

ABSTRACT

Resistance Thermometer

The invention refers to a resistance thermometer with a measuring resistor in form of a resistive layer, substantially consisting of a metal of the platinum group, preferably platinum, which is applied to an electrically insulating surface of a carrier base with a thermal expansion coefficient within the range of 8.5 to 10.5 ppm/K and which is provided with an electrically insulating cover layer. The carrier base for the resistive layer can be formed as follows:

- a) as a substrate, which substantially consist of magnesium titanate
or
- b) as an intermediate layer out of alumina or magnesium oxide covering said substrate.

This resistance thermometer enables a high long-term stability in the higher temperature range (above 500°C).

(Figure 2)

3 500 700