

# SS500 Simple Sample System

## Key Features

- Virtually maintenance free
- No interference from glycol, methanol or amine contaminants (vapor phase)
- Accurate, real-time measurements
- No wet-up or dry-down delays
- No consumables; short-term payback
- NIST-traceable calibration
- Analog and serial outputs for remote monitoring
- CSA certified



SpectraSensors SS500 Simple Sample System Analyzer is extremely reliable and tailored for the needs of the natural gas industry. The analyzer measures gas using a patented Tunable Diode Laser (TDL) to determine the concentration of the gas without coming into physical contact with the stream.

SS500 Simple Sample System is designed for a fast order TWO-WEEK production time. This uniquely designed sampling system is mounted on the side of the analyzer. Long lead times can create a lack in gas measurement which increases the possibility of costly damage to equipment and supply. Therefore, to help our customers avoid this situation we have developed a fast order SS500 Simple Sample System. The Simple Sample System is a modern yet easy to operate sampling system that includes a flowmeter, sample inlet, membrane separator, bypass, and vent.



## Low cost of ownership

Operating costs are significantly reduced by eliminating the cost of consumables, extra sensor heads, labor and overhead associated with excessive maintenance.

The SS500 Simple Sample System dramatically reduces intangible but real costs associated with unreliable gas measurements.

## Specific options

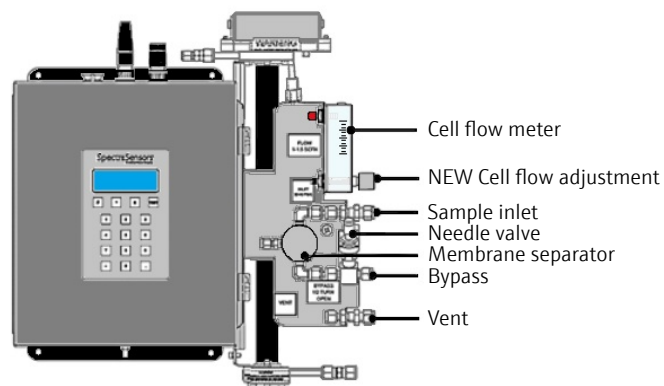
SS500-30111[1-6]S1019

All SS500 power supply options are selectable [1-6].

## Rapid response time

The SS500 analyzer takes four measurements per second with a laser and detector and immediately averages the results. Because there is no contact with the gas, real-time measurements are not hampered by wet-up or dry-down times as with surfaced-based sensors.

Ideal Application Component Range			
Component	Abbr.	Natural Gas Range (Table 1)	Rich Natural Gas Range (Table 2)
Methane	C <sub>1</sub>	90–100%	50–100%
Ethane	C <sub>2</sub>	0–7%	0–20%
Propane	C <sub>3</sub>	0–2%	0–15%
Butanes	C <sub>4</sub>	0–1%	0–5%
Pentanes	C <sub>5</sub>	0–0.2%	0–2%
Hexanes and Heavier	C <sub>6+</sub>	0–0.2%	0–2%
Carbon Dioxide	CO <sub>2</sub>	0–3%	0–20%
Nitrogen and other Inerts	N <sub>2</sub>	0–10%	0–20%



### SS500 Simple Sample System

Target Component	H <sub>2</sub> O in natural gas (Table 1 & Table 2)
Performance	Refer to application notes (AN 10101 for H <sub>2</sub> O)
Principle of Measurement	Tunable Diode Laser Absorption Spectroscopy (TDLAS)
Measurement Range	H <sub>2</sub> O range 0.25–100 lb./MMSCF (5–2110 ppmv)
Environmental Temperature	-20° to 50° C (-4° to 122° F)
Sample Cell Pressure Range	700–1400 mbara (10.1–20.3 PSIA)
Sample Cell Temperature Range	-20° to 50° C (-4° to 122° F)
Maximum Cell Pressure	70 kPag (10 PSIG)
Voltage	100–240 VAC, 50–60 Hz, 9–16 VDC OR 18–32 VDC – optional
Max Current	1 amp maximum @ 120 VAC, 1.6 A @ 24 VDC, 3.2 A @ 12 VDC
Communication	Analog: 1 or 2 4–20mA Isolated, 1200 ohms @ 24 VDC max load Serial: RS232C, Protocol: Modbus Gould RTU or Daniel RTU or ASCII
Alarms	2, general fault and concentration alarms via Modbus and analog output(s)
LCD Display	Concentration, cell pressure and temperature, and diagnostics
Area Classification	CSA Class I, Div 2, Groups A,B,C, and D, Temp Code T3C
Electronics with Sample Cell Dimensions	437 mm H × 437 mm W × 185 mm D (17.2 × 17.2 × 7.3 inches)
Sample Cell Dimensions	437 mm x 108 mm (H x W) (17.2 x 4.3 inches)

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