# Hydrogen sulphide in liquids and gases

# Conform to standard DIN 38405-27







# sulfimax GX lab

## Hydrogen sulphide in liquids and gases

#### Conform to standard DIN 38405-27

### Product description

The Sulfimax GX Lab determines hydrogen sulphide and volatile sulphides in liquids and gases.

The sample can be dosed directly without pretreatment - manually by syringe or in the automatic version by autosampler.

By effective gas extraction the  $H_2S$  is completely expelled from the sample. Interferences due to the sample matrix practically do not occur. The released  $H_2S$  gas is conducted to the highly sensitive sensor, which detects H<sub>2</sub>S in the range of 0.01 to 10,000 ppm. A typical measurement takes 5 min, depending on the sample composition.

If the Sulfimax GX Lab is extended with the optionally available H<sub>2</sub>S Headspace Module, solid and pasty samples can also be measured.

The Sulfimax GX Lab fulfils the requirements of the standard DIN 38405-27: German standard methods for the examination of water, waste water and sludge - Anions (group D) - Part 27: Determination of sulphide by gas extraction method (D 27).





Sulfimax GX Lab as automatic version with autosampler for liquids

### Applications

- Water, drinking water, surface water
- Municipal wastewater
- Industrial wastewater
- Monitoring of landfill-leachate
- Gas analysis (e. g. LNG, LPG)
- H<sub>2</sub>S in hydrocarbon mixtures
- Investigation of technical and pharmaceutical products (e.g. storage stability)
- Quality management

#### **Advantages**

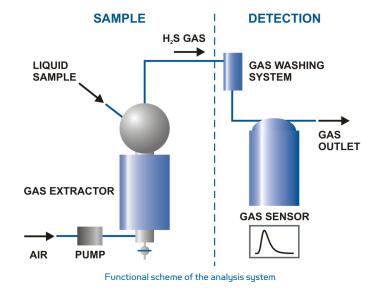
- Analysis of the original sample
- No sample preparation
- Dosing manually or optional fully automatic
- Minimized cross sensitivity through the indirect method

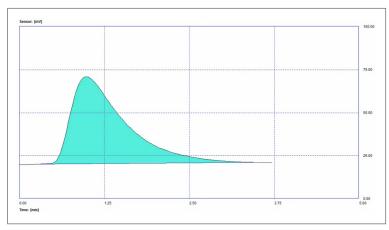


Sulfimax GX Lab as manual version

### Features and Results

- Complete separation of H<sub>2</sub>S from the sample by effective gas extraction
- Simple calibration
- Software: simple, clear, intuitive
- Definition of own methods for device control
- Typical measuring time 5 min (depending on sample properties)





Typical measurement - automatic peak analysis / interpretation

leas	File name	Sample name	Sample amount	Result		
	2017110200	Standard 5 ppm	1.000 ml	5.02 μg		
2	2017110201	Standard 5 ppm	1.000 ml	4.81 μg		
}	2017110203	Standard 5 ppm	1.000 ml	4.96 μg		
	2017110207	Standard 5 ppm	1.000 ml	4.98 μg		
5	2017110208	Standard 5 ppm	1.000 ml	4.93 μg		
Eval	luation of sub meas	surements				
-			Arithmetical me		4.94 на	
-	luation of sub meas		And intercarine		4.94 μg	
-			<ul> <li>Arithmetical me Standard devia Rel. standard c</li> </ul>	ation:	4.94 μg 0.08 μg 1.58 %	
-			Standard devia	ation:	0.08 µg	

Table of results of a multi measurement

#### **Technical specifications**

Measuring range:	0.01 10,000 pp		
Resolution:	0.1 µg abs., outpu		
Measuring duration:	2 10 min (deper		
Sample volume:	0.01 20 mL		
Gas flow:	Up to 50 L/h		
Power supply:	230 V/50 Hz, 115		
Power input:	150 W		
Dimensions:	480 x 390 x 290		
Weight:	11 kg		
Data connection:	RS 232 / USB (w		
Device control:	PC software (PC ı		

0.01 ... 10,000 ppm (dependent on sample volume) 0.1 μg abs., output signal linear 2 ... 10 min (dependent on the sample), usually 5 min 0.01 ... 20 mL Jp to 50 L/h 230 V/50 Hz, 115 V/60 Hz 50 W H80 x 390 x 290 mm (W x D x H) 1 kg RS 232 / USB (with converter) PC software (PC not included in the scope of delivery)



Compact version **Sulfimax GX Go** for on-site use

## H<sub>2</sub>S Headspace Module

#### Extension module for solid and pasty samples

The determination of volatile hydrogen sulphide ( $H_2S$ ) in solid and pasty samples is easily possible with this module. It is connected directly to the selective **Sulfimax GX Lab** and can be operated by anyone.

The sample is heated isothermally without pretreatment in a sealed headspace vessel and analyzed.

#### Applications:

- Solid samples, e. g. elemental sulfur, sludge, bitumen
- Liquid samples like waste water with sludge particles
- Pasty samples
- Soil samples and waste



Sulfimax GX Lab with connected H<sub>2</sub>S Headspace Module

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