

Model 5100HD Gas Analyzer for Measuring Oxygen in Process Gas

Based on Tunable Diode Laser Absorption Spectroscopy (TDLAS)

The Model 5100HD 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 monitor the analyzer remotely, all you need is the IP address of the analyzer
- || **Connectivity**
Modbus, Ethernet, dry contacts and analog outputs
- || **Real-Time Performance Monitoring**
Laser line-lock verification using internal reference cell
- || **NEMA 4x 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, H₂S and mercaptans
- || **Hazardous Area Options for Model 5100HD**
ATEX/IEC Ex Zone 2
(Pending) NEC/CEC: Class I, Div 2, Groups A,B,C,D; ATEX/IEC Ex Zone 1, IIB+H₂, T3

Model 5100HD Gas Analyzer

Specifications

Typical Operating Range:

0-1% Min / 0-30% Max. Other ranges available subject to application. Consult AMETEK.

Accuracy: 1% full scale range or ± 1000 ppm or whichever is higher

Repeatability: 1% of full scale range or ± 300 ppm or whichever is higher

Linearity: Better than 1%

Environment:

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

Electrical Classification:

ATEX/IEC Ex Zone 2
(Pending) NEC/CEC: Class I, Div 2, Groups A,B,C,D; ATEX/IEC Ex Zone 1, IIB+H₂, T3

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 (216-264V), 47-63 Hz 24 VDC (no oven heater available)

Power Requirements:

450W with optional heater

Physical Dimensions (HxWxD):

64.23 cm x 83.03 cm x 29.53 cm (25.29" x 32.69" x 11.63")

Weight:

58.97 Kg (130 lb)

Enclosure: IP-65, NEMA 4x



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

TDLAS