BRITISH STANDARD AEROSPACE SERIES

BS 2G 215-2:
1989+A1:2016
ISO 8056-2:
1988+A1:2016

Aircraft — Nickel-chromium and nickel-aluminium thermocouple extension cables

Part 2: Terminations — General requirements and tests

National foreword

This British Standard is the UK implementation of ISO 8056-2:1988+A1:2016. It supersedes ISO 8056-2:1988 (dual numbered as BS 2G 215-2:1989) which is withdrawn.

The preparation of this British Standard was entrusted to Technical Committee ACE/6, Aerospace avionic electrical and fibre optic technology.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard, having been prepared under the direction of the Aerospace Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 30 November 1989

The following BSI references relate to the work on this standard:
Committee reference ACE/6
Draft for comment 87/75173 DC

ISBN 978 0 580 92683 9

Amendments/corrigenda issued since publication

Date	Comments
31 October 2016	Implementation of amendment 1:2016 to ISO 8056-2:1988, still dual numbered as BS 2G 215-2:1989: Subclause 5.2.1.1 and Table 2 modified

Contents

This page deliberately set blank

0 Introduction

This International Standard on nickel-chromium and nickel-aluminium thermocouple extension cables for use in aircraft comprises the following four parts:

— Part 1: Conductors — General requirements and tests;

— Part 2: Terminations — General requirements and tests;

— Part 3: Crimp-type ring terminal ends — Dimensions;

— Part 4: Crimp-type butt connectors — Dimensions.

1 Scope and field of application

This part of ISO 8056 specifies the design requirements and tests for the crimping of non-insulated terminations, of nickel-chromium or nickel-aluminium alloy, to the standard flexible conductors of nickel-chromium or nickel-aluminium thermo-couple extension cables, respectively, in such a manner that the thermoelectric integrity and constancy of resistance of a thermocouple circuit are contained within specified limits.

Although the metallic materials used in the crimped joint will be the same for all groups, the limiting temperature of use of the crimped joint is defined by the insulation of the cable and will fall within one of the following groups: 105 °C, 150 °C, 200 °C and 260 °C.

2 Reference

ISO 1966, *Crimped joints for aircraft electrical cables.*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1
crimped joint

a permanent connection formed by crimping a terminal end or in-line splice of an appropriate thermocouple material, for example nickel-chromium or nickel-aluminium, to its matching conductor

3.2
terminal end

a connecting device, of an appropriate thermocouple material, with a barrel accommodating the conductor of a thermocouple extension cable, with or without additional provision to accommodate the insulation of the cable. A permanent joint between conductor and terminal is made, and the cable insulation may be secured, by using a crimping tool

3.3
termination

a terminal end or in-line splice

3.4
crimping

the physical compression or deformation of a conductor barrel round a conductor to make a mechanical and electrical connection

3.5
insulation support

that part of a terminal barrel into which the insulation of the cable is inserted and that, by re-forming, supports the insulation

3.6
crimping tool

a manually operated or power-operated mechanical device for crimping and, where required, re-forming the insulation support

3.7
positioner

a locator, turret or other device serving to locate and control the position of the crimp on the barrel of the terminal

3.8
flash

material of the barrel of a terminal or in-line splice extruded between the edges of the dies in a crimping tool during the crimping operation

4 Design requirements

4.1 Terminal ends, in-line splices and crimping tools

4.1.1 Terminal ends and in-line splices shall comply with the requirements of the relevant national or International Standard. Strip or bar material used for the manufacture of terminations shall be nickel-chromium or nickel-aluminium alloy having thermoelectric properties against a platinum standard or a nickel-chromium or nickel-aluminium sub-standard. Tools shall be capable of crimping to the requirements of this International Standard.