

Envent 330SDS and 331SDS

Dual Sensor H₂S & Total Sulfur Analyzer

The Model 330SDS/331SDS H₂S Analyzer utilizes field-proven tape-based technology that provides a linear and interference-free output of H₂S on two streams simultaneously. An optional Total Sulfur measurement can be added to the analyzer as one of the streams, allowing for simultaneous H₂S and Total Sulfur measurement on a common stream. Certified for Class I, Division 1 Groups C and D (330SDS) and Class I, Division 2, Groups C and D (331SDS).

Features

- Fast Response times using Rapid Response Algorithm (RRA) 20 seconds to alarm
- No interference from other components in the sample
- Low power consumption less than 3 watts
- Extended tape life of 60 to 90 days
- Measures up to 5 times the calibrated range
- Fast delivery
- Full field service & training available

Application Flexibility

The model 330SDS/331SDS measures H₂S and/or Total Sulfur in natural gas, petrochemical streams, condensate, water, or LPG. Common applications include:

- Sales Gas
- Plant Inlet
- Pipeline Monitoring & Blending
- H₂S Scavenger Systems
- Wellhead Monitoring
- Acid Gas
- Fuel Gas Monitoring
- Biogas

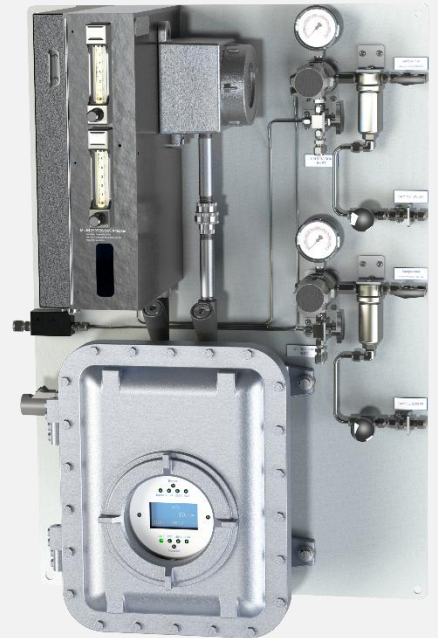
User Interface

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 without the need for a laptop
- 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 Ethernet)

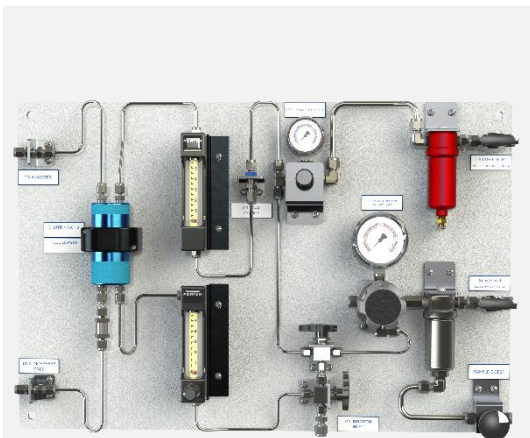


Envent Model 331SDS H₂S Analyzer



Envent Model 330SDS with Standard Sample Conditioning





Permeable Membrane Dilution System
for Measuring High Range H₂S
Samples



330SDS H₂S and Total Sulfur Analyzer
with Auto-Calibration in Stainless
Steel Enclosure

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
Total Sulfur Option Current (Steady State) Maximum: 2.6 A @ 100 - 240VAC

Electrical Classification 330SDS: Class I, Division 1 Groups B, C, D T3C (T4 option available upon request)
331SDS: Class I, Division 2 Groups B, C, D T3C (T4 option available upon request)

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. (331S); +/- 2.0% F.S. (330S)
> 200 ppm	+/- 2.0% F.S. [with dilution 331S] +/- 2.5% F.S [with dilution 330S]
	+ 0.5% for 2 nd Sensor Measurements
TS:	
< 1 ppm	Consult Factory
1 ppm – 2 ppm	+/- 2.0% F.S. (331S); +/- 2.0% F.S. (330S)
2 ppm – 400 ppm	+/- 2.5% F.S [with dilution 331S]
> 400 ppm	+/- 3.0% F.S [with dilution 330S]
	+ 0.5% for 2 nd Sensor Measurements

* 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

330SDS	331SDS
17.4"W x 32.7"H x 13.7"D	15"W x 15"H x 8"D
(442W x 831H x 348D mm)	(381W 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
- Dilution** Above 10%, please contact Envent to discuss available options
- Liquid Sampling** Liquid sample system to measure H₂S in Hydrocarbon liquids or water
- H₂ Saver Mode** Solenoid utilized Hydrogen saving option to reduce Hydrogen consumption by measuring Total Sulfur on a timed basis.

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