



Standard Platinum Resistance Thermometer

#### I. Description

The Standard Platinum Resistance Thermometer is used for compensation in Standard temperature range of 13.8033k—961.8°C, and used as a Standard when testing a variety of Standard thermometer sand high-precision thermometers. With in the above the temperature zone, it is also used directly for measuring the temperature of high-accuracy.

The Standard Platinum Resistance Thermometer measures the temperature according to the changeable regularity of the resistance temperature of the platinum.

In accordance with the regulations of ITS90, the  $T_{90}$  is defined by the platinum thermometer when triple point (13.8033K) of the nitrogen balance reaches to the temperature range of silver freezing point. It is indexed by using the group of required defined freezing point and reference function as well as the deviation function of the temperature interpolation.

The above temperature zoning is divided in to several and decided to work normally with in the sub-temperature zone by various different forms of structure of thermometers.