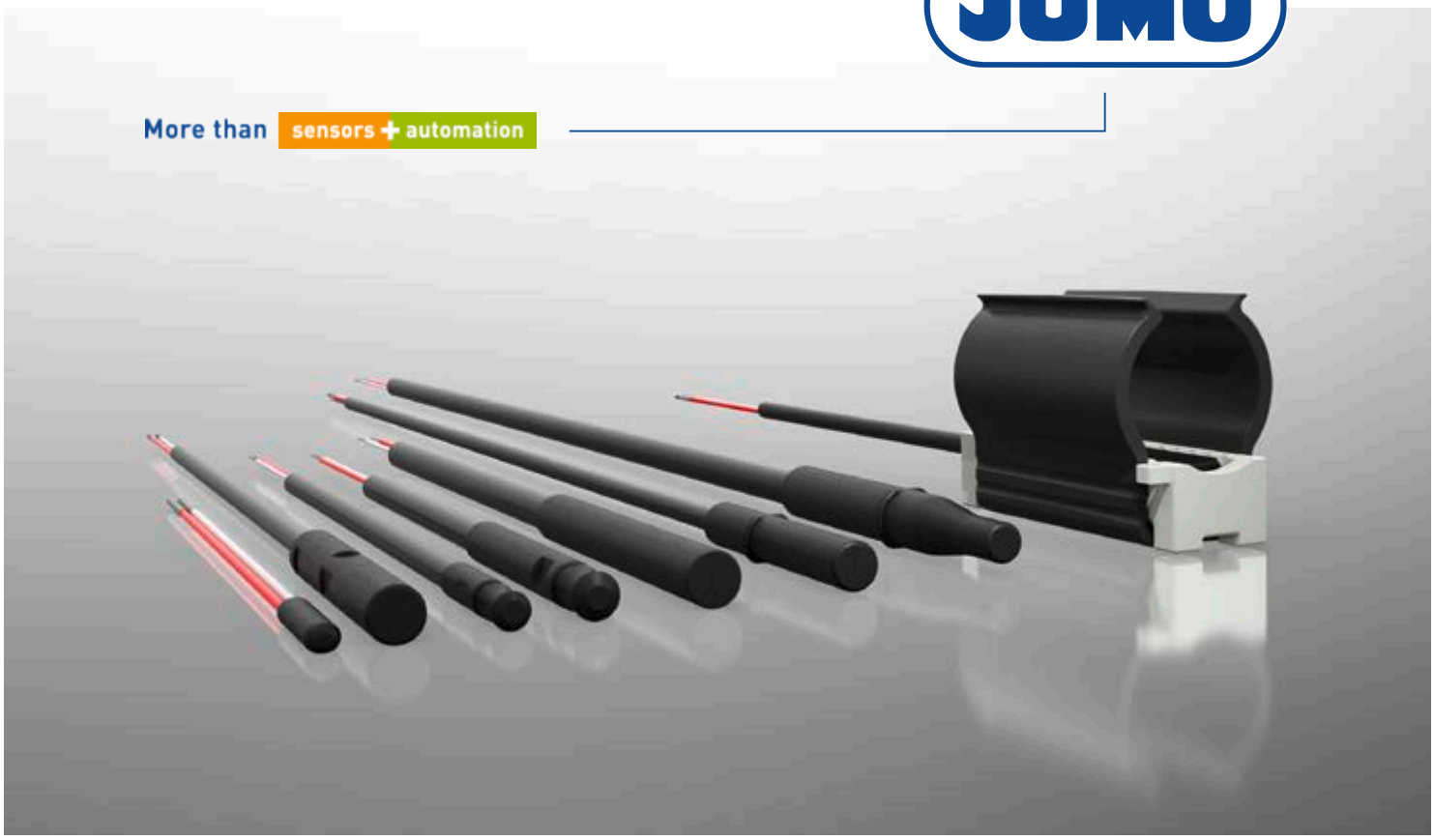


JUMO plastoSENS T

Temperature probes made of high-performance plastic

JUMO plastoSENS T01

Voltage-resistant plastic temperature probe

In dry or cast resin transformers the use of temperature probes made of metal is associated with constructive effort, since the metallic temperature probe must be installed in the insulation layer. For this reason JUMO has developed a temperature probe out of plastic for these applications. It has a nominal voltage of up 3 500 V AC (test voltage 8 000 V / 50 Hz / 1 min) and can be used at a continuous service temperature of up to 200 °C. This especially developed transformer probe can be used in electric motors or in other high-voltage environments.

Type 904001

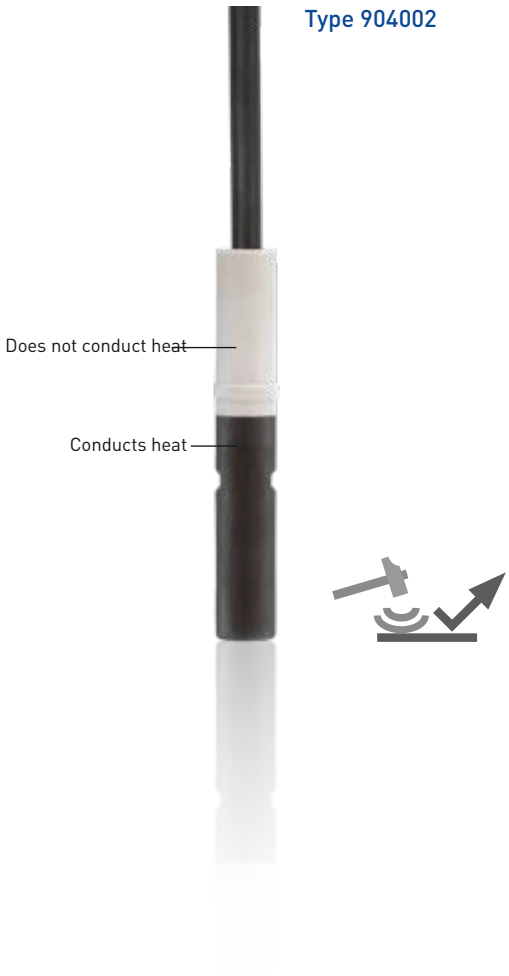
Your benefits in a nutshell:

- Nominal voltage up to 3 500 V AC (test voltage: 8 000 V / 50 Hz / 1 min)
- Standardized, voltage-resistant probe (e.g. for use in transformers)
- Electrically insulating and heat conducting at the same time
- Higher capacity – compared to conventional probes used in high voltage areas
- Application areas: in transformers, generators, voltage rails, combined heat and power plants, etc.

JUMO plastoSENS T02

Vibration-resistant plastic temperature probe

Particularly harsh environmental influences occur in moving components such as vehicle motors or machines. The largest problem for precise temperature measurement is vibration. Placing the temperature sensor in the probe tube so that it is in a secure position where it can withstand the prevailing vibrations can often be very complex with conventional probes. The sensor in the JUMO plastoSENS T is completely enclosed in plastic so that this especially developed variant of the temperature probe offers extremely high vibration resistance. The temperature probe exhibits different zones of heat dissipation because different plastics are used: a high heat conducting plastic on the temperature sensor results in a quick response time while a plastic with low heat conductivity on the cable outlet ensures that only a minor conduction error occurs.



Your benefits in a nutshell:

- Vibration and shock-resistant
- Shock-resistant – thanks to temperature probe that is completely surrounded by plastic
- Can be used in almost all liquids – even in chemicals
- High-performance plastic favors low natural frequency in case of oscillation, resulting in higher load capacity for the temperature probe
- Breakage resistance due to stable sensor
- Can be used for motor oils, fuels, battery acids, AdBlue®, etc.

JUMO plastoSENS T

Temperature probes made of high-performance plastic

JUMO plastoSENS T03

Steam-tight plastic temperature probe

The combination of moisture, pressure, and high temperatures causes sensor stress in sterilization applications. Leak tightness often constitutes a problem for conventional probes. JUMO plastoSENS T temperature probes offers the solution even for such special applications. The reason here is that special plastics form a substance-to-substance bond during the injection molding process. That way, the manufacturing process allows a safe connection at the critical point where the cable outlet comes out of the probe resulting in tightness according to protection rating IP69K. This is especially important as the probe is completely located inside the chamber during the sterilization process. Here, redundant measurement through the use of 2 sensing elements ensures the necessary reliability in the sterilization process.

Type 904003

Your benefits in a nutshell:

- Protection type IP69K – also steam-tight on the cable outlet
- Absolute tightness – the applied special plastics form a substance-to-substance bond during the injection molding process and thereby guarantee steam-tightness
- Application areas: in autoclaves, steam sterilizers, CIP cleaning, SIP cleaning, etc.

JUMO plastoSENS T

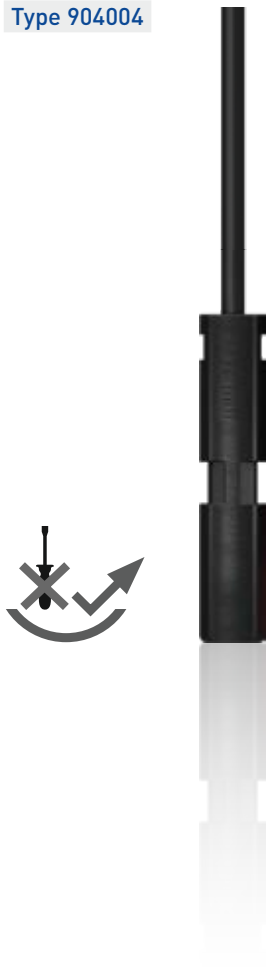
Temperature probes made of high-performance plastic

JUMO plastoSENS T04

Surface-optimized plastic temperature probe

Inline measurement is not always possible in pipes. It is therefore advisable to determine the temperature with a pipe surface probe to avoid flow changes, especially in pipes with a small diameter. JUMO plastoSENS T temperature probes offer a technical solution for this application as well. Compared to conventional pipe surface probes, the surface-optimized plastic temperature probe is fully adapted to the pipe diameter. The supplied accessories include an insulating cap and a clip. These allow the temperature probe to be fastened to a pipe without tools, thereby saving 70 % of the time required when fastening with a conventional hose clamp. In addition, the insulating cap, which is made of a non-thermally conductive plastic, offers protection against heat and cold influences which have a negative effect on the measurement result.

Type 904004



1. Plastic temperature probe
2. Insulation cap
3. Clip

Your benefits in a nutshell:

- Reliable measurement of temperature changes
- Simple and quick mounting without tools
- Precise pipe adaptation through full contact to surface area
- 70 % quicker mounting with the clip in comparison to mounting with a conventional hose clamp
- No flow change in pipes with small nominal width
- Temperature measurement with Pt100 or Pt1000 in different diameters for pipes out of copper, steel, or plastic
- Quick response times
- Application areas: liquids in industrial applications up to temperatures of 180 °C

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