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

GB/T 36014.2-2020

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

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Foreword

GB/T 36014 "Industrial Process Control Device Radiation Thermometer" consists of the following parts.

---Part 1. Technical parameters of radiation thermometer;

--- Part 2. Determination of the technical parameters of the radiation thermometer.

This part is part 2 of GB/T 36014.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the redrafting method to modify the adoption of IEC /T S62492-2.2013 "Industrial Process Control Device Radiation Thermometer No. 2

Part. Determination of technical parameters of radiation thermometer.

The technical differences between this part and IEC /T S62492-2.2013 are as follows.

--- With regard to normative quotation documents, this part has been adjusted with technical differences to adapt to my country's technical conditions and adjustments

The situation is reflected in Chapter 2 "Regulatory Reference Documents", with specific adjustments as follows.

* Replace IEC /T S62492-1.2008 with GB/T 36014.1-2018 equivalent to the international standard;

* Added normative reference document GB/T 20002.4;

* Added normative reference document GB/T 34924.

--- Removed 3.2 abbreviations;

--- Modified the terms 3.2, 3.8, 3.10, 3.19 and 3.21;

--- Modified the clause level of 5.1.2;

---Modified the formula in Appendix A.

This part is proposed by China Machinery Industry Federation.

This part is under the jurisdiction of the National Industrial Process Measurement Control and Automation Standardization Technical Committee (SAC/TC124).

This section was drafted by. Shanghai Institute of Industrial Automation Instrumentation Co., Ltd., China Institute of Metrology, Shanghai Metrology and Testing Technology

Technical Research Institute, Shanghai Gangqi Control Instrument Co., Ltd., Zhejiang Lund Electromechanical Co., Ltd., Shanghai Instrument and Control System Inspection and Testing All

Limited company, Shenzhen Bailefu Electronic Technology Co., Ltd.

1 Scope

This part of GB/T 36014 gives standard test methods for determining the technical parameters of radiation thermometers (hereinafter referred to as thermometers) for

The end user determines or confirms the basic measurement parameters of a single wavelength range and a single measurement field radiation thermometer. All these technical parameters

Provisions are made in GB/T 36014.1-2018.

In order to improve the comparability and testability of technical parameters, this part specifies a clear test to determine the technical parameters under standardized measurement conditions

The test method is used by skilled end users as a standard performance criterion for evaluating or selecting radiation thermometers.

For a specific type of radiation thermometer, manufacturers and sellers do not have to list all technical parameters given in this section in the parameter table

Number, just give the relevant parameters.

This section does not apply to infrared ear thermometers and infrared forehead thermometers.

2 Normative references

The following documents are essential for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For the cited documents without date, the latest version (including all amendments) applies to this document.

Drafting of specific content in the GB/T 20002.4 standard Part 4.Safety-related content in

the standard (GB/T 20002.4-

2015, ISO /IEC Guide51.2014, MOD)

GB/T 34924 Low-voltage electrical equipment safety risk assessment and risk reduction guide (GB/T 34924-2017, IEC Guide116.

2010, IDT)

GB/T 36014.1-2018 Industrial process control device radiation thermometer Part 1.Technical parameters of radiation thermometer

(IEC /T S62492-1.2008, IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Measuring temperature range measuringtemperaturerange

The design temperature range of the radiation thermometer.

3.2

Measurement uncertainty

Use the available information to characterize the non-negative parameters that give the measured value dispersion.

[GB/T 27418-2017, definition 3.1]

3.3

Noise equivalent temperature difference

Characterize the parameters of measurement uncertainty components introduced by instrument noise in degrees Celsius (°C).