Envent
Knowledge by Analysis

# Envent 330SDS and 331SDS

## Dual Sensor $H_2S$ & 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 $H_2S$ 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 $H_2S$ Analyzer

Envent Model 330SDS with Standard Sample Conditioning

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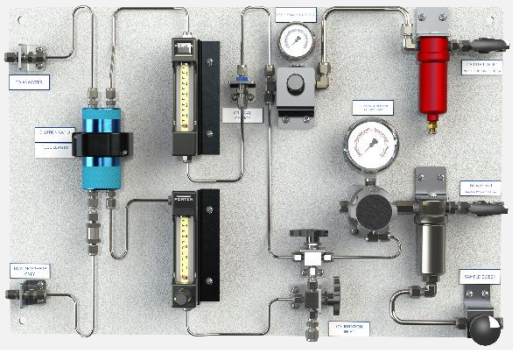

Permeable Membrane Dilution System for Measuring High Range $H_2S$ Samples

331SDS H2S and Total Sulfur Analyzer with Auto-Calibration in Stainless Steel Enclosure

## Specifications

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|---|---|
| **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<br>(300 Watts when total sulfur option is included) |
| **Electrical Classification** | 330SDS: Class I, Division 1 Groups B, C, D<br>331SDS: 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)<br>Concentration ranges above 0 – 400 ppm require a dilution system |
| **Accuracy / Repeatability** | H2S:<br>Accuracy — Repeatability<br>< 1 ppm — Consult Factory<br>1 ppm – 200 ppm — +/- 1.5% F.S.<br>> 200 ppm — +/- 2% F.S. [with dilution]<br>+ 0.5% for 2nd Sensor Measurements [SDS Models*]<br>TS:<br>< 1 ppm — Consult Factory<br>1 ppm – 2 ppm — +/- 5% F.S.<br>2 ppm – 400 ppm — +/- 2% F.S<br>> 400 ppm — +/- 2.5% F.S [with dilution]<br>+ 0.5% for 2nd Sensor Measurements [SDS Models]<br>* 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<br>4 Solenoid Drivers<br>4 Serial Ports<br>4 Relay Outputs<br>1 Ethernet Port (Optional) |
| **Display** | 128 x 64 Graphic Display<br>Menu is scrolled by internal button or external magnet |
| **Dimensions** | 330SDS: 17.4”W x 32.7”H x 13.7”D (442W x 831H x 348D mm)<br>331SDS: 15”W x 15”H x 8”D (381W x 381H x 203.2D mm) |
| **Configuration Software** | Windows based software for customer configuration, archive retrieval, and Modbus mapping.<br>* Product specifications subject to change without notice to improve reliability, function, design or otherwise |

## Optional Equipment

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|---|---|
| **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 |
| **H2 Saver Mode** | Solenoid utilized Hydrogen saving option to reduce Hydrogen consumption by measuring Total Sulfur on a timed basis. |


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