



# THTS

Simple, hygienic temperature measurement

RESISTANCE THERMOMETER

**SICK**  
Sensor Intelligence.



### Technical data overview

<b>Temperature measuring range</b>	-50 °C +150 °C -50 °C +250 °C
<b>Accuracy of sensor element</b>	Class A according to IEC 60751 <sup>1)</sup>
<b>Accuracy of the opt. measuring transducer</b>	± 0,25 K
<b>Output signals</b>	Pt100, 4-wire / 4 mA ... 20 mA, 2-wire (depending on type)
<b>Maximum ohmic load R<sub>A</sub></b>	$R_A \leq (L^+ - 10 \text{ V}) / 0.023 \text{ A [Ohm]}$
<b>Electrical connection</b>	M12 round connector x 1, 4-pin

<sup>1)</sup> Class B (measuring range -50 °C ... -30 °C).

### Product description

The THTS temperature sensor is a compact, hygienically-graded, cost-effective Pt100 resistance thermometer. It is designed for applications in the food and beverage industry as well as in the cosmetics and pharmaceutical segment.

Due to the use of high-grade stainless steel and a crevice-free design of the wetted parts, stringent hygienic requirements are met. The range of common hygienic process connections that are welded gap-free to the connection housing and multiple insertion lengths allow universal use.

The THTS is well suited for CIP and SIP processes. This enables safe hygienic operation in conjunction with optimized system availability. Besides its direct electrical connection to the Pt100 element, the THTS is available with an integrated transmitter with 4 mA ... 20 mA output signal.

### At a glance

- Pt100 element, accuracy class A (IEC 60751)
- Measuring ranges -50 °C ... +150 °C and -50 °C ... +250 °C
- Parts in contact with media: Corrosion-resistant stainless steel 316L/1.4435,  $R_a \leq 0.8 \mu\text{m}$
- Various hygienic process connections and installation lengths
- Pt100 (4-conductor) or 4 mA ... 20 mA (2-conductor)
- M12 round connector x 1

### Your benefits

- Convenient system integration – installation in narrow installation space possible through compact dimensions
- Safe, hygienic operation due to wetted parts made from high-grade stainless steel, hygienically-graded surface finish and a gap- and crevice-free design
- Rugged: Connection housing is easy to clean and splash-proof
- Quick and safe installation
- Very good long-term stability, accuracy and linearity
- Quick response time
- Optimal solutions for individual requirements due to versatile configurability

### Fields of application

- Hygienic temperature measurement in vessels and pipes
- Temperature monitoring and control in the food and beverage industry
- Temperature measurement in the cosmetics and pharmaceutical industries



## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)