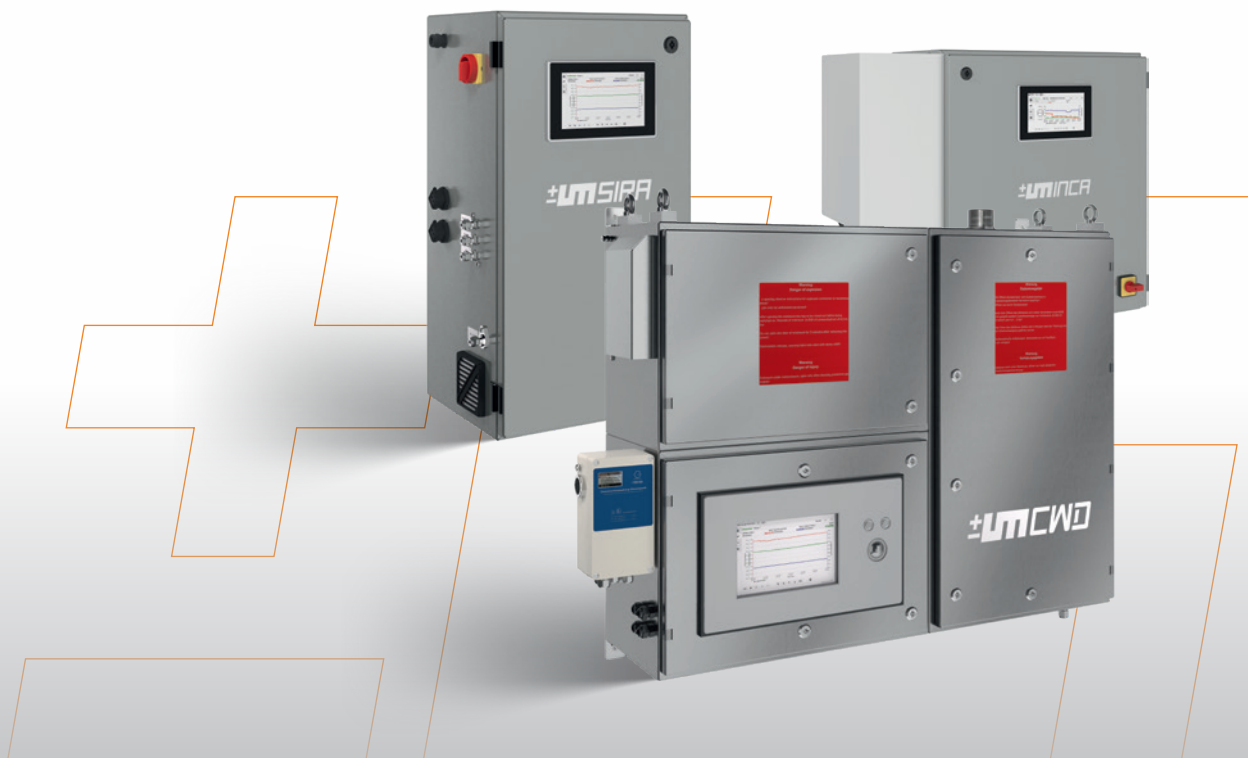


UNION

Shaping the Future of Gas Analysis.



Foreword

Shaping the Future of Gas Analysis

Quality for over 100 years

For over 100 years, UNION Instruments has stood for precision, reliability, and technical innovation in gas measurement technology. Our products and system solutions are used worldwide – wherever processes need to be monitored safely, efficiently, and in compliance with standards.

With this brochure, we would like to give you a concise insight into our company, our technologies, and our fields of application. You will learn what defines UNION Instruments, what our customers have trusted for decades – and why we today, more than ever, are a reliable partner for industry, research, and energy supply.

Whether standard solution or custom system integration: our goal is to provide you with the right solution for your measurement task – reliable, sustainable, and forward-looking.

We look forward to exchanging ideas with you.

Your **UNION** Instruments Team



Precise measurement technology,
sustainably excellent.

About UNION Instruments

Gas measurement technology for over a century.

Expertise

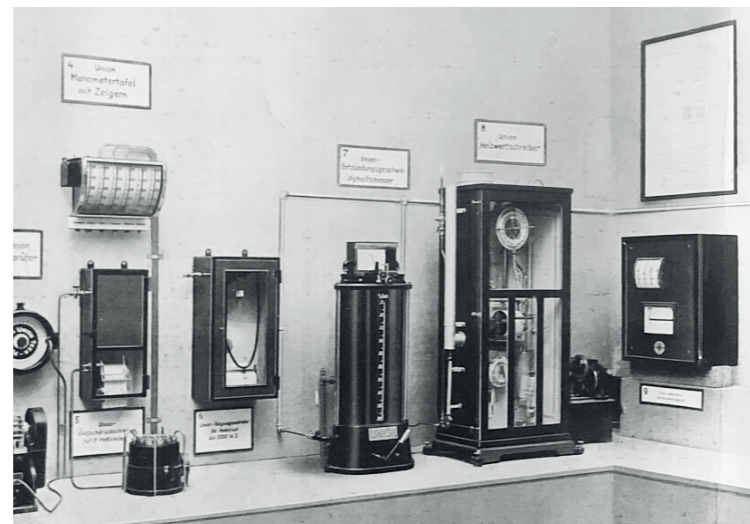
Measurement with precision – since 1919.

UNION Instruments is a globally active specialist in measurement technology for gas analysis and process monitoring. Since our founding in 1919, we have been developing precise and durable measuring instruments and system solutions for industrial applications – always with the ambition to make technical processes safer, more efficient, and more sustainable.

Our portfolio includes instruments for gas composition analysis, calorimetry, leak testing, and pressure monitoring. Typical applications are found in energy supply, the chemical and petrochemical industries, biogas and hydrogen production, as well as in research institutions and laboratories.



Application example: Biogas



Beginnings of UN



Intelligent measurement technology. Reliable solutions.

Our devices and systems are used wherever gases need to be analyzed, processes monitored, or safety-relevant parameters continuously recorded – both in industrial processes and in laboratory environments. In addition to high measurement accuracy and durability, we place particular emphasis on system integration and flexible adaptation to individual requirements.

A key feature of UNION Instruments is the combination of robust hardware with intelligent software.

Our products deliver precise measurement data and enable comprehensive data analysis as well as process optimization – locally or via remote access. In this way, we help our customers make their operations safer and more efficient.

Especially in complex or customized applications, our technical depth becomes evident: many devices are tailored to specific projects in close collaboration with users. This ensures practical, reliable, and future-proof measurement technology.

Our portfolio also includes comprehensive service offerings – from commissioning and training to maintenance and repair. Even after purchase, we remain reliably available to our customers through a global support network.

As an independent company with over 100 years of experience, we combine continuity with innovation. Our customers know: UNION Instruments delivers not only measuring devices, but solutions they can rely on.



Applications

At home in many industries.



Iron and steel production



Biogas



Petrochemicals and refineries



Glass and ceramics



Natural gas



Generating energy from waste

Versatile in use. For industry-specific applications.

Our measurement technology is used across numerous industrial sectors – wherever gases need to be precisely analyzed and processes reliably monitored.

Our customers' requirements are as diverse as their applications. That is why we offer not only standardized solutions, but also customizable systems tailored to industry-specific conditions.

Individually customizable. Seamlessly integrable.

Whether in continuous production operations or flexible application scenarios – our measurement systems impress with reliability, accuracy, and durability. They can be easily integrated into existing plant infrastructures and offer a wide range of interfaces for connection to modern process control

systems. Thanks to their modular design and flexible configuration options, we can specifically address industry-specific requirements. This results in solutions that meet technical standards – and often exceed them.

Reliable – even under extreme conditions.

Our devices are designed for everyday industrial use: they deliver precise measurement results – even under strong temperature fluctuations, in dusty environments, or under high mechanical stress.

Whether in stationary continuous operation or for temporary measurement tasks – our technology is engineered to perform reliably even under demanding conditions. Thanks to their robust design, intelligent system architecture, and well-considered service concept, our systems remain dependable in long-term use – regardless of the location.

Sustainability

Technology that makes industry more sustainable.

For the sake of the environment

Reliable measurement technology for the energy transition.

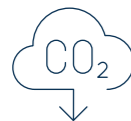
Sustainability does not start with the product, but with the process. Energy efficiency, emission reduction, and the use of alternative energy sources are not just buzzwords, but concrete challenges for manufacturing companies worldwide. Anyone aiming to design processes sustainably must be able to understand and continuously monitor them with precision.

UNION Instruments provides the measurement technology required for this – robust, precise, and proven in practice. Our systems capture key parameters such as calorific value, gas composition, pressure, and temperature – reliably and in real time. This generates robust data that enables more efficient plant control, resource conservation, and active emission reduction.

Whether in biogas plants, steel production, or thermal waste treatment – our technology is used wherever sustainability depends on control.



Think sustainably



Reduce CO₂ emissions



For the sake of the environment



The key to decarbonization.

With our multi-gas analyzers, operators of biogas and sewage gas plants can precisely analyze gas composition, monitor quality, and optimize grid injection accordingly.

Our calorimeters enable accurate determination of energy content – essential for optimized energy use and transparent billing models.

In energy-intensive industries such as glass, ceramics, and petrochemicals, our systems support targeted control of gas flows, help minimize losses, and enable data-driven optimization – an important lever on the path toward lower CO₂

emissions. Our devices are durable, low-maintenance, and designed for long service life – an often overlooked contribution to resource conservation.

Shaping the future means taking responsibility. As a medium-sized company based in Germany, we continuously invest in research and development – with the goal of making our products even more efficient, more resource-saving, and more intelligent.

We do not think in quarters, but in generations – just like many of our customers.



Biogas



Generating energy from waste

Product series

CWD, INCA and SIRA

Discover our product series.

We offer an extensive range of innovative measurement technology. This includes gas analyzers and multi-gas analyzers.



±UMCWD



- CWD Basic
- Basic version
 - GP analyzer



- CWD Plus
- GP analyzer



- CWD DPC
- Class 1 Div 2 Groups B, C, D T4 Type z-pur.



- CWD SPC
- Class 1 Div 2 Groups B, C, D T4 Type z-pur.



- CWD EXP
- ATEX: II 2G Ex pxb IIC T4 Gb
 - IECEx: Ex pxb IIC T4 Gb



- CWD HT
- Heated for light gases Dew point ≤ 60 °C

±UMSIRA



- SIRA ROA Premix
- Residual oxygen
 - R O₂ excess, fuel excess



- SIRA CH₄ low
- CH₄ 0–10.000 ppm

±UMINCA



- CAM
- Compact Analyzer Module



- INCA3000
- Display
 - Housing



- INCA4000
- Display
 - Housing
 - Sample gas cooler



- SIRA UV THT
- THT



- SIRA UV VOC
- VOCs



Services

Proven for over 100 years.

Services

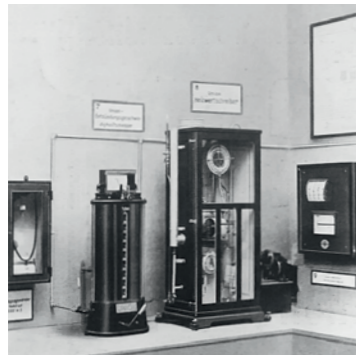
We offer comprehensive services covering the entire lifecycle of our measurement and analysis equipment. From initial consultation and commissioning through to regular maintenance and calibration, we support our customers reliably and in a highly practical manner.

Training, on-site technical support, as well as tailored software solutions for data evaluation and system integration are also part of our service portfolio.

Our goal is the long-term precise, efficient, and safe operation of installed measurement technology – adapted to individual requirements and industry-specific standards.

Keyfacts

Over 100 years of expertise – in numbers.



> 100

Years of experience

A reliable partner for industrial measurement technology since 1919.

> 100.000

Installed devices

Robust, durable, low-maintenance – designed for continuous operation.

> 30

Employees in Germany

Development, manufacturing, and support – all from a single source.

> 60

Countries

Products and systems in worldwide use.

1 Goal

Precision

Precise measurement for sustainable industrial processes.





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