S: Class I, Division 1 Groups B, C, D 331S: Class I, Division 2 Groups B, C, D
Ambient	0°C to 50°C (32°F to 122°F). Consult factory for other requirements
Output Ranges	Standard Ranges: 0 – 10 ppm, 0 – 20 ppm, 0 – 100 ppm (other ranges available upon request) Concentration ranges above 0 – 400 ppm require a dilution system
Accuracy / Repeatability	H2S: Accuracy — Repeatability < 1 ppm — Consult Factory 1 ppm – 200 ppm — +/- 1.5% F.S. > 200 ppm — +/- 2% F.S. [with dilution] + 0.5% for 2nd Sensor Measurements [SDS Models*] TS: < 1 ppm — Consult Factory 2 ppm – 400 ppm — +/- 2% F.S > 400 ppm — +/- 2.5% F.S [with dilution] + 0.5% for 2nd Sensor Measurements [SDS Models] * Note: SDS Models do not support ppb applications
Inputs	Four digital inputs are individually configurable for pressure switches, temperature switches, or flow switches.
Outputs	2 Analog Outputs 4 Solenoid Drivers 4 Serial Ports 4 Relay Outputs 1 Ethernet Port (Optional)
Display	128 x 64 Graphic Display Menu is scrolled by internal button or external magnet
Dimensions	330S: 17.4”W x 32.7”H x 13.7” (442W x 831H x 348D mm) 331S: 13”W x 15”H x 8”D (330.2W x 381H x 203.2D mm)
Configuration Software	Windows based 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

Ethernet Card	Expansion board to provide TCP Modbus via Ethernet
Total Sulfur	Total sulfur furnace converts all sulfur compounds to H2S, which allows analyzer to measure Total Sulfur as per ASTM D4468
Stream Switching	Allows switching of up to four (4) input streams or from H2S to Total Sulfur measurement.
Dilution	Above 10%, please contact Envent to discuss available options
Liquid Sampling	Liquid sample system to measure H2S in Hydrocarbon liquids or water
Custom Systems	Envent Can design custom integrated systems to meet application requirements

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