



**AMI**  
ADVANCED MICRO INSTRUMENTS

## MODEL 210BX PERCENT OXYGEN

### UNMATCHED PERFORMANCE FOR PERCENT OXYGEN MONITORING

The **MODEL 210BX** is AMI's most advanced Percent Oxygen Analyzer. It combines patented technologies and superior design to deliver unmatched performance, reliability and ease of use.

#### PATENTED ELIMINATOR CELL BLOCK™

The patented design offers the most efficient gas path in the industry by combining all of the critical sample handling components, including a flow meter, metering valve, 3-way gas control valve, sensor pocket and pressure sensor, into one solid cross drilled block. Sample gas only needs to travel 4 inches before reaching the sensor, resulting in a 400% faster response time.

#### DESIGNED FOR THE USER

This virtually maintenance-free Analyzer with front-loading O<sub>2</sub> sensor, intuitive controls and compact size make installation, maintenance and operation of the **MODEL 210BX** the easiest of any Percent Oxygen Analyzer in its class.

#### PROPRIETARY O<sub>2</sub> SENSOR TECHNOLOGY

AMI's patented **P Series** oxygen sensors deliver extremely fast response, high reliability and long life. Every sensor undergoes a battery of tests in our factory to guarantee that they meet our strict quality and performance standards. Our **P Series** percent oxygen sensors are designed to enhance the superior performance of the **MODEL 210BX** Analyzer.

#### FULL SUITE OF STANDARD FEATURES

The **MODEL 210BX** comes standard with advanced features, including dual independent alarms, comprehensive alarm logic (fail safe or non-fail safe, latching or non-latching and independent alarm delays), alarm bypass and 3 levels of security settings. Automatic data logging provides detailed time-stamped records of O<sub>2</sub> measurement, gas pressure, temperature, supply voltage and power brown-out history.

#### COMMON APPLICATIONS

- ▶ NATURAL GAS
- ▶ AIR SEPARATION
- ▶ AEROSPACE

# MODEL 210B<sup>X</sup>

## PHYSICAL & ELECTRICAL SPECIFICATIONS

WEIGHT	MOUNTING	GAS CONNECTIONS	WETTED PARTS
16.0 lbs (7.26 kg)	Wall Mount or 2.0" Pipe	¼" 316 S.S. compression fittings	316 S.S. fittings, electro-less nickel-plated cell block, gold-plated contacts, acrylic flow meter & O-rings (Viton, kalrez, and Buna-N)
POWER			
DC		AC	
10 – 24 VDC, 150 mA max (non-heated) 10 – 24 VDC, 2.2 Amps max (heated)		100 – 240 VAC, 150 mA max (non-heated) 100 – 240 VAC, 550 mA max (heated)	



Note: 2-year Warranty for Parts & Labor for any defects in materials or workmanship. 6-month Warranty for oxygen sensors

## OPERATIONAL SPECIFICATIONS

OUTPUT RANGES			AMBIENT OPERATIONAL TEMPERATURE			FLOW RATE (RECOMMENDED)	INLET GAS PRESSURE	OPERATIONAL ALTITUDE	
STANDARD RANGE (USER SELECTABLE)	OPTIONAL RANGES (USER SELECTABLE) LOW HIGH		NON-HEATED	HEATED	HEATED WITH EXTREME WEATHER ENCLOSURE			DC	AC
0 – 1.0%	0 – 1000 ppm	0 – 10.0%	25°F to 115°F (–3.9°C to 46°C)	–20°F to 115°F (–29°C to 46°C)	–40°F to 115°F (–40°C to 46°C)	0.1 to 2.0 SCFH (0.05 – 1.0 Lpm)	0.5 – 150 psig (0.03 – 10.3 bar)	≤ 5,500 m (18,000 ft)	≤ 2,500 m (8,200 ft)
0 – 5.0%	0 – 1.0%	0 – 25.0%							
0 – 10.0%	0 – 10.0%	0 – 50.0%							
0 – 25.0%	0 – 25.0%	0 – 100.0%							

## SENSOR & ANALYZER PERFORMANCE SPECIFICATIONS

P-3 SENSOR	P-4 SENSOR	P-5 SENSOR	REPEATABILITY	ACCURACY	APPROVALS
<b>Max Range:</b> 0–25% <b>90% upscale response:</b> 30 sec <b>Special Conditions:</b> Up to 50% CO <sub>2</sub>	<b>Max Range:</b> 0–100% <b>90% upscale response:</b> 30 sec <b>Special Conditions:</b> Enriched Oxygen	<b>Max Range:</b> 0–25% <b>90% upscale response:</b> 30 sec <b>Special Conditions:</b> <500 ppm H <sub>2</sub> S, Up to 50% CO <sub>2</sub>	±1% of range or ±0.1% of oxygen, whichever is greater	±1% of full scale range at constant conditions	Class I, Division 1, Groups B, C, D, T4 Class I Zone 0/1, AEx ia/db IIB+H2 T4 Ga/Gb IECEx: Ex ia IIB+H2 T4 Ga/Ex db IIB+H2 T4 Gb UKCA/PESO: Ex ia/db IIB+H2 T4 Ga/Gb ATEX:  II 1/2 G Ex ia/db IIB+H2T4 Ga/Gb Ingressed Protection: IP65

## ANALYZER KEY FEATURES

<b>ELIMINATOR CELL BLOCK™</b>	Contains a Complete Sample System with all components, including the flow meter, metering valve, pressure sensor and 3-way Selection (Sample/Span/Off) Valve, fully integrated
<b>ALARMS</b>	2 fully adjustable concentration alarms with configurable Alarm logic and Relay Contacts, featuring: <ul style="list-style-type: none"> <li>▶ Alarm Bypass</li> <li>▶ Alarm Delays</li> <li>▶ Trigger Above or Below Setpoint</li> <li>▶ Latching/Non-latching</li> <li>▶ Failsafe/Non-failsafe</li> <li>▶ Open or Close on Alarm</li> </ul>
<b>INTERNAL PRESSURE SENSOR</b>	Measures gas inlet pressure from 0 – 150 psig.
<b>ANALOG OUTPUTS</b>	1 – 5 VDC and 4 – 20mA isolated output signals and Modbus bi-directional RS485 communication
<b>COMMAND CENTER</b>	Software that works across AMI's Analyzers and gives users access to advanced functions: <ul style="list-style-type: none"> <li>▶ Error Status Display</li> <li>▶ Data Logger (records O<sub>2</sub> measurements, temperature, psig, and power)</li> <li>▶ Alarm Configurations</li> <li>▶ Calibration Details</li> </ul>
<b>ACCESSORIES</b>	<ul style="list-style-type: none"> <li>▶ Demister</li> <li>▶ LRP</li> <li>▶ Extreme Weather Enclosure</li> </ul>