

**E+E**

—  
your partner  
in sensor  
technology.

# **+ Sensor Solutions in Power Generation**



# E+E Elektronik – Your Partner in Sensor Technology

E+E Elektronik GmbH, with headquarters in Engerwitzdorf, Austria, has been established in 1979 and is part of Dr. Johannes Heidenhain group.

<p><b>Diverse.</b></p> <p>E+E Elektronik is a leading manufacturer of sensors for a multitude of physical quantities and applications. Data loggers, hand-held meters as well as calibration systems and services round up the product portfolio.</p>	<p><b>Reliable.</b></p> <p>Best quality made in Austria, high accuracy and outstanding long-term stability, together with advanced understanding of customer specific requirements are the main competitive advantages of E+E Elektronik.</p>	<p><b>Versatile.</b></p> <p>Measuring devices from E+E Elektronik are used all over the world in most diverse industries such as building automation, meteorology, agriculture, food, pharmaceutical and process control.</p>
<p><b>Flexible.</b></p> <p>With own clean room sensor manufacturing, in-house design of state-of-the-art electronics and highest competence in calibration, E+E Elektronik is the ideal partner for OEM customers.</p>	<p><b>Certified.</b></p> <p>The E+E Elektronik quality assurance system is certified according to ISO 9001 and IATF 16949. The company also complies with the environmental standard ISO 14001. The in-house calibration laboratories are accredited according to DIN EN ISO/IEC 17025.</p>	<p><b>Global.</b></p> <p>E+E Elektronik sales subsidiaries are located in China, Germany, France, India, Italy, Korea and the USA. Additionally, E+E Elektronik maintains a worldwide network of distribution partners.</p>

## + Reliable Power Monitoring

In today's world, it is unimaginable to live without electricity. Given the risks of blackouts, monitoring our power grid is of great importance. Turbo generators are mainly used in combination with gas or steam turbines in medium to large thermal power plants to generate electricity.

Here, the operator faces particular challenges concerning the most efficient possible turbine operation, effective cooling of the downstream generator, and trouble-free operation of the step-up transformers.

Sensors from E+E Elektronik for humidity, temperature and moisture in oil are the best option for these crucial applications. In addition, compact moisture in oil sensors are available specifically for monitoring insulating oils in non-explosive applications. These transmitters are used for real-time measurements in a wide range of applications.

E+E sensors are characterized by their exceptional long-term stability. They are particularly resistant to contamination and provide early warnings of potential failures.



### Hydro Power Plants

- Renewable energy sources
- Precision monitoring
- Prevent equipment damage
- Step towards sustainability



### Power Transformers

- Oil health monitoring
- Prevent insulation failure
- Extend equipment life



### Wind Energy

- Clean power generation
- Accurate monitoring
- Enhance turbine efficiency & safety



### Thermal Power Plants

- Load power generation
- Preventive maintenance
- Enhance efficiency & emission control

## + Hydropower Plants



Hydropower plants require precise environmental monitoring to ensure reliable energy generation and to protect critical infrastructure. Key parameters such as humidity, temperature, dew point, and air velocity must be continuously monitored in turbine halls, control rooms, and ventilation systems.

To meet these demands, E+E Elektronik offers advanced sensor solutions: the EE355 and the EE371 are used for dew point measurement in compressed air lines and insulation dryers, while the AVS701 provides accurate air velocity monitoring in cooling ducts and ventilation systems.

## + Wind Energy



Wind power plants operate in highly dynamic environments - from coastal to high-altitude regions where temperature, humidity, airflow, and moisture control are critical for the efficiency and longevity of turbines and electrical components. E+E Elektronik offers sensor solutions tailored to these conditions: The AVS701 measures air velocity across wind turbine cooling systems and ventilation ducts, ensuring optimal thermal management of the

housings and electrical cabinets. The EE-300Ex and EE310 are ideal for humidity and temperature monitoring inside turbine housings and control units, helping to prevent condensation and corrosion that could damage electronics and gear systems. For dew point measurement in dry air systems or turbine enclosures, the EE355 and the EE371 provide detection of moisture, protecting sensitive insulation and internal components.

## + Power Transformers



E+E Elektronik's advanced sensors play a vital role in monitoring critical parameters - such as humidity, dew point, moisture in oil, temperature, and pressure - in power transformers. Devices like the EE364 moisture in oil sensor and the EE600 differential pressure sensor provides accurate real-time measurements

that help prevent insulation failure, reduce downtime, and support predictive maintenance. Engineered for reliability and long-term stability, E+E solutions enhance transformer performance, safety, and energy efficiency in demanding power generation environments.

## + Thermal Power Plants



In thermal power plants, maintaining strict control over moisture levels in hydrogen cooling systems is vital for the safe and efficient operation of generators. Measuring the dew point of hydrogen ensures internal dryness, protects insulation, prevents corrosion, and minimizes the risk of costly accidents. In explosive or high-temperature zones, the ATEX-certified EE300Ex provides reliable and safe dew point monitoring, in full com-

pliance with safety standards. Meanwhile, in coal-fired power generation areas, the EE310 delivers precise humidity and temperature measurements to combat the challenges of extreme heat, dust, moisture, and combustion gases. Together, these solutions enable continuous monitoring, reduce downtime, and ensure long-term stability in demanding power plant environments.

# + Our Sensor Solutions



## High-End Humidity and Temperature Sensor EE310

- Highest measurement accuracy with wide working temperature range
- Calculation of all humidity related physical quantities
- Digital interface RS485 with Modbus RTU or Ethernet with Modbus TCP
- Proprietary sensor coating for polluted environments



## High Precision Air and Gas Velocity Sensor AVS701

- Shows up to 3 measurands simultaneously
- Measuring range -40 ... 140 °C (-40 ... 284 °F)
- and up to 10 bar (145 psi)
- 2 freely scalable analogue outputs, current / voltage
- 2 alarm outputs



## Humidity and Temperature Sensor for Intrinsically Safe Applications EE300Ex-M1

- For gas and dust applications
- Direct mounting in zones 0 / 20
- Calculation of all humidity related physical quantities
- Wall mount or remote probe versions
- Water content and water activity in oil



## High-End Moisture in Oil Sensor EE360

- Digital interface RS485 with Modbus RTU or Ethernet with Modbus TCP
- Rugged polycarbonate IP65 or stainless steel enclosure
- Pluggable probe for fast exchange and easy installation



## Dew Point Sensor TDS501

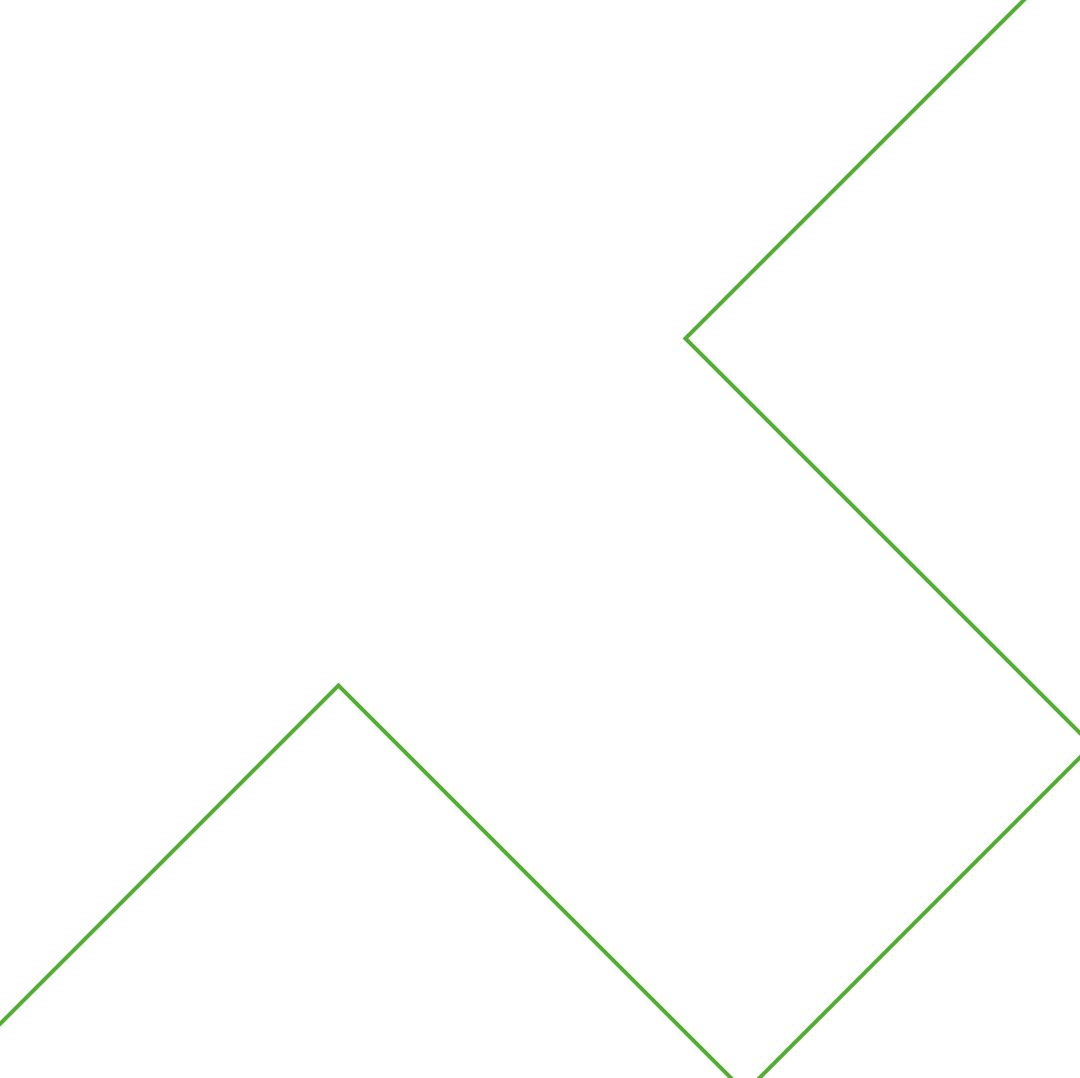
- Measurement range : -60 ... 60 °C Td
- High accuracy of  $\pm 2$  °C Td
- Compact and robust IP65 enclosure
- Analogue output / Modbus RTU
- Auto-calibration



## Differential Pressure Sensor EE600

- $\pm 0.5$  % FS accuracy
- Multi-range measurement
- Digital and analogue output
- Fully configurable
- Auto-zero interval (optional)
- Large graphic display
- Installation-friendly enclosure





Company Headquarters  
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