



## WATCHDOG

### OXYGEN ANALYZER



## PERFECT BALANCE OF MEASUREMENT PERFORMANCE & VALUE

The **WATCHDOG** is an advanced Trace or Percent Oxygen Analyzer designed to include all the essential features and deliver a high level of accuracy and reliability for sheltered installations in Class 1, Div. 2 areas at a lower price point.

#### ELIMINATOR CELL BLOCK™ FOR A LEAK-FREE DESIGN

The patented **ELIMINATOR CELL BLOCK** provides a unique, compact sample system approach and a flow-efficient sensor pocket machined into a solid metallic block. Precision cross-drilled intersecting gas passages eliminate the need for long lengths of tubing and leak-prone compression fittings. Additionally, a uniquely engineered 3-way selector valve, a metering valve, and flow meter are all integrated into the **ELIMINATOR CELL BLOCK**.

#### PROPRIETARY SENSOR TECHNOLOGY

AMI's patented oxygen sensors deliver unmatched performance for ultra-fast response times, accuracy, and reliability. Every sensor undergoes an intense battery of tests to ensure they meet our strict quality control standards. Our trace and percent oxygen sensors operate safely, accurately, and reliably in inert or flammable gas streams even when containing high levels of  $H_2S$ , up to 500 ppm  $H_2S$ , for their entire warranted life. This eliminates installing a maintenance intensive  $H_2S$  scrubber that competitive oxygen analyzers require!

#### EXCEPTIONAL VALUE

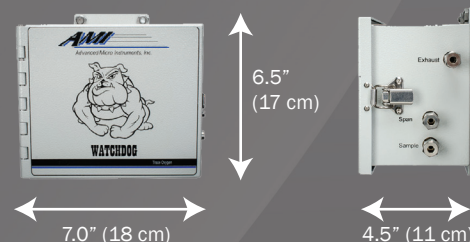
The **WATCHDOG** is a perfect low-cost solution for  $O_2$  measurements requiring a complete sample system and limited key features. It has been designed for mounting inside a shelter or metering building in Class 1, Div. 2 areas and operates on 12–24VDC power. Its combination of advanced AMI technologies, reliability, intuitive controls and essential features make it a very cost-effective oxygen analyzer option for select applications.

#### COMMON APPLICATIONS

- ▶ NATURAL GAS
- ▶ AIR SEPARATION
- ▶ BIOGAS

## PHYSICAL & ELECTRICAL SPECIFICATIONS

WEIGHT	MOUNTING	GAS CONNECTIONS	WETTED PARTS
6.0 lbs (2.72 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, or Buna-N)
POWER			
DC		AC	
10 – 28 VDC < 50 mA max @12VDC		Not Available	



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

## OPERATIONAL SPECIFICATIONS

OUTPUT RANGES (USER SELECTABLE)		AMBIENT OPERATIONAL TEMPERATURE	FLOW RATE (RECOMMENDED)	INLET GAS PRESSURE
0 – 10 ppm	0 – 5000 ppm	25°F to 115°F (–3.9°C to 46°C)	0.1 to 2.0 SCFH (0.05 – 1.0 Lpm)	0.5 – 150 psig (0.03 – 10.3 bar)
0 – 50 ppm	0 – 1.0%			
0 – 100 ppm	0 – 5.0%			
0 – 500 ppm	0 – 10.0%			
0 – 1000 ppm	0 – 25.0%			

## SENSOR & ANALYZER PERFORMANCE SPECIFICATIONS

T-2 SENSOR	T-4 SENSOR	P-3 SENSOR	P-4 SENSOR	P-5 SENSOR
<b>Max Range:</b> 0 – 10,000 ppm <b>Special Conditions:</b> <10 ppm H <sub>2</sub> S 100% CO <sub>2</sub>	<b>Max Range:</b> 0 – 10,000 ppm <b>Special Conditions:</b> <500 ppm H <sub>2</sub> S 100% CO <sub>2</sub>	<b>Max Range:</b> 0 – 25% <b>90% upscale response:</b> 30 sec <b>Special Conditions:</b> Up to 100% 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, 100% CO <sub>2</sub>
90% UPSCALE RESPONSE TIMES FOR SPECIFIC RANGES		REPEATABILITY	APPROVALS	
<25 sec for 0.0 – 10 ppm	<10 sec for 10 ppm – 25.0%	±1% of range or ±0.2 ppm of oxygen, whichever is greater	Designed to meet requirements of Class I, Div. 2, Groups C,D applications	

## ANALYZER KEY FEATURES

<b>ELIMINATOR CELL BLOCK™</b>	Contains a Complete Sample System with all components, including the flow meter, metering valve, and 3-way Selection (Sample/Span/Off) Valve, fully integrated
<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>▶ Calibration Details</li> <li>▶ Data Logger (records O<sub>2</sub> measurements, temperature, and power)</li> </ul>
<b>ACCESSORIES</b>	<ul style="list-style-type: none"> <li>▶ Demister</li> <li>▶ LRP</li> </ul>