PD IEC/TS 62492-2:2013

BSI Standards Publication

Industrial process control devices — Radiation thermometers

Part 2: Determination of the technical data for radiation thermometers

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National foreword

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The UK participation in its preparation was entrusted by Technical Committee GEL/65, Measurement and control, to Subcommittee GEL/65/2, Elements of systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Published by BSI Standards Limited 2013

ISBN 978 0 580 80684 1
ICS 17.200.20; 25.040.40

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This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 August 2013.

Amendments/corrigenda issued since publication

Date	Text affected

IEC/TS 62492-2

Edition 1.0 2013-04

TECHNICAL SPECIFICATION

colour inside

Industrial process control devices – Radiation thermometers – Part 2: Determination of the technical data for radiation thermometers

INTERNATIONAL ELECTROTECHNICAL COMMISSION

PRICE CODE U

ICS 17.200.20; 25.040.40

ISBN 978-2-83220-737-6

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FOREWORD

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Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 62492-2, which is a technical specification, has been prepared by subcommittee 65B: Measurement and control devices, of IEC technical committee 65: Industrial-process measurement, control and automation.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
65B/844/DTS	65B/859/RVC

Full information on the voting for the approval of this technical specification can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62492 series, published under the general title *Industrial process control devices – Radiation thermometers*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- transformed into an International Standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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INDUSTRIAL PROCESS CONTROL DEVICES – RADIATION THERMOMETERS –

Part 2: Determination of the technical data for radiation thermometers

1 Scope

This part of IEC 62492, which is a Technical Specification, applies to radiation thermometry and addresses all technical data specified in IEC/TS 62492-1. It defines standard test methods which can be used by the end user of radiation thermometers to determine or confirm the fundamental metrological data of radiation thermometers with one wavelength range and one measurement field.

The purpose of this specification is to facilitate comparability and testability. Therefore, unambiguous test methods are stipulated for determining technical data under standardised measuring conditions that can be performed by a sufficiently skilled end user to serve as standard performance criteria for instrument evaluation or selection.

It is not compulsory for manufacturers and sellers of radiation thermometers to include all technical data given in this document in the data sheets for a specific type of radiation thermometer. Only the relevant data should be stated and should comply with this specification and IEC/TS 62492-1.

NOTE Infrared ear thermometers are excluded from this Technical Specification.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC/TS 62492-1:2008, *Industrial process control devices – Radiation thermometers – Part 1: Technical data for radiation thermometers*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document the following terms and definitions apply.

NOTE The terms and definitions listed below comply with IEC/TS 62492-1.

3.1.1
measuring temperature range
temperature range for which the radiation thermometer is designed

3.1.2
measurement uncertainty
parameter, associated with the result of a measurement, that characterises the dispersion of the values that could reasonably be attributed to the measurand