

iTHERM TrustSens, real time health information with heartbeat monitoring

Author: Marc Stahl, Endress+Hauser Messtechnik GmbH+Co. KG, Nesselwang, Germany; presenting author: Klaus Köhler, Endress+Hauser Messtechnik GmbH+Co. KG, Weil am Rhein, Germany

iTHERM TrustSens, Worlds first self-calibrating thermometer.

No space for undetected failures!



Endress+Hauser presents a compact thermometer capable of fully automated inline self-calibration, which allows for continuous process monitoring without plant downtime or manual effort.

Key element of the temperature probe is a sensor consisting of a primary Pt100 temperature sensor and an integrated physical fixed point reference. The physical fixed point relies on the Curie temperature principle and ensures the highest measuring and calibration accuracy.

The device performs a continuous, fully autonomous device self-check and provides calibration data for gapless documentation. Calibration certificate can be generated at any time with a simple mouse click. This results in less effort, reduced costs and a minimized risk of undetected non-conformities during operation.