

ADVANCED MICRO INSTRUMENTS
An ENPRO Company

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.

COMMON APPLICATIONS

- NATURAL GAS
- AIR SEPARATION
- AEROSPACE

DESIGNED FOR THE USER

This virtually maintenance-free Analyzer with front-loading O_2 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_2 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

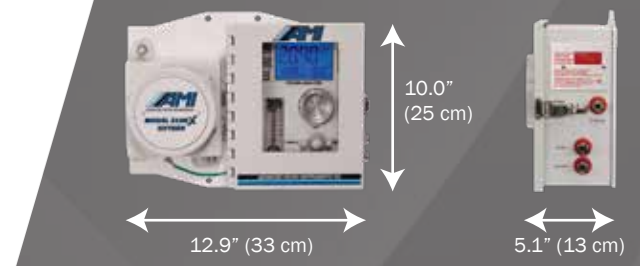
The **MODEL 210BX** comes standard with advanced features, including dual independent alarms, comprehensive alarm logic (fail safe or non-fail safe, latching or non-latching and independent alarm delays), alarm bypass and 3 levels of security settings. Automatic data logging provides detailed time-stamped records of O_2 measurement, temperature, supply voltage and power brown-out history.

MODEL 210BX

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 – 5.0% 0 – 10.0% 0 – 25.0%	0 – 1000 ppm 0 – 1.0% 0 – 10.0% 0 – 25.0%	0 – 10.0% 0 – 25.0% 0 – 50.0% 0 – 100.0%	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)

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_2S, Up to 50% CO_2	±1% of selected range or ±0.1% of oxygen, whichever is greater	±1% of selected range or ±0.2% of oxygen, whichever is greater	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 PESO: Ex ia/db IIB+H2 T4 Ga/Gb ATEX: Ⓔx 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: ▸ 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: ▸ Error Status Display ▸ Data Logger (records O_2 measurements, temperature, and power) ▸ Alarm Configurations ▸ Calibration Details
ACCESSORIES	▸ Demister ▸ LRP ▸ Extreme Weather Enclosure

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