

Model 5100 Portable Gas Analyzer

For the Measurement of Moisture in Bulk Gas and Hydrocarbon Streams
Based on Tunable Diode Laser Absorption Spectroscopy (TDLAS)

SYSTEM OVERVIEW

The AMETEK Model 5100 Portable Gas Analyzer is used for spot checking the performance of plant equipment, like dryers, and verifying the measurements of on-line moisture analyzers. The portable unit operates on the principle of TDLAS and guarantees high specificity, sensitivity and fast response speeds. The unit has a built-in reference cell for laser line-lock. This feature eliminates measurement errors due to the laser wavelength shifting with the ambient temperature variations. Gas sampling accessories are offered with the Model 5100 Portable Gas Analyzer to make the unit a customizable solution. It is factory calibrated and the calibration is NIST traceable.



FEATURES & BENEFITS

- || Noncontact measurement guarantees low maintenance
- || Battery powered and provides up to 8 hours of use before requiring a charge
- || Application specific gas cells with a wide range of pathlengths available
- || Excellent wavelength stability
- || Built-in sealed reference cell for laser line-lock
- || Membrane keypad for inputting parameters and selecting displays
- || Superior built-in diagnostics
- || Alphanumeric LCD backlit display of 4 lines, each with 20 characters
- || USB 2.0 compatible user interface for PC communications
- || Advanced digital signal processing

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SPECIFICATIONS

Range: 5 ppmv to 2500 ppmv moisture (standard for natural gas). Other ranges depend on the application. Contact AMETEK for more information.

Limit of Detection:

0.05 Lb/MMscf / 0.8 mg/m³ / 1 ppmv moisture
0.25 Lb/MMscf / 4 mg/m³ / 5 ppmv moisture for natural gas application

Accuracy: ± 2% of reading

Sample Cell pressure: Ambient atmospheric

Speed of response: 90% in less than 15 seconds. Less than 1 second for individual photometric measurements.

Battery Life: Approximately 8 hours under normal use

Ambient temperature: -20 °C to 50 °C (also nominal storage temperature range)

Physical dimensions (W x H x D):
15 cm x 25 cm x 8 cm
(5.9 in. x 9.8 in. x 3.1 in.)

Weight: 5 kg (11 lbs.)

Compliance (pending):

North American Class I, Div 2, Groups B, C, & D T3

CE (EMC, Low Voltage, and Pressure Directive)

Ex n IIB+H2 T3

TDLAS



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One of a family of innovative process analyzer solutions from AMETEK Process Instruments.
Specifications subject to change without notice.

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