



# 2-PACK H<sub>2</sub>S+H<sub>2</sub>O OR H<sub>2</sub>S+CO<sub>2</sub> ANALYZER SYSTEM FOR NATURAL GAS

Product Code 11006 and 11107

## KEY FEATURES

- One Technology, One Supplier
- Complete Gas Quality Analyzer in One Small Package
- Includes Sample Conditioning and Regulation
- No Chemometrics
- No Complex Fiber or Fiber Optics
- Simple Installation and Operation
- Fast and Continuous
- Low Maintenance, No Light Source or Probe Replacements, No Tape and No Carrier Gas
- No Field Calibration
- Reliable in Harsh Environments

## APPLICATIONS

- Transportation Pipeline & Sales Gas
- Raw Gas / Gathering
- Underground Storage
- Gas Processing, Dehydration & Sweetening

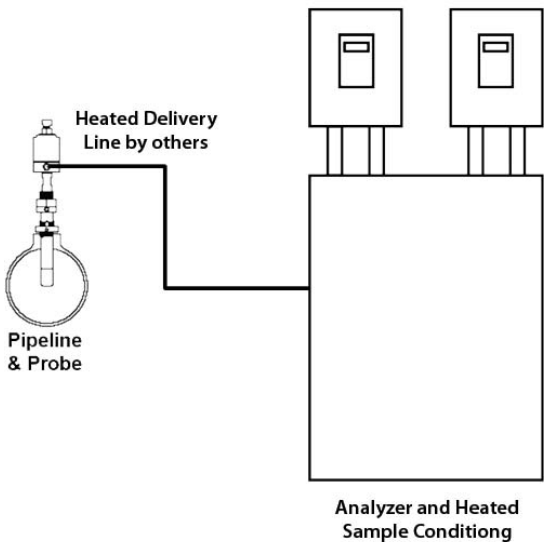
The SpectraSensors H<sub>2</sub>S + H<sub>2</sub>O and H<sub>2</sub>S + CO<sub>2</sub> 2-Pack gas analyzer systems retains the analytical benefits and reliability known by our existing customers. In addition, reduced installation costs, support and complexity are achieved via a single technology for gas quality measurements.

**GAS QUALITY SIMPLIFIED** The analyzer system includes all required sample conditioning and regulation. The sample system is heated to 50°C (122°F) to keep all constituents in vapor phase.

Training requirements are reduced and the system enables fewer electrical runs, fewer sample runs and less labor. Installation and operational costs are dramatically reduced.



*2-Pack Analyzer System with Heated Sample Conditioning and Pressure Regulation*



The Installation diagram on the left is a simple representation of connection to the pipeline.

A variety of sample probe products are available to compliment the application.

SpectraSensors offers probes, probe regulators, and heated regulators depending on the pressure in the pipeline, the gas and ambient temperatures and the hydrocarbon dew point.



# SpectraSensors 2-Pack Natural Gas Analyzer System

## SPECIFICATIONS

### Application Data

Target Components	H <sub>2</sub> S + H <sub>2</sub> O and H <sub>2</sub> S + CO <sub>2</sub> in Natural Gas
Typical Measurement Ranges - H <sub>2</sub> S	0-20 ±0.5 ppmv (other ranges available)
Typical Measurement Ranges - H <sub>2</sub> O	0-20 ±0.2 lb/MMscf (other ranges available)
Typical Measurement Ranges - CO <sub>2</sub>	0-10 ±0.04 % (other ranges available)
Measurement Update Time	H <sub>2</sub> S & CO <sub>2</sub> : 2 seconds H <sub>2</sub> O: 1 second Total system response is dependant on flow rate and sample system volume
Principle of Measurement	Tunable Diode Laser Absorption Spectroscopy
Environmental Temperature Range	-20° to 50° C (-4° to 122° F) -15° to 60° C (5° to 140° F) <i>optional</i>
Sample Inlet Pressure	1.5-4 barG (20-50 PSIG) to enclosure inlet
Sample Cell Temperature Range	-20° to 50° C (-4° to 122° F) -15° to 60° C (5° to 140° F) <i>optional</i>
Maximum Cell Pressure	70kPag (10 PSIG)
Sample Flow Rate	H <sub>2</sub> S : 2-4 L/min (4 to 8 scfh) H <sub>2</sub> O & CO <sub>2</sub> : 0.1-2 L/min (0.2 to 4 scfh)
Recommended Validation	H <sub>2</sub> S & CO <sub>2</sub> : Binary Cal Gas Bottle with Methane Background H <sub>2</sub> O : Bureau of Mines Chilled Mirror



### Electrical Data

Voltage	100-240 VAC, 50-60 Hz standard
Max Current	3A max @ 120 VAC , 1.5A max @ 240 VAC Hz
Communications	4-20mA loop (concentration only), RS232 (all parameters)
Digital Outputs	2, 1 General Fault and 1 Hi/Lo Concentration Alarm per measurement cell
Modbus	Gould RTU, Daniel RTU or ASCII
LCD Display	Concentration, Cell Pressure and Temperature & Diagnostics

### Physical

Enclosure Type	NEMA 4X - stainless steel
Dimensions	1450 mm H × 760 mm W × 330 mm D (57" H × 30" W × 13" D)
Weight	Approximately 154Kg (340lbs)
Sample Cell Construction	316L Series Polished Stainless Steel Standard
Number of Sample Cells	2

### Area Classification

Certification	CSA Class 1 Div 2 Groups ABCD, T3
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