

SS2100r Rack Mount Datasheet

TDLAS gas analyzer

Key Features

- H₂S and H₂O in natural gas pipeline applications
- Rapid response without false positives
- Small rack-mount package for general purpose locations
- Keypad interface, no tools required
- Simple design, trouble-free operation
- Very little maintenance required
- Field calibration not needed
- No drift or interference from contaminants
- CE Certification



SpectraSensors SS2100r Gas Analyzers are exceptionally reliable and compact analyzers for measuring gas components using tunable diode laser absorption spectroscopy (TDLAS) technology. TDLAS is a high-resolution infrared technique that enables the measurement of specific gases with precision while avoiding interferences.

Simple operation The operation of the analyzer is very straightforward. Most technical personnel can learn to operate the system in a very brief time. With the very small maintenance requirements, the analyzer provides for an extremely low cost of ownership.

At the same time, technical support capability is a crucial element of the product design. There are several health monitoring

parameters and remote access is available using Service software or directly through the touch sensitive keypad.

Trouble-free installation The SS2100r is easy to install; connect the power, data link and measured gas line and the analyzer begins working without the need for extensive calibrations or setup.

Reliable Trustworthy measurements are vital in natural gas applications. The TDLAS sensor is unaffected by contaminants and corrosives since the gas stream never touches the laser or detector. The SS2100r requires little regular maintenance and does not need recalibration or periodic replacement parts due to the inherent stability of TDLAS technology.



SS2100r Rack Mount H₂S Analyzer

Specifications

Application Data	
Measurement Ranges	H ₂ S 0-10 ±0.5 ppm _v to 0-100 ±1 ppm _v * or H ₂ O 0-100 ±1 ppm _v to 0-2000 2% of Reading*
Principle of Measurement	Tunable Diode Laser Absorption Spectroscopy (TDLAS) For H ₂ S Measurements, SignalSelect™ "Differential TDLAS" Utilizes a Mole Sieve (Scrubber) Device
Measurement Time	Typically less than 20 seconds*
Periodic Scrubber Cycle Duration	90 seconds
Environmental Temperature Range	20°C to 30°C
Sample Cell Pressure Range	Typically 800-1200 mbar - standard, or 700-1700 mbar - optional*
Max Pressure at Sample Cell	70 kPaG (10 PSIG) max to Spectrometer Cell
Pressure to Sample Inlet	140-225 kPaG (20-30 PSIG)*
Sample Flow Rate	H ₂ S 3 SLPM (6.3 SCFH) H ₂ O 1 SLPM (2.1 SCFH)
Electrical & Communications	
Input Power, Electronics Enclosure	120 or 240 VAC ±10%, 50-60 Hz; 160W max
Analog Output	Qty 1 4-20 mA Isolated Output, 1200 ohms @ 24 VDC max
Serial Communication	RS232C
Digital Signals	Outputs: Qty 1 General Fault, Qty 1 Hi/Lo Alarm
Protocol	Modbus Gould RTU or Daniel RTU or ASCII
Diagnostic Value Examples	Detector Power (Mirror Health), Spectrum Reference Comparison and Peak Tracking (Spectrum Quality), Cell Pressure and Temperature (Overall System Health)
LCD Display	Concentration, Cell Pressure and Temperature & Diagnostics
Physical	
Enclosure	19 inch Aluminum Rack Mount
Sample System	Built into Analyzer System, includes Filter, Flow Control, Pressure Regulator. For H ₂ S Systems, also includes Switching Valves and Scrubber Indicator
Analyzer Dimensions	356 H × 480 W × 671 D mm (14.4 H x 18.9 W x 26.4 D inches)
Analyzer Weight	Approximately 39 kg (86 lbs)
Sample Cell Construction	316L Series Polished Stainless Steel - standard
Number of Sample Cells	1 per Analyzer
Certification	CE EMC 204/108/EC & Low Voltage 2006/95/EC

* Application dependant.



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