

# Our answer to ambient temperature measurement:

iTHERM ModuLine TST434B - the perfect  
addition to your Endress+Hauser process  
measuring instruments





# iTHERM ModuLine TST434B

**Modular resistance thermometer for outdoor or indoor ambient temperature measurement**

The iTHERM ModuLine TST434B is a rugged, proven and standardized RTD thermometer specially designed for monitoring the room temperature in **across all industries**.

It is available as a **complete unit including Endress+Hauser temperature transmitters** for enhanced measurement accuracy and reliability compared to directly wired sensors.

The wide range of common and advanced outputs and communication protocols, such as IO-Link and Ethernet-APL, allows **reliable measurement and compatibility to all common control room systems**.



# Benefits at a glance

The iTHERM ModuLine TST434B completes our portfolio for temperature measurement devices. Handling and commissioning is as simple and well-proven as with all other Endress+Hauser thermometers.

With our comprehensive offering of measuring instruments, Endress+Hauser is a convenient one-stop shop for all your measurement tasks, including ambient temperature.

## Optional head transmitters

Analog 4 to 20 mA, HART®, PROFIBUS® PA, FOUNDATION Fieldbus™, IO-Link, PROFINET® over Ethernet-APL/SPE



## Robust terminal heads

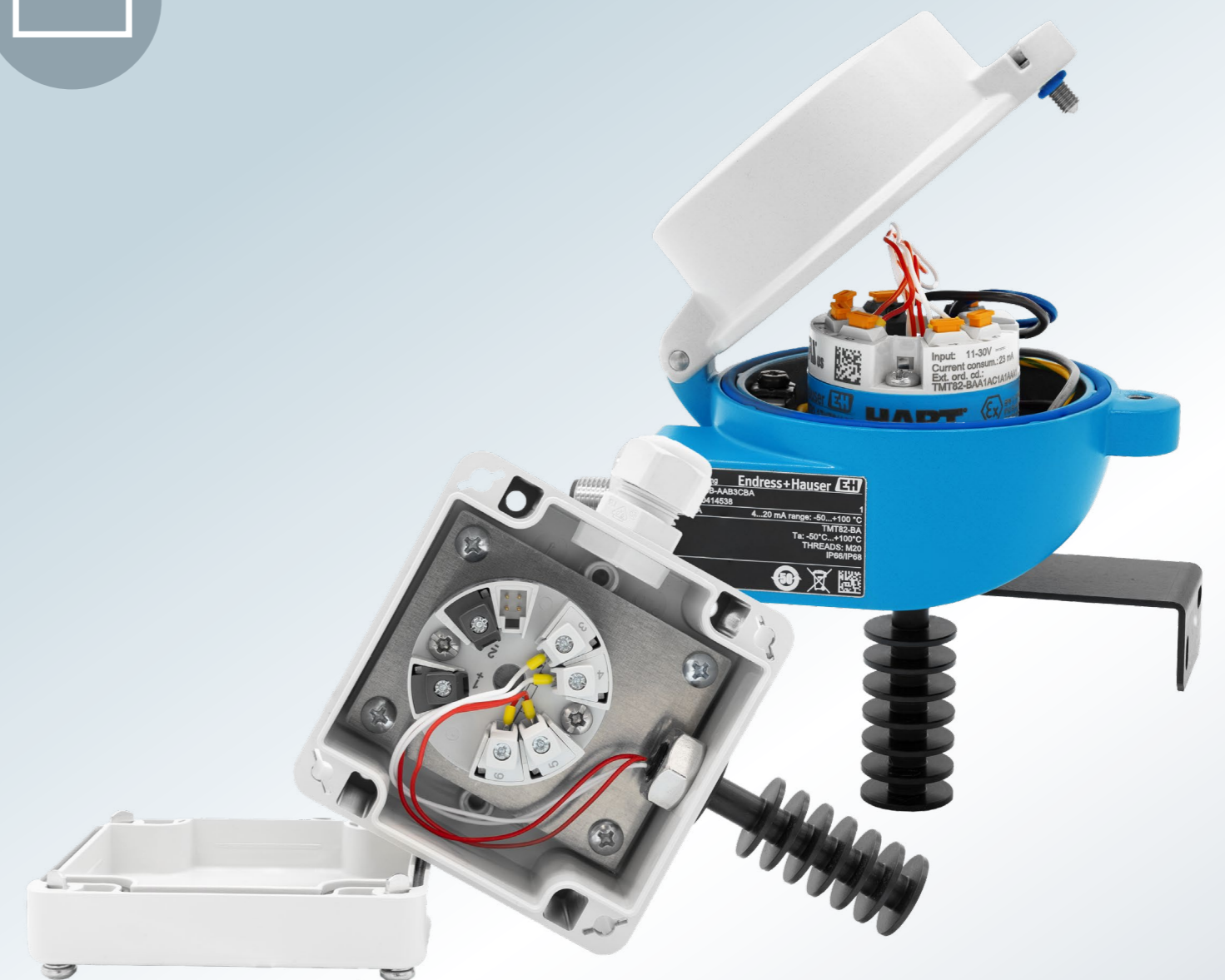
according to DIN EN 50446 or stable plastic housings offer optimal protection from extreme ambient conditions



**Reliable, long term stable and accurate**  
indoor or outdoor ambient temperature measurement



**Simple and fast wall mounting**



# Industry focus

The iTHERM ModuLine TST434B completes the Endress+Hauser portfolio of measurement devices. As with temperature, flow or pressure instruments, you can also connect ambient temperature measurement to the control room using your standard protocol.

The TST434B is a cross-industry device ideal for general applications such as:

- around piping and machinery
- in factory and production halls
- in the control cabinet
- in server rooms
- in facility parts such as laboratories, greenhouses
- in drying and cooling rooms

On the next page, you will find an application example.



# Air cooling system

Hydropower is the oldest energy source used by humans and remains a crucial part of the energy transition. A hydropower plant cannot operate without the right measurement instrumentation.

One critical part essential to the operation of a hydropower plant is the cooling system. This system cools all the important equipment, such as the turbine-generator unit and the entire hydraulic and lubricating oil system. This is where temperature measurement technology becomes vital.

Temperature plays a decisive role, especially in air cooling. The air cooling system uses cooling water to cool the cooling radiators, which in turn cool the generator unit. In addition to monitoring the cooling water temperature, **the air temperature around the radiators is measured at several points to ensure that the cooling system is functioning properly and the generator unit is not overheating.**

## Your challenge

### Measuring task:

Ambient temperature

**Medium:** Air

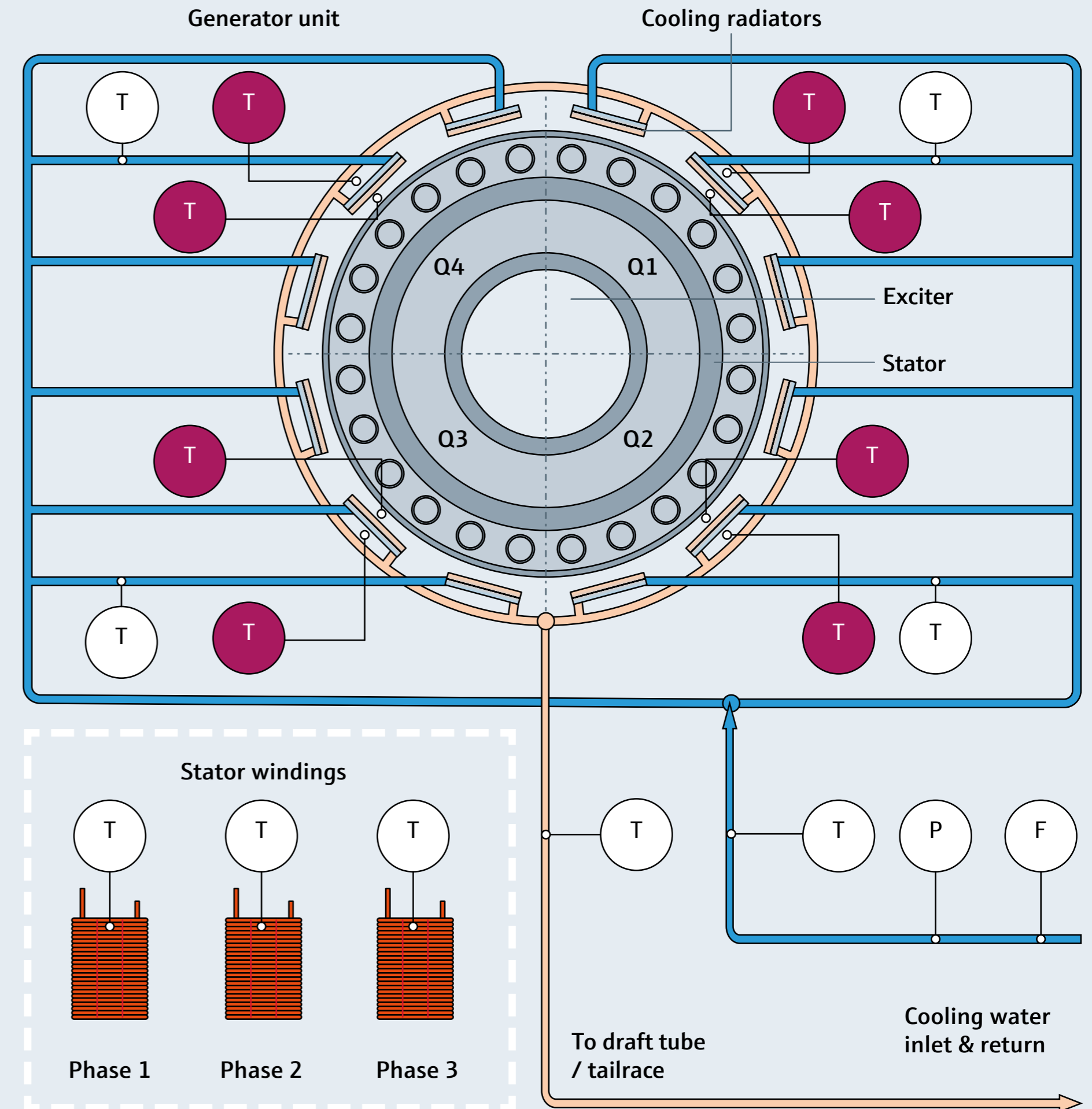
**Process temperature:** 4°C to 90°  
(39°F to 194°F)

**Compliance:** EMC compliance

**Humidity:** Suitability for high ambient relative humidity

## Our answer

The iTHERM ModuLine TST434B RTD thermometer is specifically designed for monitoring the air temperature. It is available as a complete unit including Endress+Hauser temperature transmitters for wired sensors. With a wide range of common outputs and communication protocols, the transmitters enable simple customization for easy integration into existing systems.



# People for Process Automation



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