

## Model 5100 Gas Analyzer for Measuring Moisture in Natural Gas

Based on Tunable Diode Laser Absorption Spectroscopy (TDLAS)



*Model 5100 uses a sealed reference cell for continuous on-line analyzer verification and offers high specificity, sensitivity and extremely fast response speeds.*

### Features and Benefits

- || **Noncontact Measurement**  
Noncontact measurement offers low maintenance
- || **All Digital Signal Processing**  
32-bit microcontroller capable of sophisticated signal processing
- || **Web-Based Interface**  
To interrogate the analyzer remotely, all you need is the IP address of the analyzer
- || **Connectivity**  
Modbus, Ethernet and analog
- || **Real-Time Performance Monitoring**  
Laser line-lock verification using internal reference cell
- || **NEMA 4 Enclosure houses the electronic components**  
Designed for outdoor installation
- || **Fully-Integrated Sample Handling**  
Standard feature
- || **Resistant to Contamination**  
No interference from gas phase amines, glycol, methanol, H<sub>2</sub>S and mercaptans
- || **Hazardous Area Certifications**  
NEC/CEC: Class I, II, III, Div 2, Groups A-D, F & G  
ATEX Zone 1, Div I and CSA certified versions are also available

# Model 5100 Gas Analyzer

## Specifications

**Laser Specification:** Class 1m

**Typical Operating Range:**

0.25 - 119 lb/MMscf / 4 - 1900 mg/m<sup>3</sup>  
(5 to 2500 ppmv)  
ppm and % ranges are also available.

**Accuracy<sup>1</sup>:** Typically ±2% of full scale range

**Repeatability<sup>1</sup>:** Typically ±2% of full scale range

**Environment:**

**Ambient Temperature:** -20°C to +50°C (-4°F to 122°F).

**Electrical Classification:**

NEC/CEC: Class I, II, III, Div 2, Groups A-D, F, G  
ATEX Zone 1, Div 1 and CSA certified versions are also available

**Relative Humidity:** 0% to 90%, non-condensing

**Sample Flow Rate:** 1 to 10 SLPM recommended (2 - 20 SCFH)

**Sample Cell Pressure:** 70 to 170 kPa absolute (10-25 psia)

**Speed of Response:**  
<1 second photometric response.  
Total system response is dependent on sample flowrate.

**Outputs:**  
4-line x 20-character alphanumeric VF display.

**Fast Ethernet (IEEE802.3)**

**RS-485** serial port, isolated (supports Modicon Modbus RTU)

(1) isolated 4-20 mA loop-powered analog output

(4) dry relay contacts. Contact rating 30 VAC, 60 VDC, 100 VA resistive

**Electrical Requirements:**

120 VAC (108-132V); 47-63 Hz, or 240 VAC (216-264), 47-63 Hz

**Power Requirements:**

< 25 W; with optional heater 105W

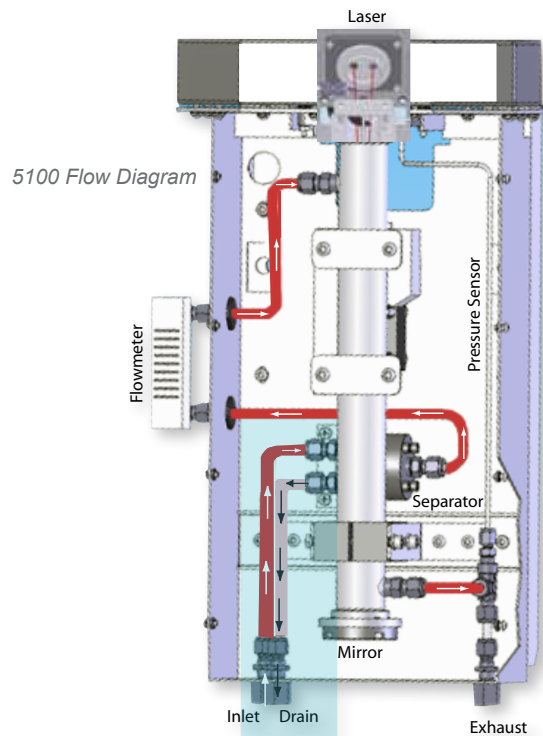
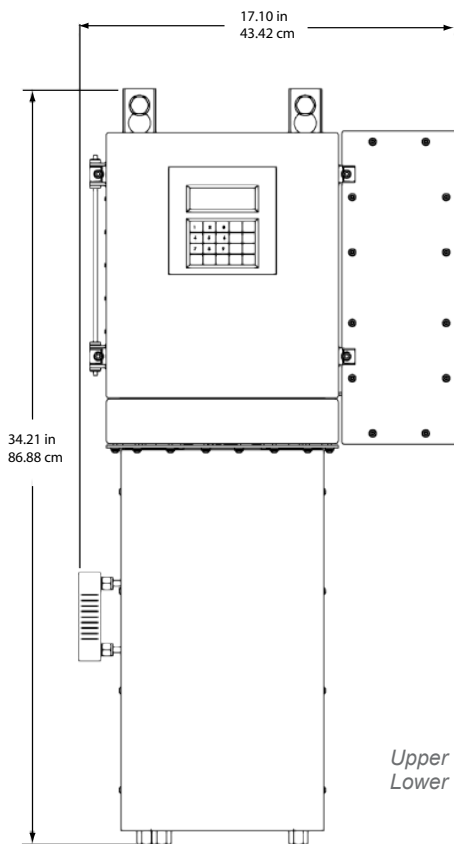
**Physical:** HxWxD:

86.88 cm x 43.42 cm x 21.17 cm  
(34.2" x 17.1" x 8.34")

**Weight:** 25 Kg (55 lb)

**Enclosure:** IP-65, NEMA 4

<sup>1</sup> Consult factory for specifications on other measuring ranges



Upper Mounting Hardware: (2) 1/2" x 1.00 L (M6 x 25 mm L) hex bolts  
Lower Mounting Hardware: (2) 1/2" x 2.50 L (M6 x 60 mm L) hex bolts (Optional)

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