Pt100 class F0.15 with Pt wire, ESD-optimized, lead-free



Pb-free temperature sensor for narrow spaces, ESD-optimized, -200 °C to +600 °C, 3.0 x 0.8 mm, 12 mm wires

Engineered for high-performance temperature sensing, this miniature thin-film platinum 100 Ω RTD component combines outstanding accuracy, long-term stability, and easy integration in one compact design. With a wide operating range from -200 °C to +600 °C, a TCR of 3850 ppm/K, and IEC 60751 F0.15/Class A tolerance, it delivers reliable precision even in demanding applications. Its ultra-compact 3.0 x 0.8 x 0.6 mm footprint and robust Pt/Ni wires make it an excellent choice for space-saving, high-quality temperature measurement solutions

Product Name: P0K1.308.7W.A.012
Nominal resistance: 100 Ω at 0 °C
Operating temperature range: -200 °C to +600 °C
TCR: Pt 3850 ppm/K
Chip size/dimensions: 3.0 x 0.8 x 0.6 mm

Tolerance/class: IEC 60751 F0.15 (IST AG reference class A)
Connection type: Pt-wire, Ø 0.15 mm
Wire length: 12 mm
Special: ESD optimized design (IEC/EN 61000-4-2)
Packaging: Blister
Product code: 159071

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

Customization options

We provide a vast variety of options of sensor customization to meet application-specific requirements. Our temperature sensors can be adapted in many different ways to fulfill individual demands.

Extended 2- to 4-wire constructions

Pt temperature sensors are offered with two- or four-wire constructions depending on the application. iST offers RTDs with extended wires or with wires directly welded to

the sensor chip on automated welding machines, enabling consistent quality and robustness. Various types of wire material and length are available depending on application-specific requirements.

Shrink tube

To avoid electrical short-circuits,we offer sensor solutions assembled with shrink tubes covering one or more of the electrical contacts.

IST AG offers various Pt temperature sensors where shrink tubes are placed over the extension point, shrink tubes covering the sensor chip or both in one solution.

Connector

To optimize assembly at the customer end, iST offers RTD solutions with ready mounted connectors on wire ends. We offer various types of connectors for different applications. Contact us for more information regarding your specific requirements.

On sheets / discs

iST provides Pt temperature sensors soldered to metal discs, on sheets or in caps. Based on RTDs with metallic backside, our customers can benefit from the optimal thermal coupling of this solution without the need of in-house soldering technology. We offer soldering to customer materials or provides the design, fabrication and assembly of the entire sub-assembly. Materials like 1.4401, 1.4404, hastelloy or titanium have been successfully used.

Sensors in housing

iST provides various solutions of pre-assembled sensors into housings. Sensors are available mounted in a conventional way where the sensor is inserted into the housing whereafter the housing is filled with an epoxy, polyurethane or silicone. Additionally, we offer assemblies where the temperature sensor is soldered to the bottom of the housing resulting in better thermal contact and faster response time. The housings are available with various diameters, lengths and materials and can easily be inserted into applications, thereby optimizing assembly by the customer.

In round ceramic housing (R)

Sensors implemented into round ceramic housing enables an easy and accurate assembly into applications. The ceramic tubes are offered in standard and customized sizes and are applicable in temperatures ranging from -200 °C to +600 °C.

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.

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.

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

The online shop

Quantity (pieces)	Price (per piece)
10-49	CHF 4.63
50-99	CHF 3.67
100-150	CHF 3.25

Lager: **0**