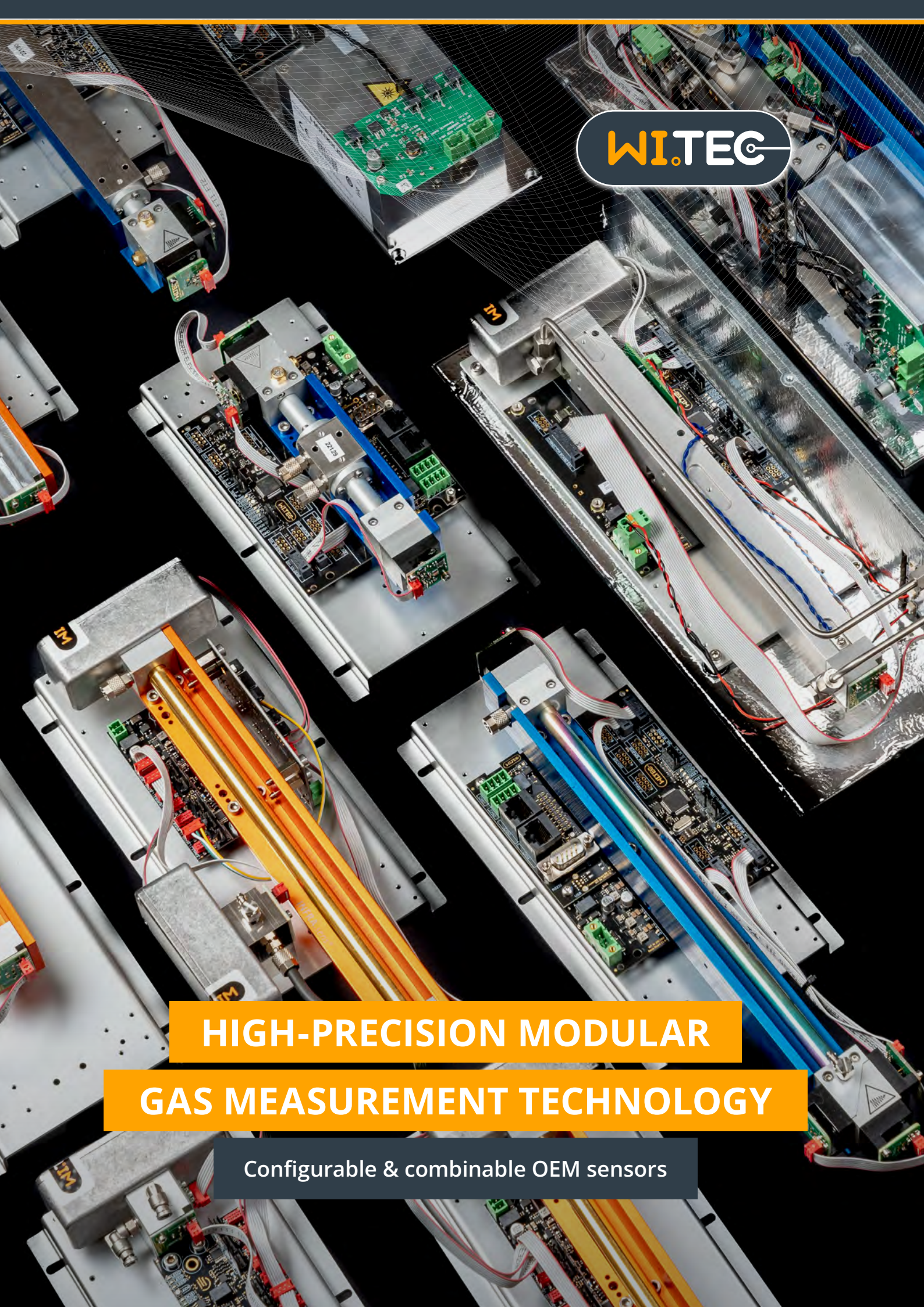


HIGH-PRECISION MODULAR GAS MEASUREMENT TECHNOLOGY

Configurable & combinable OEM sensors

WI.TEC

THE GAS MEASUREMENT COMPANY

'CAUSE IT MAKES .SENS

Quality Management
ISO 9001
www.dekra-seal.com
DEKRA certified

Wi.Tec-Sensorik GmbH, Schepersweg 41-61, 46485 Wesel, Germany
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Editorial



Dipl.-Ing. Sebastian Wiegleb Prof. Dr. Gerhard Wiegleb

Our vision for the future is to provide appropriate measurement technology that will help to master the challenges in the energy and environmental sector in an intelligent and sustainable way.

Wi.Tec-Sensorik GmbH is a high-tech company specializing in the development, manufacturing, and distribution of precision gas measurement modules. Our mission is to transform individual customer requirements into scalable series products. At our in-house development center, we combine expertise in sensor technology, mechanical engineering, and hardware/software design. Using state-of-the-art software tools, we continuously refine and optimize our solutions.

All products are manufactured exclusively in Germany, supported by strong, long-term partnerships with trusted local suppliers.

Ongoing innovation is driven by government-funded R&D programs, ensuring cutting-edge technology.
The company is founder-led and remains majority-owned by the founding family.



We carry on where others stop!

Wi.Tec-Sensorik possesses deep expertise in gas measurement technology and signal processing. We develop and manufacture high-performance gas measurement modules for use in analytical instruments, process control systems, and monitoring applications.

Our proprietary NDIR and NDUV technologies form the core of our solutions, enabling the precise detection of almost all IR- and UV-active gases down to the low ppm range.

A key strength is our customer-focused application analysis, where we collaborate closely with clients to develop tailored solutions that are scalable for series production.

Research, development, and manufacturing are all housed at a single location, ensuring flexibility, fast response times, and consistently high product quality. Our products are engineered to push the boundaries of physical measurement.

In addition to IR and UV photometers, we offer a broad portfolio of complementary sensors for temperature, pressure, humidity, and oxygen – seamlessly integrable with our photometric modules.

Founded in 2014 by Prof. Dr. Gerhard Wiegleb and Dipl.-Ing. Sebastian Wiegleb in Schermbeck, Germany, **Wi.Tec-Sensorik** is still managed by its founders.

In 2025 we are doubling our production and office space to 1,000 sqm to meet growing demand and support ongoing innovation.

Our processes are certified according to ISO 9001, reflecting our commitment to quality, reliability, and continuous improvement.

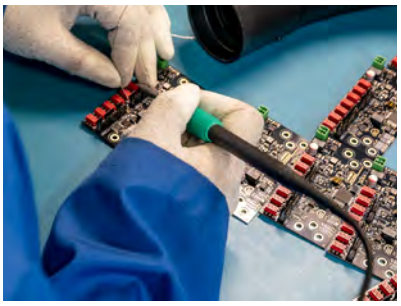
We already cover standardized measurement tasks with our highly developed, up-to-date gas sensors.

In the spectral range from 214 nm (UV) to 12 µm (IR), our current products **INFRA.*sens*®** *and* **ULTRA.*sens*®** *are able to detect and evaluate in detail almost all important gases.*

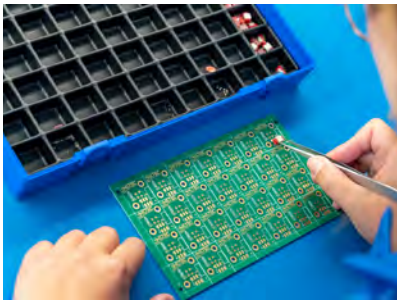
»Standard can do some – we can do more!«















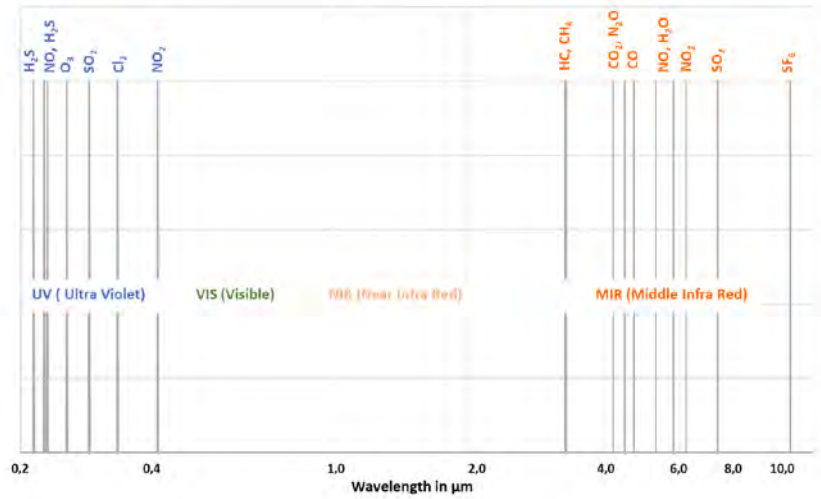
Modular sensor design

To ensure maximum flexibility in adapting gas analysis to specific measurement tasks, our sensor components are designed in a modular architecture. This has resulted in a versatile “modular system” in which core photometric elements – such as detectors, emitters, and sample cells – can be easily interchanged.

Standard sample cells are made of stainless steel with bright gold coating or passivated stainless steel, with other materials available for specialized applications.

This advanced sensor design allows customer-specific solutions to be implemented without requiring a complete redesign. The modular setup also simplifies maintenance and part replacement, significantly reducing downtime and follow-up costs compared to fully bonded sensors, which must be replaced as entire units – impacting total cost of ownership.

As an option, our gas measurement modules can be expanded with integrated pressure (**P.*sens***), oxygen (**O2.*sens***), or humidity (**HUMI.*sens***®) sensors for additional measurement capabilities.

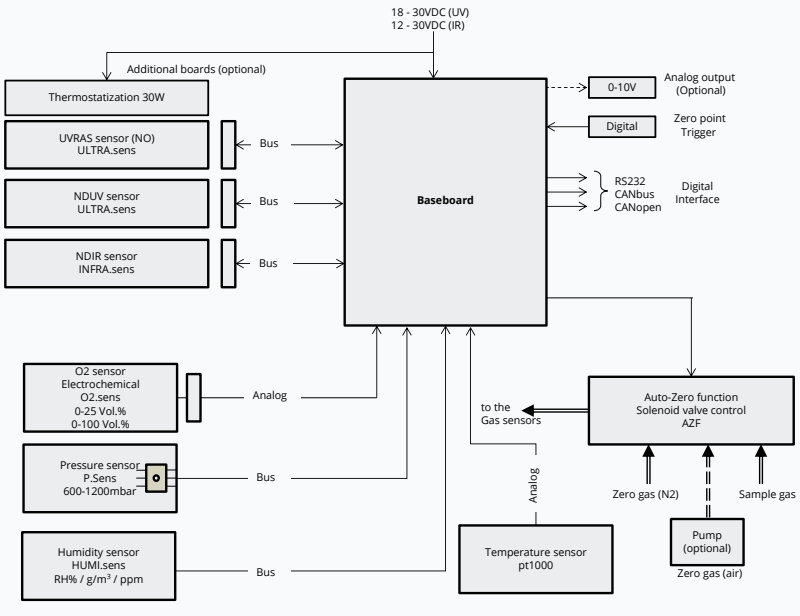


Analyze up to 4 different gases with only one module!

ZIM Zentrales Innovationsprogramm Mittelstand
Bundesministerium für Wirtschaft und Energie

Please note: All content of this brochure is subject to change without notice.

System overview – all possibilities in one diagram

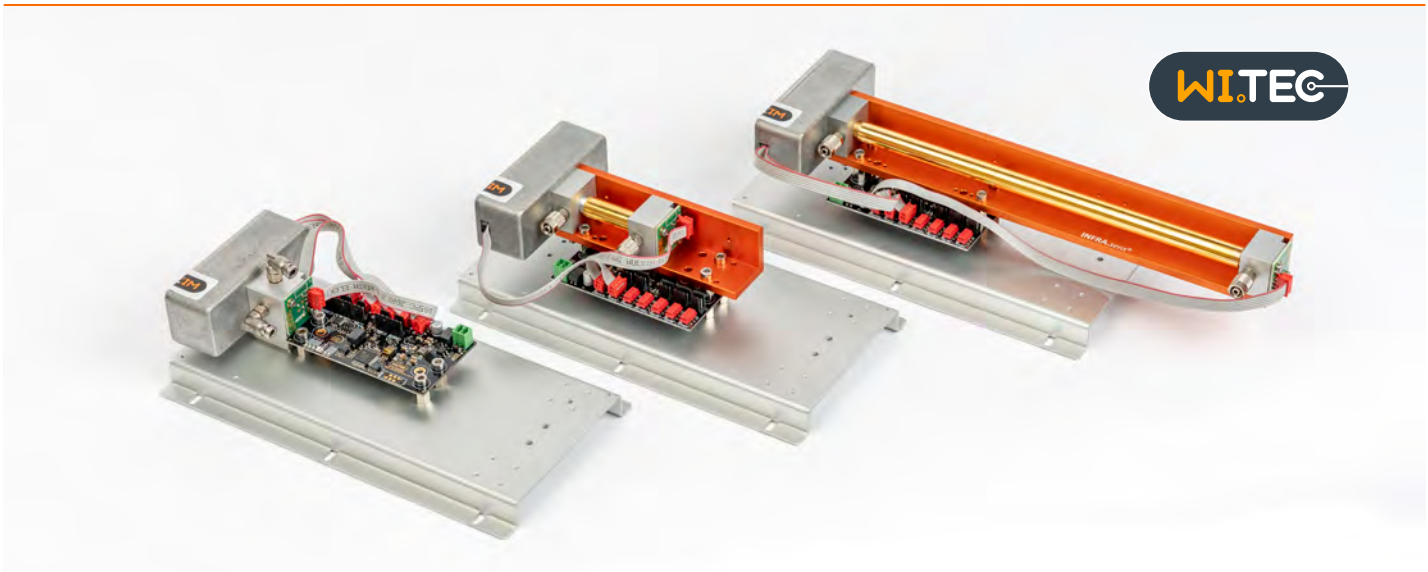


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https://www.witec-sensorik.de/en/gas-sensors/

INFRA.*sens*®

CH_4 CO_2 CO N_2O C_nH_m CF_4 SF_6 H_2O



INFRA.*sens*® AK5 compact // **INFRA.*sens*®** AK20G compact // **INFRA.*sens*®** AK250G compact

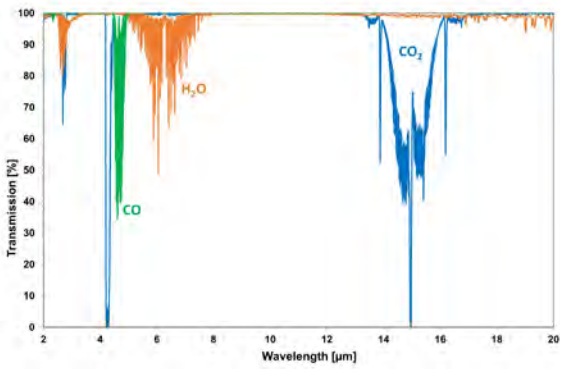
NDIR sensor technology pushed to the limits

The **INFRA.*sens*®** series was specifically developed for high-precision NDIR gas analysis. During the design phase, special attention was given to achieving exceptional stability and a low detection limit. These goals were fully realized through the integration of high-performance thermal micro radiators and detectors, tailored to the unique demands of gas measurement technology.

The **INFRA.*sens*®** platform allows for flexible module configurations with sample cell lengths ranging from 2 mm to 250 mm. Operating within the spectral range of 2 µm to 12 µm, it enables reliable detection of gases such as carbon dioxide, carbon monoxide, hydrocarbons, nitrous oxide, sulfur hexafluoride, and tetrafluoromethane – covering concentrations from 100 vol.% down to the low ppm range.

This combination of robust hardware and advanced signal processing ensures outstanding performance across a wide range of applications.

Typical infrared spectra with some examples of measured gases



Applications

- TOC Analysis
- Medical (Breath Analysis)
- Biogas Monitoring
- GIS Monitoring
- Natural Gas Monitoring
- Humidity Measurement
- Continuous Emission Monitoring

Features & Benefits

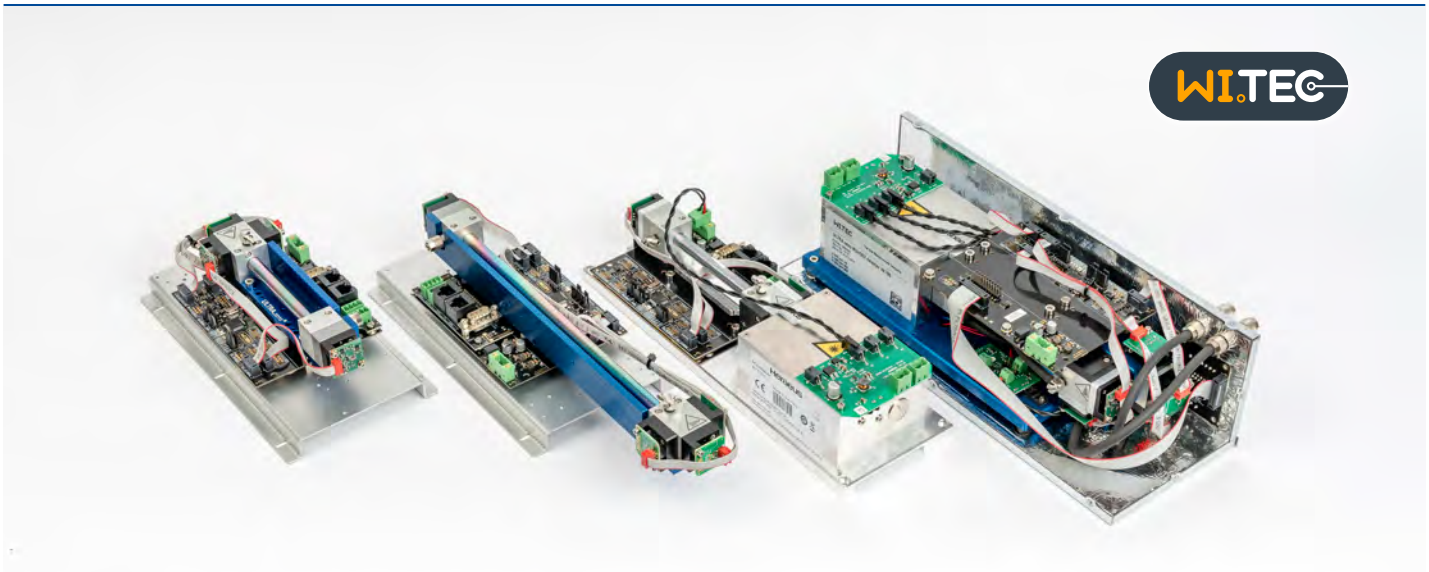
- Gold plated sample cell
- Response time: t90 < 1,5 s
- High dynamic range: 1:100
- Temperature range: 5 °C - 45 °C
- Power consumption: < 5 W @12 V (with basisboard IR-compact)
- Communication: RS232 , CAN bus
- Analog output (0 - 10 V) as an option

The most recent version of this content can be found online at ...

https://www.witec-sensorik.de/en/products/infra.sens/

ULTRA.*sens*®

O_3 Cl_2 ClO_2 SO_2 NO_2 NO H_2S



ULTRA.*sens*® AK100 // **ULTRA.*sens*®** AK250 // **ULTRA.*sens*®** H_2S-AK100 // **ULTRA.*sens*®** NO_x/SO_2-AK100 TBH

NDUV sensor technology at an enormous variety

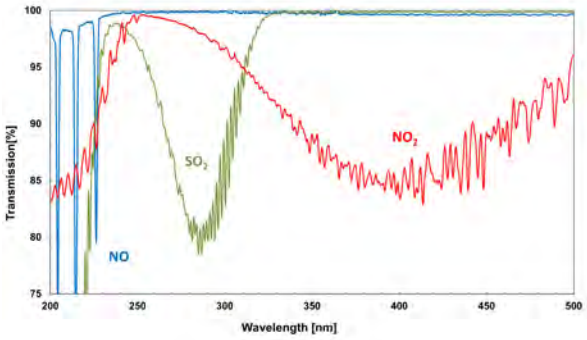
The **ULTRA.*sens*®** is the world's first OEM gas measurement module based on miniaturized UV LEDs. The long-term stability and extended lifetime of these LEDs enable ultra-precise gas detection down to the ppb range. By integrating two UV LEDs, the module can simultaneously detect two gases – or implement dual measuring ranges from ppm to vol%.

For the measurement of NO and low concentration of H_2S, an electrode-less discharge lamp (EDL) is used. Combining both technologies – UVRAS and UV LEDs – enables simultaneous analysis of NO, NO_2, and SO_2 in the lower ppm range, making the **ULTRA.*sens*®** particularly well-suited for flue gas monitoring and continuous emissions measurement (CEM).

The **ULTRA.*sens*®** series operates in the spectral range of 200 nm to 500 nm, offering unmatched performance in compact form for demanding gas analysis applications.

Applications

- Elemental Analysis
- Continuous Emission Monitoring
- Biogas Monitoring
- Process Gas Analysis
- Sterilization Monitoring



Typical ultraviolet spectra with some examples of detectable gases

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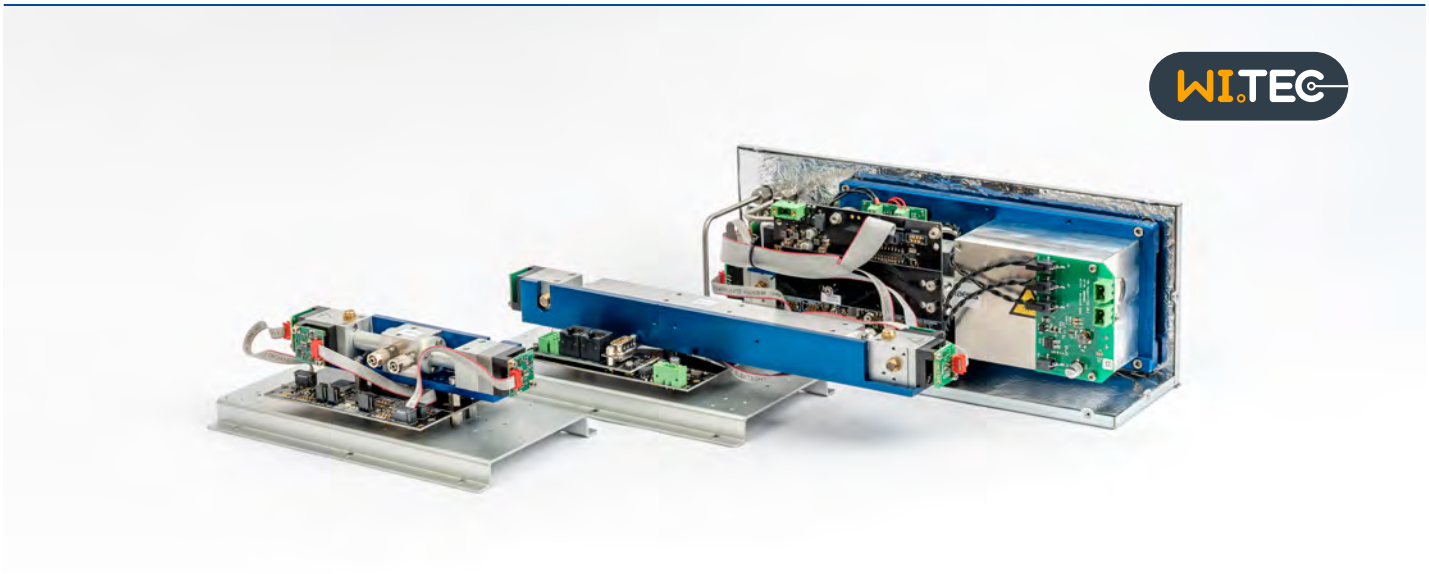
https://www.witec-sensorik.de/en/products/ultra.sens/

Features & Benefits

- Coated stainless steel sample cell
- Fast response time: t90 < 1 s
- High dynamic range: 1:100
- Temperature range: 5 °C - 45 °C
- Power Consumption: < 3 W @24 V
- Communication: RS232 , CAN bus
- Analog output (0 - 10 V) as an option
- Combination of 2 optical measuring paths to 1 basis board (**KOMBI.*sens***)

ULTRA.*sens*® *processline*

O_3 Cl_2 H_2S SO_2 NO_2 NO



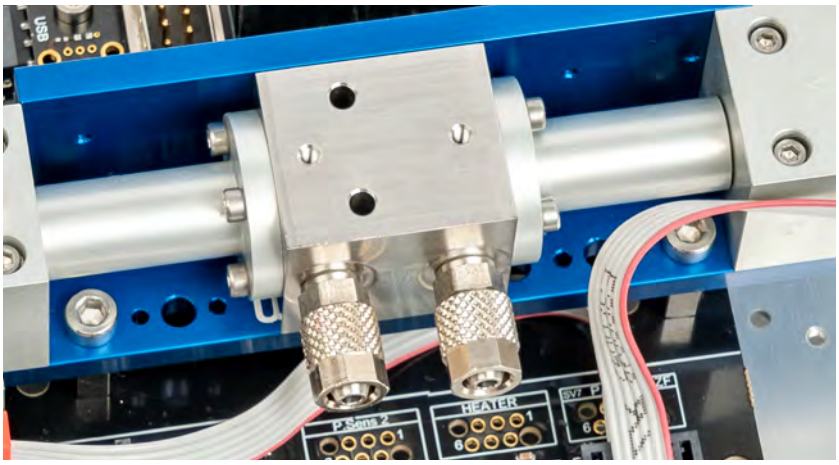
ULTRA.*sens*® *processline* AK25 & **ULTRA.*sens*®** *processline* AK200 & **ULTRA.*sens*®** *processline* NO_x/SO_2-AK50 TBH piped

NDUV sensor technology now ready for corrosive gases

In many areas of process engineering, reactive gases serve as essential starting materials for chemical reactions. These gases are often corrosive, requiring the use of specially selected materials. In process measurement applications, such gases are typically monitored using specialized photometers installed outside the immediate process environment.

As a result, the process gas comes into contact with all materials along the transport path to the sample cell.

This makes it essential to adapt both the design of the gas pathways and the sample cell itself to meet the specific chemical and physical requirements of the application.



Applications

- Process Gas Analysis
- Petrochemical
- Electrolysis
- Sterilization Process
- Process Engineering

The example on the left shows a 25 mm stainless steel sample cell, fully sealed with O-rings and designed for easy, adhesive-free disassembly. This allows for quick access and efficient cleaning while ensuring gas-tight integrity—ideal for demanding industrial environments.

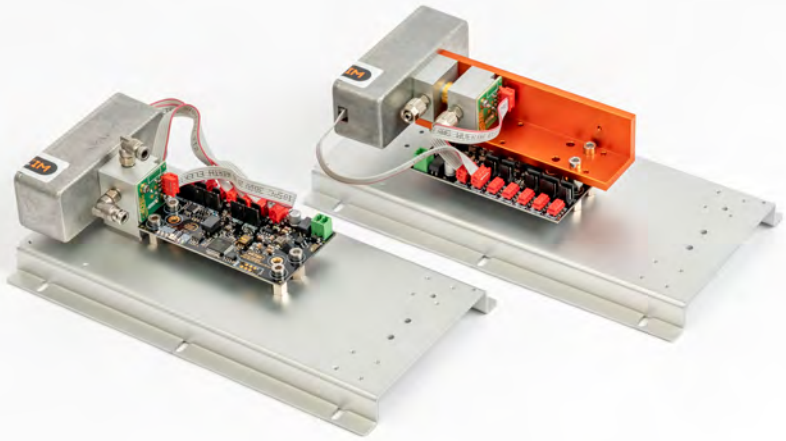
Features & Benefits

- Gas-tight connection technology
- Different materials available
- Long term stability
- Fast response time
- Customized version available
- Tube Diameter 6mm
- Modules ready for piping

The most recent version of this content can be found online at ...

https://www.witec-sensorik.de/en/products/ultra.sens-processline/

Gas Insulated Switchgear Monitoring SF_6 CF_4 CO CO_2 SO_2



INFRA.*sens*® AK2/µP compact // **INFRA.*sens*®** AK20G compact

To save the atmosphere – for quality and leakage measurement



In gas-insulated high- and medium-voltage switchgear, sulfur hexafluoride (SF_6) is widely used as an insulating and arc-quenching gas.

Its chemical inertness and high density – approximately five times that of air – make it ideal for rapidly interrupting high short-circuit currents and extinguishing arcs within milliseconds.

For monitoring and quality control of SF_6, the **INFRA.*sens*®** SF6-AK2 / µP module offers reliable detection across the full concentration range up to 100 vol.%. Due to the gas's high density, a specialized linearization process is applied, including compensation for pressure, zero-point temperature, and end-point temperature.

Given SF_6's high global warming potential (GWP), leak detection is a critical application. **Wi.Tec**'s technology enables high-sensitivity measurements down to the ppm range – also fully compensated for temperature and pressure.

As the industry shifts toward alternative insulating gases such as CO_2 and NOVEC 4710, the **INFRA.*sens*®** platform is already equipped to measure these as well. Additionally, it can detect key reaction byproducts like CO, H_2S, and SO_2 within the insulating gas environment.

The most recent version of this content can be found online at ...

https://www.witec-sensorik.de/en/applications/gis-monitoring/

Features & Benefits

- Detection limit (3 sigma) < 0.1 vol.%
- Linearity error < 0.5 % FS (Fullscale)
- Including Temperature-compensation 5 - 45 °C
- Including pressure compensation 300 - 1,200 mbar
- Ready to use module

Wastewater Treatment Plants

CO_2 CH_4 N_2O



INFRA.*sens*® AK250GC TBH V5 – the picture shown is only a reference, the actual product may differentiate inside.

Advanced Gas Analysis for Wastewater Treatment



Nitrous oxide (N_2O), methane (CH_4), and carbon dioxide (CO_2) are key greenhouse gases generated in significant quantities during wastewater treatment.

Wi.Tec offers a highly accurate, long-term stable multi-channel NDIR gas analyzer – **INFRA.*sens*®** – specifically designed for this critical application.

N_2O emissions from wastewater treatment plants show substantial daily and seasonal variations. Due to these spatial and temporal fluctuations, continuous long-term online monitoring is essential. Exhaust gas monitoring systems based on NDIR technology provide an ideal solution, offering low maintenance requirements and high temporal resolution.

Moreover, process emission monitoring enables precise quantification of oxygen transfer during biological treatment, leading to optimized processes and considerable energy savings.

Features & Benefits

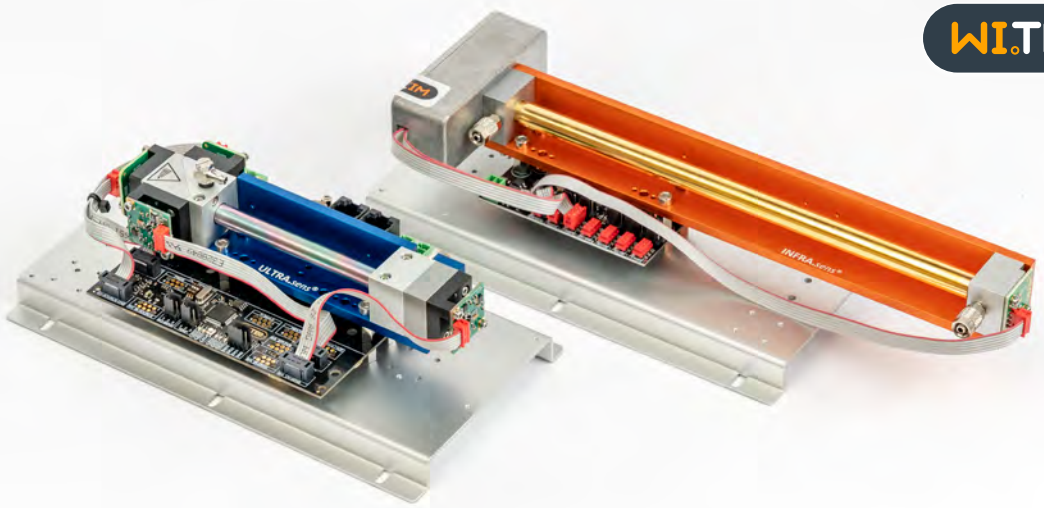
- Simultaneous gas analysis of nitrous oxide N_2O, methane CH_4, carbon dioxide CO_2 and oxygen O_2
- Continuous gas measurement (Real Time Monitoring)
- High-precision analysis technology
- Low maintenance costs

The most recent version of this content can be found online at ...

https://www.witec-sensorik.de/en/applications/wastewater-treatment-plants/

Elemental Analysis

CO CO_2 SO_2 SO_2



ULTRA.*sens*® AK100 // **INFRA.*sens*®** AK250G compact

High precision leads to higher quality



In chemistry, quantitative elemental analysis refers to the precise measurement of key elements – carbon (C) and hydrogen (H) – which are the primary constituents of all organic compounds, along with essential hetero-atoms such as nitrogen (N), oxygen (O), sulfur (S), and occasionally phosphorus (P) and halogens (F, Cl, Br, I).

Commercial CHNS elemental analyzers operate on the principle of combustion analysis. A carefully weighed sample is introduced into a combustion tube via a sample lock and burned at temperatures up to approximately 1400 °C in the presence of pure oxygen (O_2). The resulting gaseous oxidation products are carried through the analyzer by an inert carrier gas.

To remove nitrogen oxides (NO_x) formed during combustion and excess oxygen, the analysis gas passes over heated copper granules, converting NO_x to nitrogen (N_2) and eliminating remaining O_2. This leaves only the target gases – N_2, CO_2, H_2O, and SO_2 – in the helium carrier stream.

At this stage, **Wi.Tec**'s **ULTRA.*sens*®** and **INFRA.*sens*®** sensors perform selective and quantitative detection of carbon (as CO_2) and sulfur (as SO_2). These precise measurements enable reliable determination of the sample's elemental composition.



Combinable to **KOMBI.*sens*** *CO_2/SO_2-AK250G/AK100*

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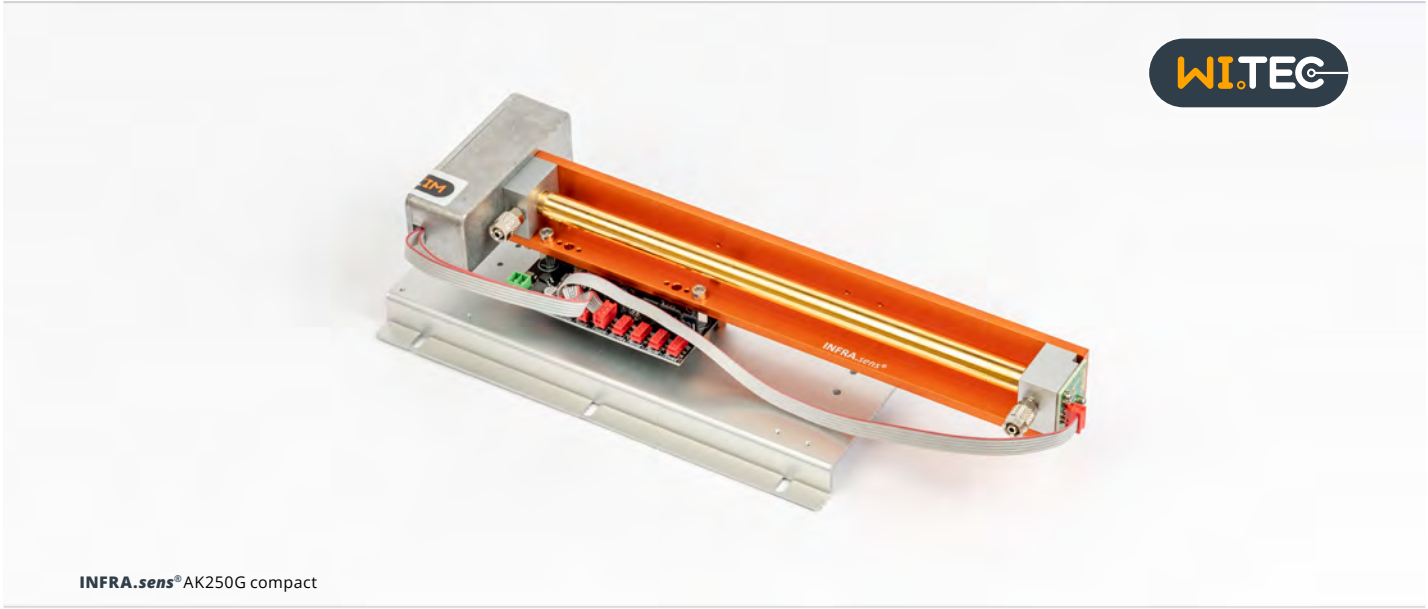
https://www.witec-sensorik.de/en/applications/elemental-analysis/

Features & Benefits

- Area saving solution for 2 gases with best technology selection (NDUV & NDIR)
- Data rate of 100ms possible
- Correction algorithm for SO_2 to CO_2 and vice versa
- Long lifetime of radiation source
- SO_2 measurement possible with NDIR as well as NDUV

TOC Analysis

CO_2



INFRA.*sens*® AK250G compact

For a better environment – one module all ranges

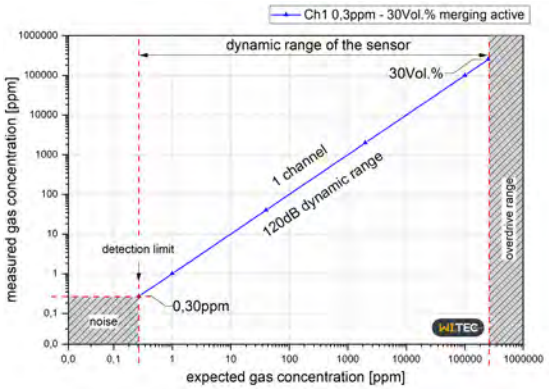


Water in the environment appears in many forms – such as drinking water, wastewater, and cooling water – each with distinct quality requirements. Organic impurities dissolved in water can significantly degrade its quality and must be assessed both qualitatively and quantitatively.

To analyze these organic components, a small volume of the water sample is introduced into a thermal reactor, where it is oxidized to CO_2. The resulting CO_2 concentration is then precisely measured at the reactor outlet using a **Wi.Tec** sensor.

This enables accurate determination of the Total Organic Carbon (TOC) content in the sample.

High-performance measurement is achieved using separate calibration curves for low and high concentration ranges. Both ranges are seamlessly combined into a single output channel via **Wi.Tec**'s proprietary merge algorithm – greatly simplifying system integration and signal evaluation when analyzing unknown samples.



Features & Benefits

- One channel output for 0 - 30 vol.% with accuracy of < 1 ppm
- 2 sample cell version for different gas path available with only one module
- Data rate of 100 ms possible

The most recent version of this content can be found online at ...

https://www.witec-sensorik.de/en/applications/toc-analysis/

Exhaust Gases CEMS (Maritime)

CO CO_2 N_2O NO_x SO_2



ULTRA.*sens*® NO_x / SO_2-AK100 TBH

Environmental Monitoring must not be expensive

Combustion processes used for generating electrical energy and heat produce a variety of gaseous components, including carbon monoxide (CO), carbon dioxide (CO_2), hydrocarbons (HC), nitrogen monoxide (NO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and others. **Wi.Tec**'s measurement modules provide highly accurate, long-term stable detection of these exhaust gases.

Our solutions are ideal for both stationary systems complying with BImSchV regulations and mobile equipment for periodic emissions monitoring.

With the **ULTRA.*sens*®** NOx / SO_2 TBH module, **Wi.Tec** offers the unique capability to simultaneously measure NO, NO_2, and SO_2 – including integrated cross-calculation for precise gas differentiation.

The module features a thermobox heated to approximately 45°C and comes fully compensated for pressure and temperature at the point of manufacture, allowing immediate integration into your gas analyzer.



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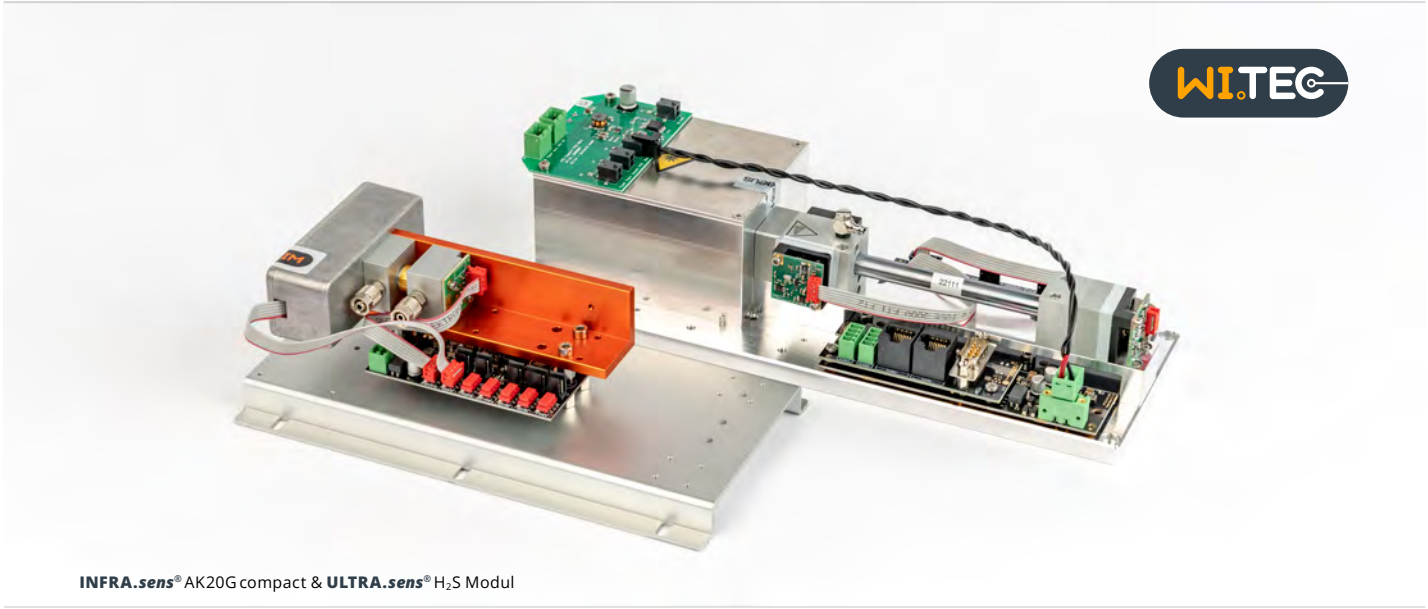
https://www.witec-sensorik.de/en/applications/cems/

Features & Benefits

- Solution for stationary, mobile and maritime analyzer
- Vibration tested according to DIN EN60068-2-64(04/2009)

Biogas & Renewable Energy

CO CO_2 CH_4 H_2S H_2



INFRA.*sens*® AK20G compact & **ULTRA.*sens*®** H_2S Modul

Measure the future energy sources

Biogas is produced through the fermentation of organic waste and renewable resources (NAWAROS). Its primary components are methane (CH_4) and carbon dioxide (CO_2). Depending on the feedstock, biogas may also contain significant levels of hydrogen sulfide (H_2S), as well as nitrogen (N_2), oxygen (O_2), ammonia (NH_3), and moisture in the form of water vapor.

Wi.Tec has developed a specialized calibration procedure tailored for modules used in biogas applications.

Due to the carrier gas dependency of CO_2 measurement, **Wi.Tec** offers a module calibrated for both CO_2 and CH_4 in reverse order, ensuring precise analysis.

For detecting H_2S concentrations in biogas, the ULTRA.sens® AK100 sensor covers measurement ranges down to 100 ppm. Additionally, **Wi.Tec** is currently advancing hydrogen (H_2) detection based on thermal conductivity technology.



gefördert durch DBU Deutsche Bundesstiftung Umwelt

Features & Benefits

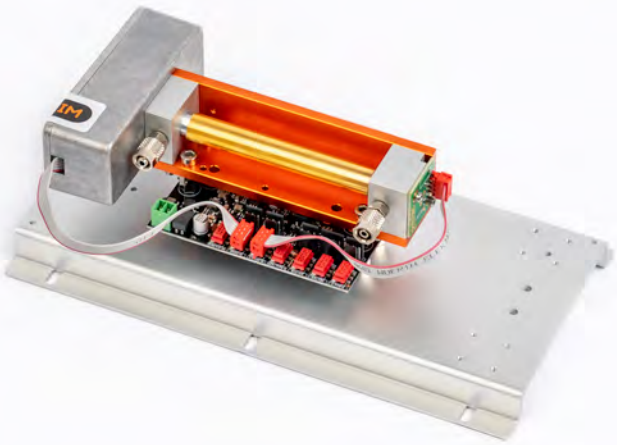
- Wide range of solution in the area of renewable energy sources and infrastructure

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https://www.witec-sensorik.de/en/applications/renewable-gas-monitoring/

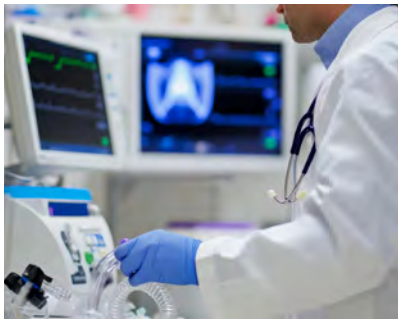
Medical Equipment

CO CO_2 CH_4



INFRA.*sens*® AK100

Shaping the Future of Respiratory Testing – with NDIR Precision



The **INFRA.*sens*®** AK100 by **Wi.Tec** is a high-performance NDIR sensor specifically developed for precise and reliable DLCO testing in accordance with the 2017 ERS/ATS guidelines. With an ultra-fast response time of just 150 ms, the **INFRA.*sens*®** provides real-time results, making it ideal for breath-by-breath analysis.

Engineered without any moving parts and equipped with an electrically modulated IR light source, the **INFRA.*sens*®** offers outstanding durability and minimal maintenance. Its advanced signal processing ensures highly accurate detection of baseline and endpoint signals, with a very low detection limit.

Thanks to an integrated digital filter that reacts within milliseconds, the **INFRA.*sens*®** delivers excellent performance even during rapid breathing cycles. The NDIR module supports the measurement of up to four gases - CO_2, CO, CH_4, and O_2 (measured via an electrochemical cell) - offering high versatility for both clinical and research environments.

Whether implemented in pulmonary function labs or integrated into OEM medical devices, the **INFRA.*sens*®** sets new standards in respiratory gas analysis, combining maximum precision with minimal operational effort

DLCO (Diffusing Capacity of the Lung for Carbon Monoxide) is a key diagnostic test for evaluating how effectively gases are transferred from the lungs into the bloodstream. It plays a vital role in the detection and monitoring of conditions such as COPD, pulmonary fibrosis, and pulmonary hypertension. With the **INFRA.*sens*®** AK100, **Wi.Tec** delivers a cutting-edge solution for respiratory diagnostics - reliable, accurate, and future-ready.

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https://www.witec-sensorik.de/en/applications/medical-equipment/

Features & Benefits

- Designed according to ERS/ATS 2017 Guidelines
- Ultra-fast response time of down to 150 ms (depending on flow rate and gas type)
- No moving parts – low maintenance & high durability
- 4-gas configuration available: CO_2, CO, CH_4 & O_2

Customer Specific Projects

CO_2 CO N_2O C_nH_m CF_4 SF_6 H_2O
O_3 Cl_2 H_2S SO_2 NO_2 NO H_2



BINOS®

Reliably detecting concentration changes in the ppb range



The **BINOS®** housing platform provides a versatile enclosure for integrating proven **Wi.Tec** products. It also accommodates essential sample preparation components such as sample gas pumps, fine and dust filters, flow indicators, and more. Equipped with digital outputs including CAN and RS232, plus optional analog outputs,

BINOS® is designed as a 19" rack-mount housing that can be adapted into a portable case for flexible use. Thanks to its modular design, customer-specific configurations can be realized at any time to meet diverse application needs.

For laboratory analysis, **Wi.Tec** partners with Dr.-Ing. Ritter Apparatebau in Bochum, Germany.

Here, individual photometric components – **INFRA.*sens*®** and **ULTRA.*sens*®** – are custom-assembled per customer specifications and housed in premium bench-top instruments. Ritter specializes in biogas research applications and combines gas analysis with high-precision flow measurement devices such as drum-type gas meters and MilliGascounters.

Customer-specific demands are further supported by comprehensive spectral analyses conducted at **Wi.Tec**'s development center. To minimize cross-sensitivities, hermetically sealed gas cells are produced in-house, effectively masking interfering spectral components and tailored precisely to the application.

Your requirement is our challenge

You have a measuring task beyond the usual standards and are looking for a competent partner? Please contact us. Your measurement task is our challenge! The employees of **Wi.Tec-Sensorik** have extensive expertise in the field of industrial gas measurement technology and sensor signal processing.

More than 40 years of experience in research and development in various fields of application form an outstanding basis that clearly distinguishes us from our competitors.

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https://www.witec-sensorik.de/en/applications/device-technology/

Humidity Measurement

H_2O CO_2 CO N_2O C_nH_m CF_4 SF_6



INFRA.*sens*® CO_2/HC/H_2O-AK250GC/TBH piped

Compact alternative to laser and dew point mirror sensors

Humidity measurement is a critical aspect of gas measurement technology, as varying water vapor content is present in nearly all applications. In combustion processes, water forms as a reaction product of hydrocarbon compounds, while in medical technology (such as breathing gas analysis), water vapor originates from the lungs. Since water content is closely tied to gas temperature, it can vary widely, significantly impacting the concentration ratios within gas mixtures.

Typical Application Areas Include:

- Food technology
- Gas applications
- Ceramic and porcelain production
- Process chemistry
- Moisture measurement in biogas and digester gas
- Plant physiology
- Glass production
- Moisture monitoring in coating processes
- Metal industry

Wi.Tec's online water vapor measurement concept relies on the absorption of infrared radiation. The proven **INFRA.*sens*®** sensor is selectively tuned to the main absorption band of H_2O. Using a 250 mm analysis cuvette, it reliably detects H_2O concentration changes below 5 ppm within a measuring range of 100 to 23,000 ppm.

Stainless steel piping is employed for residual moisture determination. For applications with high dew points, the **INFRA.*sens*®** sensor is heated up to 50 °C to ensure accurate readings. In a 3-channel configuration, two additional gases can be simultaneously measured within the same analysis cuvette.

The most recent version of this content can be found online at ...

https://www.witec-sensorik.de/en/applications/humidity-measurement/

Features & Benefits

- Detection limit: < 5 ppm H_2O
- Fast response time (t90 < 10 sec)
- Efficient alternative for a dew point mirror measurement
- Low maintenance operation
- Can be combined with other gas measurements such as CO_2, CO, C_nH_m, CH_4 etc.

Options



P.*sens* (Pressure Sensor)

- Measuring range: 300 - 1,200 mbar
- Resolution: 0.1 mbar
- Response time (t90): 1 s
- Integrated in the gas path
- Picture shows integrated version **µP.*sens***
- Also available as 'corrosive version' in stainless steel



O2.*sens* (Digital Oxygen Sensor)

- Measuring range: 0 - 100 vol%
- Response time (t90): <10 s
- High resolution (16 Bit)
- Service life: approx. 5 years
- Electrochemical sensor
- Gas tube connection 4/6 mm



AZF-Modul VV (Auto Zero Function)

- **Wi.Tec** extension module for **ULTRA.*sens*®** **INFRA.*sens*®** & **KOMBI.*sens*®** series
- Valve / Valve Version for switching to zero gas cylinder for purging
- Especially for emission monitoring (CEM)
- Automatic zero-point adjustment for long-term stable measurements
- Adjustable over **MARS* Tool Light**
- Zero interval from 1 h to 1 per month zero setting with nitrogen (bag/bottle)



AZF-Modul VP (Auto Zero Function)

- **Wi.Tec** extension module for **ULTRA.*sens*®** **INFRA.*sens*®** & **KOMBI.*sens*®** series
- Valve / Pump version for the suction of ambient air for purging
- Especially for emission monitoring (CEM)
- Automatic zero-point adjustment for long-term stable measurements
- Adjustable over **MARS* Tool Light**
- Zero interval from 1 h to 1 per month zero setting with ambient air

All options and the most recent content to the articles listed here can be found online at ...
https://www.witec-sensorik.de/en/products/options/

Options



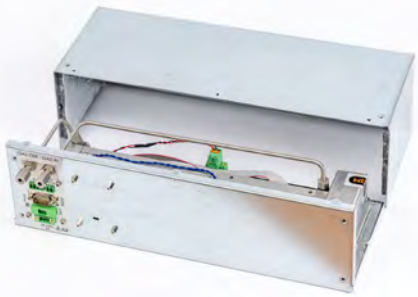
HUMI.*sens*® (Humidity Sensor)

- Measuring range: 0 - 100 % RH
- Resolution: ±1 % RH
- Response time (t90): 12 s
- Absolute Humidity in g/m³
- I2C protocol
- Polymer humidity sensor



Analog Output Board

- 0 - 10 V / 0 - 5 V / 0 - 2 V
- 16 bit resolution
- 1 second Update rate
- 4 parallel signal outputs



Thermobox

- For thermal insulation
- Temperature controlled up to 55 °C
- Optionally **ULTRA.*sens*®** or **INFRA.*sens*®**
- With dust filter
- Temperature range 5 °C - 45 °C



Sample Gas Pump

- Different versions available
- Pump head FKM/PPS
- Diaphragm FKM/EPDM
- Valves and seal FKM/EPDM
- Brush or brushless motor, 24 V DC, 2-wire
- Gas flow rate 0 – 4 l/min
- Hose connection 4/6 mm

All options and the most recent content to the articles listed here can be found online at ...
https://www.witec-sensorik.de/en/products/options/

Accessories



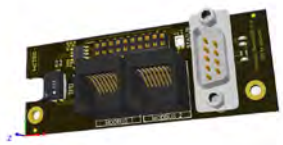
BB 1.9.2

- Can be used for all **Wi.Tec** series
- Input voltage range: 15 V - 30 V
- Communication interfaces could be changed over extra PCB
- Interfaces available like RS232, CANbus, RJ45,
- SKEDD – Connectors for measurements in tough environments (e.g. marine applications), vibration tests approved
- Version with demo software available for integration tests



BB Compact IR 2.0.2

- For **INFRA.*sens*®** series
- Space saving of almost 70 % compared to V1.9.2
- Wide input voltage range: 9 V - 30 V
- TTL-232R-RPI
- RS232 and CAN bus Interface
- Board to Board communication for even more flexibility
- Screw mounting on **Wi.Tec** aluminum bracket or on Hammond case
- Version with demo software available for integration tests



Modbus Shield for BB 1.9.2

- Modbus RTU
- Baudrate 115200
- RJ45 connector
- Additional RS232 interface



Inline Filter

- 4/6 mm tube connector
- Flowrate 0-4 l/min
- Small volume of 110 cm^3
- Pressure drop @ 1 l/min less 6mbar



Communication Cable Set for RS232 or CAN

- Upon request, **Wi.Tec** provides the matching cables for your module to ensure immediate and seamless integration into your system.
- Additionally, **Wi.Tec** offers a CAN dongle for reliable CANbus communication.



FKM hose DN4/06

- DN 04/06; 1 bar, 10 m
- (Viton hose)

All options and the most recent content to the articles listed here can be found online at ...
https://www.witec-sensorik.de/en/products/accessories/

PC Software / MARS* Tool Light



*MULTI-ANALYSE-RESEARCH-SOFTWARE

MARS* Tool Light – software for performance analysis of Wi.Tec modules

Many customers rely on the **MARS* Tool Light** during initial operation to verify module output before integrating protocols—whether CAN bus, CANopen, or ASCII via RS232—into their higher-level systems. This straightforward software is especially popular in laboratory, research, and development environments for data analysis.

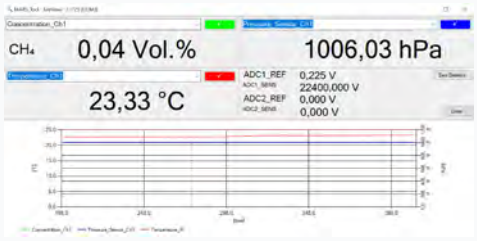
Beyond its role as a testing tool, the **MARS* Tool Light** is at the core of our manufacturing process, where every module is calibrated using the software.

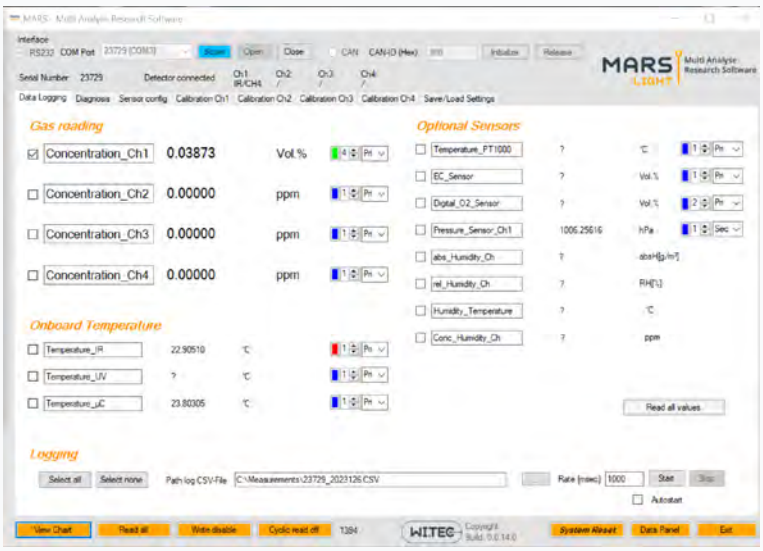
Over the years, it has been continually expanded and refined to meet evolving customer needs.

The latest **MARS* Tool Light** version emphasizes user-friendliness and maximum flexibility, enabling rapid support in troubleshooting situations.

Key features include:

- Data logging with export to *.csv files
- Preview diagrams for quick data evaluation
- Zero and span calibration
- Sensor parameter import/export via *.xml files
- RS232 and CAN bus communication
- Reading of connected sensor configurations





All options and the most recent content to the articles listed here can be found online at …
https://www.witec-sensorik.de/en/products/mars-tool/

Customer Relationship & Distribution Worldwide

A trusting and cooperative relationship with our customers is important to us! This creates room for the development of innovative solutions from which both sides benefit. A competitive advantage that should not be underestimated! Get to know us and make an appointment for a personal meeting.

General Inquiries

Please use for general or purchase inquiries our comfortable application questionnaire ...
www.witec-sensorik.de/en/application-questionnaire/

Service Returns

For your service order, please find our pre-configurated service returns form ...
www.witec-sensorik.de/en/service-returns/

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