



Advanced Micro Instruments, Inc.

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MODEL 3010BR

The **AMI Model 3010BR** Trace Hydrogen Sulfide (H₂S) analyzer provides a perfect low cost solution in a variety of difficult H₂S measurement applications.

Our advanced engineering techniques have resulted in a very accurate, reliable and exceptionally low cost package where trace H₂S analysis is required. The Model 3010BR is offered for about 1/3 the price of competitive models and is virtually maintenance free.

We have outfitted this unit with a comprehensive state-of-the-art electronics and complete sample handling package using our patent pending cell block technology. The front panel user interface is very intuitive for ease of operation and for the advanced users we provide an RS-232 connection to access the more advanced settings. The compact, rugged construction makes for a simple straight-forward installation.

If necessary, this analyzer can be mounted directly outside in all types of weather. An optional high-tech, low power proportional temperature controlled heater allows for an expanded temperature range of -20 to 115° F without an additional enclosure or wiring.

Our heater option is visually undetectable as it does not change the footprint or increase the size of the analyzer. The heated version is suitable for either Class 1, Div. 1 or Div. 2, Groups B,C,D with a flammable gas stream.

In addition to measuring all of the H₂S in the gas stream, the Model 3010BR also responds strongly to other sulfur bearing compounds such as Sulfur Dioxide and a variety of Mercaptans. This gives you a positive indication in the event that other sulfur bearing compounds are present.

AMI's advanced microprocessor based electronics platform solves nearly all application requirements without additional price adding options.

Standard features include:

- Cutting edge microprocessor based electronics
- High-resolution 3 ½ digit LCD.
- 3 user-selectable output ranges: 0-10ppm, 0-50ppm, 0-100ppm
Optional output ranges: 0-500ppm, 0-1000ppm, 0-2000ppm
The user selection of an output range simultaneously controls both alarm functions, the analog output and the data logger so that all 4 functions operate on the same measurement range.
- 2 independent, fully adjustable alarm settings with relay contact closures
- User selectable alarm logic: latching or non-latching, open on alarm or close on alarm



- Programmable alarm delays- Settings range from 0-300min. This feature prevents alarm conditions due to quick H₂S spikes or short-term operator error.
- Alarm bypass button- Prevents false alarms while performing monthly calibrations.
User settable from 0-120 minutes
- Data logger- Logs data for 15 days @ 1min intervals and 30 days @ 2min. intervals, etc.
- Cal Factor - indicates remaining H₂S sensor life
- User selectable security settings
- Isolated 1-5VDC and 4-20mA. analog outputs
- Simple intuitive front panel user interface
- Available in either A/C or DC power.
- Available with or without explosion proof heater

AMI's patented cellblock begins with a single compact metallic block that undergoes a complex machining process, followed with corrosion-resistant nickel plating. The block contains a series of drilled intersecting gas passages and mounted directly on it are: a custom designed flow control valve, 3-way selector valve (for sample/span/shut off control), flow meter and 3 gas connection fittings. All become an integral part of the cellblock.

This eliminates the techniques used by competitors of piecing several lengths of tubing between numerous compression fittings, valving and a flow meter. In using this approach, they add many potential leak paths, increase response times, the need for additional space and additional employee labor.

Lastly, our front panel sensor access makes H₂S sensor installation or replacement quick and easy without tools or the need to remove any sensitive components. This process takes less than one minute!!

Our advanced design approach has separated us from the competition with the highest performance, yet lowest cost H₂S analyzer in the industry.

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FEATURES

- 3 user selectable output ranges to choose from
- High resolution 3 ½ digit LCD
- 2 fully adjustable Hydrogen Sulfide (H₂S) concentration alarms
- Alarm delays
- Alarm hold off/Bypass
- RFI protected
- 1-5VDC and 4-20mA. isolated analog output signals
- Data logger
- RS-232 bi-directional communication for advanced features
- Advanced analog output calibration feature
- Power requirements: Choice of 10-28VDC or 115VAC power
- Low minimum detection limit
- Excellent repeatability
- Extended operating temperature range
- Patent Pending Cellblock Technology: Allows for all components such as: Flow control valve, flow meter, 3-way selector valve; Sample/Span/Off and compression fittings to be an integral part of the cellblock. This eliminates long lengths of tubing and fittings. Other benefits of this design include: compact size, faster response times and front panel sensor access without the need for tools.
- Area Classification: Designed to meet UL-913 and UL-1203 Class 1, Div. 1, Groups B,C,D with a flammable gas sample
- Wall mount or 2.0" pipe
- Compact size
- 2 year warranty for analyzer, parts and labor
- 1 year sensor warranty, life expectancy 1-3 years

SPECIFICATIONS

- **3 standard user selectable output ranges to choose from:** 0-10ppm, 0-50ppm, 0-100ppm
Optional output ranges available: 0-500ppm, 0-1000ppm and 2000ppm
The user selection of an output range simultaneously controls the two alarms, the analog output and the data logger so that all 4 functions operate on the same range
- **Digital display:** High resolution 3 ½ digit LCD. Reads full scale from 0.00ppm to 100ppm independently of output range selection
- **Alarms:** 2 fully adjustable Hydrogen Sulfide (H₂S) concentration alarms
Dry contacts 5A. @24VDC/115VAC
- **Alarm delays:** Programmable from 0-300 minutes
- **Alarm hold off:** Programmable from 0-120 minutes
- **Isolated analog output signal:** 1-5VDC or 4-20mA
Represents the output range selected: 0-10ppm, 0-50ppm, 0-100ppm
- **Data logger:** Logs data for 15 days @ 1 minute intervals, 30 days @ 2 minute intervals, etc.
Represents the output range selected: 0-10ppm, 0-50ppm, 0-100ppm
- **Power requirements:** 10-28VDC/ 115VAC
<70mA. @ 12VDC non heated
<24W @12VDC with heated option
- **Minimum detection:** 50ppb of Hydrogen Sulfide (H₂S)
- **Repeatability:** +/- 1% of range or +/- 0.2ppm of H₂S, whichever is greater
- **Operating temperature range:**
25 to 115° F non-heated; -20 to 115° F heated option
- **Diurnal temperature specification:**
< +/- 2 % of scale over temperature range
- **90% full scale response times for specified range:**
0-100ppm <120 seconds @ 1.5SCFH
0-2000ppm < 120 seconds @ 1.5SCFH
- **Response to Methyl Mercaptan:** 40% of actual concentration
- **Response to Sulfur Dioxide:** 18% of actual concentration
- **Area Classification:** Designed to meet UL-913 and UL-1203 Class 1, Div. 1, Groups B,C,D with a flammable gas sample
- **Inlet gas pressure:** 0.5 to 150psig
- **Gas connections:** ¼" 316 S.S. compression fittings
- **Wetted parts:** 316 S.S. fittings, electroless nickel plated cellblock, gold plated contacts, acrylic flow meter and Viton O-rings
- **Recommended flow rate:** from 1.0 to 1.5 SCFH
- **Mounting:** Wall mount or 2.0" pipe
- **Dimensions:** 13.0"W x 9.5"H x 5.0"D
- **Weight:** 16 lbs.

