

MODEL 1000RS



The AMI model 1000RS portable analyzer is the industry standard analyzer for spot checking and trouble-shooting trace oxygen in gas systems. Its elegant design allows it to take a rapid reading of trace oxygen in a gas sample without long waits for stability or the danger of damaging its sensor through incorrect operation.

- Trace oxygen measurement from 0.05ppm to 25.0%
- Rugged, small, portable unit
- Simple operation
- Complete flow control and indication provided
- Single quick-disconnect sample connection
- Patented cell block provides purge capability
- Very fast come-down time
- Can be accurately calibrated on air
- Sensor sealed off when not in use
- Logs oxygen, temperature and battery voltage readings for subsequent recovery
- Up to 350 hour battery life
- Quickly and easily replaceable sensor, no tools required
- Calibration history
- Sensor life indication
- Designed to be intrinsically safe
- Approved by CSA International to UL and CSA standards as meeting requirements for Class 1, Div. 1, Groups B,C,D with a flammable gas sample.

Trace oxygen analyzers are essentially leak detectors. Portable trace oxygen analyzers have the additional requirement that they should not be affected while being connected and disconnected to systems using tubing that - to begin with - is full of the very oxygen the analyzer is supposed to measure. If a trace oxygen sensor is exposed to air for any length of time, it will take a long time to recover back to a low reading, and if it is exposed to air repeatedly, its life will be affected and its response will get progressively worse.

The AMI 1000RS uses a special version of the AMI patented "Cell Block" specifically modified to deal with these problems. All of the sample system components and the oxygen sensor are mounted in a single metal block, with drilled passages connecting them. As a result, the inevitable vibration and disturbance involved in using a portable analyzer cannot break loose any fittings and the total volume of the sample system is kept to a minimum. There is a special 4-way sample selection valve built in to the block that seals off the sensor when not in use, while allowing the sample to bypass the sensor through the needle valve and flowmeter. This allows the tubing used to connect to the sample source to be flushed out before exposing the sensor to the sample of interest, thus allowing the sensor to respond immediately when the valve is turned to the "ON" position without a long come-down time, and safeguarding the sensor from excessive air exposure. The design also allows for simple and fool proof gas connections using a single "Quick Disconnect" fitting with no breaking or making of tubing fittings, and no complicated sequence of plugging and unplugging connections required.

The AMI model 1000RS is built tough with a welded powder coated steel case. As usual with AMI analyzers the sensor itself is immediately accessible behind the front panel and can be replaced simply and quickly without needing any tools.

This analyzer is intrinsically safe and has been formally approved by CSA International to UL and CSA standards as meeting requirements for Class 1, Div. 1, Groups B,C,D with a flammable gas sample. It is battery powered with up to 350 hours of life, and it contains a data logger so that it can be left monitoring a gas system for several days in order to catch intermittent oxygen spikes. The range over which it logs can be adjusted for best sensitivity. When completed, simply plug it into a PC through the USB port and use the AMI software to display the data.

FEATURES

- Patented Cellblock Technology: Integrates the sensor, needle valve, flow meter, and 4-way Sample/Bypass/On/Off valve, eliminating tubing and fittings.
- Compact size
- Rugged design
- Front panel sensor access without the need for tools.
- Rechargeable battery powered with up to 350 hours battery life
- Fast upscale/downscale response times
- Low minimum detection limit
- Excellent repeatability
- 3 ½ digit LCD
- Auto-ranging display from below 1ppm to 25.0%
- RFI protected
- 0-1VDC analog output
- Power requirements: 115/230VAC to 12VDC battery charger
- Approved by CSA International to UL and CSA standards as meeting requirements for Class 1, Div. 1, Groups B,C,D with a flammable gas sample.
- Unaffected by changes in flow rate from 0.1 to 2.0 SCFH
- 2 year warranty for analyzer parts and labor
- 6 month sensor warranty, sensor life expectancy 1-2 years
- High level H2S resistant sensor optional
- USB communication for advanced features*
- Data logger with up to 10 days of 1 minute interval capacity*
- 10 user selectable datalog ranges*
- Datalog captures short term peaks of up to ten times the range selected*
- Logs calibration history*
- Logs power status*
- Logs sensor oxygen exposure*
- Sensor life indication*
- * Requires AMI User Interface Software

SPECIFICATIONS

- 10 user selectable datalog and output ranges to choose from: 0-10ppm, 0-50ppm, 0-100ppm, 0-500ppm, 0-1000ppm, 0-.500%, 0-1%, 0-5%, 0-10% and 25%
- Digital display: 3 ½ digit LCD. Reads full scale from 0.00ppm to 25.0% independently of output range selection
- Analog output signal: 0-1VDC
- Represents the output range selected
- Data logger: Logs data for 10 days @ 1 minute intervals, 20 days @ 2 minute intervals, etc. Represents the output range selected.
- Power requirements: 115/230VAC to 12VDC battery charger. Rechargeable NiCad batteries, 350 hours continuous.
- Minimum detection: 0.05ppm of oxygen
- Repeatability: +/- 1% of range or +/- 0.2ppm of oxygen, whichever is greater
- Operating temperature range: 25 to 115° F
- Diurnal temperature specification: < +/- 3 % of scale over temperature range
- 90% upscale response times: 10ppm – 25% <10 seconds
0-10ppm < 25 seconds
- Typical downscale response: 1 minute exposure to air down to 10ppm: < 15 minutes
- Approved by CSA International to UL and CSA standards as meeting requirements for Class 1, Div. 1, Groups B,C,D with a flammable gas sample.
- Inlet gas pressure: 0.5 to 150psig
- Gas connections: ¼" quick disconnect 316 S.S. compression fitting and ¼" nipple for exhaust
- Wetted parts: 316 S.S. fittings, electroless nickel plated cellblock, gold plated contacts, acrylic flow meter and Viton O-rings
- Unaffected by changes in flow rate from 0.1 to 2.0 SCFH
- Portable dimensions: 4.5"W x 9.5"H x 4.5"D
- Weight: 5 lbs

OPTIONS

- Protective carrying case for the analyzer plus sample tubing etc.
- Flexible, microbore sample tubing
- Cigarette lighter charging adapter
- USB cable with AMI User Interface Software