E+E

your partner
in sensor
technology.

# Accurate Sensors for Industrial Drying


www.epluse.com/drying

# The Power of Drying

Industrial drying is an essential process in numerous industries. Whether drying wood and other building materials, processing grains and instant products, or refining textiles, the requirements for precise and reliable control of temperature and humidity are strict. Sensor and calibration solutions from E+E Elektronik enhance these processes by making them not only more accurate, but also more economical and sustainable.

**E+E Elektronik stands for excellence and guarantees reliable, optimised drying performance.**

## Why E+E Sensors Make the Difference in Industrial Drying

1. Reliable measurements thanks to intelligent sensor protection concepts
2. Up to 20 % lower energy costs thanks to precise moisture measurement
3. Precision for uniform drying, higher product quality, fewer rejects
4. Lower maintenance costs thanks to customised solutions

**„E+E Elektronik has been a trusted partner for years, impressing us not only with the exceptional quality of its products but also with its reliable and seamless collaboration.“**

Martin Schrems, Team Leader Electrical Planning at Mühlböck Holztrocknungsanlagen GmbH

# Building Material Drying

Precision and reliability are crucial in the industrial drying of wood, pellets, bricks or concrete. Fluctuations in temperature or humidity can lead to longer drying times, quality defects or increased energy consumption. Robust and durable sensor solutions are particularly in demand under extreme conditions - for example at temperatures of up to 180°C. The high-precision sensors from E+E Elektronik ensure uniform drying, minimise waste and enable energy-efficient process control - for measurable cost savings and sustainable production.

# Textile Drying

Whether for industrial laundry drying, leather drying, or processing sensitive textile fibres – precise humidity measurement is essential for ensuring consistently high product quality and energy-efficient processes. Fluctuating residual moisture can cause material damage, while excessively long drying times drive up energy costs. E+E Elektronik's sensor solutions ensure reliable measurements even at high temperatures, high humidity, and in contaminated environments. This allows for precise drying process control, minimised waste, and increased energy efficiency – contributing to sustainable and economical production.

# Agricultural Drying

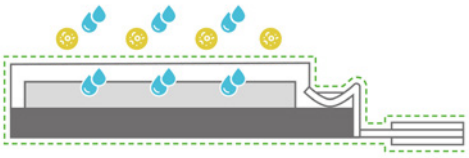
Whether animal feed, seeds, tobacco, or oilseeds – proper humidity regulation is essential for quality, shelf life, and yield. Dust, high humidity, and aggressive substances place extreme demand on sensors, which must still operate reliably and with high precision. The sensor solutions from E+E Elektronik provide durable and robust technology for stable humidity measurements, even under the most challenging conditions. By precisely controlling drying parameters, energy consumption and costs are minimised while product quality is optimised – contributing to sustainable and economical agricultural production.

# Food Drying

Whether grains, pasta, herbs, coffee, or meat – proper drying is crucial for quality, shelf life, and flavour. Inaccurate humidity measurements can lead to loss of flavour, uneven drying, or increased energy consumption. The high-precision sensors from E+E Elektronik enable exact control of temperature and humidity, ensuring that food is dried gently and efficiently. Thanks to their modular design, maintenance costs can be reduced, while optimised process control saves energy and lowers production costs – contributing to sustainable and economical food processing.

# Smart Sensor Protecting

1 **E+E Sensor-Coating:** This proprietary sensor coating, developed by E+E Elektronik, is a protective layer applied to the active surface of the sensor element. The coating extends the lifespan and measurement performance of the E+E sensor. Furthermore, it enhances the long-term stability of sensors in harsh, dusty, and contaminated environments.



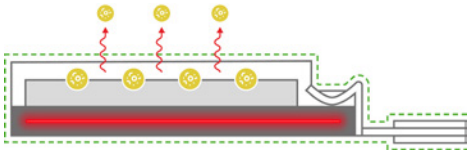
E+E Sensor-Coating

2 **Innovative Sensor Connection Encapsulation:** This technology provides highly effective protection against the damaging effects of dirt particles and dust, particularly in the connection area, which could lead to premature failures. In combination with the sensor coating, the encapsulation ensures optimal protection even under the harshest conditions.

Smart Sensor Protection

3 **Heated Humidity and Temperature Sensor Elements (High-Humidity Guard):** For applications in continuous high humidity, the heated sensors from E+E Elektronik are valuable. Condensation on the sensor elements is prevented through continuous, regulated heating of the element and sensor body (dual-heating system). This increases the sensors lifespan and long-term stability while significantly reducing maintenance intervals and inaccurate measurements.

4 **Automatic Recovery (ARC) Against Chemical Contamination:** This function ensures long-term stable measurements when the sensor is exposed to chemical contamination. This is triggered manually or via internal timing and activates intensive heating of the sensor element. Intense heat removes contaminants and prevents potential measurement drift.



E+E ARC Technology

These smart protection innovations from E+E Elektronik ensure uninterrupted operation and a long service life – even under the harshest environmental conditions and at temperatures up to 180°C.

# Sensor Solutions

## HTS801


**Humidity and Temperature Sensor for High Humidity and Chemically Polluted Conditions**

- Heating modes for temporary condensation or permanent high humidity
- Automatic ReCovery (ARC) function
- E+E Sensor-Coating
- 3.5“ TFT colour display with logging function
- RapidX intelligent replaceable pluggable probe

## EE310


**High-End Humidity and Temperature Sensor for Industrial Applications**

- Highest measurement accuracy
- Rugged polycarbonate IP65 or stainless steel enclosure
- Pluggable probe for fast exchange and easy installation
- E+E Sensor-Coating for protection against contamination and corrosion

## HTP501

**Digital Humidity and Temperature Probe up to 120 °C (248 °F)**

- Stainless steel enclosure
- Fully protected electronics
- Wide choice of filter caps
- High accuracy and wide temperature range
- Lanzeitstabil
- E+E Sensor-Coating & sensor encapsulation

# Calibrating your Limits

Sensors used in drying processes are essential for the precise control of temperature and humidity – both of which are critical for product quality and energy efficiency.
For quality-sensitive applications, regular calibration with traceable certificates is indispensable. E+E Elektronik provides these calibration certificates directly upon delivery of the sensors, issued from its accredited in-house laboratory.

## High-End Sensor Calibration - around the World

Your products and services can only be as precise as the devices used to measure them. E+E Elektronik's calibration laboratory ensures your sensors meet the highest quality standards, guaranteeing optimal performance and compliance with all necessary regulations.

With over 20 years of experience, the E+E calibration team focuses on providing reliable service with minimal error potential and no unnecessary delays.

## Advantages of the E+E Calibration Laboratory

- High accuracy with traceable calibration
- Low measurement uncertainty paired with extensive calibration offerings
- All-in-one solutions with manufacturer-independent calibration
- Minimized downtime through fast calibration processes

**„For my team and me, precision, speed and reliability in calibration have top priority. With over 20 years of experience, we stand for the highest quality, regardless of the manufacturer, all around the world."**

Dietmar Pachinger, Head of Accredited Calibration Laboratory, E+E Elektronik

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