The AMI model 201RS is the ideal solution for measuring percent oxygen in a wide range of applications in a general purpose environment. In a compact size, and at low cost, it provides a comprehensive electronic package and sample system using AMI's patented cell block technology. In addition the 201RS uses internal surface mount solenoid valves for sample/span gas selection and to seal off the sensor in the event of loss of power.

- Display reads oxygen from 0.01% up to 25.0% with no range changes
- Analog output and alarms can be configured to operate over any of ten ranges from 0-1% to 0-25%
- Analog output 4-20mA, isolated.
- Complete sample system built into AMI's patented cell block.
- Easily replaceable sensor, no tools required.
- Very rapid response time from air to low percentage levels.
- P-2 sensor standard, other sensors optional.
- Simple, versatile installation.
- Operates off 117VAC with very low power consumption
- Analog output can be easily calibrated to an external device.
- 2 independent, fully adjustable alarm settings with relay contacts.
- Complete alarm logic programming: latching or non-latching, open or close on alarm, high alarm or low alarm, alarm-on delays and alarm hold-off.
- Integral data logger: Logs data for 15 days @ 1min intervals and 30 days @ 2min. intervals, etc.
- USB connectivity to a PC: Allows complete access to the internal functions and settings.
- ModBus Industry standard protocol over RS48
- Oxygen Sensor life indication.

Unlike competitive analyzers, AMI sensor replacement requires minimal downtime due to the front panel sensor access and the patented AMI cell block.

AMI's patented cell block allows the analyzer to be built with almost no possibility of internal leaking, with minimal volume and with front-panel sensor access. All sample handling components – the flow meter, needle valve and the surface mount span/sample selection and seal-off solenoid valves – are integrated into two solid metal blocks. The result is a highly reliable sample system with all necessary components provided. As a result, although a span gas port is provided, it is practical to accurately calibrate this analyzer on air and have it back on line within a very short time.

The AMI P-2 percent oxygen sensor is standard, but other sensors can be provided for specific applications, such as those using CO_2 as the background gas, or for ranges up to 50% of oxygen.

The sensor is immediately accessible on the front panel of the analyzer, and can be replaced in seconds. It is not necessary to expose the sensor to air unshorted while installing it as is the case with most analyzers.

The analyzer is built around the same electronic architecture used in most of AMI's advanced analyzers. A pair of microprocessors, working together, provide a vast amount of functionality, with the industry's most intuitive front panel controls married to the most complete PC user interface.

Alarm set points, the output range selection (range over which the 4-20mA output and the alarm operate), and calibration are controlled by press buttons. These features can be disabled via the user interface program if desired for greater security.

The analyzer supports ModBus RTU over RS-485 for complete integration into a SCADA system.

Complete control over the analyzer's operation, and access to its many diagnostic features, are available via the AMI software running on a PC, connected via a standard USB cable.

Diagnostic features include up to fifteen days of datalogging, calibration history for the previous five calibrations; brown out and power up history, including memory errors if any; ambient temperature, calibration history, complete sensor diagnostics including oxygen and temperature exposure history.

FEATURES

- 4 user selectable output ranges
- 3 ½ digit LCD
- 2 fully adjustable oxygen concentration alarms
- Alarm hold off/Bypass
- RFI protected
- 4-20mA. isolated analog output
- Analog output calibration synchronizes the analog output with an external monitoring system
- Data logger
- Fully programmable alarm delays
- Sensor calibration history
- USB port for configuration and access to advanced features
- Modbus using Bidirectional RS485 for industry-standard communications
- Low minimum detection limit 0.01%
- Excellent repeatability
- Extended operating temperature range
- Fast upscale/downscale response times
- Patented Cellblock Technology: Allows for all components such as flow control valve, flow meter, Sample, span and seal-off solenoid valves and compression fittings to be an integral part of the cellblocks, eliminating long lengths of tubing and fittings.
- Benefits of this design include compact size, faster response times and front panel sensor access without the need for tools.
- Unaffected by changes in flow rate from 0.1 to 2.0 SCFH
- Panel mount
- Compact size
- 2 year warranty for analyzer, parts and labor
- 6 month sensor warranty, life expectancy 1-2 years
- These items require the AMI User Interface Program

SPECIFICATIONS

- 201R Series Standard ranges:
- 0 − 1%, 0 − 5%, 0 − 10%, 0 −25%
- Optional ranges: 0-1000ppm, 0-5000ppm, 0-50%
- Sensitivity: 0.5% of full scale
- Repeatability: +/- 1% of full scale at constant temperature
- Operating temperature: 41°F to 113°F.
- Maximum inlet pressure: 40psig
- Humidity: < 85%, non-condensing
- Operational conditions: Pollution degree 2, Installation category I I.
- Drift: +/- 1% of full scale in 4 weeks at constant temperature
- Expected cell life: 9 months to 2 years.
- Response time:
- 90% of full scale in less than 10 sec (depending on sensor)
- Output: 4-20mA isolated.
- Alarm contacts: 230/117VAC @ 5A, or 28VDC @ 5A, resistive
- Datalogger Logs data for 15 days @ 1 minute intervals; 30 days @ 2 minute intervals, etc. Represents the output range selected: 0-10ppm, 0-50ppm, 0-100ppm, 0-500ppm, 0-1000ppm, 0-.500%, 0-1%, 0-5%, 0-10% and 25%. Overange capability up to ten times the range selected.
- Power requirements: 90-240VAC <10W.
- Absolute Maximum Power voltage 264VAC 60Hz.
- ¼" stainless steel compression fittings for sample, span gas and exhaust.
- Overall dimensions: 9" w x 5" h x 7" d
- Mounting hole dimensions: 7.92" w x 4.81" h
- Weight 10 lbs