Awa Instruments Pte Ltd
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Email: sales27@awa-instruments.com Website: www.awa-instruments.com

Hydrogen Sulfide Online Analyser

Awa Hydrogen Sulfide Analyser is a state-of-the-art water monitoring system specially designed for reliability, durability and environmentally friendly. Most importantly, it is back by 20 years of expertise in this field.

Designed in compliance with CE electromagnetic standards and using watertight IP54 enclosure, the Hydrogen Sulfide Analyser is the ideal instrument for industrial application such as:

- Water treatment plants
- Industrial effluents monitoring
- River monitoring
- Chemical, oil and food industries

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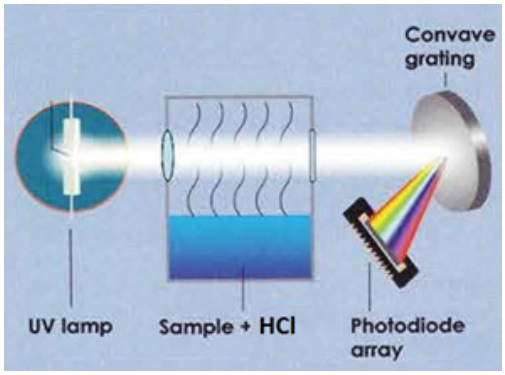
Advantages of On-line Analysis

- UV lamp that can last 10 years lifetime
- Better reliable sampling pump that is able to reach a pump height of up to 5 meters
- No toxic chemical needed for reaction
- Quick testing time, in less than 5 minutes
- Good repeatability by automation measurement
- Auto cleaning features that can be programmable
- Interval testing made possible depends on user requirements
- Test on demand available for ad-hoc measurement
- Manual datalogging with RS232 download (Standard)
- Connectivity to PLC or wireless network by means of 4-20mA output or RS485 (optional)
- Monitoring of multiple streams (up to 4) possible by multiplexing configuration (built-in feature)
- Easy maintenance
- Possible optional add-on for pH and TDS/EC

COD Measuring Principle



The measuring principle is based on the UV light absorption spectrum of Hydrogen Sulfide gas H2S in equilibrium with dissolved Hydrogen Sulfide gas in water sample.

A small quantity of Hydrochloric acid (HCl) is added to the sample to decrease the pH to transform HS to H2S for measurement.

A Fast Fourier Transform (FFT) is applied on the spectrum to extract the absorption signal typical to Hydrogen Sulfide gas. This method is very selective in determining the amount of ventilation needed for sewerage system or in the oil and gas field water.

Moreover, turbidity or color of the water has no influence as the measurement is performed in the gaseous phase.

Wastewater with suspended solids, such as activated sludge can be sampled without filtering.

The stability of the measurement reduced frequent calibration process as compared to electrodes method.

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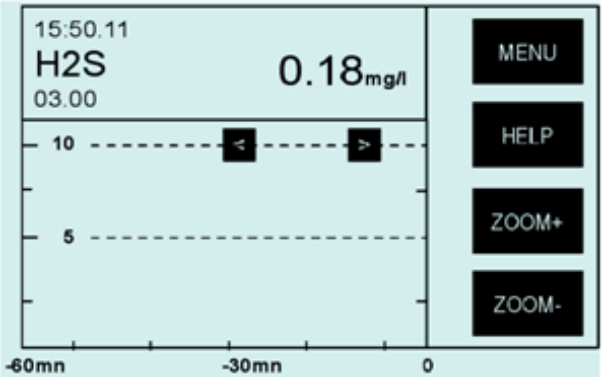
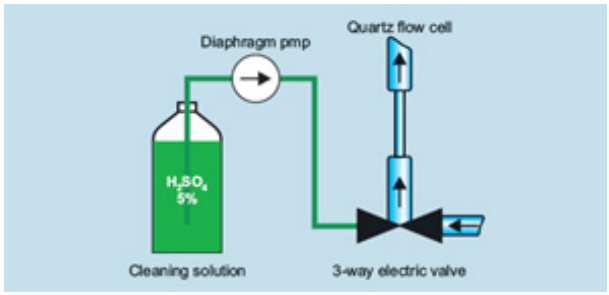
Large Screen Display

The value of the last measurement reading will be display on the Analyser. User can check the measurement trend from H2S concentration without having to download the logged data. User can modify the graph's time scale by pressing on the ZOOM+ and ZOOM-. Settings available can be range from the last hour to the last month, without the need for downloading.



Automatic Cleaning System

User can set cleaning cycle as they wish. Cleaning cycle by default, will be done once a day with cleaning solution (5% sulphuric acid). Once the cleaning cycle initiated, cleaning solution will be drawn automatically into the analyser flow cell to clean it. In some application, DI water can be used as well. Once the cleaning solution is empty, the Analyser will prompt the user to top it up. A fault signal (relay will be energized) can be configured to send a signal to user of such incident automatically.

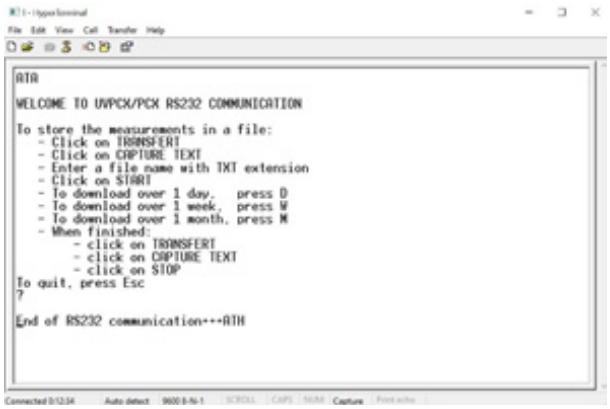


Configurable Relays

Up to four relays are available for user to configure with the Analyser. The relay contacts are open under a no-alarm condition (Normally Open) and closed in the case of an alarm.

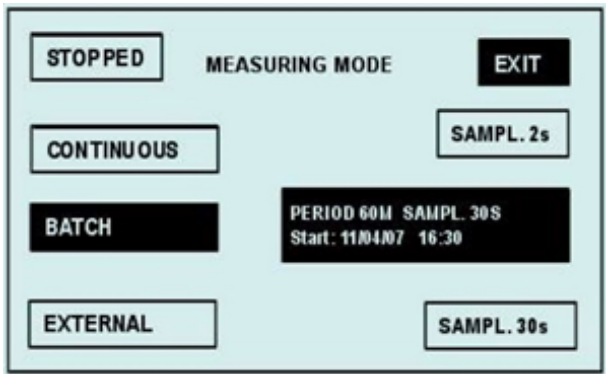
Data Logging with RS232 Downloads

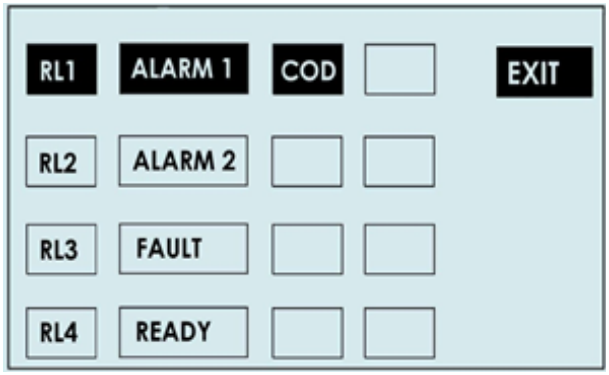
All the measurements over a few weeks can be downloaded with the built-in RS232 module using a HyperTerminal of Windows on any laptop, no other software needed. The data are compatible with standard worksheets such as Microsoft Excel.



Measurement Mode

This Hydrogen Sulfide Analyser provides various measurement mode depending on customer testing configurations. It can be set at Continuous/Batch/ External Trigger mode. External trigger mode will require an optional MIL module.





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Specification

HYDROGEN SULFIDE ANALYSER DATASHEET		
	Relevant Standard	
Analyser Specification	CX9000 Series	
	CX9012	CX9022
Type	Online Monitoring Analyser	
Principle Used	UV – Absorption Spectrum	
Measurement	H2S	
Measurement Range	0-100ppm	0-500ppm
Response Time	5min	
Cleaning Mechanism	Automatic Cleaning System using 5% - 10% H2SO4	
Accuracy	±5%	
Repeatability	±3%	
Calibration	Manual Calibration	
Display	240 x 128 pixel LCD with backlight	
Power Supply	110-130VAC or 220-240VAC / 50-60Hz	
Operating Temperature	0-50°C / No Freezing	
Humidity	0-99%	
CE Standard	Electromagnetic compatibility EN50081-2, EN50082-2, EN55011	
Analyser Output	4-20mA Output	
Communication	MRS232 – No special software, Excel compatible (standard), MRS485 (Optional)	
Alarm Signal Output	4 programmable relay signal output	
Enclosure	IP54, Coated Steel	
Panel Color Code	RAL7035	
Dimensions	Standard – H 600 x W 409 x D 230 mm (refer to attachment 1)	
Weight	30 kg	
Panel Type	Wall Mounted, Free standing type	
Cable Entry	Through gland plate of cabinet	
Process Connection	3/8" OD	
Inlet Pressure	Max: 1 bar	
Pumping Height	Up to 5 meters	
Reagent	HCL 30%	