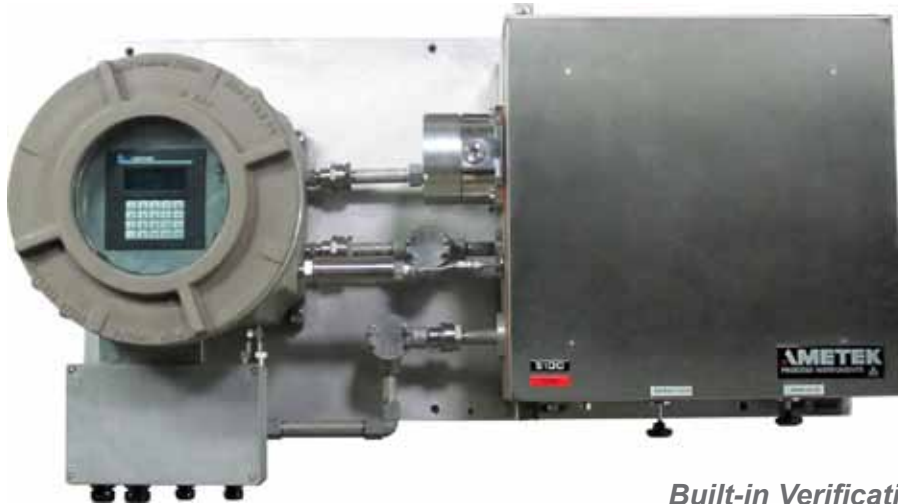


Model 5100HD Tunable Diode Laser Absorption Spectroscopy (TDLAS)

ATEX Zone 1 Shown



Built-in Verification

Features and Benefits

- || **Multiple Laser Capability**
Can accommodate two lasers and two cells for multiple component measurement
- || **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**
ATEX Zone 1 & 2, IEC Ex, CSA; Class I, Div 2, Groups A, B, C, D

Model 5100HD ATEX

Specifications

Typical Components Measured:

H₂O, CO₂, O₂, H₂S, CH₄, CO

Application Note: This unit has the ability to run the sample enclosure at temperatures above 100°C and is designed to enable reliable operation in aggressive process applications.

Laser Specification: Class 1m

Operating Range:

ppm or % dependent on application

Limit of Detection:

1 mg/m³, 1 ppmv dependent on application

Accuracy:

Typically 2% of full scale (application dependent)

Repeatability:

Typically 2% of full scale (application dependent)

Environment:

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

Electrical Classification:

ATEX Zone 1 & 2, IEC Ex, CSA; Class I, Div 2, Groups A, B, C, D (standard model)

Relative Humidity:

0% to 90%, non-condensing

Sample Flow Rate:

1 to 10 SLPM recommended (2 - 20 SCFH)

Sample Cell Pressure: 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

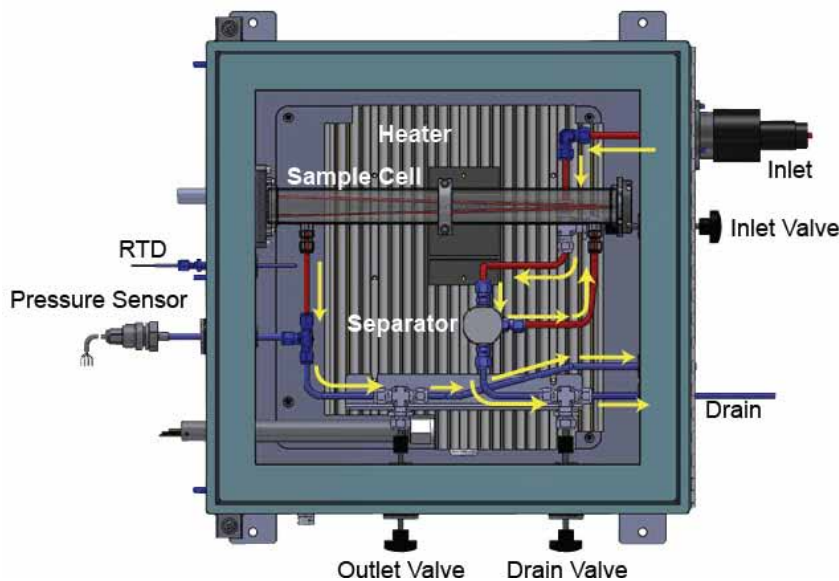
Physical Dimensions (HxWxD):

64.8 cm x 114.3 cm x 43.6 cm (25.5 in. x 45.0 in. x 17.1 in.)

Weight: 114 Kg (250 lbs)

Enclosure:

IP-65, NEMA 4



AMETEK
PROCESS INSTRUMENTS

150 Freeport Road, Pittsburgh, PA 15238
Ph. +1-412-828-9040, Fax +1-422-826-0399
www.ametekpi.com



© 2011, by AMETEK, Inc.
All rights reserved. Printed in the U.S.A.
F-0271 Rev. 3 (0911)

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

SALES AND MANUFACTURING:

USA - Delaware
455 Corporate Blvd., Newark DE 19702 • Tel: +1-302-456-4400, Fax: +1-302-456-4444

USA - Oklahoma
2001 N. Indianwood Ave., Broken Arrow OK 74012 • Tel: +1-918-250-7200, Fax: +1-918-459-0165

CANADA - Alberta
2876 Sunridge Way N.E., Calgary, AB T1Y 7H9 • Tel: +1-403-235-8400, Fax: +1-403-248-3550

WORLDWIDE SALES AND SERVICE LOCATIONS:

USA - Texas
Tel: +1-713-466-4900, Fax: +1-713-849-1924

CHINA
Beijing / Tel: 86 10 8526 2111, Fax: 86 10 8526 2141
Chengdu / Tel: 86 28 8675 8111, Fax: 86 28 8675 8141
Guangzhou / Tel: 86 20 8363 4768, Fax: 86 20 8363 3701
Shanghai / Tel: 86 21 5868 5111, Fax: 86 21 5866 0969

FRANCE
Tel: 33 1 30 68 89 20, Fax: 33 1 30 68 89 29

GERMANY
Tel: 49 21 59 91 36 0, Fax: 49 21 59 91 36 39

INDIA
Tel: 91 80 6782 3200, Fax: 91 80 6782 3232

SINGAPORE
Tel: 65 6484 2388, Fax: 65 6481 6588

TDLAS