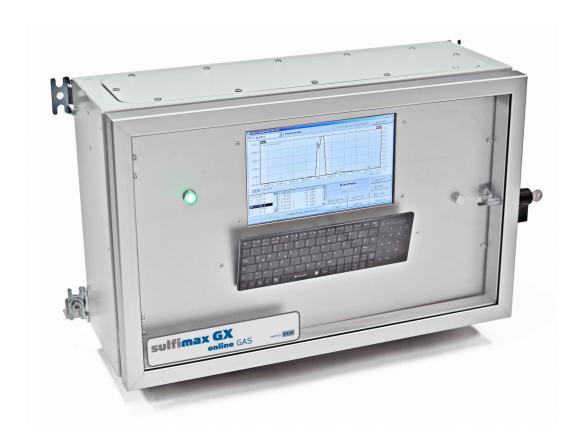
# Online determination of H<sub>2</sub>S in gases



sulfimax GX online GAS



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## Online H<sub>2</sub>S determination in gases

## Product description

The **Sulfimax GX online Gas** was developed for the continuous determination of hydrogen sulphide (H<sub>2</sub>S) in gas mixtures.

The system is designed in such a way that both very high concentrations (100 - 20000 ppm) and low contents in the range of the odour threshold (0.1 - 100 ppm) can be measured by means of a built-in dilution stage.

The **Sulfimax GX online Gas** contains a selective amperometric sensor with gas-selective membranes, diaphragm pumps for gas transport and sample aspiration, and an integrated PC for continuous recording of measurement data, trends and alarm conditions. The measurement results can be transmitted to the control room via digital (alarm) and analogue outputs.

The Sulfimax GX online Gas enables gas analysis without drift phenomena in oxygen-free gases, such as biogas, due to its automatic purging circuits. Due to the gentle mode of operation, the service life of the sensor is considerably extended.

Due to its mode of operation, the Sulfimax GX online Gas can be used as the basis for H<sub>2</sub>S-adapted control of enrichment and purification stages. The device is available in the same way for the monitoring of ammonia (NH<sub>3</sub>), sulphur dioxide (SO<sub>2</sub>) or ozone  $(O_3)$ .



Sulfimax GX online Gas - Automatic analyzer for wall mounting

### Applications

- Online recording of the current H<sub>2</sub>S gas concentration as a basis for H<sub>2</sub>S-adapted controls. (e.g. pump sump, gravity lines, collection tanks)
- Biogas processes, fermentations
- Environment analysis
- Wastewater analysis
- Landfill leachate monitoring

#### Areas.

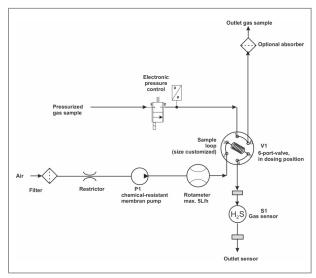
- Municipal wastewater associations
- · Industrial sectors
- · Biogas plants
- Petroleum processing

#### Advantages

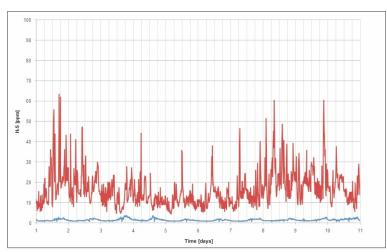
- Fully automated sample dosing
- Hardly any cross-sensitivities due to selective electrochemical sensor
- Output 4 20 mA for integration of the H<sub>2</sub>S signal into the local control system
- Long sensor life due to intermittent gas path gas path switching
- · Active sample aspiration, thus free installation (wall mounting) with up to 100 m distance from the sampling point

#### Features and Results

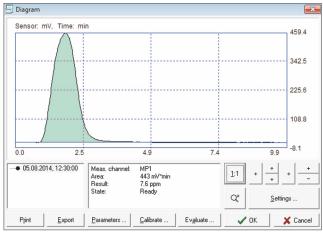
- Continuous H₂S gas analysis (measuring time < 5 min)
- Robust analysis method (drift stability)
- Simple calibration
- Simple, clear software
- Integrated purging steps to ensure a constantly updated sample for analysis
- Also available for measuring ammonia (NH<sub>3</sub>), sulphur dioxide (SO<sub>2</sub>) or ozone (O<sub>3</sub>)



Flow diagram of the analysis system



Determination of  $H_{\epsilon}S$  at two sewage collecting tanks before and after a biofilter



Determination of H₂S in gas stream



Biogas plant

#### Technical specifications

Measuring points: Max. 2

Sampling: By suction via a transfer line (up to 100 m)
Sample volume: 0.1 - 100 mL (depending on application)

Sample pressure: Ambient or pressurized

Typical measuring time: < 5 min (depending on sample)

Measuring range: 0.1 ppm - 20000 ppm (2 %)

Gas supply: Internal pump or pressure controller

Alarm: Dry contact
Signal output: 4 - 20 mA

Power supply: 220 - 230 V, 50 Hz, 2 A

Power input: 100 W Protection type: IP 66

Dimensions:  $660 \times 250 \times 400 \text{ mm} (W \times D \times H)$ 

Weight: 9 kg

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