

SpectraSensors SS3000 Moisture – Carbon Dioxide Dual Channel Gas Analyzer

Key Features

- *Virtually Maintenance Free*
- *No Interference from glycol, methanol or amine contaminants (vapor phase)*
- *Fast and Accurate Real-time Measurements*
- *No wet-up or dry-down delays*
- *Reliable in Harsh Environments*
- *Short Term Payback; No Consumables*
- *NIST-Traceable Calibration*
- *CSA Class I, Division 2 Certification Standard*
- *NEMA 4X (IP56) or NEMA 7 Enclosures*
- *Analog and Digital Outputs for Remote Monitoring*

The SpectraSensors SS3000 Moisture or Carbon Dioxide Analyzer is a dual channel version of the SS2000. The analyzer is capable of measuring moisture or carbon dioxide or both using the SpectraSensors tunable laser technology. The features and benefits of the SS2000 are packaged in a cost effective dual channel system saving customers more by incorporating two sensors in one.

TRUSTWORTHY MEASUREMENTS

The SS-Series analyzers utilize the same highly reliable and extremely accurate method as the SS2000 gas analyzer. Since the measurements are made without contacting the sample gas, corrosive compounds cannot affect the sensor head. Additionally, the sensor readings are not adversely affected by methanol, amine or glycol contaminants.

Dependable data is an essential element in the quest for improved safety and quality. Natural Gas companies constantly strive for these improvements as well as continuous reductions in cost. The SS3000 enables it all by providing dependable readings in a multi-sensor package.

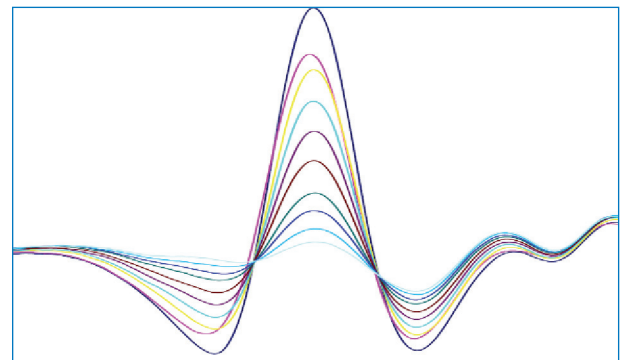
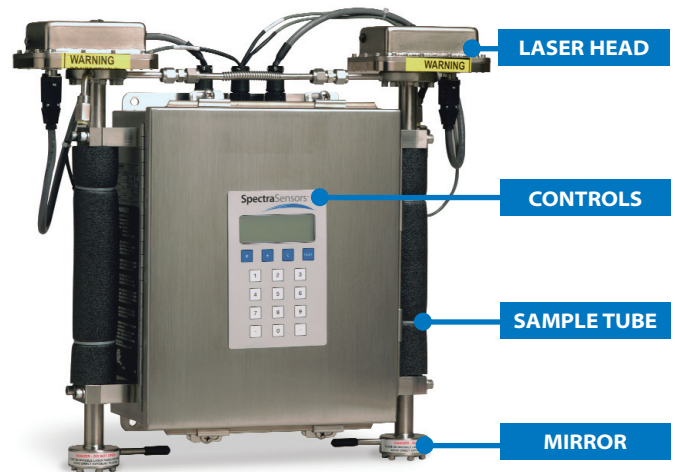
ASK ABOUT OTHER AVAILABLE PRODUCTS:



Portable Gas Analyzer



Sample Conditioning Panel



Water absorption spectra in natural gas:

The graph shows several moisture spectra in natural gas. The higher the concentration of moisture or carbon dioxide, the more absorption of light, and the stronger the corresponding absorption signal. The SpectraSensors software analyzes these absorption peaks to produce very accurate and repeatable measurements. Since the calculation is a direct, fundamental measurement, the amount of H₂O or CO₂ present can be measured very fast. There are no wet-up or dry-down delays like those associated with surface-based sensors.

SpectraSensors™

SS3000 Dual Channel Gas Analyzer

Specifications

Performance



Moisture Concentration (H ₂ O)*	0.5 to 20 lbs/MMSCF Nat. Gas 10-422 ppmv, NIST Traceable
Accuracy (H ₂ O)	±2% of reading or ±4 ppmv
Dew/Frost Point	-76° to -20°F (-60° to -29°C)
Carbon Dioxide Concentration (CO ₂)*	0-10% in Natural Gas
Accuracy (CO ₂)	± 2% of reading, or ±400 ppmv, whichever is greater
Response time**	Display updates 0.25 - 2 seconds (software adjustable)

* Consult factory for alternative ranges

** Flow Rate Dependant - Sample cell volume is 0.005 ft³. Time to displace cell volume at a flow of 2 scfh is ~10 sec.

Environmental Range

Temperature	-4° to 122°F (-20° to 50°C)
Inlet Pressure	10 to 25 PSIA, 10 PSIG Maximum (70-170 kPa Abs, 70 kPaG Maximum)
Sample Cell Construction	316L Series Polished Stainless Steel
Sample Flow Rate	0.2 to 20 SCFH (100-10,000 cc/min)
Contaminant Sensitivity	None for gas phase glycol, methanol, amines, hydrogen sulfides or mercaptans

Power Requirements

Input Voltage	100-240 VAC, 50-60 HZ Standard 9-16 VDC or 18-32 VDC Optional
Current	1 amp maximum @ 120VAC / 1.6A @ 24VDC, 3.2A @ 12 VDC

Physical Specifications

Outputs – two of each	Generic or Modbus RS232 (all parameters) 4-20mA loop (concentration only)
LCD Display	Concentration, Cell Pressure and Cell Temperature
Size	18"H x 17.5"W x 5.8"D (457mm H x 444mm W x 147mm D)
Weight	Approx. 27lbs (12.3Kg)

Area Classification

Certification	CSA Class I, Division 2, Groups C and D, Temp Code T3C
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