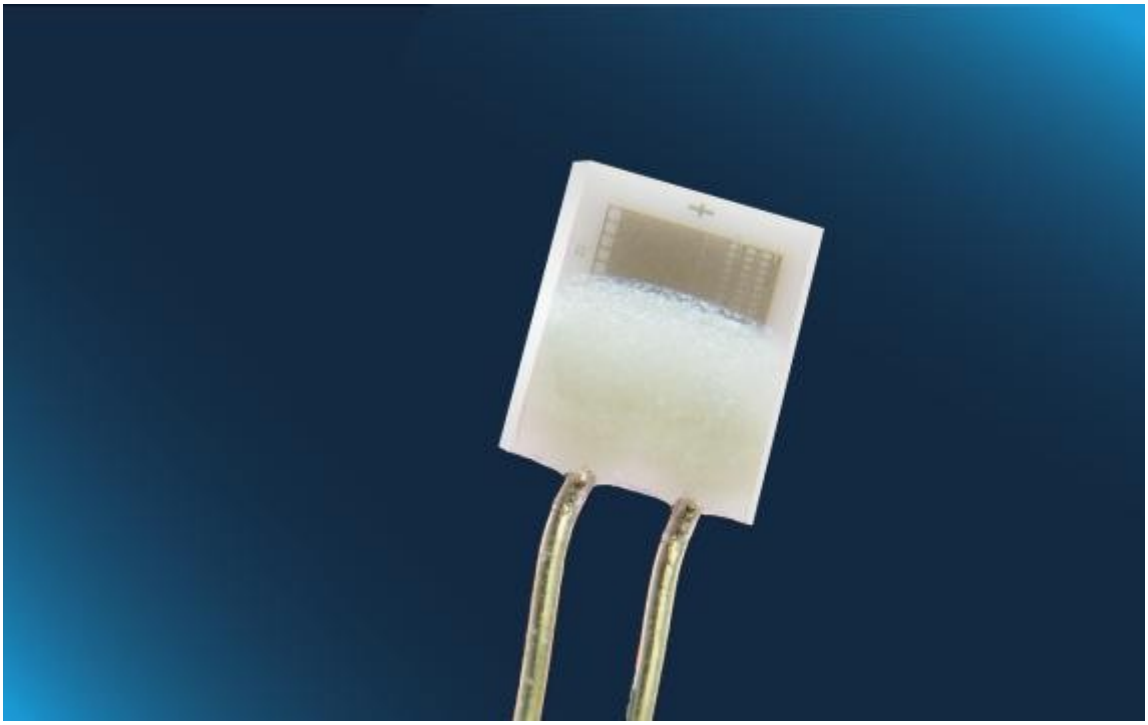
# MiniSens Pt100 class F0.15, lead-free



Pb-free small thin-film platinum 100 Ohm RTD component with ESD-optimized design, with 10 mm platinum-cladded nickel wires

**MiniSens** Pt100 1/5 IEC is a compact thin-film platinum RTD temperature sensor designed for precise and reliable temperature measurement in demanding applications. With a nominal resistance of 100 Ω at 0 °C, a Pt 3850 ppm/K TCR and IEC 60751 F0.15 accuracy, this Pt100 sensor delivers high measurement stability across a wide operating temperature range from -200 °C to +600 °C. Its miniature 1.6 x 1.2 x 0.6 mm design, combined with 10 mm Pt/Ni wires, makes it ideal for applications with limited installation space, fast thermal response requirements and high reliability demands.

This thin-film platinum RTD is well suited for industrial temperature sensing, medical devices, laboratory equipment, automotive applications and compact electronic assemblies where precision, stability and small sensor size are essential.

**Product Name:** P0K1.161.6W.A.010
**Nominal resistance:** 100 Ω at 0 °C
**Operating temperature range:** -200 °C to +600 °C

**TCR:** Pt 3850 ppm/K
**Chip size/dimensions:** 1.6 x 1.2 x 0.6 mm
**Connection type:** Pt/Ni-wire, Ø 0.2 mm
**Wire length:** 10 mm
**Special:** ESD optimized design (IEC/EN 61000-4-2)
**Packaging:** Blister
**Product Old code:** 101138 and 154336
**Product code:** 158778

# Product details

## Platinum Sensors

Innovative Sensor Technology IST AG platinum temperature sensors provide solutions for extreme temperature applications and are designed with the highest quality materials, allowing them to operate within a wide temperature range of -200 °C to +1000 °C.  Standard IEC 60751 sensors are offered in class F0.3 (0.12 %), class F0.15 (0.06 %), F0.1 (0.04 %), and higher accuracies upon request.Our sensors are available in wireless (SMD) and wired configurations, and in sizes ranging from  0.75 mm to 10 mm (L), and 0.75 mm to 5.08 mm (W).  Standard sensors can be customized with a variety of lead wire material, insulations, length, and configurations.

With many years of experience, iST also offers development of customer-specific applications in terms of sensor technology development and consultation. As part of the standard development process, we give support at the point of implementation - this way we ensure the best sensor solution for specific applications.

More information on platinum temperature sensors

## Small dimensions

IST AG offers various sensor solutions for applications with limited space requirements.

### MiniSens

iST MiniSens features the smallest footprint with dimensions of only 1.2 mm x 1.6 mm making the sensor an optimal solution for limited space applications. The MiniSens is

available with accuracies of up to IEC 60751 F0.1 (IST AG reference class Y) and with long directly welded wires. The sensor can be used in applications with an operation temperature range of up to +600 °C.

The MiniSens is also offered with a metallized backside enabling optimal thermal coupling.

**SlimSens**

The iST SlimSens sensor is specially developed for applications requiring sensors fitted into tubes with very small diameters. The SlimSens measures 0.8 mm x3 mm and is the optimal solution for applications with tube diameters from 1 mm. The SlimSens is available with accuracies of up to IEC 60751 F0.1 (IST AG reference class Y) and with long directly welded wires within various ohmic resistances. This Pt temperature sensor can be used in applications with an operation temperature range of up to +600 °C.

## Lead-free RTDs

Driven by the expiration of the RoHS exemption (Directive 2011/65/EU, Annex III, 7c.1) on June 30, 2027, we will no longer produce or ship any sensors containing lead-oxide glass. We are proactively initiating the transition from lead-containing to lead-free cover and passivation glass for our sensors, to avoid delays or shortages when the new directive comes into operation.

This material change is being implemented without altering the processing method and is fully interchangeable with previous processes and products. While the sensors do not differ visually, the material number of lead-fee sensors are being newly generated for full traceability.

For a detailed description, please refer to ECN A24.035.

## Quality

Consistent with the well-known, high-quality standards in Switzerland, IST AG is certified according to ISO 9001:2015 (quality) and ISO 14001:2015 (environment). Appropriate processes are part of our daily work. They are regularly audited and extended parallel to the growth of our company.

> Read more

## ESD optimized design

To strenghten the stability of your assembled systems we are committed to the continued optimization and development of ESD-optimized temperature sensors.

With optimized design and new process technology we offer platinum temperature sensors with outstanding ESD resistance. The designs have been tested according to European Union Standards, the IEC/EN61000-4-2.

Thanks to a state-of-the art in-house ESD laboratory, we are able to test our sensors internally according to international standards.

Download flyer for more information.

## The online shop

| Quantity (pieces) | Price (per piece) |
|---|---|
| 10-49 | CHF 7.18 |
| 50-99 | CHF 5.40 |
| 100-150 | CHF 5.04 |

Sklad: **0**