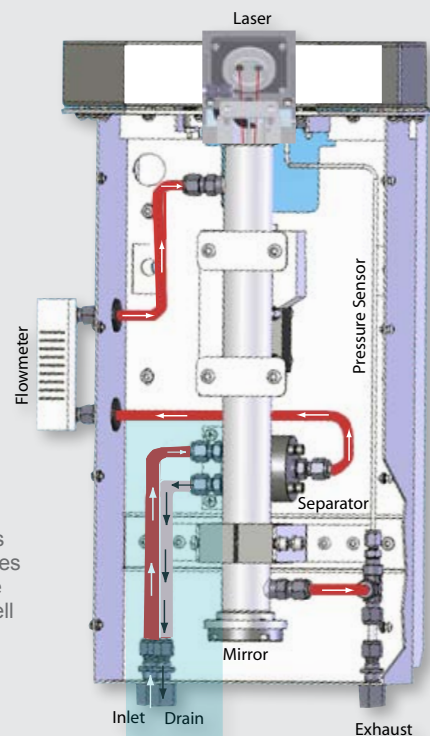


Model 5100 NCM Non-Contact Moisture Analyzer

Non-Contact Moisture Analyzer for Natural Gas Applications uses Tunable Diode Laser Absorption Spectroscopy (TDLAS) Technology



The 5100 NCM comes standard with a moisture reference in the electronics enclosure. Fiber-optic cables couple the energy from the laser to both the sample cell and this internal reference.



5100 NCM Flow Diagram

Features and Benefits

- All Digital Signal Processing
32-bit microcontroller capable of sophisticated signal processing
- Web-Based Interface
Modbus, Ethernet, and analog connectivity
- Real-Time Performance Monitoring
Laser line-lock verification using internal reference cell
- NEMA 4 Enclosure houses the electronic components
Designed for outdoor installation; no exposed components
- Fully-Integrated Sample Conditioning
Standard feature
- Resistant to Contamination
No interference from gas phase amines, glycol, methanol, H₂S and mercaptans
- Hazardous Area Certifications
Class I, Division 2, Groups A, B, C & D, T3 (pending)

Model 5100 NCM

Specifications

Laser Specification: Class IIIb

Operating Range:

0.25 - 60 lb/MMscf / 4 - 1900 mg/m³
(5 to 2500 ppmv)

Limit of Detection:

0.25 lb/MMscf / 4 mg/m³ (5 ppmv)

Accuracy:

2% of reading or ± 4 ppmv
whichever is greater.

Repeatability:

2% of reading or ± 4 ppmv
whichever is greater.

Environment:

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

Electrical Classification:

NEC/CEC (pending): Class I, Div 2,
Groups A-D; Class II, Div 2, Groups
E-G; Class III, Div 2 (standard
model)

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 Watts

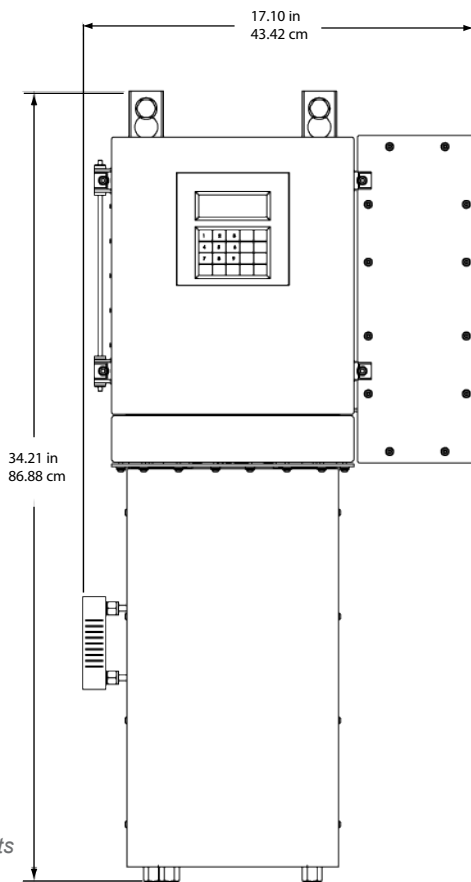
Physical:

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 (pending)



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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TDLAS (8/07)

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MOISTURE