



TAILOR-MADE  
SOLUTIONS  
FOR SATISFIED  
CUSTOMERS.



# CONTENT

PAGE 03 – 06

CONTENTS ABOUT AWITE

PAGE 07 – 08

THE APPLICATIONS

PAGE 09 – 22

## THE PRODUCTS

PAGE 11 – 14

Stationary gas analysis

PAGE 15 – 16

Mobile gas analysis

PAGE 17 – 18

Desulphurisation

PAGE 19 – 20

Flow measurement

PAGE 21 – 22

Laboratory facilities

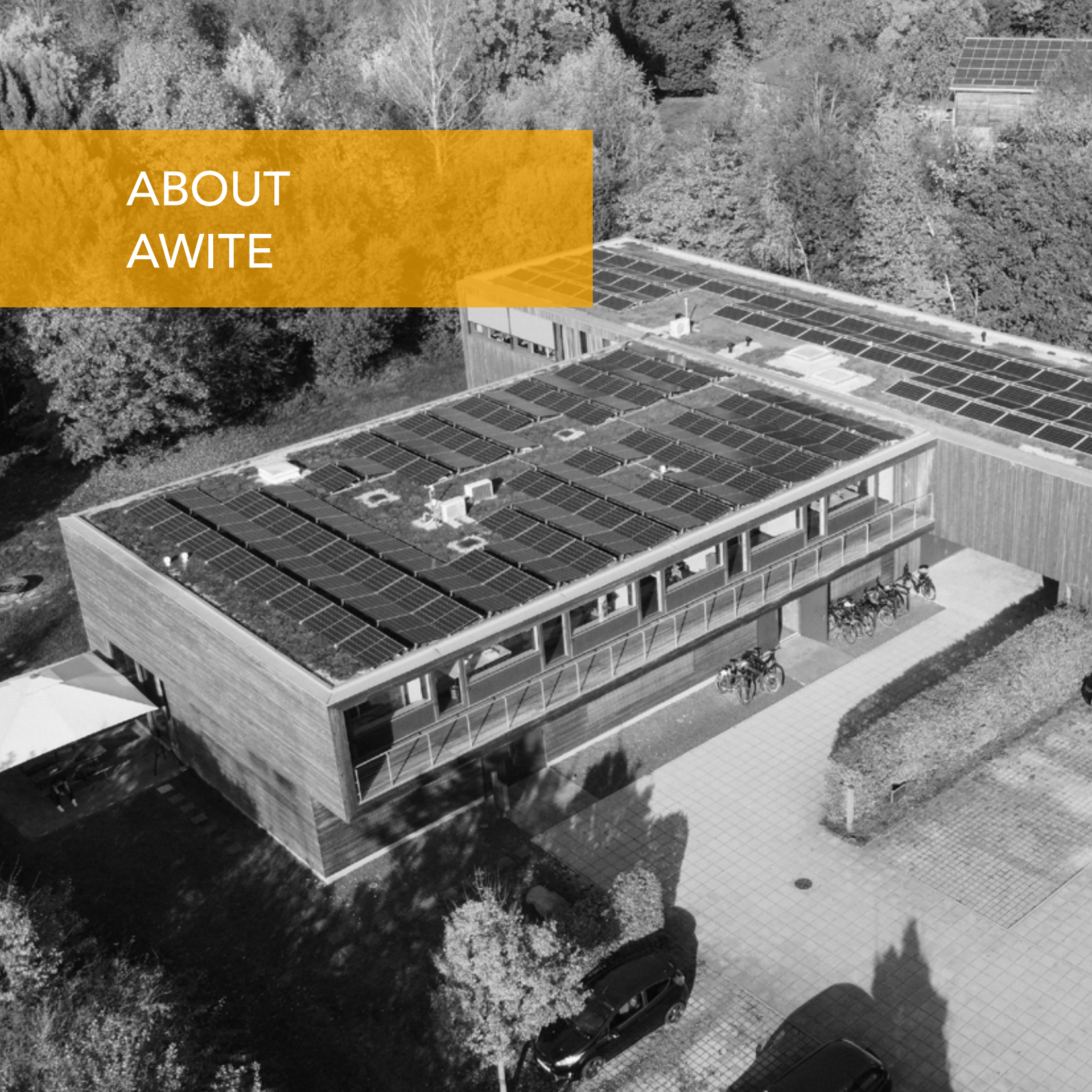
PAGE 23 – 24

SERVICE

PAGE 25

CONTACT

# ABOUT AWITE



## FEASIBLE.MEASURABLE.RENEWABLE.

We are a medium-sized company with 50 employees and are active globally in the field of renewable energies. We are driven by renewable processes and the measurement of the gases they produce.

Biogas, biogas processing, power-to-gas, sewage gas, dry fermentation, landfill gas, syngas, laboratory plants, and much more.

## RENEWABLE NOT JUST A SLOGAN

We are proud to be the only measurement technology company to work exclusively in the field of renewable gases, because we want to actively shape our future.

This also includes our modern site, including production – in Niederhummel – which we operate in a sustainable and regenerative manner.

Rely on almost 25 years of industry experience!

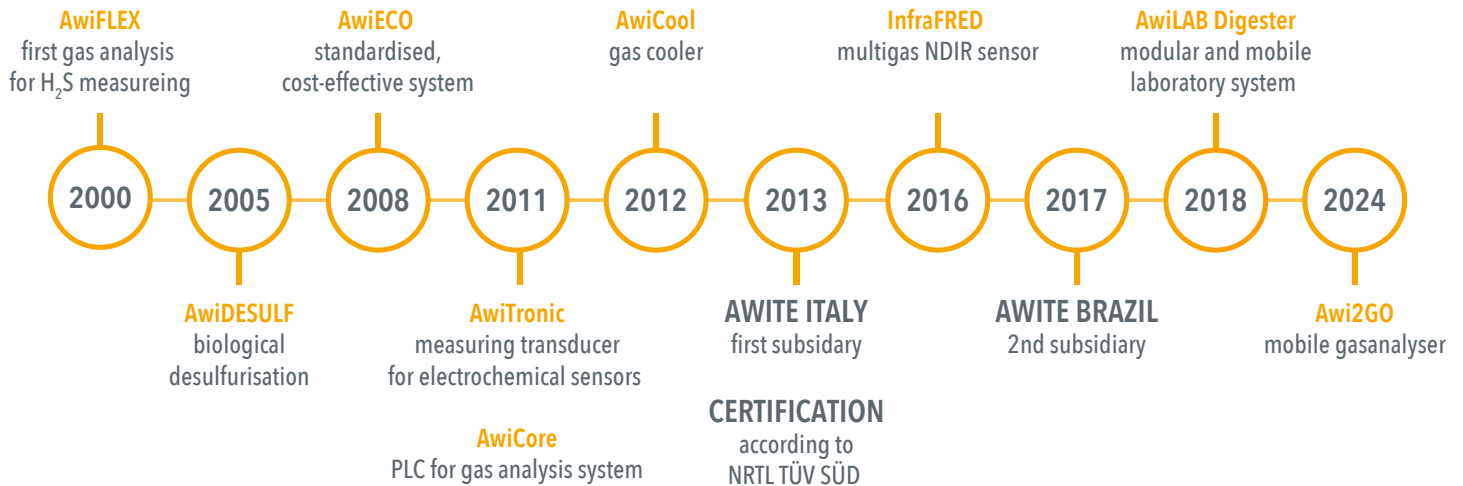
## WHO IS AWITE?

### AWITE – FOR OPTIMUM PROCESSES. TODAY AND TOMORROW!

Quality has always been the focus of Awite. Since the company was founded in 2000, we have been developing, manufacturing, distributing and servicing gas analysis systems for renewable applications of the highest quality according to individual requirements.

During this period, more than 4750 of our gas analysis systems have been installed in more than 80 countries worldwide.

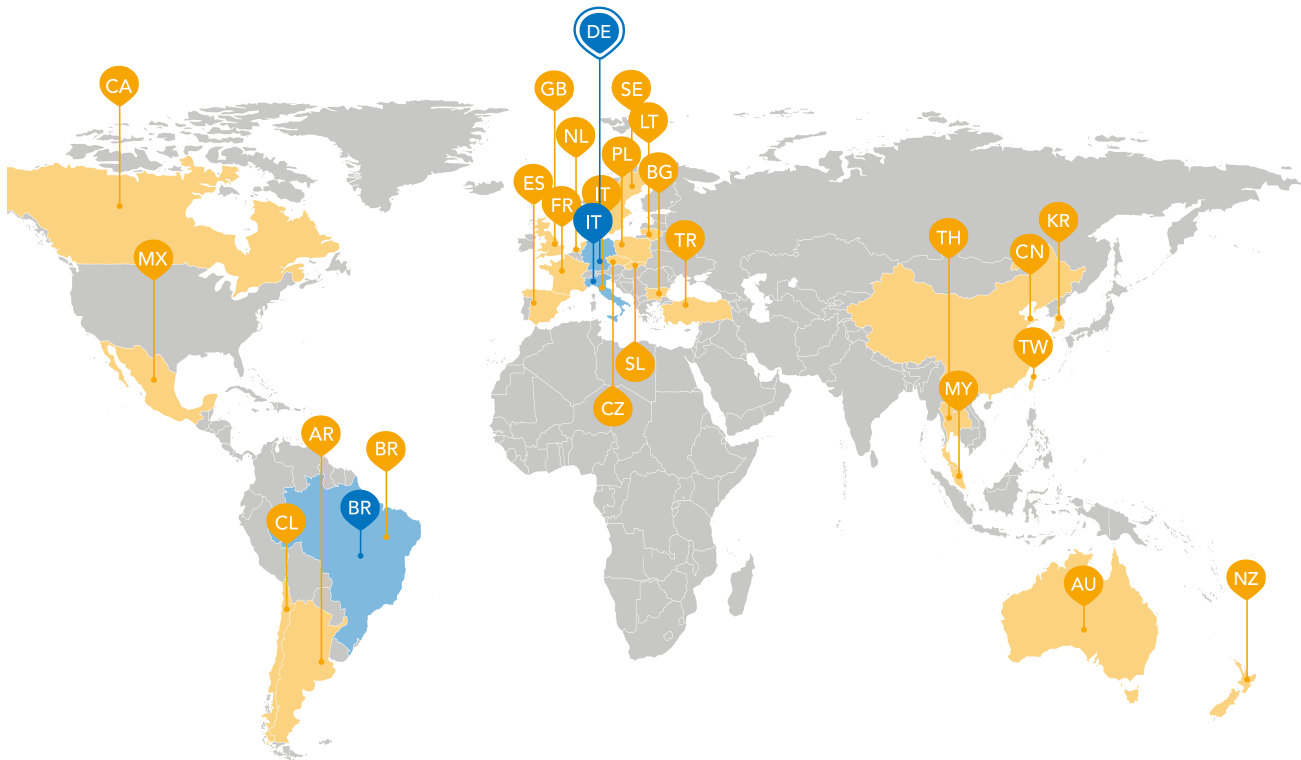
### COMPANY FORMATION



## AWITE – YOUR GLOBAL PARTNER

With our **subsidiaries** and long-term **partner companies** worldwide, we at **Awite** are your competent partner for sales and service of our products. Thanks to our global network, we can offer suitable solutions in more than 40 countries.

Get to know our global team.





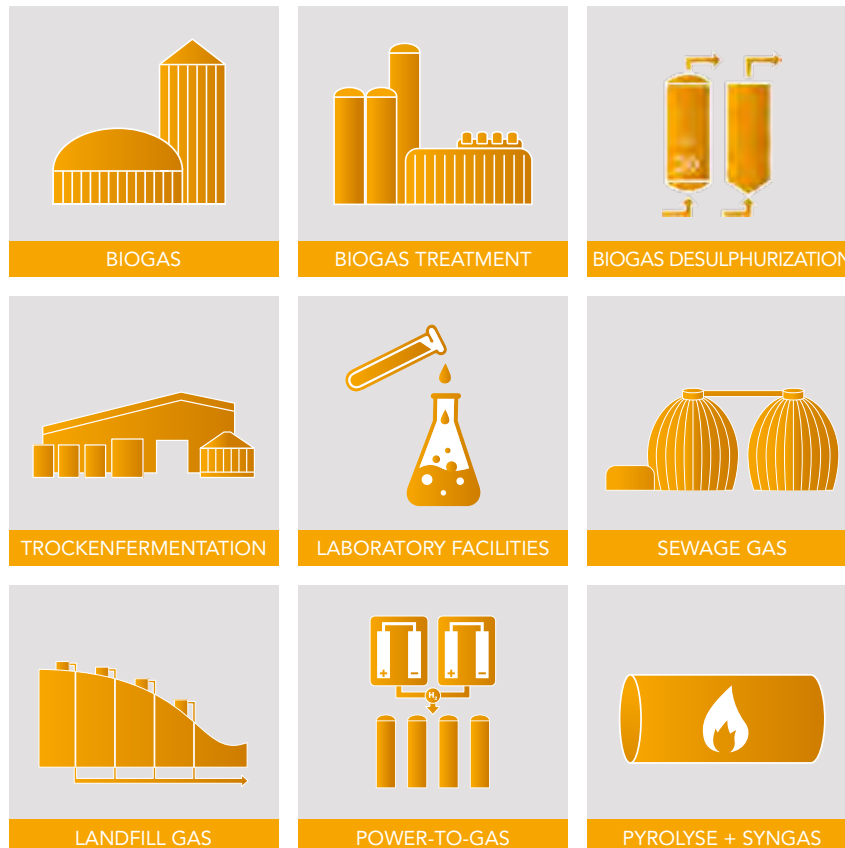
# THE APPLICATIONS



## YOUR APPLICATION, OUR CHALLENGE

Your applications are our challenge, for which we can offer you custom-fit, individual solutions. As long as it's gas, as long as it's renewable – then you've come to the right place.

We are also looking forward to additional and new applications.



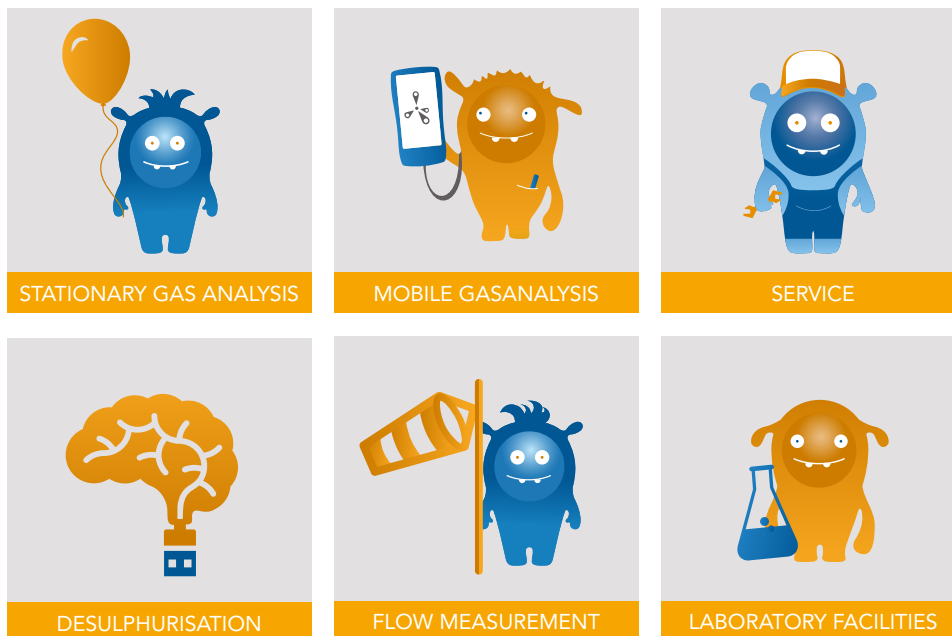


# THE PRODUCTS



## TAILOR-MADE – YOU GET WHAT YOU NEED

For Awite, the requirements of your processes take centre stage. Challenges are what drive us. Not off the shelf, but customised and high quality gas analysis systems with or without measurement technology, or complete laboratory systems, are available from us. We will be happy to take care of you for the long term.



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# STATIONARY GAS ANALYSIS

## COOL FROM NEAR AND FAR:

Access to your process at any time:  
thanks to intuitive operation control via touch  
panel or via remote maintenance while away.

## MORE THAN JUST AN ANALYSIS:

Simply connect the corresponding sensor.  
The gas analysis computes for you at once.  
Calorific value, energy value ...  
whatever you need.

## BIOLOGICAL PROCESS CONTROL:

$\text{CH}_4$  decreases and  $\text{H}_2$  rises? With AwifLEX,  
you have an early warning system.  
For sufficient time to react.

AwifLEX

## GAS ANALYSIS WITH AWIECO AND AWIFLEX

Thanks to comprehensive process control, our gas analysis systems ensure smooth operations as well as the economic usage efficiency of your facilities – permanently. The more accurate and continuous the measurements, the more they prove to be time- and cost-saving factors, as well as an early warning system – for small as well as for large plants.

WANT SOME MORE? We are happy to bundle your complex measuring tasks in just one system. One system for biogas production and refinement, how cool!

Smaller control tasks can be taken over by our gas analysis system **AwiFLEX**.



## AWIECO – COMPACT, AFFORDABLE, STANDARDISED

### PARTICULARITIES

**Measuring points:** 1 measuring point (CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>S) or 2 measuring points (1x H<sub>2</sub>S or 2x H<sub>2</sub>S)

**Closed stainless steel casing:** + safety | + measuring accuracy | + no soiling of

**Touch panel:** + easy operation | + graphical & tabular display | + Multilingual menu navigation

**Interfaces:** all common industrial interfaces

**Certifications:** for the North American market (UL/CSA)

**InfraFRED:** +3 gases = 1 sensor | + more accurate | + thermostatted

### APPLICATION EXAMPLES

Activated charcoal monitoring

Small plants

CHP

Desulphurisation plants



## AWIFLEX – INDIVIDUAL, MULTIFUNCTIONAL, EXPANDABLE

### PARTICULARITIES

**Measuring points:** x measuring points (CH<sub>4</sub>, CO<sub>2</sub>, CO, O<sub>2</sub>, H<sub>2</sub>S, H<sub>2</sub>)

**Maintenance-free gas cooler:** + measuring accuracy | + service life | + no wear

**Closed stainless steel casing:** + security | + measuring accuracy | + no soiling of

**Touch panel:** + easy operation | + graphical & tabular display | + Multilingual menu navigation

**Expandable:** Desulphurization system (AwiDESULF) | + AwiFLOW | + Flow sensors

**Interfaces:** all common industrial interfaces

**Certifications:** for the North American market (UL/CSA), Ex-Zone II, SIL 1 (O<sub>2</sub>)

**InfraFRED:** +3 gases = 1 sensor | + more accurate | + thermostatted

### APPLICATION EXAMPLES

wet- and dry fermentation

WWTP

landfill

laboratory applications

biogas sale

Power-to-Gas

pyrolysis

exhaust gas applications

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# MOBILE GAS ANALYSIS

## INTUITIV & SMART

We bet you don't need any documentation to understand and operate the Awi2GO.

## SWITCH ON & GET STARTED

Just 30 seconds and you're ready to go.

## SAFER SIX

Plug in, start, done. 6 measured values in record time and safe in the Ex zone.



## AWI2GO - YOUR MOBILE COMPANION

### FAST. SMART. SECURE.

Mobile gas analysis made easy – with Awi2GO

#### PARTICULARITIES:

**Archiving and retrieval:** 2,000 plants, 4,000 measuring points, 75,000 measured values, and 5,000 messages

**Better safe than sorry:** Explosion protection for zones 1 & 2

**6 in 1 go:** 6 measured values, CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>S + CO + H<sub>2</sub>, in 60 seconds

**Intuitive & smart:** Touch panel, can be operated like a smartphone

**Data recording:** all values and information can be read out on a PC

**Calibration:** Plug in the gas, receive the measured values, done

**Accessories:** External temperature sensor, calibration set, measuring point connection set

#### WHO NEEDS ME:

Biological service

CHP service

Landfills

Consultants, supervisors, and experts

Small plants

Everybody working on a mobile basis



# DESULPHURI- SATION

## NEVER TOO MUCH O<sub>2</sub> IN THE SYSTEM:

No matter how much gas is produced, AwiDESULF continuously monitors and regulates everything by itself.

## SAFE FROM NEAR AND FAR:

Whether on-site at the intuitive touch panel of the gas analysis or while on the go – you have access at all times.

## SEVERAL FERMENTERS?

No problem. Each fermenter automatically gets what it needs.



## AWIDESULF – INDIVIDUAL, EXACT, AFFORDABLE

### 100 M<sup>3</sup>/H TO 1,000 M<sup>3</sup>/H BIOGAS PRODUCTION

**Automatic control of the air addition:** through a combination of PI control and a higher-level FuzzyLogic

**Control range:** in automatic mode between 0 – 1% O<sub>2</sub> depending on the measured H<sub>2</sub>S concentration (switch-off limit: 2.4% O<sub>2</sub>)

**Individual control** of several fermenters

**Certification:** for the North American market (UL/CSA)

**Pure Oxygen:** System for adding pure oxygen

### REASONS FOR AWIDESULF

Reduction of the H<sub>2</sub>S concentration

Process stability

Minimal operating costs

Regular measurement and O<sub>2</sub> monitoring

Regulates exactly even with fluctuations of the generated gas quantity

Remote maintenance





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# FLOW MEASUREMENT

## REALLY CAUSTIC – SO WHAT?

High resistance of the sensor elements to acid minimises corrosion.

## THE MASS DOES IT!

No pressure dependence thanks to the determination of the gas mass / gas mass flow.

## NO PRESSURE? NO PROBLEM!

Precise measurement at gas velocities from 0.3 m/s with minimum pressure loss.



## AWIFLOW – INTELLIGENT, COMPACT, ROBUST

### BIOGAS, DIGESTER GAS, LANDFILL GAS

Determination of water content, standard flow and energy flow (if applicable)

Simple installation in pipe sizes (nominal widths) from DN 50 to DN 350

Cleaning and replacement of the sensor without loss of gas

High resistance – even with humid gas containing hydrogen sulfide

Increase of the measuring accuracy through calibration with real gas

Compensation of fluctuating gas composition in conjunction with [AwiFLEX](#) & [AwiECO](#)

### REASONS FOR AWIFLOW

Balancing material and energy flows

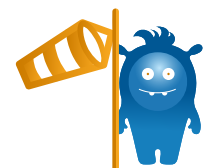
Standard flow determination by means of integrated moisture correction

Possibility for documenting amount of gas produced

Monitoring of process stability

Approval ExZone 1

Can be used anywhere thanks to low pressure loss, wide temperature range and high resistance



# LABORATORY FACILITIES

1, 2, 3,...

How many fermenters do you need for your laboratory? AwiLAB Digester is modular and sustainable.

THEORY OR PRACTICE?

Easy handling for all – Plug and Play

WHAT'S IN IT?

In my substrate? Novel mixtures, unknown substrates, enzymes, and additives.

Let yourself be surprised by what they do.



# LABORATORY TESTS WITH AWILAB DIGESTER

## STAND ALONE OR MODULAR WITH UP TO 7 FERMENTERS

High-quality industrial design of the entire system

Fully integrated gas analysis system [AwiFLEX](#)

Interval stirring and continuous mixing even for high TS contents

Different modes configurable for inoculum adaptation, degassing phase and conducting experiments

## STANDARDISATION OF GAS YIELDS

**Integrated safety:** Overpressure protection, leak test, monitoring of current consumption agitator, alarm, error messages

**Generous sensor technology on board:** such as fermenter temperature, flow measurement, gas composition and additionally individually expandable (e.g. pH, redox, ...)

**Overload detection** of process and inhibiting gases such as  $H_2$  and  $H_2S$

**Scientific data analysis** with [AwiCharts](#) or [AwiView](#)

**Remote maintenance** with [AwiRemote](#)

## APPLICATION EXAMPLES

Continuous laboratory experiments

Biogas yield

Gas composition

Volumetric load

Inhibition of bacterial activity

Additive tests & enzyme tests



# SERVICE

## ALWAYS THERE FOR YOU:

Guaranteed professional support  
by our trained service staff.  
By phone, remote, or on site.

## PERSONALLY ON SITE

### AND ALWAYS EVERYTHING ON BOARD:

Calibration gases, spare parts and a good mood  
are included as standard.

## AWIREMOTE – PLUG IN, ALWAYS ONLINE:

Whether you as operator or we as service team;  
whether on-site, in the office, or on the road  
– always online.





## AWIPLUS – SEAMLESS SUPPORT

In order for you to enjoy your Awite gas analysis system for many years, we or our trained partners are happy to support you on site, by telephone, remote maintenance or email.

We recommend an annual routine check of the systems combined with a calibration of the sensors. We are happy to provide all spare parts at economical conditions. Uninterrupted, safe operation of the Awite systems is important for the operation of your plant.

We are proud to support you!

Ask us or your regional Awite partner for detailed information.

It is our great pleasure to work with you on a long-term basis.



# CONTACT

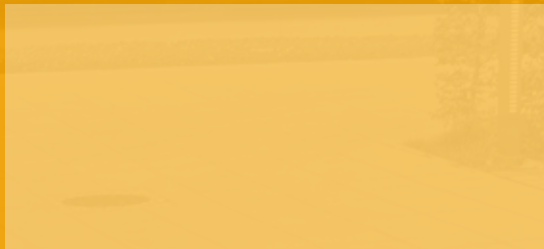
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