

SS3000e dual channel H₂O & CO₂ gas analyzer

Rapid response time and trustworthy H₂O & CO₂ measurements for the natural gas industry



Benefits:

- Accurate, real-time H₂O and CO₂ measurements using one analyzer
- Virtually maintenance free and reliable in harsh environments
- 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
- Low cost of ownership & no consumables, with analog and serial outputs for remote monitoring
- Heated and unheated stainless steel sample conditioning enclosures with NEMA 4X system rating
- CSA certified, Class 1, Division 2

Specs at a glance

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

More information and current pricing:

www.de.endress.com/SS3000E

Field of application: The SS3000e analyzer is capable of measuring moisture (H₂O) and carbon dioxide (CO₂) in this cost-effective 2-channel system which incorporates two sensors into one analyzer. The sensors measure gas using patented tunable diode laser absorption spectroscopy (TDLAS) technology to determine the concentration of H₂O and CO₂ without coming into physical contact with the stream.

Features and specifications

H2O+CO2**Measuring principle**TDLAS

Product Headline

Dual channel gas analyzer for moisture (H2O) channels and carbon dioxide (CO2). 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. Includes a heated enclosure for the sample conditioning system.

Channels2

Analyte and Measurement ranges

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

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

Measured Variables

Concentration

Moisture Dew Point

Cell Pressure

Cell Temperature

Ambient Temperature range

-20 to 50°C (-4 to 122°F)

Optional: -10 to 60°C (14 to 140°F)

Operating Pressure range

Inlet Pressure: 140-350 kPa (20-50 psig)

Sample Cell: 700-1400 mbara or 700-1700 mbara (optional)

Analyzer Wetted materials

316L Stainless Steel

FKM O-Rings

Glass

H2O+CO2**Power supply**

100-240 VAC, 50-60 HZ

OR

18-24 VDC - optional

1 Amp maximum @ 120 VAC, 1.6 Amps @ 24 VDC (unheated)

2 Amps maximum @ 120 VAC (heated)

Communication

Analog Output: Two 4-20mA Isolated, 1200 ohms @ 24 VDC max load

Serial: RS232C - standard, RS485 and Ethernet - optional

Protocol: Modbus Gould RTU or Daniel RTU or ASCII

Digital Outputs: 2, General Fault and Concentration/Assignable Alarm

Housing materials

Electronics: 304 or 316L Stainless Steel

Sample System Enclosure: 304 or 316L Stainless Steel

Hazardous area approvals

CSA Class I, Division 2

CSA Class I, Zone 2

Degree of protection

Type 4X

H2O+H2O**Measuring principle**

TDLAS

Product Headline

Dual channel gas analyzer for two moisture (H2O) channels. 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. Includes a heated enclosure for the sample conditioning system.

Channels

2

H2O+H2O**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)
Optional: -10 to 60°C (14 to 140°F)

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Analyzer Wetted materials

316L Stainless Steel
FKM O-Rings
Glass

Power supply

100-240 VAC, 50-60 HZ
OR
18-24 VDC - optional
1 Amp maximum @ 120 VAC, 1.6 Amps @ 24 VDC (unheated)
2 Amps maximum @ 120 VAC (heated)

Communication

Analog Output: Two 4-20mA Isolated, 1200 ohms @ 24 VDC max load
Serial: RS232C - standard, RS485 and Ethernet - optional
Protocol: Modbus Gould RTU or Daniel RTU or ASCII
Digital Outputs: 2, General Fault and Concentration/Assignable Alarm

Housing materials

Electronics: 304 or 316L Stainless Steel
Sample System Enclosure: 304 or 316L Stainless Steel

H2O+H2O

Hazardous area approvals

CSA Class I, Division 2

CSA Class I, Zone 2

Degree of protection

Type 4X

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