
British Standard Specification for

Industrial platinum resistance thermometer sensors

Capteurs industriels à résistance thermométrique de platine — Spécifications

Meßfühler für Platinwiderstandsthermometer für die industrielle Anwendung

Contents

	Page		Page
National foreword	Inside front cover	Tables	
Committees responsible	Back cover	1. Temperature/resistance relationship	4
Specification		2. Tolerances for 100 Ω thermometers	6
1. Scope	1	3. Minimum insulation resistance at maximum temperature	8
2. Definitions	1	Figures	
3. Characteristics	2	1. Typical construction of resistance thermometer sensor	1
4. Tests	7	2. Tolerances values as a function of temperature for 100 Ω thermometers	6
5. Information to be available from the manufacturer	12	3. Connection configurations	7
Appendices		A1. Test device for testing in air	14
A. Example of test devices for thermal response time measurements	14	A2. Test devices for simplified test in water or other liquids	15
B. Apparatus for self-heating test and pressure test	16	B1. Apparatus for self-heating test and pressure test	16
C. Apparatus for immersion error test and thermo-electric effect test	18	B2. Apparatus for the pressure test	17
		C1. Schematic diagram of test apparatus for determination of immersion error and thermo-electric effect	18

National foreword

This British Standard has been prepared under the direction of the Industrial-process Measurement and Control Standards Committee. It is identical with IEC Publication 751 : 1983 'Industrial platinum resistance thermometer sensors' published by the International Electrotechnical Commission (IEC). It supersedes BS 1904 : 1964, which is withdrawn.

Terminology and conventions. The text of the international standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

In table 1 the comma has been used as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Wherever page numbers are quoted, they are IEC page numbers.

Cross-references. The Technical Committee has reviewed

the provisions of IEC Publication 258, to which reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard.

Textual errors. When adopting the text of the international standard, the textual errors listed below were discovered. They have been marked in the text and have been reported to IEC in a proposal to amend the text of the international standard.

In table 1, in the right-hand column heading, 'EIPT' should read 'IPTS'.

In 4.3.3.1, in paragraph 1, line 1, 'thermometer' should read 'temperature'. In paragraph 2, line 1, 'temperature' should read 'thermometer'.

In figure B2, the words 'gaz cylinder or other' are superfluous (and 'gaz' should read 'gas').

NOTE. In 4.3.6, in paragraph 1, line 2, 'equipement' should read 'equipment'.

Compliance with a British Standard does not of itself confer immunity from legal obligations.