

Industrial platinum resistance thermometer sensors

The European Standard EN 60751:1995 has the status of a
British Standard

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Committees responsible for this British Standard

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- British Cable Makers Confederation
- British Pressure Gauge Manufacturers' Association
- Engineering Industries Association
- GAMBICA (BEAMA Ltd.)
- Institute of Materials
- Society of Environmental Engineers
- Society of Glass Technology

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National foreword

This British Standard has been prepared by Panel GEL/65/2/1 and is the English language version of EN 60751:1995 *Industrial platinum resistance thermometer sensors*, incorporating amendment A2:1995, published by the European Committee for Electrotechnical Standardization (CENELEC). It is identical with IEC 751:1983 as amended by amendment 1:1986 and amendment 2:1995, published by the International Electrotechnical Commission (IEC). This British Standard supersedes BS 1904:1984 which is now withdrawn.

Cross-reference

Publication referred to	Corresponding British Standard
HD 368 S1:1978 (IEC 258:1968)	BS 90:1975 <i>Specification for direct-acting electrical recording instruments and their accessories</i>

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 16, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

English version

Industrial platinum resistance thermometer sensors (includes amendment A2:1995)

(IEC 751:1983 + A1:1986 + A2:1995)

Capteurs industriels à résistance
thermométrique de platine
(inclut l'amendement A2:1995)
(CEI 751:1983 + A1:1986 + A2:1995)

Industrielle Platin-Widerstandsthermometer
und Platin-Meßwiderstände
(enthält Änderung A2:1995)
(IEC 751:1983 + A1:1986 + A2:1995)

This European Standard was approved by CENELEC on 1995-07-04, amendment A2 was approved by CENELEC on 1995-09-20. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

Foreword

This text of the International Standard IEC 751:1983 and its amendment 1:1986, prepared by SC 65B, Devices, of IEC TC 65, Industrial-process measurement and control, was approved by CENELEC as HD 459 S2 on 1988-12-06.

This Harmonization Document was submitted to the formal vote for conversion into a European Standard and was approved by CENELEC as EN 60751 on 1995-07-04.

The following date was fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-07-01

Annexes designated “normative” are part of the body of the standard. In this standard, annex ZA is normative. Annex ZA has been added by CENELEC.

Foreword to amendment A2

The text of document 65B/224/DIS, future amendment 2 to IEC 751:1983, prepared by SC 65B, Devices, of IEC TC 65, Industrial-process measurement and control, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A2 to EN 60751:1995 on 1995-09-20.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-07-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1996-07-01

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1 Scope

This standard specifies requirements for industrial platinum resistance thermometer sensors whose electrical resistance is a defined function of temperature. The standard covers thermometers suitable for all or part of the temperature range $-200\text{ }^{\circ}\text{C}$ to $+850\text{ }^{\circ}\text{C}$ with two tolerance classes. It is primarily concerned with sheathed elements suitable for immersion in the medium whose temperature is to be measured.

Methods of test to prove compliance with this standard and suitable apparatus for some of the tests are also described.

2 Definitions

2.1

platinum resistance thermometer sensor

a temperature-responsive device consisting of a sensing resistor within a protective sheath, internal connecting wires and external terminals to permit connection of electrical measurement devices. Mounting means or connection heads may be included. Typical constructions are shown in Figure 1

NOTE 1 This resistance thermometer sensor is referred to as a thermometer in subsequent clauses of this standard.

NOTE 2 This definition excludes any separable pocket or well provided with the thermometer.

2.2

tolerance

for the purpose of this standard the tolerance of a resistance thermometer is the maximum allowable deviation expressed in degrees Celsius from the nominal resistance temperature relationship such as given in Table I

