thermokon®

HOME OF SENSOR TECHNOLOGY

VIEW

PRODUCTS | SOLUTIONS | INNOVATIONS

Headquarter in Mittenaar-Offenbach:
5.300 m² offices, conference and training rooms

Production site in Bischoffen:
11.300 m² total area, 6.000 m² production,
3.700 m² warehouse space, 1.600 m² office and social rooms

MADE IN **IN GERMANY** – HOME IN THE WORLD

For nearly four decades, we have been deeply connected to our region. This commitment is reflected in the establishment of our new production and logistics site, located just two kilometres from our company headquarters in Mittenaar-Offenbach, at the heart of central Hesse.

At our two locations and across our subsidiaries, more than 280 highly motivated and qualified employees work every day to support you and your needs.
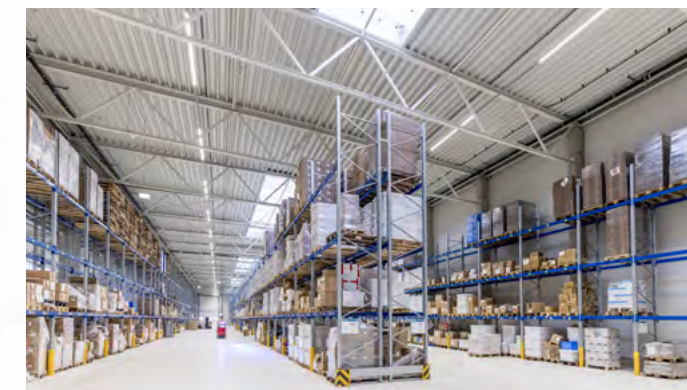
PRESENT IN OVER 80 COUNTRIES

We export our sensor technology and systems worldwide, ensuring a strong local presence.

Our subsidiaries are located in Finland, France, Italy, the Netherlands, Austria, Sweden, Switzerland, Spain, and Poland. Complemented by partnerships with distributors across many regions, our product portfolio is available in more than 80 countries.

PRODUCTION AND LOGISTICS IN BISCHOFFEN

- **Top Product Quality:**
  Achieved through the use of state-of-the-art equipment and the expansion of automated processes

- **Comprehensive Quality Assurance:**
  In-house test equipment development ensures reliable quality control

- **Increased Storage Capacities:**
  Large stock of finished goods fot rapid delivery capability

- **High Flexibility and Independence:**
  Featuring three SMD assembly lines with camera-based AOI quality inspection, injection moulding machines, laser systems, a UV coating system for sensor protection, and more

- **Prime Location:**
  Direct connection to the highway for ffast deliveries

LEADER FOR A GOOD REASON

Since 1987, Thermokon is recognized worldwide for leveraging standards in intelligent buildings with engineering, innovation and quality "Made in Germany". Thanks to the development and production of sophisticated sensors and sensor systems we are creating an additional benefit for our customers all over the world.

We focus on efficiency, sustainability and openness to new fields of technology as well as a close cooperation and thorough dialogue with our clients.

As a leader for innovation with a broad scope of applications we are continuously developing our portfolio further and offer decisive benefits with regards to product-related values, customised solutions and engineering. Our complete range of products is designed to energy-efficient buildings.

YOUR BENEFITS

As the "Home of Sensor Technology" for building automation as well as heating, ventilation, air conditioning and refrigeration technology, Thermokon possesses the expertise to combine quality with cost-efficiency.

Through innovative solutions, we create added value for our customers. Our expertise ensures your success.

- **Clear focus on the best possible benefit for customers**

- **Solution-oriented thinking and action**

- **Achieving highest available technology and quality standards**

MADE IN GERMANY

5 JAHRE GARANTIE

APPLICATION KNOW-HOW

We know and understand your applications. Thus we also understand your challenges and can interact with you on the same level.

PROCESS KNOW-HOW

We anticipate your processes and make them more lean and efficient, enabling you to save time and money.

TECHNOLOGY KNOW-HOW

We have the required technical know-how to deliver you customised and efficient sensor solutions as well as services.

SMART SENSOR SOLUTIONS

LoRaWAN®

SMART **SENSOR SOLUTIONS** FOR **IoT**

IoT solutions based on LoRaWAN® are playing a key role in the development of **Smart Cities**. For example, cities and municipalities in particular are building a sustainable and process-optimised infrastructure for building security, air quality monitoring and street lighting control. Other areas of application include **Smart Buildings, Smart Agriculture, Smart Industry, Smart Logistics** and **Smart Infrastructure**. The flexibility of cloud and on-premise solutions make LoRaWAN® a real game changer in the IoT.

- **Long Range:**
  provides long radio transmission ranges and a thourough signal penetration

- **High Security Standards:**
  Ensures secure data transmission with 128-bit AES encryption

- **No Licensing Fees:**
  Enables cost-free usage across Europe without licensing requirements

- **Flexibility:**
  Options for battery-powered or wired power supply

- **Low Maintenance:**
  Battery-powered sensors are highly energy-efficient, offering years of operation with minimal maintenance

NOVOS 3 INC LoRaWAN
Room Operating Unit with Incremental Encoder

MCS LoRaWAN
Multi Compact Sensor

WK02+ ext. LoRaWAN
Condensation Sensor

More
Information

EasySens®

The Self-Powered, Intelligent Wireless System

SELF-POWERED,

INTELLIGENT **WIRELESS SYSTEM**

Energy harvesting enables the generation of energy by utilizing ambient light, temperature differences, or motion (e.g., via button presses). Interoperable, cost-effective, and energy-efficient solutions for building automation are easily achieved with our EnOcean® wireless system.

- **Cost savings due to Energy Harvesting:**
  Producing energy from the sensor environment

- **Flexibility with sensor location:**
  Quick and easy mounting and commissioning

- **Easy integration:**
  Integration into existing buildings without the need of new wires – ideal for retrofit projects

- **Reduction of fire load:**
  Saving on cables reduces fire load

- **Optimum measuring points:**
  Direct mounting on optimum measurement points

- **Compatibility:**
  Fulfils international standard (IEC 14543-3-10) and guarantees compatibility with other manufacturers

- **airConfig:**
  Convenient parameterisation of the devices using special remote commissioning commands

- **airScan:**
  Field strength measuring system for evaluation and ideal placement of transmitters and receivers

More Information

thanos EVO

THOUGHT THROUGH TO THE LAST DETAIL:
A **HIGH-PERFORMING LANDMARK IN ROOM CONTROLS**

Thanks to innovative features, room control with thanos EVO is simple, intuitive and suitable for all requirements. In addition to temperature and humidity, the two air quality parameters CO2 and VOC are also measured; furthermore external sensor values can be displayed through the BUS communication. The visualization of short text messages and the use of 2D-room graphics, which, for example, make switching the light ON/OFF more convenient for different users, also support the intuitive operation of typical functions.

- **Intuitive and comfortable user interface:**
  control room climate, lighting and shading
  Individual scenes can be defined and called

- **2D room graphics:**
  To control lights and blinds

- **Energy efficiency:**
  ECO mode for an energy-efficient
  room control

- **Integrated Sensors:**
  CO2, VOC, Temperature, relative Humidity

- **Interoperability:**
  Compatible with multiple BUS systems

Modbus · BACnet · KNX · CASAMBI

More
Information

NOVOS®

THE INNOVATIVE FAMILY OF **ROOM SENSORS** AND **ROOM OPERATING UNITS**

Thanks to an exclusive design, wide range of functionality, easy parameterization and efficient mounting, the new room operating units NOVOS by Thermokon offer a variety of benefits. The uniform premium design with various configuration options, the flattened shape of the enclosure to the wall and a slightly eroded surface emphasize that NOVOS fulfills highest project demands.

BACnet **enocean** **KNX** **LoRaWAN®** **Modbus** *0..10 V | 4..20 mA | passiv*

| NOVOS 5 LCD | NOVOS 3 EPD | NOVOS 5 x LCD | NOVOS 3 x EPD | NOVOS 7 | NOVOS Touch |

JOY

Multifunctional
room controller

MULTI-FACETED WITH **DISTINCT DESIGN**

High-quality fan coil and room controllers designed for individual room regulation. The sleek glass sur-
face with touch-sensitive buttons and display combines design, intuitive operation and functionality in
an exceptional way. Up to three integrated sensors for measuring temperature, humidity and CO2 levels
complete the performance spectrum.

The internal controller of the JOY calculates control signals for fans and heating/cooling applications,
which can be directly actuated via analog or digital outputs (depending on the model). The integration
of external sensors (e.g., window contacts, change-over sensors or condensation monitors) allows for
application-specific regulation tailored to user needs.

- **Elegant flat design:**
  Flat, high-quality housing with real glass surface
  in black or white

- **Flexibility:**
  Digital and analogue outputs and
  possibility for change-over applications

- **EasySens®-Variant:**
  Types with EasySens® (EnOcean) available

- **Energy efficiency:**
  Integrated ECO-Function for an
  increased energy-efficiency

**More
Information**

thevios®

GALAXY OF POSSIBILITIES –
MEASURE, CONNECT, EXPAND

What do space exploration and efficient room control have in common? Both require precise measurements and reliable, stable communication. The hubs and satellites of the new thevios ceiling sensor system deliver exactly that: precise sensing for capturing essential room parameters combined with maximum flexibility for integration into building management systems.

- **Connected Intelligence:**
  The thevios hub and its satellites form a smart sensor network that requires only a single central interface to the building management system (BMS)

- **High Scalability:**
  From simple sensors and multi-sensors to the creation of comprehensive sensor networks

- **Enhanced Room Comfort:**
  Accurate monitoring of room climate and occupancy, including temperature, relative humidity, CO2, VOC, brightness and motion detection

- **Compatibility:**
  Seamless integration into building automation systems via an IP interface

- **Quick Installation:**
  Enabled by an intelligent enclosure design

BACnet   **Modbus**

- **Design:**
  Timeless, subtle look

- **Ceiling Installation:**
  surface- and flush-mounted setups

- **Measurement Indication:**
  Status display using a traffic light system

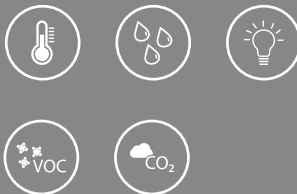# OUTDOOR APPLICATION

Application examples:

Housing area

Industrial halls

Greenhouses

With our outdoor sensors, you always get the optimal solution for your application. Depending on type, the integrated sensor technology measures temperature, humidity, enthalpy, dew point, CO2 and VOC content, brightness or atmospheric air pressure and makes our products incomparably flexible.
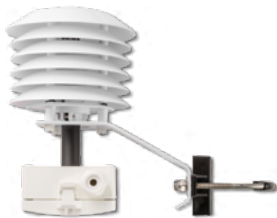
AGS54+
Outdoor sensor temperature

AGS55+
Outdoor sensor temperature

FTA54+
Outdoor sensor humidity

WSA+
Outdoor sensor humidity

LA+
Outdoor sensor air quality

Li65+
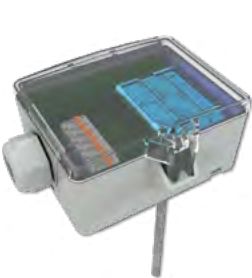Outdoor sensor light / air pressure

DUCT APPLICATION

Application examples:

Heating systems

Ventilation systems

Air conditioning systems

Our duct and immersion sensors reliably measure and monitor temperature, humidity content or air quality in ducts or pipes of heating, ventilation and air conditioning systems

AKF10+
Duct sensor temperature

FTK+
Duct sensor humidty

LK+
Duct sensor air quality

MWF+
Duct averaging sensor

SFK02+
Immersion sensor

KFK01
Duct-/ Immersion sensor

CABLE SENSORS
CONTACT SENSORS

Application examples:

Heating systems

Heat pumps

Durable materials and state-of-the-art pressing and rolling processes guarantee the quality and durability of our cable and contact sensors. This makes them the first choice in building, heating, ventilation and air conditioning technology.

TF14
Cable Sensor

TF25
Cable Sensor

OF14
Cable Sensor

PR25
Contact Sensor

AF25
Contact Sensor

VFG54+
Contact Sensor

FROST PROTECTION /
CONDENSATION / LEAKAGE

Application examples:

Data centres

Cold storages

Air conditioning systems

Our condensation sensors, leakage detectors and frost protection thermostats protect sensitive electronics from leakage damages, which often result in expensive system failures or even dropouts.

LS02+
Leakage Detector

LS02+ ext.
Leakage Detector with external sensor element

LS02+ flex
Leakage Detector with sensor rod

WK01+
Condensation Sensor

WK02+
Condensation Sensor with external sensor element

TFR
Frost Protection Thermostat

PRESSURE SENSORS
FLOW SENSORS

Application examples:

Heating systems

Ventilation systems

Pressure and air flow sensors for cooling and air conditioning must resist extreme conditions. Therefore our products are customized to withstand even the harshest environments

DPA+
Differential pressure / volume flow transducer

DPGe
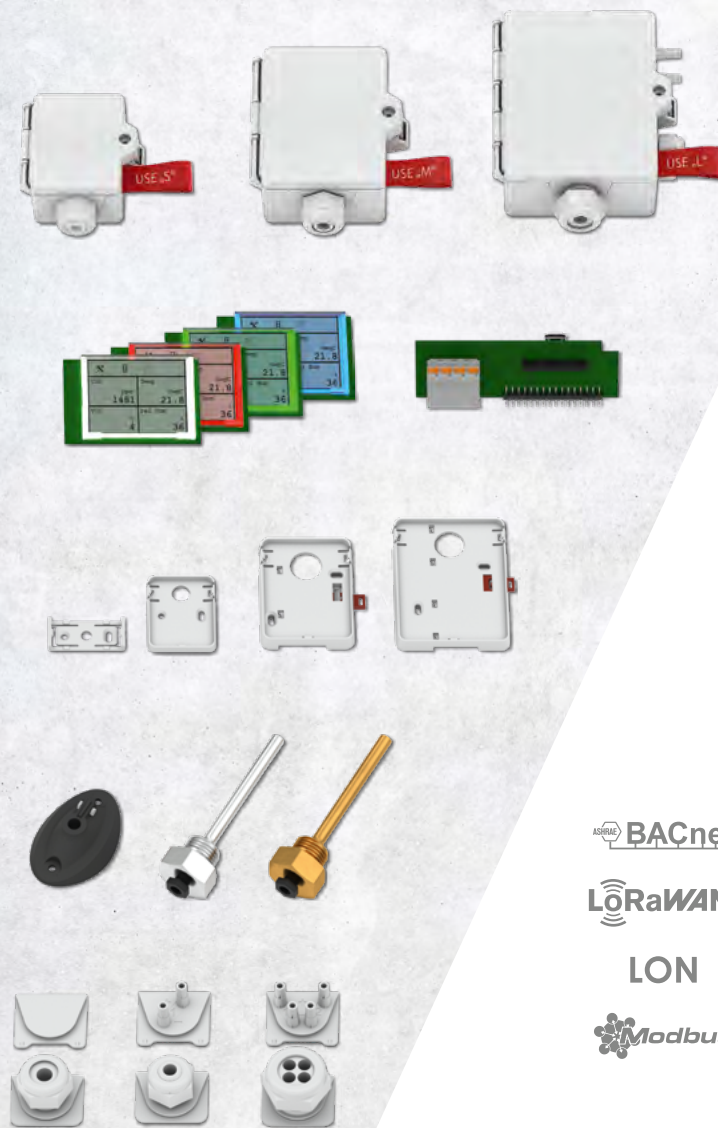Differential pressure gauge

DPG
Differential pressure gauge

PS
Differential pressure switch

DLF02
Pressure transducer

DPL02
Differential pressure transducer

EASY TO USE:
THE **USE-**FAMILY

- High-resolution **RGB-display**

- Application-specific, **exchangeable inserts** and **cable entries**

- Visualisation of device status and measured values using **traffic light function (TLF)**

- Threshold switch relays

- **Live-Zero-Signal** (z.B. 1..10 V)

- Output signals **0..10 V** and **4..20 mA**

- Configuration via **App**

- Easy **installation** via mounting clip/base, flange or thermowell

- Removable cable entry and plug-in terminal for **simple pre-assembly**

BACnet

LoRaWAN®

LON

Modbus

SENSOR PROTECTION:
UV COATING WITH INNOVATIVE
PRESSING AND ROLLER BURNISHING PROCESS

The special UV-curing protective coating provides an extremely resistant seal to protect the sensors from external influences. Our specially developed UV curing system enables precise dosing and even curing of the coating.

This enables extremely efficient production processes and guarantees consistently **high quality**. Thanks to the high thermal conductivity of the coating, optimum sensor response times are guaranteed. This protection is ideal for applications that place the **highest demands on reliability and precision**.

Ensuring the accuracy and reliability of our sensors is our highest priority. The proven **SI-Protection** for protection against corrosion damage, vibrations and measurement inaccuracies will be supported in future by the innovative **16-point segment pressing (IP65)** or the optionally available **roller burnishing (protection class IP67).**
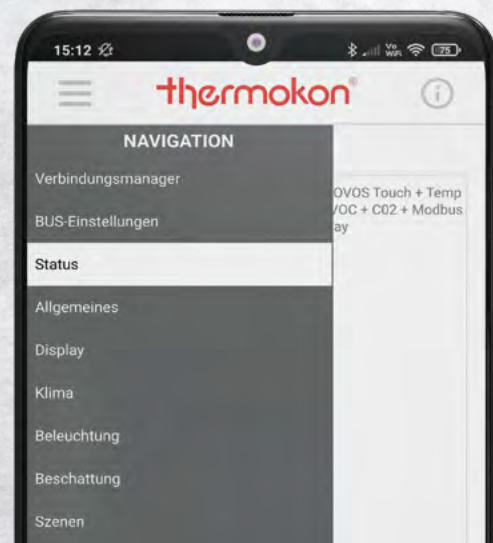
16-point pressed (IP65)

Roller burnished (protection class IP67)

THERMOKON® APPS

FOR INDIVIDUAL CONFIGURATION

All „**USE**app", "**NOVOS**app" und "**LRW**app" based products are supplied with a fully functional standard configuration for direct mounting/installation. Via the app it is feasible to extend the range of use and to adapt the configuration individually to application requirements.

- Communication via Bluetooth® Low-Energy-Module (BLE)
- For use on mobile terminals (Android und iOS)
- Individual configuration of output signals
- Setting of different measuring ranges

- Additional adjustment of offset values
- Parameterization of Live-Zero-Signal (1..10 V etc.)
- Setting options for display indications
- Customized parameterization of traffic-light function (TLF)

- Setting of relay performance and thresholds
- Modbus address offset (extension)
- Possibility of firmware updates on-the-go (OTG)
- Adjustment of maintenance intervals

USEapp

NOVOSapp

LRWapp

Download on the App Store / GET IT ON Google Play
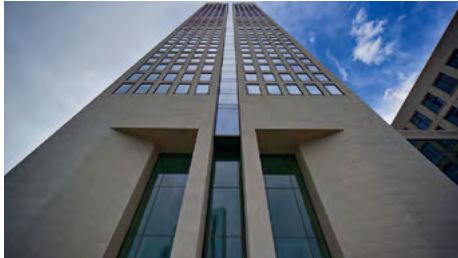
Hotel Bellevue
Dresden, Germany

Princess Elisabeth Station
Belgian Polar Research Station, Queen Maud Land, Antarctic

Grüner Bunker St. Pauli
Hamburg, Germany

MS Noordam
Holland-America Line

Opera Tower
Frankfurt, Germany

Stade Roland Garros
Paris, France

Shell Global Headquarters
Den Haag, Netherlands

Castle Nymphenburg
München, Germany

Hamad International Airport
Doha,Quatar

Generali Insurance Headquarters
Triest, Italy

Prime Tower
Zürich, Switzerland

NEXTEC Campus „Zeche Gustav"
Karlstein, Germany

Fondation Louis Vuitton
Paris, France

State Opera
Vienna, Austria

Fairmont Hotel Vier Jahreszeiten
Hamburg, Germany

Universität Oslo
Oslo, Norway

REFERENCES

European Central Bank
Frankfurt, Germany

Sheikh Abdullah Al Salem Cultural Center
Kuwait City

Konica Minolta
Milan, Italy

Andaz Belvedere Hyatt
Vienna, Austria

Promotional Bank Schleswig-Holstein
Kiel, Germany

Tomson Riviera Apartment Towers
Shanghai, China

Semper Opera
Dresden, Germany

Star Arctic Hotel
Saariselkä, Finland

COMMITTED TO
SUSTAINABILITY

The environmentally conscious and sustainable management of energy and resources is firmly embedded in Thermokon's Code of Conduct. We are aware of our responsibility and align our actions to improve our carbon footprint.

Our products play a key role in contributing to compliance with the Energy Performance Buildings Derective (EPBD). They promote energy efficiency in new buildings and enable effective retrofitting.

Our commitment to sustainability and the environment has been validated by independent organisations such as TÜV Hessen and EcoVadis. Our environmental management system in accordance with DIN EN ISO 14001 ensures that our high standards are regularly reviewed and consistently adhered to.

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