Cheemi Technology Co., Ltd

Datasheet for Platinum Resistance Temperature sensor

The temperature sensing element and technical specification of platinum heat temperature sensors are designed, and produced according to the standards of GB/T10321-2013, Q/STB2019 and IEC 60751.

PT- series thin film platinum resistors have the advantages of small size, high precision and good long-term stability.

It has the characteristics of anti-vibration and anti-shock.

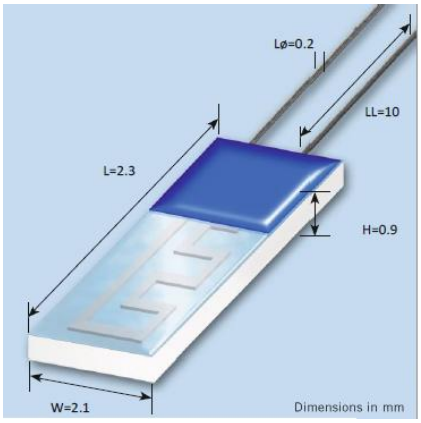
The product can be subdivided into regular ultra low and high temperature series, covering the temperature range of -200 to 650℃.

It can be used in many connection ways, such as resistance welding, argon arc welding, pressure welding, brazing and so on.

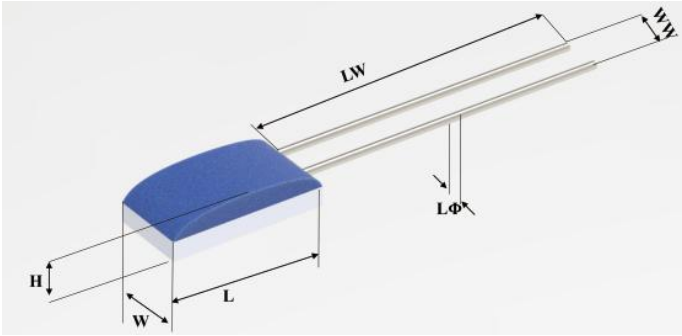
Widely used in automotive, instrumentation, household appliances, new energy and other fields.

Nominal resistance	Temp. range	Accuracy class	P/N	Lead wire length	Packaging
100Ωat 0℃	-70~+500° C	0.1℃（Class 1/3B） 0.15℃ (Class A) 0.3℃ (Class B) 0.6℃ (Class 2B)	**Pt100-M2320-1/3B** **Pt100-H2320-A** **Pt100-L2320-B** **Pt100-C2320-2B**	10mm 10mm 10mm 10mm	Plastic bag/ vacuum
100Ωat 0℃	-50~+650° C	0.15℃ (Class A) 0.3℃ (Class B) 0.6℃ (Class 2B)	**Pt100-H650-A** **Pt100-H650-B** **Pt100-H650-2B**	10mm 10mm 10mm	Plastic bag/ vacuum
100Ωat 0℃	-200~+150° C	0.15℃ (Class A) 0.3℃ (Class B) 0.6℃ (Class 2B)	**Pt100-L200-A** **Pt100-L200-B** **Pt100-L200-2B**	10mm 10mm 10mm	Plastic bag/ vacuum
1000Ωat 0℃	-70~+500° C	0.1℃（Class 1/3B） 0.15℃ (Class A) 0.3℃ (Class B) 0.6℃ (Class 2B)	**Pt1000-M2320-1/3B** **Pt1000-H2320-A** **Pt1000-L2320-B** **Pt1000-C2320-2B**	10mm 10mm 10mm 10mm	Plastic bag/ vacuum

Diagram of element size is as follows:



The dimensions of the Pt100 elements are:
2.3mm long, 2.1mm wide and 0.9mm high.



The dimensions of the Pt1000 elements are:
2.3mm long, 2.0mm wide and 1.0mm high.

The information provided in the following table relates to the measured values (including but not limited to response time, long-term stability, seismic performance, insulation resistance and self heating), which are the average values obtained when testing the components of the product under laboratory conditions. The product results or measurement results of the customer or any other person in any production, test or other environment may vary depending on the specific conditions of the situation.

Temperature and accuracy range:

Accuracy class F0.3 （B）: -70℃~+500℃

Accuracy class F0.15（A）: -50℃~+300℃

Accuracy class F0.6 （2B）: -70℃~+500℃

Temperature coefficient:

TCR=3851ppm/K

Response time:

In liquid state（Speed=0.4m/s）	τ0.5=0.07S	τ0.632=0.1S
Under airflow（Speed=2m/s）	τ0.5=3S	τ0.632=5S

Measuring current: (self heating shall be considered)

100Ω: 0.3to1.0mA
500Ω: 0.1to0.7mA
1000Ω: 0.1to0.3mA

Long term stability:

The drift of R0 is less than 0.3 ℃ when the constant temperature is 400 ℃ for 1000 hours

Insulation resistance:

Room temperature ＞100MΩ

400℃＞2MΩ

Seismic resistance:

After installation and fixation, it can withstand 40g acceleration under the state of 10~2000Hz.

Lead material:

Pt-Ni

Lead wire size:

Φ0.2mm×10mm

Lead tensile strength:

Not less than 8N

Lead wire welding performance:

Suitable for soldering, brazing, pressure welding, etc.