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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Calibration Specification for Continuous Thermocouples
(English Translation)**

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Introduction

This specification is based on JJF 1071-2010 "National Metrology Calibration Rules Preparation Rules" drafting, in which the measurement results are not the determination of the degree of certainty is based on JJF 1059.1-2012 "Evaluation and Expression of Measurement Uncertainty".

This specification is first released.

Continuous thermocouple calibration specification

1 Scope

This standard applies to continuous thermocouple data in Appendix A indexing table, in the range of 80 °C ~ 800 °C calibration.

Continuous thermocouple calibration in other temperature ranges can also refer to this specification.

2 reference documents this specification cites the following documents.

JJG160-2007 standard platinum resistance thermometer for dated references, only the dated version applies to this specification; for undated references the latest version (including all amendments) applies to this specification.

3 Terms

3.1 Continuous thermocouple continuous thermocouples are able to detect the highest temperature along the line, for temperature alarm over the armored thermocouple.

3.2 Thermal materials thermo-sensitive material Filled with continuous thermocouple between two hot electrodes and between the hot electrode and the metal sleeve with a negative resistance - temperature Coefficient properties of powdered inorganic material.

3.3 Indication deviation in the reference end is 0 °C, the continuous thermocouple output on its index table deviation from the temperature converted into Degree value.

3.4 uniformity of value Among the series of indication deviations obtained at several temperature locations along a length distribution of a continuous thermocouple at a specific temperature, most the difference between the maximum value and the minimum value.

4 Overview

Continuous thermocouple also known as heat-seeking thermocouple, is a thermocouple

without fixed hot junction, through the armor process will be Thermal material (filler material) and K-type thermocouple together, in a certain temperature range, can be continuously generated with the contact with the hottest temperature in the corresponding thermoelectric power signal, you can get the highest temperature along the line. In a row Thermocouples are provided with terminals on either or both sides of the thermocouple to measure the thermoelectric power potential from either side or from one side respectively. continuous Thermocouple temperature measurement range is generally 80 °C ~ 800 °C, the length of 2m to 40m or so, covering a wide range of savings A large number of temperature sensors and electrical test equipment. Widely used in chemical, mechanical, energy, shipping, aviation, telecommunications, electricity Force, storage and other large, large-scale, large space places and dangerous areas of fever, overheating monitoring, pre Police and so on.

Continuous thermocouple structure shown in Figure 1.