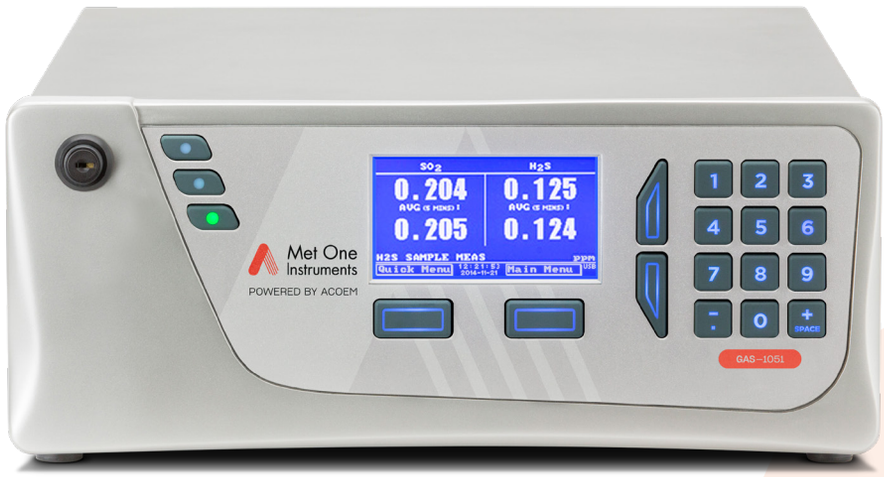
Met One Instruments
POWERED BY ACOEM



GAS–1051

Sulfur Dioxide & Hydrogen Sulfide Analyzer

The GAS-1051 Sulfur Dioxide and Hydrogen Sulfide Analyzer from Met One Instruments Powered by Acoem delivers precise and reliable performance at an excellent value.

It combines pulsed fluorescence detection with an internal catalytic converter to sequentially measure H_2S and SO_2 in the range of 0 - 2 / 0 - 20 ppm respectively with a detection limit of 0.3 ppb.

Analyzer Processes

The GAS-1051 analyzer combines pulsed fluorescence detection with an internal catalytic converter to sequentially measure H_2S and SO_2 in the range of 0 - 2 / 0 - 20 ppm respectively with a detection limit of 0.3 ppb.

The measurements involve two cycles.

H_2S is measured by passing the sample through an internal SO_2 scrubber which removes any SO_2.

The H_2S is then converted to SO_2 using the internal converter, and measured using the fluorescence technique.

SO_2 is then sequentially measured by bypassing the SO_2 scrubber and converter, and using the fluorescence technique to measure only the SO_2 concentration.

Approvals

Based on the GAS-1050 analyzer which has the following approvals:

- **US EPA approval (EQSA-0809-188)**

Benefits

The Met One range of gas analyzers have been designed using experience and knowledge gained from operating large air quality monitoring networks for more than 40 years. The result, instruments that integrate seamlessly into continuous monitoring networks.

- Reliable performance backed up by a two-year warranty.
- Internal thermal catalytic H_2S to SO_2 converter.
- User selectable measurement of SO_2/H_2S, H_2S, or SO_2 only.
- Minimize time spent on site performing maintenance through superior remote instrument control, diagnostic viewing, and calibration.
- Comprehensive data logging and remote viewing of over 200 operational parameters.
- Versatile interfacing through RS232, USB, analog, TCP/IP, and optional Bluetooth.
- Easier setup through an intuitive menu system with “Quick Menu”, advanced GUI, and a large keypad with tactile keys.
- Instant display of operational status using illuminated traffic lights on the front panel.
- Removable flash memory stores 10 years of data, including up to 12 individual parameters and event logs. Operational parameters can also be transferred to memory for easy retrieval.
- Latest firmware updates can easily be installed using the USB flash memory drive.
- Programming, viewing, downloading, and emailing of data is made even simpler using optional Bluetooth connectivity combined with Android App.
- Enhanced operator safety through the use of 12 VDC internal voltages.
- Reduced cost of spare parts, accessories, and consumable items through extensive use of standard components across the Met One analyzer range.
- Rack slide design makes accessing internal components and removing the analyzer from a rack cabinet easy.
- AQMS power usage can be reduced due to the instrument’s low power demand and its ability to operate over a wide temperature range.

Specifications

Ranges:	H_2S: 0 – 2 ppm (SO_2 < 500 ppb)
	SO_2: 0 – 20 ppm (auto-ranging)
Concentration display:	User selectable mg/m^3, µg/ m^3, ppm, ppb, ppt
Noise:	< 0.15 ppb
Lower detectable limit:	< 0.3 ppb or 0.2 % of concentration whichever is greater
Linearity:	< 1 % of full scale
Precision:	0.5 ppb
Zero drift:	24 hours: < 0.5 ppb 7 days: < 0.5 ppb
Span drift:	7 days: < 0.5 % of reading
Response time:	60 seconds to 95 %
STP reference:	0 °C, 20 °C, 25 °C at 101.3 kPa
Sample flow rate:	725 cc/min
Temperature range:	0 – 40 °C
Power:	100 – 240 VAC, 50 – 60 Hz (auto-ranging)
Power consumption:	255 VA max (typical at start up)
	180 VA after warm-up
Dimensions:	429 x 175 x 638 mm
Rack spacing:	3.5 RU
Weight:	18.1 kg

Communication

- USB port (digital communication).
- TCP/IP Ethernet network connection.
- Bluetooth (optional*, digital communication via Android App).
- RS232 Port 1: Digital communication.
- RS232 Port 2: Multidrop port.
- Protocols: Modbus RTU/TCP, Bavarian, EC9800, Advanced.

*Optional Bluetooth connectivity combined with the Android App makes it even easier to program, maintain, download, and email data without touching the instrument.

Inputs / outputs

25 pin I/O port

- Menu selectable current or voltage output 0 – 20 mA, 4 – 20 mA, or 0 – 5 VDC.
- Menu selectable offset of 0, 5 or 10 %.
- Auto-ranging from 0 – 50 ppb to 0 – 20 ppm (between 2 user specified full scale values).
- 3 scalable analog inputs, 0 – 5 v, 160 µV resolution.
- 8 logic level digital status inputs/8 open collector digital outputs.

Data logging

Removable USB flash memory drive that stores data in the following formats:

- Instantaneous data from: 1, 3, 5, 10, 30, or 60 minute intervals and 2, 5, 10, 30 seconds.
- Average data from: 1, 3, 5, 10, 15, 30 minutes, 1, 4, 8, 12, or 24 hours.
- Data storage of 10 years of 12 parameters, 1 minute data on 8 Gb memory.

Options & accessories

- External AC powered pump (capable of operating 3 analyzers, excluding NO_x).
- Dual filter (particulate).
- Rack slide kit.
- Bluetooth.
- High pressure zero/span valve.
- Printed User Manual (digital version of User Manual supplied on USB drive with analyzer).
- SO_2 scrubber.

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