



# AIM Model 6200

AIR INSTRUMENTS & MEASUREMENTS, LLC

## NDIR In-Situ Across-Stream Gas Analyzer, for Process and Compliance Monitoring

**MEASURING any or all:**  
NO<sub>x</sub>, NO, NO<sub>2</sub>, H<sub>2</sub>O, SO<sub>2</sub>, C<sub>x</sub>H<sub>y</sub>, CH<sub>4</sub>,  
HCl, HF, CO, CO<sub>2</sub>

The **AIM** Model 6200 In-Situ Stack Gas Monitor feature dual beam, dual wave-length ratioing, double pass, across-the gas stream, non-dispersive infrared analysis.

**AIM** designs & manufactures some of the most advanced air pollution monitoring equipment available today. These instruments incorporate mechanical and optical features which have been refined through 30 years of practical field experience, state-of-the-art design, and over 3,000 installations world wide.

**AIM** is experienced in the development, installation, operation and compliance testing of emissions monitoring instrumentation. This includes single and multi-component UV, VIS, and IR absorption gas analyzers, gas filter correlation analyzers, transmissometers, single and multiple pass optical systems, FTIR analyzers, fiber-optic coupled systems, and long-path(open-path) ambient analyzers.

Information on complete systems and analyzers for specifications is available from the factory.

### FEATURES

- **In-Situ, Across-Stream** - No sample contact
- **Fast Response Time** - 1 second per gas, up to 1 hour averaging
- **High Sensitivity** - Accurate measurements from low ppm level concentrations and higher.
- **Repeatability** -  $\leq 1\%$  of Range
- **Accuracy** -  $\leq 2\%$  of Range
- **Low Drift** -  $\leq 1\%$  of Range over 24 hours [zero and span]
- **EPA Compliant** - with daily zero & span checks, and capable of automatic CGAs.
- **Reliable Design** - features a simple, low-maintenance, rugged design, the PC based signal processing, insure long-term trouble-free operation.

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# Model 6200 Analyzer Description

Air Instruments & Measurements, LLC

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■ **Chopped IR Source** – a 40w, 24VDC, modified SiC source chopped at 900Hz with a 3600 rpm MIL spec., synchronous motor.

■ **Gas Turret Assembly** – Two turrets, each holds up to 6 separate individual measurement cells, with its own reference for each measured gas. The digitally controlled turret sequentially inserts each cell into the beam.

■ **High Sensitivity PbSe Detector** – The temperatures of the detector, cell, and analyzer are continuously measured and controlled for long term, stable operation.

■ **Construction Materials** – Materials are corrosion resistant, a fundamental requirement for long term, reliable operation.

■ **Analyzer Control PC** – AIM systems include an embedded PC controller for analyzer control, data correction and communications, with Flash EPROM for retention of set-up data, a relay alarm board, with analog & digital I/O. This PC can control separate opacity and O<sub>2</sub> analyzers, reducing cost and space.

■ **Elimination of interferences** – Both H<sub>2</sub>O and CO<sub>2</sub> absorb throughout the IR spectrum and may interfere with the measurement of the desired gas component. The use of gas filter correlation has been shown to substantially reject interferences in the band pass. Since the system can measure H<sub>2</sub>O and CO<sub>2</sub>, this measurement can now be used to correct for any residual interference.

**Range** : Panel selectable, ppm or percent

**Accuracy** :  $\pm 2\%$  full scale

**Repeatability** :  $\pm 1\%$  full scale

**Zero Drift** :  $\pm 1\%$  full scale in 30days, continuously Compensated

**Span Drift** :  $\pm 1\%$  full scale in 30days, continuously Compensated

**Response Time**: 0.5 seconds per gas, up to 1 hour Averaging

**Linearity** :  $\pm 1\%$

**Output** : 4-20mA, up to 16 Channels; RS-232

**Input** : 4-20mA or 0-10V DC isolated

**Local Display**: Digital

**Ambient Temp** : 32F to 110F, 0C to 45C(0-40F with CW Option)

**Process Temp**: Up to 1000F(540C)

**Process Opacity**:  $\leq 50\%$  normal, 85% maximum

**Process Pressure** :  $\geq 3"$  W.C. normal, 8" maximum

**Stack/Duct Width** : 3 to 33ft; 1 to 10 m.

Less than 1 m if Dust > 50Mg/m<sup>2</sup>  
(Use 9010 for High Dust Application)

**Power/PC** : 115V  $\pm 10\%$ , 2 Amps, 50/60Hz, or 220V/240V, 1 Amp, 50/60Hz

**Power/Sensor** : 115V  $\pm 10\%$ , 20 Amps, 50/60Hz (separate line for each blower and cooler power supply) or 220/240V, 5 Amps(w/o blowers) 220/240V, 10 Amps(separate line for each blower and cooler power supply)

**Weights** : Transceiver, 100lbs  
Retroreflector, 35lbs  
Air Purge assembly, 25lbs/ea  
Interface Panel, 100lbs

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**Note:** These specification will be met only if installation and operation are in accordance with the documentation supplied with the instrument. Conditions outside specification are often acceptable but may require optional hardware. Consult factory for details. AIM reserves the right to make changes in construction, design, specification, and/or price without prior notice.

Bulletin 6200D 8/05