



► Precision that stands the test of time

KROHNE

► Accuracy and reliability at their best: OPTITEMP TT 51 temperature transmitter

When it comes to measuring accuracy and maximum stability of measurement over 5 years, KROHNE sets high standards on the market with the latest generation of OPTITEMP temperature transmitters. Efficient 50 point linearization combined with highly precise sensor drift detection promote the OPTITEMP TT 51 to the head of its class in terms of precision and reliability.

Regardless of the industry, whether it's chemical and energy, oil and gas, metal, steel, glass or paper, maximum process reliability is a must! The OPTITEMP TT 51 is fully compatible with HART 6, making them reliable and highly precise. See for yourself!



OPTITEMP TT 51 C

OPTITEMP TT 51 R

Extremely sensitive: Choose KROHNE technology for minimal fluctuation

The OPTITEMP TT 51 will impress you with its precision: In addition to a significant improvement in reliability, dual sensor input makes sensor drift detection possible, detecting age-related measurement errors as well.

This redundancy comes in both a 2-wire and 3-wire circuit with thermocouples and resistance thermometers. The OPTITEMP TT 51 R rail-mounted device is also the only converter on the market to feature the option of a redundant 4-wire circuit.

Along with newly designed electronics, the OPTITEMP TT 51 boasts an unrivalled low long-term measuring error of 0.05 % of span in 5 years.

Highly insensitive: KROHNE reliability for maximum safety

The OPTITEMP TT 51 also shines when it comes to the topic of reliability and safety: External influences such as the ambient temperature, vibrations, moisture and electromagnetic waves have almost no influence on the measurement result.

The unique SmartSense insulation resistance monitoring is designed to detect moisture in the thermowell. And the SIL2 approval in accordance with IEC61508 makes the device ideally suited for long-lasting, trouble-free use even in safety-related applications.

As an added bonus, the Consoft™ configuration software makes the OPTITEMP TT 51 start-up particularly simple.

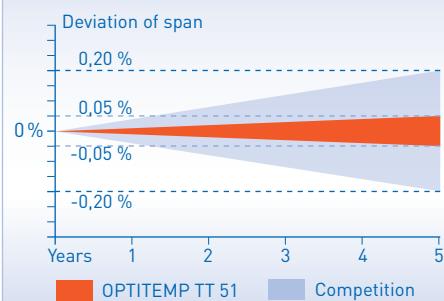
Highlights at a glance:

- In-head and rail-mounted versions
- Redundant sensor input with drift detection
- 50 point linearization
- SmartSense insulation resistance monitoring
- Accuracy with Pt100: $\pm 0.1 \text{ }^{\circ}\text{C}$ or $\pm 0.05 \%$ span
- Long-term stability with deviation of 0.05 % of span in 5 years
- Vibration-resistant up to 10 g
- Fail-safe up to 95 % relative humidity
- HART 6 compliant
- SIL2 certified as per IEC61508
- Conforms to NAMUR in accordance with NE43, NE53, NE89, NE107
- Conforms to EMC in accordance with EN61326 and NE21
- Ex-certified for Zone 0, 1, 2

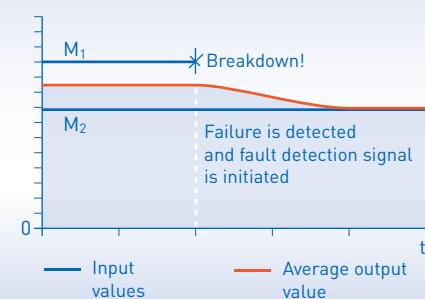
The ultimate benchmark: Precision and reliability

Over a period of five years, the long-term deviation of the new OPTITEMP TT 51 amounts to only a quarter of the drift seen with comparable temperature transmitters.

Long-term measuring accuracy

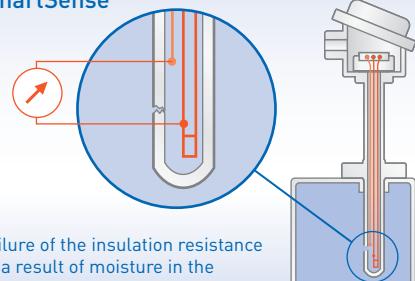


Sensor backup with dual measurement



Insulation resistance monitoring

SmartSense



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