



**OXYGEN | H<sub>2</sub>S | MOISTURE**

## **ADVANCED ANALYZERS FOR BIOGAS**

### **COMPLETE SOLUTION FOR BIOGAS UPGRADING**

AMI offers a full-line of advanced Gas Analyzers for monitoring oxygen, hydrogen sulfide and moisture levels in Biogas. We can provide both fixed and portable Analyzers capable of reading trace and percent levels of the target gas. Our range of maintenance-free accessories are available to help extend the operational life of your Analyzer.

### **HIGH-PERFORMANCE, COST EFFECTIVE, & EASY TO USE**

AMI's patented designs and proprietary technologies give customers unsurpassed performance, reliability and accuracy. Our Biogas Analyzers are packed with highly desirable features that provide operators with ultimate flexibility in monitoring their gas conditions while minimizing the Analyzer costs. Simple, intuitive controls mean operations and maintenance staff can monitor and service any AMI Gas Analyzer with minimal training.

### **BEST-IN-CLASS SERVICE & SUPPORT**

AMI Biogas analyzers typically ship quickly from stock held in our ISO 9001:2015-certified US factory. The AMI team is ready to provide advice for product selection unique to your application and offer after-sales support. Additionally, our global network of representatives and distributors are available to service all your Biogas Analyzers needs.

# HIGH PERFORMANCE BIOGAS ANALYZERS

**BX Series** AMI's BX Series is our most advanced offering of High-Performance Analyzers. They combine patented technologies with reliable and easy-to-use, intuitive features and are the preferred choice among engineers and measurement technicians.

## OXYGEN (O<sub>2</sub>)



### MODEL 2010B X

TRACE OXYGEN  
10 Output Ranges  
PPM and % Level

AMI's best selling Analyzer for detecting trace levels of oxygen in Biogas. Fast, accurate measurements down to 0.05 ppm.



### MODEL 1000RS

PORTABLE TRACE OXYGEN  
10 Output Ranges  
PPM and % Level

Ultra-portable O<sub>2</sub> Analyzer for spot-checking pipelines. Patented 4-way Selector Valve (Sample/Purge/On/Off) allows for rapid come down time between measurements.

### MODEL 210B X

PERCENT OXYGEN  
4 Output Ranges  
Ranges between 0-25%

Designed for detecting percent level of oxygen in Biogas streams down to 0.01%.



## HYDROGEN SULFIDE (H<sub>2</sub>S)



### MODEL 3010B X

TRACE H<sub>2</sub>S  
4 Output Ranges: 0-200 ppm  
Optional Ranges: 0-2000 ppm

Compact, low-cost design for continuous measuring trace levels of H<sub>2</sub>S in Biogas.



### MODEL 3000RS

PORTABLE TRACE H<sub>2</sub>S  
4 Output Ranges: 0-200 ppm  
Optional Ranges: 0-2000 ppm

Spot-checking and fast verification of H<sub>2</sub>S monitors. High accuracy ( $\pm 1\%$ ) compared to sample tubes ( $\pm 10$  to  $15\%$ ).

## MOISTURE (H<sub>2</sub>O)



### BARRACUDA MODEL 4010LX

Tunable Diode Laser (TDL)  
TRACE MOISTURE  
RANGE: 0.0 - 20.0 lbs  
(0.0 - 420ppm) H<sub>2</sub>O

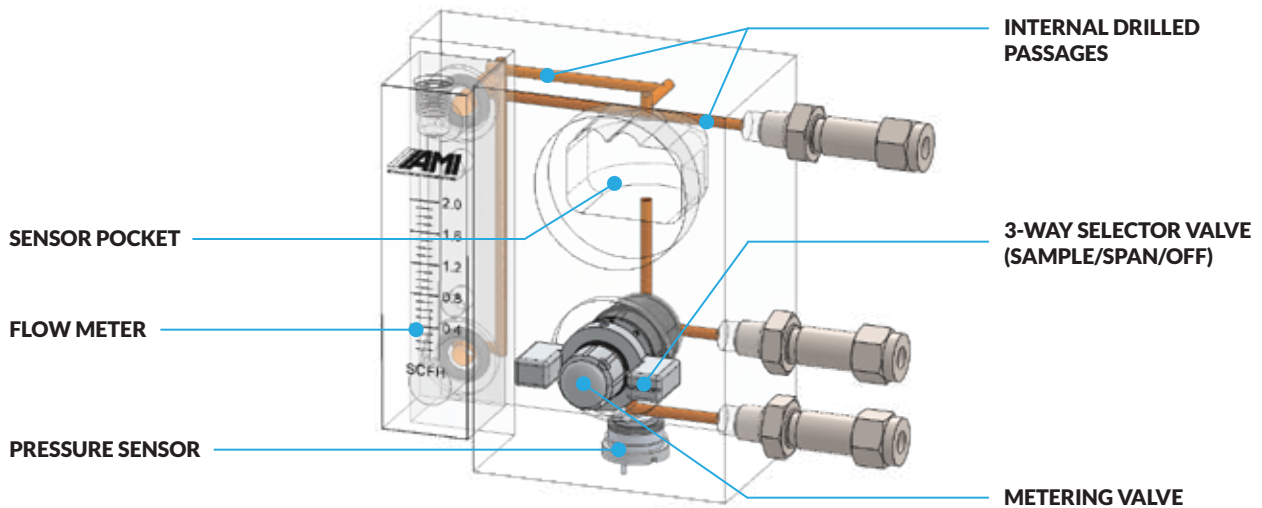
Most advanced TDL Moisture Analyzer in the Industry. Patented design makes the **MODEL 4010LX** highly reliable, very compact and extremely cost-effective. The **MODEL 4010LX** is packed with desirable features while being a fraction of the cost of other TDL Analyzers.

## KEY FEATURES

- ▶ Advanced TDL technology makes moisture measurements possible with some of the most difficult biogas samples
- ▶ Industry's shortest gas path to the measurement cell means fast, accurate moisture readings
- ▶ Analyzer Guardian Technology provides protection against water slugs
- ▶ Low power requirements allow for AC, DC and remote solar installations
- ▶ Robust design eliminates expensive factory service

# PATENTED DESIGNS & KEY TECHNOLOGIES

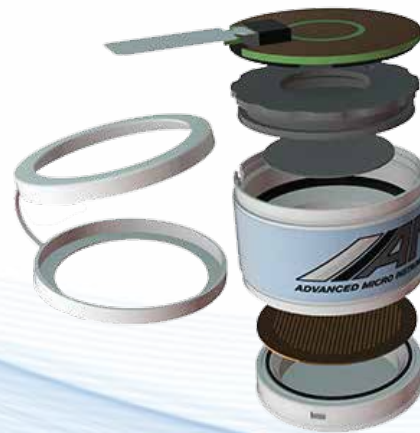
## ELIMINATOR CELL BLOCK™



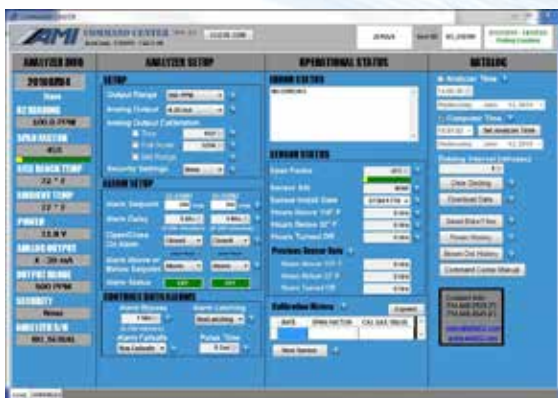
Our patented **ELIMINATOR CELL BLOCK™** provides a unique sample system approach that virtually eliminates all potential leak paths while optimizing flow efficiencies. The sample system & flow efficient sensor pocket are machined directly into a solid metallic block and interconnected with small diameter, precision-drilled, intersecting gas passages. Finally, we integrate our specially engineered 3-way Selector Valve, a metering valve, pressure sensor and flow meter directly into the machined block. This approach eliminates long lengths of leak-prone tubing, delivers up to a 400% faster measurement response time, and provides front panel access to the sensor while minimizing overall Analyzer size.

## PROPRIETARY SENSOR TECHNOLOGY

AMI uses proprietary manufacturing techniques to produce its exclusive electrochemical oxygen sensors. The patented designs produce a sensor that yields an extremely quick response, high reliability and longer product life. AMI's oxygen sensors provide an industry-leading resistance to  $H_2S$ , in concentrations up to 500 ppm. This eliminates the need for a maintenance-intensive  $H_2S$  scrubber for the biogas sample. AMI also puts 100% of our sensors through a battery of performance tests across multiple temperature ranges to insure they meet our strict quality standards.



## COMMAND CENTER SOFTWARE



AMI's powerful COMMAND CENTER User Interface communicates with all AMI Gas Analyzers. It provides technicians with access to advanced features for configuring and troubleshooting the Analyzer. Users can program alarms to be fail safe or non-fail safe, latching or non-latching, and set as independent alarm delays. They can also access the automatic data logging files, available on all fixed and portable Analyzers. The data logs provide time-stamped records of gas measurement, gas pressure, analyzer temperature and power outage events that can assist with solving intermittent problems.

# OXYGEN SENSORS



MODEL	T-2	T-4	P-2	P-3	P-4	P-5
Type	TRACE	TRACE	PERCENT	PERCENT	PERCENT	PERCENT
Recommended O <sub>2</sub> Measurement Range	0 - 10,000 ppm	0 - 10,000 ppm	0 - 50%	0 - 25%	0 - 100%	0 - 25%
Minimum Range	0 - 5 ppm	0 - 5 ppm	0 - 1,000 ppm	0 - 1,000 ppm	0 - 1.0%	0 - 1,000 ppm
Sensitivity	0.05 ppm	0.05 ppm	100 ppm	100 ppm	1,000 ppm	100 ppm
Special Conditions	<10 ppm H <sub>2</sub> S 100% CO <sub>2</sub>	<500 ppm H <sub>2</sub> S 100% CO <sub>2</sub>	O <sub>2</sub> in inert gas	Up to 100% CO <sub>2</sub>	Enriched Oxygen	<500 ppm H <sub>2</sub> S 100% CO <sub>2</sub>

## NOTES

Any sensor can be used in O<sub>2</sub> applications above its recommended operating ranges, however, it may shorten the sensor's lifespan. The minimum range of the sensor is dependent on the sensor as well as the AMI Analyzer it is used within. Sensitivity is the minimum change in O<sub>2</sub> in the gas stream that will be detected by the sensor. Notify the factory for use in CO<sub>2</sub> background gas above 50%. The AMI O<sub>2</sub> Analyzer will require additional programming.

# H<sub>2</sub>S SENSORS



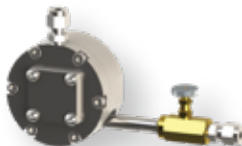
WIDE RANGE  
H<sub>2</sub>S SENSOR

Sensor Type	Low Range	High Range
Measurement Range	0 - 200 ppm	0 - 2000 ppm
Minimum Range	0 - 10 ppm	0 - 100 ppm
Sensitivity	0.1 ppm	0.1 ppm

# ACCESSORIES

## PRE-CONDITIONING

AMI's pre-conditioning accessories provide protection from impurities in the Biogas stream that can damage an Analyzer. Vertically-mounted Demisters reduce saturated gas temperature and condense out liquids. The Analyzer Guardian's unique membrane allows biogas flow while preventing liquids from passing through.



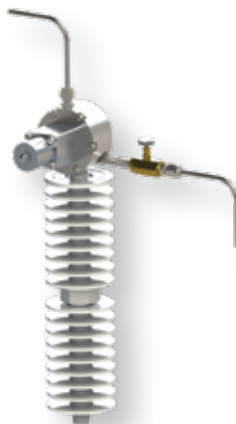
ANALYZER  
GUARDIAN



ANALYZER  
GUARDIAN  
with Regulator



DEMISTER



ANALYZER  
GUARDIAN  
with DEMISTER

## PROTECTION

For applications in extreme cold weather down to -40°F or harsh environmental conditions.



EXTREME WEATHER  
ENCLOSURE



PROTECTIVE CARRY CASE

## SAMPLE PUMPS

Sample pumps draw sample in ambient pressure applications or pressure down to -7 psig. Designed to meet Class I, Div 2, Groups C & D requirements.



FIXED  
SAMPLE PUMP



PORTABLE SAMPLE  
PUMP

225 Paularino Avenue  
Costa Mesa, CA 92626

714.848.5533

www.amio2.com

