Ingeniously simple and reliable
level measurement

UWT
LEVEL CONTROL

Solutions for all applications in

the bulk solids industry

SOLUTIONS

Ingenuity

Many years of expertise

Innovative product development

Long term corporate planning

Simple and reliable level measurement technology for bulk solids

For many years now, UWT GmbH is still the leading manufacturer of “simply reliable level measurement in bulk solids”.

The company’s core competencies are the development, production and distribution of devices for measuring and monitoring of fill levels. The extensive product portfolio includes paddle switches, vibrating probes, capacitive sensors, electro-mechanical lot systems, radar measurement and visualisation systems.

Always adhering to the UWT slogan “Solutions”, the team of experts based in the Allgäu, Germany design complete tailor-made solutions with total dedication for customers.

- UWT is founded in 1977
- Sales outlets in over 60 countries
- ISO 9001:2015 - certified since 2001
- Worldwide approvals
- Successful solutions found for more than 1,000,000 applications

We are your partner for every individual plant application. Our specialty is the provision of reliable level measurement components for the production and processing of bulk materials.

Tradition

Innovation

Managing Director Uwe Niekrawietz
with Petra Niekrawietz

A future needs a past

Strategy with vision

Achieving more together

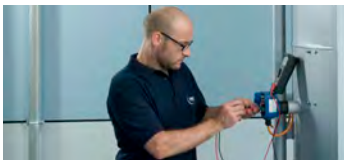
As a family run business we place great value on long-term positive partnerships with our customers. Together we develop specific solutions for level and point level measurement in every process system within your plant.

Experience

What can you expect from UWT? Pages 6 - 7

At home in the Allgäu and around the world Page 8

Superior quality for global diversity Page 9



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Your partner for storage and handling processes Pages 12 - 13

Your partner within the dosing, mixing, filling and drying processes Pages 14 - 15

Your partner for other challenging processes Pages 16 - 17

Innovative solutions Pages 18 - 19

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Customised solutions

International approvals

Positive

Private label

Maintenance-free technology

SOLUTIONS

Solutions for bulk solids
Worldwide compatibility
Superior quality
Customised modular design
Skilled service
Flexibility
Reliability
collaboration
Simple, proven measurement technology
Value added
Expert know-how
Global partner
UWT
LEVEL CONTROL

Your partner for reliable measurement technology

What Can You Expect From UWT?

Do you need individually tailored solutions for your industry?
UWT gives particular attention to every single step in the process in order to develop customised level measurement:

- suitable for the bulk solid application in question
- according to your individual specifications
- with the experience of more than 1,000,000 successful applications by qualified professionals with many years of industry knowledge

Do you need to react flexibly to customer requirements?
KIT solutions enable swift, individually customised device design and efficient stock-keeping.
We offer maximum flexibility:

- in the configuration of the devices due to their modular design
- with application-oriented product design
- short delivery times and quick service

You operate around the world and have to meet a variety of international standards and certificates?
All UWT products feature an extensive range of national and international certificates and meet:

- country-specific standards
- industry specific certification requirements
- global hazardous area approvals
- global safety regulations

Do you value your brand presence in the market?
We will support your corporate branding and design your sensor according to your specifications and individual needs:

Your corporate branding =
Private Label + Colour + Housing + Packaging

This will ensure you maintain long-term customer loyalty, not least for replacement parts but also for future business.

You expect superior quality?
Continuous improvement processes ensure our products are of the highest quality:

- 100% success rate in every functional test + HV-PE Test + endurance test before delivery
- guaranteed – faultless performance of 99.8%!
- “Made in Germany” guaranteed quality
- extended 5 year warranty

The significance of the gear mechanism is not to be underestimated.

Small wheel - big effect
Many a “simple” type of component can soon become a problem if it’s not working reliably.

In situations where level monitoring is required, costly events such as over filling of the silo can be avoided.

We design sensors to have a high degree of compatibility for your processes, so that they can be seamlessly integrated into your installations ensuring that you always receive the optimal solution.

You have a varying range of price segments?
UWT offers a diverse portfolio including:

- cost-effective standard designs
- premium versions with high-end specifications

Our knowledgeable staff will advise you according to your individual needs and provide you with an obligation-free quote.

Are you looking for innovation?
Our engineers are passionately dedicated to working on new concepts and with the latest, high-quality technologies to improve and increase the efficiency of our systems. Focus is always on the development of innovative products that deliver:

- simplicity
- longevity
- process safety

At home in the Allgäu and around the world

Our sales team can help you with any questions regarding our products.
Let our friendly and knowledgeable staff give you solution-oriented advice.

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Your UWT Sales Team for the Germany, Austria and Switzerland region

Our all-round service includes:

- Individual support and personal advice on the appropriate measuring technology for you
- Finding the best possible solution - quickly, simply, flexibly and economically
- Tailor-made quotations for customer-specific requirements
- Full explanation of our product range and the most effective combinations
- Technical information on the entire product portfolio for all applications
- Product training and workshops tailor-made to your application(s)

Renowned companies both at home and around the world have for years relied on our products and services in the area of level measurement.

International presence:

Effective global project management will ensure your success. We will have a knowledgeable point of contact local to you and your customer who can quickly and effectively identify and manage your needs. All technical documentation can be obtained in many other languages as well as English. Because of the personal network of contacts around the world, this allows UWT to respond swiftly to market forces and the needs of every customer.

Your personal consultant – approachable, reliable, knowledgeable

We will support you around the world

Superior quality for global diversity

UWT offers top quality “made in Germany“ technology for the diversity of global markets. The devices meet the technical standards in accordance with international standards. Responsible adherence to country-specific conditions is an inherent part of UWT’s sales policy.

Worldwide - everything from a single source

Through the international structure of our company, and the consistent expansion of sales networks, we are able to offer UWT specialists in level measurement to our customers all around the world.

With offices in China, USA, UK, Russia and India and a network of exclusive distributors in **over 60 countries** customer requirements from around the world can be met with ever greater flexibility.

We are able to provide our customers with close contact and total service support from our experienced and knowledgeable sales staff.

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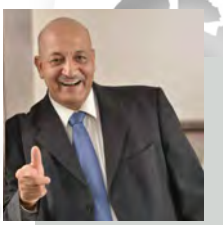

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Your international sales team

UWT Portfolio

UWT provides sensors for the measurement of level and limit level in bulk solids and liquids. Depending on the medium and application, different measurement techniques are used. In addition, we offer a range of complete systems for level monitoring and visualisation.

Sensors for Level Detection

Rotary Paddle Level Switch

Rotonivo® Serien 3/6

- Variable extension lengths – either rope or tube
- Extension and process connection available in stainless steel
- Adjustable sensitivity
- EHEDG compliant
- Suitable for use in high temperatures of up to 1,100°C
- Modular design
- Rotonivo® 6000 SIL 2 compliant
- All-rounder suitable for all applications
- Wide variety of configuration options

Rotonivo® 4000

- Variable extension lengths – either with pendulum shaft or rope extension
- Version with plastic housing and process connection
- Various process connections
- Adjustable sensitivity
- Modular design
- Plastic design offers increased corrosion resistance

Vibrating Fork Level Switch

Vibranivo® Serien 1/2/5/6

- Variable extension lengths – either rope or cable extension
- Extension and process connection available in stainless steel
- Sensitive to the lightest bulk materials (< 5g/l)
- EHEDG compliant
- Version with separate housing available
- NAMUR-electronics
- Suitable for interface measurement within sediment tanks/containers

Vibranivo® 4000

- Variable extension lengths – either rope or cable extension
- Extension and process connection available in stainless steel
- Extension, process connection and oscillators cast from one mould
- Sensitivity from 30g/l

Sensors for Level Control

Electro-mechanical Plumb Bob Sensors

NivoBob® 3000

- Measuring range up to 50m (silo height)
- Easy commissioning
- Rope and tape version
- Integrated tape cleaner
- Threaded or flanged process connection
- Modbus and Profibus interface
- Reliable measurement results independent of material
- Suitable for interface measurement within sediment tanks/containers

NivoBob® 4000

- Measuring range up to 30m (silo height)
- Easy commissioning
- Rope and tape version
- Integrated tape cleaner
- Threaded or flanged process connection
- Aiming flange for angled installations

The product lines include not only an economic standard but also particularly high grade, premium versions. UWT devices are completely **maintenance-free** and, importantly, carry **international certificates**. These certificates are supplied in view of the constantly expanding international markets. All limit switches are available with universal voltage electronics as standard or as an option.

made in Germany

Sensors for Level Detection

Capacitive Level Switch

RFnivo® 3000

- Variable extension lengths – either rope or cable extension
- Extension and process connection available in stainless steel (Stainless steel probe material with FDA conformity)
- Version with plastic coated extension
- EHEDG compliant
- For use in low dielectric values from 1.5 DK
- Suitable for use in high temperatures of up to 500°C
- Suitable for use in process pressures of up to 25bar
- "Active Shield Technology" for anti-caking functionality
- Available as remote version
- Simple automatic calibration at start up
- User friendly parameter setting via display and function buttons with measurement results given also via display

Capanivo® 4000

- Variable extension lengths – either rope or cable extension
- Version available with plastic housing, process connection and extension
- Extension FDA compliant
- Can be used in low dielectric values from 1.6 DK
- Suitable for use in high temperatures of up to 180°C
- "Active Shield Technology" for anti-caking functionality
- Integrated earthing in process connection
- No calibration required

Vibrating Single Rod Level Switch

Mononivo® 4000

- Variable extension lengths – either rope or cable extension
- Heavy mechanical loading
- High quality material in the process (SS 316L)
- High surface quality
- Sensitivity adjustable in 4 settings
- Temperature range from -40°C to +150°C
- Robust version
- Suitable for overpressure up to 16bar
- Compact limit switch with threads from 1"

GUARANTEE 5 YEARS APPROVED QUALITY

Sensors for Level Control

Radar Sensor

NivoRadar® 3000

- Measuring range up to 100m (silo height)
- Aiming flange model
- Robust stainless steel housing IP68
- High sensitivity (DK ≥ 1.6)
- Temperature solution up to +200°C
- 78 GHz technology
- 4° beam angle
- Lens antenna and mounting flange are flush
- Integrated lens cleaner
- Programming module (Plug-on Display for programming and diagnostics / Quick Start Wizard)
- Simple, six-step commissioning

Visualisation

NivoTec® 2000/3500/4500/4600/4700/4900

- Web-based visualisation solution
- Level monitoring and analysis via ethernet
- Remote access via internet option
- Complete system for plug and play
- Sensor interface for 4-20mA or Modbus RTU
- Expandable to monitor up to 15 or 30 silos within a plant
- Full, empty, demand, fault alarm via email option
- Signal output for silo full alarm
- Effective silo management

Your partner for storage and handling processes

Bulk materials have become a part of our every day lives. It starts at breakfast with coffee powder or granules and the sugar for our coffee – each product is a result of a variety of industrial processes. Even thousands of years ago, people developed the concept of bulk goods by grinding plants and cereals with stones to produce flour. The grinding process was born.

Today there are a great many specialist processes within the bulk goods industry. UWT brings a valuable and efficiently designed contribution to these processes: level measurement and overfill protection during storage; the demand indicator during the filling stage; the flexible and adjustable limit switch during the volume or dosage process; the sensor within a heavy mechanical load environment of a blender container. Each process has a particular requirement or demand for the sensor.

UWT, with over 40 years of experience in bulk applications within a huge range of industries, has created innumerable solutions for your customers. The focus is always on reliability and superior quality of the sensor together with total flexibility towards the customer demands.

Customised solutions for the processes of all industries

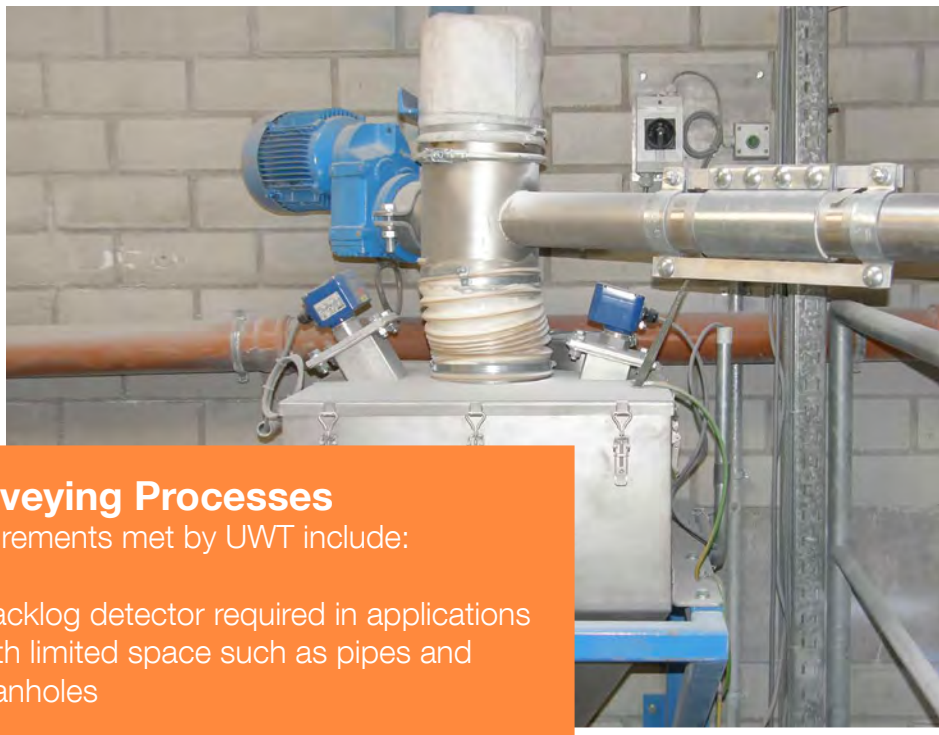
Storage Processes

Requirements met by UWT include:

- Large measuring distances in high silos
- High accuracy despite large diameter of container
- Measurement during silo filling
- Rapid response to overfill protection
- Measurement within extremely dusty environments during filling
- Measurement of fluidised products - excellent sensitivity
- Complete systems for level monitoring with visualisation
- Level measurement of material within steep gradient cones
- Applications within very high polluted environments
- Effective silo management with NivoTec®
- Limited space in multiple chamber silos

Building materials | Chemicals | Animal feed | Glass | Rubber industry | Wood industry

We offer the right measurement technology for every process within your plant



Conveying Processes

Requirements met by UWT include:

- Backlog detector required in applications with limited space such as pipes and manholes
- Where fast response to overfill is required for small transfer containers
- Limit switch within pressure feed containers
- Adjustable sensitivity for material flow detection
- Where abrasive solids are in contact with the sensor

Plastics | Environmental | Metal industry | Foodstuffs | Power industry | Other

Dosing / Mixing Processes

Requirements met by UWT include:

- Where high sensor sensitivity for precise volume dosing is required
- Where reliable detection of varying bulk materials is required
- Where flexible switching points in the dosing process is required
- Applications where the bulk is continuously moving within an agitator
- Where high temperatures, condensation, dust and caking are characteristics of the application
- Where high resistance to aggressive bulk goods is required

We vouch for every product that is

customised

for your plant design

Your partner within the dosing, mixing, filling and drying processes

From the very beginning, UWT's business plan has been straightforward and strong – to offer totally reliable products at a fair and competitive price that can be safely integrated into any system. This in turn ensures that life is as easy as possible for you and your customers.

Therefore, we deliver reliable level measurement components and level detection systems, which, whether 'off the shelf' or tailor-made, are key to your process. As a system provider, we never lose sight of the big picture. After all, you as the plant manufacturer have everything to gain only if the entire system works smoothly.

We will support you during each phase of the bulk material handling project - no matter whether it is a single container, dosing or mixing plant, conveyor systems or an entire complex of silo systems.

Filling Processes

Requirements met by UWT include:

- Vibration within the process system
- Where different media must be reliably detected
- Where there is little space within the process for the sensor

UWT is the best resource partner for individually tailored solutions

Drying Processes

Requirements met by UWT include:

- Able to withstand high temperature
- Detection of varying media
- Functional reliability within condensation and caking

Your partner for other challenging processes

Level measurement technology is multifaceted and rarely stands still. Exciting and challenging developments in applications mean that the UWT product range continuously grows and develops to meet these requirements.

The design experts at UWT work meticulously on level measurement technology, specialising in specific customer solutions.

Plant operators are keeping pace with the wide range of challenges presented by raw materials, the changing operating conditions in silos or pipelines and the need for ex-certificates, to name just a few. Such requirements call for measurement solutions that are versatile, whilst representing cost-effective investment and offering basic versions fully equipped to meet a wide variety of these requirements.

All these factors are familiar to UWT. The product portfolio is therefore fully flexible to meet the needs according to demands. Uncompromising ruggedness, universal functional reliability, easy installation and operation as well as absolute freedom from costly maintenance are essential basics of the technology.

We design solutions with added value for your processes

Grinding / Shredding Processes

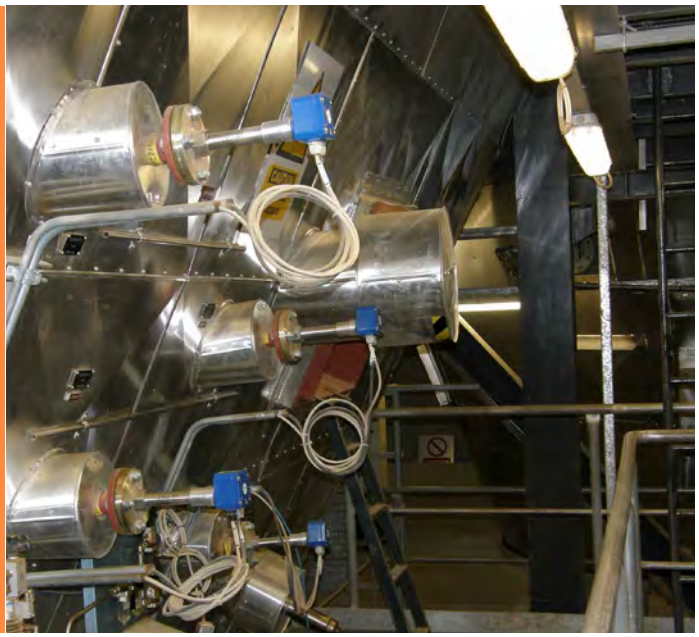
Requirements met by UWT include:

- Where dust, moisture and noise affect the sensors.
- Varying bulk densities in recycling processes
- Multiple cycles in rapid processes
- Hygienic applications

Filter / Separation Processes

Requirements met by UWT include:

- Sensors that are able to withstand corrosive media
- Sensors that can deliver reliable results in spite of caking
- High temperatures in the applications
- Sufficient sensitivity must be ensured
- Sediment detection within interface measurements



Injection / Moulding / Extruding Processes

Requirements met by UWT include:

- Where there is limited space within feed screws to material transfer point
- Where durable sensors are required for high volume of switching cycles
- High process temperatures

Foam / Expansion Processes

Requirements met by UWT include:

- High sensitivity for very low bulk densities
- Safe and reliable functionality within statically charged environments
- Rapid sensor response time within small containers
- High temperatures

UWT will accompany you from basic project planning engineering through to professional installation

The world´s first rotating paddle switch in accordance with functional safety SIL2

The terms functional safety and safety integrity level (SIL) became increasingly important following the publication of the international standards in accordance with IEC 61508 / IEC61511.

This was particularly relevant in systems with hazard-causing processes such as are found within chemical plants. Functional safety has become mandatory. To attain this standard, safety-related practices, design principles and error considerations must be addressed in order to completely minimise the risk of a dangerous failure. The engineers at UWT have intensified work and research on this subject with the development of the newly designed Rotonivo® RN 6 Series paddle switch according to the normative requirements. This device has been designed with full functional safety and safety functions in order to reduce risk, according to the SIL2 guarantee. Typical safety functions are overfill and dry run protection.

More **security** for **chemical** and **power** plants

The re-designed electronics of the RN 6 was one of the aspects of functional safety. This has been designed so that electrical component failure in a perform reliant switching state of the output signal and thus a hazard is avoided by the system. With the innovative SIL2 compliant Rotonivo® RN 6 operators now have the opportunity to install within their safety-related systems, a sensor system in accordance with their specified safety integrity level and which is the perfect metrological component of their safety circuit.

Ingenious interface measurement

The limit switch for extreme environments

The RFnivo® proves itself in applications as an all-round talented level switch. The extremely robust boom of the RF 3200 and RF 3300 withstand high mechanical loads while offering all the advantages of capacitive point level measurement. They are insensitive to caking, function in process temperatures of up to 500°C and process pressures up to 25bar. The RF 3100 shaft is coated with its PTFE and so can be used in aggressive applications in electrostatic precipitators. The centerpiece is the electronics system. The system makes it very easy for the operator in that the devices are automatically calibrated during commissioning. The Quick Start parameters are driven to a display menu to set signal output and the sensitivity. Furthermore, all measurement results are displayed.

The RFnivo® is suited to measurement of cement and plaster mixtures in the construction industry, for fly ash in power plants to plastic granules in the plastics processors. The RFnivo® has the DustEx approvals for Zone 20 and 20/21, as well as the Zone 1 in GasEx Area.

An all-rounder for all sectors with total user-friendliness

RFnivo® probe with full coating

The multi-functional technologies found in the NivoBob® NB 3300 (cable version) and NB 3400 (tape version) plumb line system products have been specially modified for interface measurement. They are ideal partners for use as continuous measurement of salt or sludge levels in within contaminated water containers or asbestos silos. The resistance to corrosive materials by the devices is of vital importance in order to achieve reliable results.

All process-contacting sensor parts are therefore also coated or made of corrosion-resistant materials. The stainless steel wire rope version can be offered with a protective PA plastic covering and is highly resistant to aggressive media in waste water which can be found in settling ponds.

The calibration of the sensor is straightforward and the weight adjustment can be implemented mechanically. This measurement principle for interface measurement is sensitive, simple and at an unbeatable price.

Interface measurement in slurry tank with precise lot measurement systems

Partnering for success

UWT is the leading manufacturer of measurement technology in the world market. With years of experience, a reference list that contains countless well-known companies from a wide range of industries, innovative technology and a worldwide network we can ensure your success.

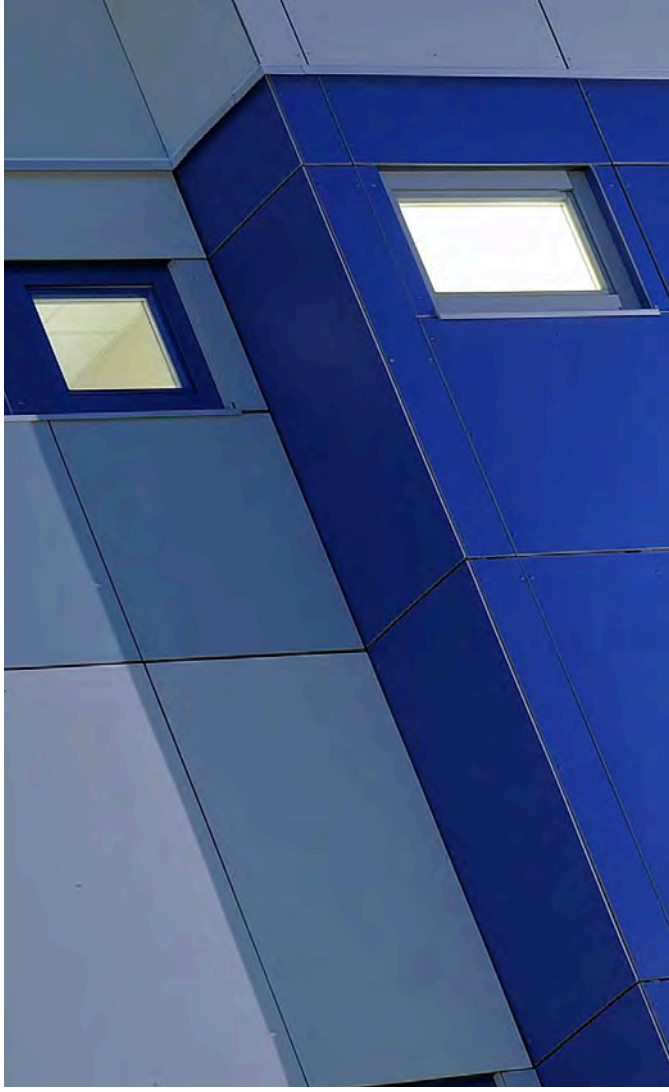
We can offer you an experienced project manager with cross-industry knowledge to ensure fast and application-oriented project implementation.

When configuring the sensors we are guided completely according to your respective requirements, whether through consideration of specific environmental and working conditions, hygiene requirements, sensitivity or safety regulations.

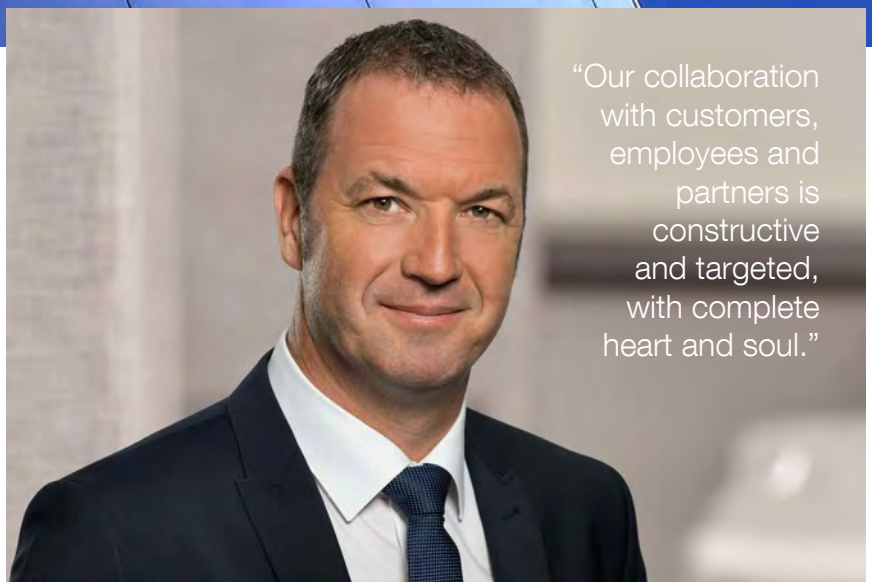
UWT provides efficient and service-friendly level measurement technology for applications in many industry sectors. Devices can be customised for individual measurement techniques. Within bulk applications designed and particular measuring objectives can be achieved with individual designs.

UWT sensors have been and are in action within a huge variety of applications in different industries under typical and exceptional operating conditions.

Reliably working, for many years!



At home and abroad, for many years valued plant management companies have placed their trust in our products, our knowledge and our service



Uwe Niekrawietz

UWT - Your global partner for the future

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BELGIUM
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BOLIVIA
BOSNIA AND HERZEGOVINA
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CANADA
CHILE
CHINA
COLOMBIA
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Want to learn more from UWT GmbH? Easy – simply scan this QR Code using your smartphone and visit us on **Facebook**.

SOLUTIONS

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