

SS2000 H₂O or CO₂ gas analyzer

Extremely reliable measurement of H₂O or CO₂ in natural gas



More information and current pricing:

www.us.endress.com/SS2000

Benefits:

- Accurate, real-time H₂O or CO₂ measurements
- Reliable in harsh environments and virtually maintenance-free
- Fast and accurate with no wet-up or dry-down delays
- No contamination or drift due to vapor impurities such as glycol, methanol, amines, hydrogen sulfide, or mercaptans
- NIST-traceable calibration
- Analog and serial outputs for remote monitoring
- CSA certified for CSA Class 1, Division 2 or Class 1, Division 1

Specs at a glance

- **Measured Variables** Concentration Moisture Dew Point Cell Pressure Cell Temperature
- **Hazardous area approvals** CSA Class I, Division 1 CSA Class I, Division 2 CSA Class I, Zone 2

Field of application: Using the patented tunable diode laser spectroscopy (TDLAS) technology, the SS2000 single channel analyzer measures the concentration of H₂O or CO₂ in natural gas without coming into physical contact with the stream. The result is a sensor that does not suffer from contamination or drift due to vapor impurities such as glycol, methanol, or amines.

Features and specifications

H₂O

Measuring principle

TDLAS

H2O

Product Headline

Single channel gas analyzer for moisture (H2O) in the natural gas industry. The sensor measures gas using Tunable Laser Diode Absorption Spectroscopy (TDLAS) to determine the concentration of the gas without coming into physical contact with the stream.

Channels

1

Analyte and Measurement ranges

H2O (Moisture): 0-100 to 0-5000 ppmv

Measured Variables

Concentration
Moisture Dew Point
Cell Pressure
Cell Temperature

Ambient Temperature range

-20 to 50°C (-4 to 122°F)

Operating Pressure range

Inlet Pressure: 140-350 kPa (20-50 psig)
Sample Cell: 700-1400 mbara

Analyzer Wetted materials

316L Stainless Steel
FKM O-Rings
Glass

Power supply

100-240 VAC, 50-60 Hz
OR
9-16 VDC or 18-32 VDC - optional
1 Amp maximum @ 120 VAC
1.6 Amp @ 24VDC, 3.2 Amp @ 12 VDC

H2O**Communication**

Analog Output: 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)

Housing materials

Electronics: 304 Stainless Steel (Class I Div 2)
Electronics: Cast Aluminum (Class I Div 1)
Sample System Panel: Anodized aluminum

Hazardous area approvals

CSA Class I, Division 1
CSA Class I, Division 2
CSA Class I, Zone 2

Degree of protection

Type 3R (Class I Div 2)
Type 4 (Class I Div 1)

CO2**Measuring principle**

TDLAS

Product Headline

Single channel gas analyzer for carbon dioxide (CO2) in the natural gas industry. The sensor measures gas using Tunable Laser Diode Absorption Spectroscopy (TDLAS) to determine the concentration of the gas without coming into physical contact with the stream.

Channels

1

Analyte and Measurement ranges

CO2 (Carbon Dioxide): 0-5% to 0-50%

CO2

Measured Variables

Concentration
Cell Pressure
Cell Temperature

Ambient Temperature range

-20 to 50°C (-4 to 122°F)

Operating Pressure range

Inlet Pressure: 140-350 kPa (20-50 psig)
Sample Cell: 700-1400 mbara

Analyzer Wetted materials

316L Stainless Steel
FKM O-Rings
Glass

Power supply

100-240 VAC, 50-60 Hz
OR
9-16 VDC or 18-32 VDC - optional
1 Amp maximum @ 120 VAC
1.6 Amps @ 24VDC, 3.2 Amps @ 12 VDC

Communication

Analog Output: 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)

Housing materials

Electronics: 304 Stainless Steel (Class I Div 2)
Electronics: Cast Aluminum (Class I Div 1)
Sample System Panel: Anodized aluminum

CO2

Hazardous area approvals

CSA Class I, Division 1

CSA Class I, Division 2

CSA Class I, Zone 2

Degree of protection

Type 3R (Class I Div 2)

Type 4 (Class I Div 1)

More information www.us.endress.com/SS2000