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

GB/T 46343.2-2025

**Aircraft - Nickel-chromium and nickel-aluminium thermocouple
extension cables - Part 2: Terminations general requirements
and tests**

飞机 镍铬-镍铝热电偶延长电缆 第2部分：端接件通用要求和测试
(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 2 of GB/T 46343 "Extension Cables for Nickel-Chromium/Nickel-Aluminum Thermocouples for Aircraft". GB/T 46343 has been published.

The following section.

---Part 1: General Requirements and Tests for Conductors;

---Part 2: General requirements and testing for termination components.

---Part 3: Dimensions of Crimped Ring Terminals;

---Part 4: Dimensions of Crimped Fittings this document is equivalent to ISO 8056-2:1988 "Extension cables for nickel-chromium and nickel-aluminum thermocouples for aircraft - Part 2: General requirements for terminals".

Summation test.

The following minimal editorial changes have been made to this document.

---To harmonize with existing standards, the standard name has been changed to "Aircraft Nickel-Chromium/Nickel-Aluminum Thermocouple Extension Cables Part 2: Termination Connections".

"Requirements and Tests".

Please note that some content in this document may involve patents. The issuing

organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Aircraft Standardization Technical Committee (SAC/TC435).

Introduction

GB/T 46343 specifies nickel-chromium/nickel-aluminum thermocouple extension cables suitable for aircraft, which are proposed to consist of the following four parts.

---Part 1: General Requirements and Testing for Conductors. The purpose is to specify the general requirements for conductors in aircraft nickel-chromium/nickel-aluminum thermocouple extension cables.

And testing, for the development of conductors for aircraft nickel-chromium-nickel-aluminum thermocouple extension cables.

---Part 2: General Requirements and Tests for Termination Components. The purpose is to specify the general requirements and tests for termination components used in aircraft nickel-chromium/nickel-aluminum thermocouple extension cables.

The requirements and tests were used to develop termination components for aircraft nickel-chromium-nickel-aluminum thermocouple extension cables.

---Part 3: Dimensions of Crimped Ring Terminals. The purpose is to specify the dimensions of crimped ring terminals for aircraft nickel-chromium/nickel-aluminum thermocouple extension cables.

The size requirements of the ring-shaped terminal block are specified for the development of crimp-type ring terminals used in aircraft nickel-chromium-nickel-aluminum thermocouple extension cables.

---Part 4: Crimping Joint Dimensions. The purpose is to specify the dimensions of crimping joints for aircraft nickel-chromium/nickel-aluminum thermocouple extension cables.

The goal is to develop a crimp connector for use in aircraft nickel-chromium/nickel-aluminum thermocouple extension cables.

Aircraft Ni-Chromium-Ni-Aluminum Thermocouple Extension Cable Part 2: General Requirements and Testing for Termination Devices

1 Scope

This document specifies the general requirements and tests for press-fit non-insulated nickel-chromium alloy or nickel-aluminum alloy terminals.

This document applies to the crimping of standard flexible nickel-chromium alloy or nickel-aluminum alloy conductor thermocouple cables to ensure the thermoelectric

performance of the thermocouple circuit.

and resistance stability.

Note: Termination fittings use the same metal material, and their temperature rating is determined by the insulation layer of the crimped cable. Temperature ratings are typically 105°C and 150°C. 200°C and 260°C.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

3 Terms and Definitions

The following terms and definitions apply to this document.

crimped joint

Crim the terminals or permanent in-line connectors of the appropriate thermocouple material (e.g., nickel-chromium or nickel-aluminum) onto the mating conductor.

A permanent connection is formed.

Terminal end

A connection device made of a suitable thermocouple material. A permanent connection is formed between the conductor and the terminal using a crimping tool.

Connect and secure the cable insulation layer.

Note: The terminal block includes a crimping sleeve capable of accommodating the thermocouple cable conductor. The crimping sleeve may or may not have additional means for accommodating the cable insulation.

Termination

Terminal blocks or permanent online connectors.

crimping

The crimping cylinder around the conductor is physically squeezed or deformed to achieve mechanical and electrical connection.

insulation support

Part of the crimping cylinder used for inserting cable insulation layers, which fixes the insulation layer by reshaping.