



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 O₂ 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 O₂ 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 O₂ measurement, gas pressure, temperature, supply voltage and power brown-out history.

COMMON APPLICATIONS

- ▶ NATURAL GAS
- ▶ AIR SEPARATION
- ▶ AEROSPACE



MODEL 210B X

PHYSICAL & ELECTRICAL SPECIFICATIONS

WEIGHT	MOUNTING	GAS CONNECTIONS	WETTED PARTS
16.0 lbs (7.26 kg)	Wall Mount or 2.0" Pipe	1/4" 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)		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
Max Range: 0 – 25% 90% upscale response: 30 sec Special Conditions: Up to 50% CO ₂	Max Range: 0 – 100% 90% upscale response: 30 sec Special Conditions: Enriched Oxygen	Max Range: 0 – 25% 90% upscale response: 30 sec Special Conditions: <500 ppm H ₂ S, Up to 50% CO ₂	±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: Ex II 1/2 G Ex ia/db IIB+H2T4 Ga/Gb Ingressed Protection: IP65

ANALYZER KEY FEATURES

ELIMINATOR CELL BLOCK™	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
ALARMS	2 fully adjustable concentration alarms with configurable Alarm logic and Relay Contacts, featuring: <ul style="list-style-type: none"> ▶ Alarm Bypass ▶ Alarm Delays ▶ Trigger Above or Below Setpoint ▶ Latching/Non-latching ▶ Failsafe/Non-failsafe ▶ Open or Close on Alarm
INTERNAL PRESSURE SENSOR	Measures gas inlet pressure from 0 – 150 psig.
ANALOG OUTPUTS	1 – 5 VDC and 4 – 20mA isolated output signals and Modbus bi-directional RS485 communication
COMMAND CENTER	Software that works across AMI's Analyzers and gives users access to advanced functions: <ul style="list-style-type: none"> ▶ Error Status Display ▶ Data Logger (records O₂ measurements, temperature, psig, and power) ▶ Alarm Configurations ▶ Calibration Details
ACCESSORIES	<ul style="list-style-type: none"> ▶ Demister ▶ LRP ▶ Extreme Weather Enclosure