RECHNER SENSORS

custom made level control for your industry

HIGHLIGHTS

2027

Sensors for Level Monitoring



FLEXIBILITY, QUALITY & INNOVATION – SENSOR TECHNOLOGY THAT THINKS AHEAD

For over 60 years, Rechner Sensors has been developing and manufacturing capacitive sensors for industrial automation – reliable, precise and built to last.

As an independent family-owned company, we stand for flexibility, extensive in-house manufacturing capabilities and customized solutions – worldwide and in close collaboration with our customers.

Recognized Two Years in a Row

In both 2025 and 2026, Rechner Sensors was ranked among Germany‘s most crisis-resilient companies.
Reliability is our standard.



„Our sensors provide the foundation for safe, efficient and reliable processes – today and in the future.“

Dr. Ing. Armin Kohler
CEO



A FAMILY-OWNED COMPANY WITH A SENSE OF RESPONSIBILITY

For over 60 years, we have been developing and manufacturing sensors with a long-term perspective, a strong commitment to reliability and responsible use of resources.

Delivery Reliability and Quality

Short decision-making processes and strategic inventory management help us maintain reliable product availability. Multi-stage production inspections and rigorous final testing ensure our high quality standards

More Electricity from Our Own Solar Power Systems

Since 2025, our photovoltaic systems have generated more electricity than is consumed in sensor production.

Full Traceability

Every sensor receives a unique identification number, allowing us to trace when, how, where and by whom it was manufactured. This clear identification enables us to retrieve specific production information – including for service and support purposes.



QUALITY INSPECTION IN OUR PRODUCTION FACILITY

INNOVATIONS

NEU

IO-LINK + ATEX

TWO TECHNOLOGIES. ONE SENSOR.

Intelligent level detection for demanding applications.

Smart communication meets explosion protection.



IO-Link

Smart communication and seamless integration into industrial automation systems.

ATEX

For hazardous areas:
Zone 1 and Zones 20/21

26

SERIES 26

The new KA1804 capacitive sensor – part of our proven Series 26.

KA1804

YOUR BENEFITS AT A GLANCE

ALL IN ONE
IO-Link and ATEX in a single sensor.

Approved for Hazardous Areas
Zone 1 and Zones 20/21.

Up to 85% Better Measurement Performance
Compared to a standard M30 sensor.

Proven Series 26. New Possibilities.

Our proven Series 26 delivers reliable, flexible level detection.
The new IO-Link + ATEX sensor takes the series a step further, combining digital communication with suitability for hazardous areas.



Discover more about Series 26 on page 8.

SERIES 26

When sensor design makes the difference.

The specially developed hemispherical sensing surface of Series 26 generates a larger sensing field, enabling reliable detection even of challenging or highly adhesive materials.

THE KEY DIFFERENCE: ELECTRODE DESIGN

The enlarged sensing field supports reliable detection, even in applications with material build-up.

VERSATILE APPLICATION

From liquids, powders and granules to pastes.

WIDE PRODUCT RANGE

Various designs, materials, sensor lengths and process connections.



Capacitive Sensors KA1444 / KA1469 / KA1244

TECHNOLOGIES AND MEASUREMENT SOLUTIONS

BLUESENS

Smart sensor connectivity.

BlueSens enables sensor data to be viewed directly on a smartphone or tablet via Bluetooth.
The BlueSens app provides real-time access to measurement values and allows switching points to be adjusted conveniently –
without manual adjustment at the sensor.





Capacitive Bluetooth-Sensor KA1403 / KA1753
For digital level monitoring.

Bluetooth Communication

Access sensor data wirelessly from your smartphone or tablet.

Real-Time Monitoring

View live measurement values and conveniently adjust switching points using your smartphone or tablet.

Automatic Data Logging

Record measurement data for subsequent analysis and evaluation.

IO-LINK TECHNOLOGY

The digital standard in sensor technology.

IO-Link provides a smart interface for parameterisation, diagnostics and data acquisition in modern sensor systems. It enables bidirectional communication between sensors and controllers – using a simple, standardised interface that works across manufacturers.



LevelMaster IO-LINK KA1611
Precise point level detection – reliable and digitally connected via IO-Link



IO-Link Master IOLM01
Compact USB IO-Link master for quick and easy commissioning of IO-Link devices. An intuitive user interface allows measurement values to be displayed and sensor parameters to be configured directly from a PC.



Capacitive IO-Link Sensor KA1590
Robust, reliable and ideal for bulk solids and liquids.



Parameterisation

Flexibly configure sensor functions directly via the controller.

Diagnostics

Access measurement and status information for targeted monitoring and diagnostics.

Added Value

Simplified commissioning and greater transparency of sensor status.

INTELLIGENT LEVEL PROBES

Different media. One probe.

TiLevel

Our new, advanced TiLevel sensor system enables continuous level measurement across a wide range of media – from water-based and highly viscous liquids to bulk solids and powders.
Its innovative three-electrode measuring principle features automatic self-calibration, continuously adapting to changing material properties during operation.
This eliminates the need for repeated initial setup when changing media, simplifies handling and significantly reduces the effort required during commissioning and day-to-day operation.



Level Probes KI0231 / KI0234
The ideal choice for demanding applications – from highly viscous materials to abrasive bulk solids.

Easy Teach

Simple initial setup with an empty vessel –
no material required.

Self-Calibration

Continuous automatic adaptation to changing material properties.

Versatile Applications

Suitable for liquids, bulk solids and powders in a wide range of vessels.

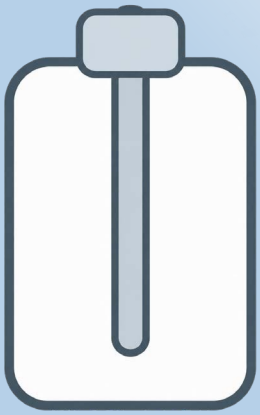
SELF-CALIBRATION

Set up once. Measure different media continuously.

Thanks to intelligent self-calibration, the TiLevel sensor system automatically adapts to changing material properties during operation – without requiring a new initial setup when the medium changes.

Whether measuring water-based liquids, inks, viscous materials, bulk solids or powders, the system automatically adjusts to different dielectric constants to ensure reliable continuous level measurement.
At the same time, the effects of dust and material build-up are reduced.

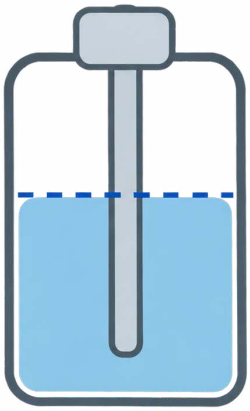
1 x EasyTeach



Simple initial setup with an empty vessel.

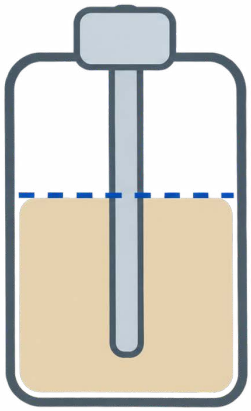
No material required.

Relative permittivity: εr = 2 - 80
Analogue output: 4 - 20 mA and 0 - 10 V



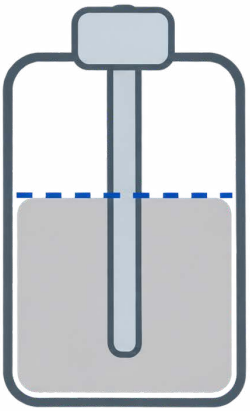
Water-Based Liquid

Level: **60 %**



Viscous Liquid

Level: **60 %**



Bulk Solid

Level: **60 %**

APPLICATIONS

Liquids
Water, inks, printing inks and comparable liquid media.

Viscous Media
Oils, viscous liquids and pastes.

Solids & Powders
Granules and particulate materials, additive manufacturing, powder coating and powdered raw materials.



ROBUST LEVEL PROBES

Designed for demanding process conditions.

Robust rod and cable probes for continuous level measurement of bulk solids and non-conductive liquids, such as oil.



Metal Rod Probe KI0211 / KI0213
Robust rod probe for demanding processes and abrasive materials.



Cable Probe KI0168
Extended measuring ranges and flexible installation – ideal for tall silos and deep vessels

Robust
Designed for demanding process conditions and a wide range of materials.

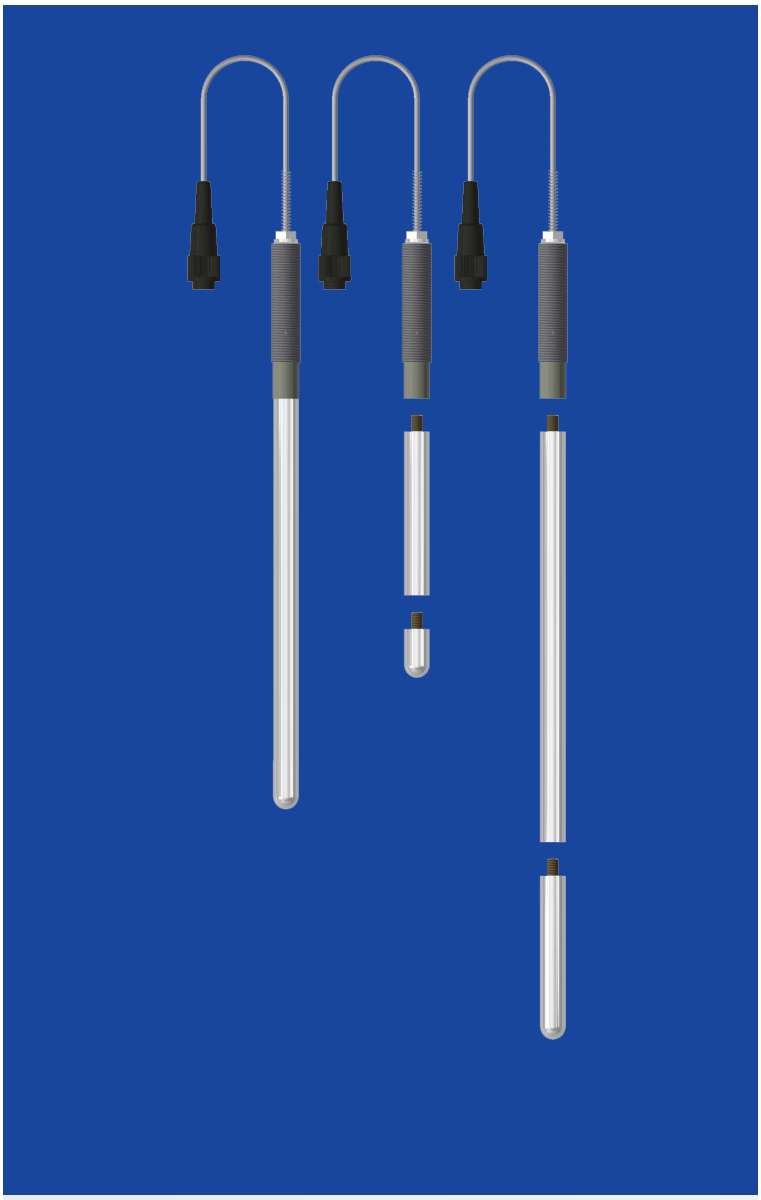
Flexible
Various probe lengths and installation options, with measuring elements that can be shortened or shaped to suit the application.

Ex Approvals
Also available for hazardous areas in Zones 0 and 20.

MODULAR LEVEL PROBES

Flexible solutions for different requirements.

Different vessel heights and installation conditions call for adaptable measurement solutions.
With interchangeable, screw-connected measuring elements, the modular probe can be individually adjusted in length – providing greater flexibility in level monitoring.



Modular Probe LS0306 / LS0307

Customisable probe length for different vessel heights and installation requirements.

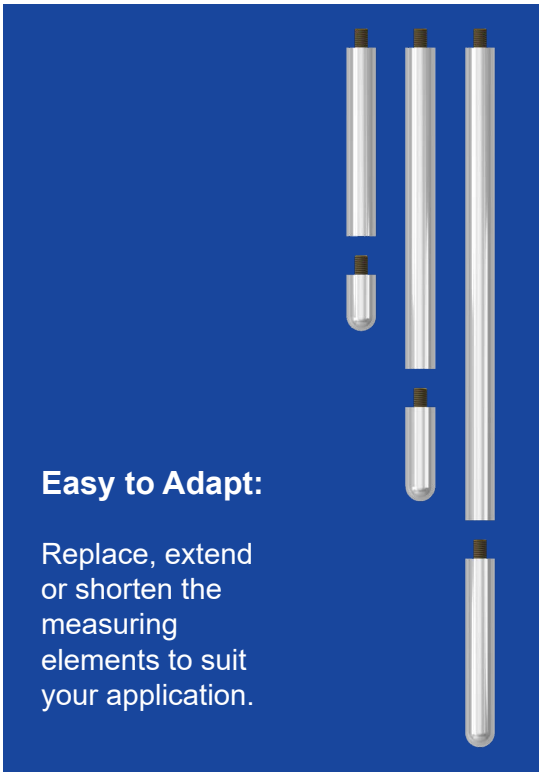
Compatible Evaluation Unit
LA0111

Connect and start measuring.



TECHNICAL FEATURES:

- Active sensing zone with anti-adhesive coating
- Temperature range -10…+**250 °C**
- Interchangeable measuring elements
- Point level and analogue measurement
- **Individually adjustable probe length**



Easy to Adapt:

Replace, extend or shorten the measuring elements to suit your application.



COMPACT SENSOR SOLUTIONS

When every millimetre counts.

Not every application has room for a conventional sensor.
Our compact sensor solutions provide reliable object and level detection, even where installation space is limited. A choice of compact designs and customisation options allows us to meet specific installation requirements.



KA8951

EasyMount

Compact. Flexible. Customisable.
Just 5 mm installation depth – with customised housing designs available on request.

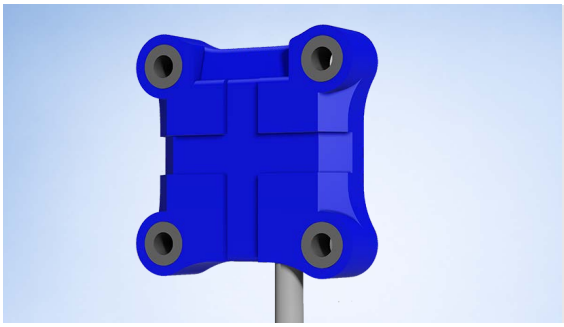


Customised versions available on request.



P3 Sensor 34 x 34 x 5
KA8981 / KA8957

Programmable capacitive sensor with three selectable output modes to meet different application requirements.



Sensor 34 x 34 x 8
KA1451

Robust, low-profile design for space-saving installations.

INDUSTRIES AND APPLICATIONS

FOOD & BEVERAGE

Sensor solutions for food and beverage production.

Reliable detection of liquids, powders, granules and pastes is essential in food and beverage production. Hygienic design, process reliability and sensor solutions tailored to the application all play a key role.

Our capacitive sensors provide reliable level monitoring across a wide range of production processes – from processing and storage to filling and packaging.





LEVEL MONITORING FOR LIQUIDS AND PASTES

Reliable level detection in filling and processing systems – designed for hygienic applications and suitable for a wide range of liquids and pastes.



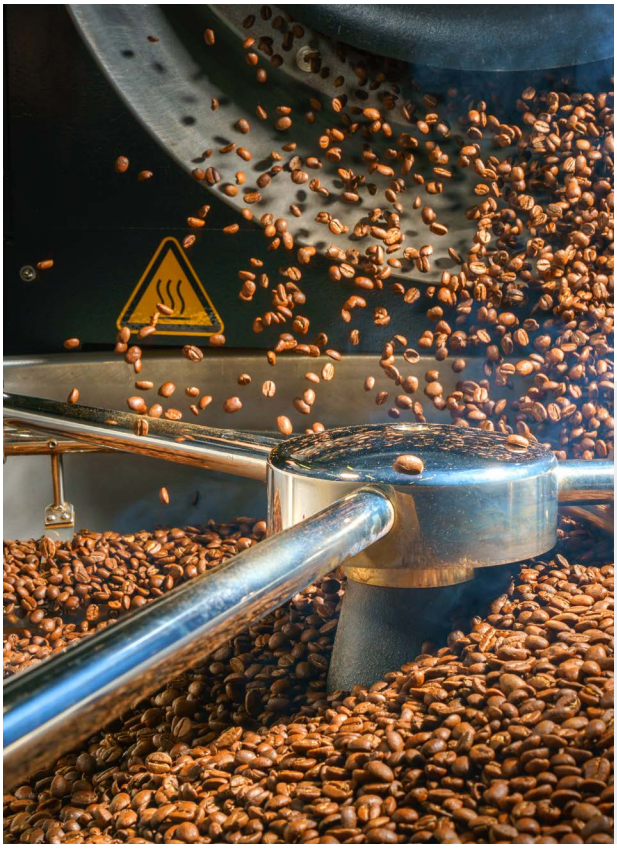
D30 Sensor
KA1529

Compact capacitive sensor for hygienic applications.



Hygienic Sensor
KA1685

Capacitive sensor designed for direct food contact.



LEVEL MONITORING FOR BULK SOLIDS

Reliable level detection of coffee beans and other bulk materials – robust, dependable and designed for demanding production environments.



M30 Sensor
KA1689

Robust capacitive sensor for level detection of coffee beans, grain and other bulk solids.

PHARMA & HYGIENE

Sensor solutions for demanding processes.

Pharmaceutical and hygienic production processes place particularly high demands on process reliability, product purity and consistent performance.

Our sensors combine hygienic designs with durable materials to meet the requirements of demanding media and cleaning processes.

Our capacitive sensors provide reliable level detection and support the monitoring of critical production processes. A wide range of designs and materials allows us to offer solutions tailored to different media and installation requirements.

Find out more about SIL on page 30.

SIL
Safety Integrity Level



RELIABLE MONITORING OF HYGIENIC PROCESSES





Hygienic Sensor
KA1244

Capacitive sensor with a hygienic design for demanding process environments.



Capacitive Sensor
KA0829

Versatile sensor for fluid handling and process engineering applications.





Capacitive M8 Sensor
KA1543

Compact sensor for space-restricted installations in hygienic processes.

Hygienic Design

Easy-to-clean sensor designs – ideal for applications with demanding hygiene requirements.

CHEMICAL & PROCESS INDUSTRIES

Sensor solutions for demanding media and processes.

In the chemical industry, reliable measurement and monitoring are essential for product quality, plant safety and efficient production.
Our robust sensors provide solutions for challenging media and a wide range of process conditions.





Capacitive Sensor
KA0343

Ex-rated version, resistant to aggressive media.



Capacitive Sensor
KA0390

Chemically resistant industrial sensor for demanding processes.

PLASTICS INDUSTRY

Reliable sensor solutions for plastics processing.

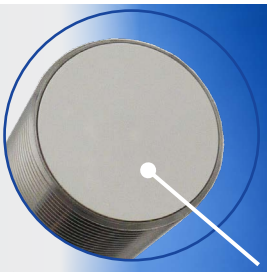
Reliable level monitoring is essential when processing plastic granules and powders. Our capacitive sensors are designed for different installation requirements and demanding materials – including applications where abrasive bulk solids place considerable stress on sensor surfaces.





M32 Ceramic Sensor
KA1220

Ceramic sensing surface for applications involving abrasive granules.



Ceramic Surface
Provides protection against abrasive wear.



Capacitive M30 Sensor - Analog
KA1312

Robust sensor for a wide range of applications in plastics processing.

EARLY LEAK DETECTION

TiltGuard – leak detection with integrated position monitoring.

Our TiltGuard technology detects escaping liquids at an early stage, directly at the point of installation.
Integrated position monitoring also checks the sensor‘s orientation and provides an alert if it is displaced or moves out of its intended position.
This combines reliable leak detection with continuous monitoring of correct sensor positioning – an important advantage for safety-critical applications, including those subject to the German Water Resources Act (WHG).



LEAK Sensor KA1544



SIL Safety Integrity Level

Z-65.13-572
Z-65.40-573

Detect Leaks Early

Monitor Sensor Position

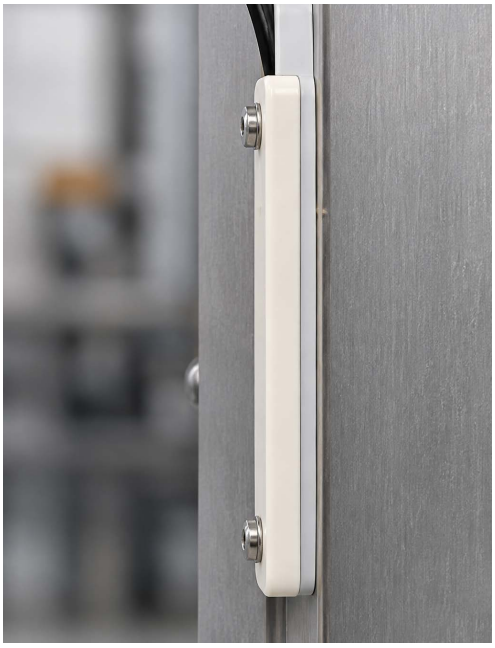
Protect Equipment

WHEN INSTALLATION SPACE IS LIMITED

Flush-mounted sensor solution – continuous measurement without intrusive components.

Not every application provides enough space for a measuring probe extending into the vessel. Our flush-mounted sensor solution enables continuous level measurement even in confined installation spaces and very small vessels – without sensor elements protruding into the vessel.
Suitable for a wide range of media, from liquids to powders.





Typical Applications

- Continuous level measurement in small vessels
- Level monitoring in mixing tanks without interfering with the agitator
- Measurement of a wide range of liquid and powdered materials

Space-Saving
No sensor elements protruding into the vessel.

Process-Friendly
Agitators and material flow remain unobstructed.

Reliable
Precise level monitoring, even in compact vessels.



WHEN PROCESSES HEAT UP

Custom-engineered sensors for process temperatures up to 200 °C.

High temperatures place exceptional demands on sensor technology. The capacitive sensor KA1743 was specifically developed for a customer application requiring continuous operation at temperatures of up to 200 °C.
A tailored solution for demanding industrial processes, including plastics processing.



Custom-Engineered Capacitive Sensor
KA1743
Designed for continuous operation at temperatures up to 200 °C.

UP TO **200 °C**



CUSTOM SENSOR SOLUTIONS

Engineering expertise directly from the manufacturer.

Not every application can be solved with a standard sensor.

With our in-house engineering and manufacturing capabilities, we develop sensor solutions tailored to specific process conditions and installation requirements.

Your Benefits

- Sensor designs tailored to your application
- Direct collaboration with our engineering team
- In-house development and manufacturing expertise
- Quality and technical support from a single source

SENSORS MADE FOR YOU

Custom sensor solutions – engineered and manufactured by RECHNER SENSORS.

SAFETY AND CERTIFICATIONS

HAZARDOUS AREAS

Designed for demanding industrial environments.

Where flammable gases, vapours or combustible dusts may be present, sensor technology must meet specific safety requirements.
RECHNER SENSORS offers a wide range of sensor designs suitable for potentially explosive atmospheres – tailored to the relevant operating conditions and application requirements.



Explosion Protection in Accordance with ATEX

SENSOR SOLUTIONS FOR HAZARDOUS AREAS

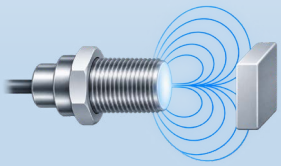
The right sensor solution for every Ex zone.

From compact designs to demanding level measurement applications, discover our extensive range of sensor solutions for potentially explosive atmospheres.



Inductive

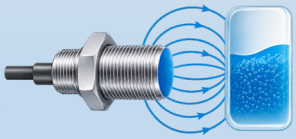
Robust object detection in hazardous areas.





Capacitive

Reliable level monitoring.





Leak

Early detection of leaks.



APPLICATIONS AND EX ZONES

Suitable for use in potentially explosive atmospheres – with different zone classifications depending on the sensor design and its specific approval.

Gas Hazardous Areas (Zones 0, 1, 2)

For example, in the chemical, pharmaceutical and process industries.

Dust Hazardous Areas (Zones 20, 21, 22)

For example, in the food, plastics and bulk materials industries.

Certified for use in hazardous areas.

Gas	II 1G Ex...
Dust	II 1D Ex...

VERSATILITY PROVEN IN PRACTICE

From object detection to level and leak monitoring – sensor solutions for demanding hazardous-area applications.

SAFETY FOR CRITICAL PROCESSES

Reliable sensor solutions for safety-related applications.

Safety-critical processes depend on reliable measurements and clearly defined safety functions. Selected RECHNER SENSORS models are SIL 2 certified and support the implementation of functional safety concepts.

Whether in the chemical, pharmaceutical or process industries, our sensor solutions provide a reliable basis for monitoring demanding applications.



Capacitive Sensor G 1/2” KA2000
Hygienic design for pharmaceutical and food industry applications.



Capacitive M18 Sensor KA1283
Compact design for a wide range of installation requirements.





Capacitive M32 Sensor KA1719
Suitable for detecting chemically aggressive materials.

YOUR BENEFITS

Functional Safety
SIL 2-certified versions for defined safety functions.

Reliable Monitoring
Sensor technology for demanding industrial processes.

Versatile Designs
Different sensor configurations to suit specific installation requirements.

FDA-COMPLIANT MATERIALS & HYGIENIC SENSOR SOLUTIONS

For applications with demanding material and hygiene requirements.

Sensors used in the food, pharmaceutical and process industries must meet particularly demanding requirements.
Suitable materials, easy-to-clean designs and reliable performance under challenging process conditions are essential.
RECHNER SENSORS offers selected sensor solutions using materials that comply with applicable FDA requirements and Regulation (EC) No 1935/2004 – depending on the specific application.



PTFE
FDA 21 CFR 177.1550 conform

Capacitive M12 Sensor KA1693
Compact design for applications with minimal material build-up.



PEEK
FDA 21 CFR 177.2415 conform

Capacitive Sensor D50 KA1717
Smooth, gap-free hygienic design.



YOUR BENEFITS

Suitable Materials
Selected materials for sensitive production environments.

Hygienic Designs
Easy-to-clean sensor designs for demanding processes.

Application-Specific Solutions
Materials and sensor designs tailored to your process requirements.

RFID – THE NEXT STEP IN DIGITALISATION

Unique identification. Complete traceability.

At RECHNER SENSORS, every sensor can be uniquely identified by its individual serial number.
This enables full traceability of its manufacturing history – from the components used and documented testing procedures through to final delivery.
We are now taking the next step by gradually introducing RFID chips into selected sensor models.
RFID allows the unique device ID to be read quickly and contactlessly, without manually entering the serial number.

This provides benefits throughout the entire process chain: During goods receipt, RFID-equipped sensors can be registered and assigned more quickly and accurately. RFID also simplifies the identification of individual devices during ongoing production and enables straightforward access to the corresponding manufacturing and test records.

RFID
Contactless identification.

→

Device ID
Unique device identification.

→

Product History
Access to manufacturing and test records.

„Every sensor has a unique identity. RFID makes it even easier to access.“



RFID is being introduced gradually for selected sensor models

SAFETY AND CERTIFICATIONS /

An overview of the markings, certifications and standards

Every product from the company Rechner Sensors bears the CE mark in accordance with EU regulation 765/2008.

Within the United Kingdom, the UKCA marking is mandatory for technical products. The marking must be checked by the manufacturer and/or a notified body based in the UK for compliance with the relevant regulations. Once testing is complete, a declaration of conformity is issued.

RoHS-compliant devices meet the requirements of EU Directive 2011/65/EU on restricting the use of certain hazardous substances in electrical and electronic equipment.

ATEX stands for "*Atmosphères Explosibles*".
ATEX-certified devices comply with the ATEX Product Directive 2014/34/EU and the corresponding European standards for explosion protection.

Devices certified according to IECEx can be used internationally in potentially explosive atmospheres.

The China Compulsory Certificate (CCC) is a certification system ensuring product quality for equipment sold on the Chinese market. Certification by Chinese authorities is required for equipment used in potentially explosive areas.

ETL Listed is a North American safety mark.
Products with this certification are tested, approved and manufactured in accordance with UL/CSA safety standards and requirements.

Devices with this symbol are permitted for direct food contact in accordance with Regulation (EC) No. 1935/2004.

The Water Resources Protection Act (WHG) regulates the protection and use of groundwater and surface waters such as rivers, lakes and seas.
It is a German national law.

IO-Link is the first globally standardis
with sensors and actuators. It
the proven and widely
tors.

This brochure was created in-house.:

With our own ideas, great attention to detail and the same commitment to quality that goes into every sensor we make.

RECHNER

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rechner-sensors.com

Family-Owned Since 1965