

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)

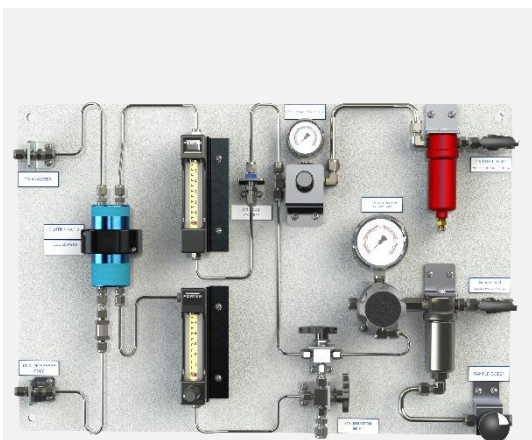


Envent Model 331SDS H₂S Analyzer



Envent Model 330SDS with Standard Sample Conditioning





Permeable Membrane Dilution System
for Measuring High Range H₂S
Samples



331SDS 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 Maximum Current (Steady State): 2.6 A @ 100 - 240VAC

Electrical Classification

330SDS: Class I, Division 1 Groups B, C, D
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)
Concentration ranges above 0 – 400 ppm require a dilution system

H₂S:

Accuracy

Repeatability

< 1 ppm
1 ppm – 200 ppm
> 200 ppm

Consult Factory
+/- 1.5% F.S.
+/- 2% F.S. [with dilution]
+ 0.5% for 2nd Sensor Measurements [SDS Models*]

Accuracy / Repeatability

TS:

< 1 ppm
1 ppm – 2 ppm
2 ppm – 400 ppm
> 400 ppm

Consult Factory
+/- 5% F.S.
+/- 2% F.S.
+/- 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

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

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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