BRITISH STANDARD

BS ISO 8843:2005 +A1:2012

Aircraft — Crimp-removable contacts for electrical connectors — Identification system

ICS 01.070; 49.060

BSI British Standards

National foreword

This British Standard is the UK implementation of ISO 8843:2005+A1:2012. It supersedes BS ISO 8843:2005 which is withdrawn.

The UK participation in its preparation 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.

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INTERNATIONAL STANDARD

ISO 8843

Second edition
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Aircraft — Crimp-removable contacts for electrical connectors — Identification system

Aéronefs — Contacts à sertir amovibles pour connecteurs électriques — Système d'identification

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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 8843 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 1, *Aerospace electrical requirements*.

This second edition cancels and replaces the first edition (ISO 8843:1991), which has been technically revised.

Aircraft — Crimp-removable contacts for electrical connectors — Identification system

1 Scope

This International Standard establishes a system for identifying crimp-removable contacts for electrical connectors. The system specified in this International Standard consists of two colour bands around the external diameter of the crimp barrel and, for thermocouple or high-temperature contacts, of additional letters or of a colour point; the system, however, does not preclude further means being used to identify additional parameters, such as cable size and material.

This contact identification system applies, when specified, to ISO standard contacts. The use of the system is recommended for contacts of both the preferred and non-preferred types. In contacts of the preferred type, the contact active portion and the wire gauge accepted by the contact barrel have the same size. In contacts of the non-preferred type, the size of the active portion of the contact differs from the wire gauge accepted by the crimp barrel.

2 Normative references

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

ISO 2635, *Aircraft — Conductors for general purpose aircraft electrical cables and aerospace applications — Dimensions and characteristics*

IEC 60062, *Marking codes for resistors and capacitors*

3 Identification system

3.1 Contacts shall be identified by two colour bands having a nominal width of one millimetre, as shown in Figure 1 and Table 1. The two colour bands identify the following characteristics:

— band No. 1 defines the size of the active portion of the contact and indicates the contact insertion and extraction tools to be used together with the crimping tool locator to be selected;

— band No. 2 defines the conductor sections accommodated by the crimp barrel.

As an alternative, the contacts of the preferred type may be identified by a single band having a minimum width of one millimetre.

The colours used shall be in accordance with the requirements of IEC 60062.

3.2 In addition, thermocouple contacts shall be identified by marking, forward of the retention device, according to either

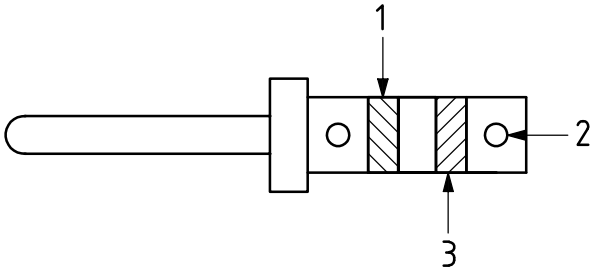
a) the following letter code:

- **CR**: nickel/chromium,
- **AL**: nickel/aluminium,
- **FE**: iron,
- **CN**: copper/nickel;
- **CT**: copper/tellurium; or

b) a colour point, the colour and position of which are given in Figure 1 and Table 1.

3.3 In addition, high temperature contacts shall be identified by a colour point, the colour and position of which are given in Figure 1 and Table 1.

The contacts shall also be marked to identify the manufacturer in a non active area at a place chosen by the manufacturer.



Key

1 band No. 1: colour showing contact mating size
2 point for thermocouple or high-temperature contacts
3 band No. 2: colour showing admissible range of conductor sections

Figure 1

Table 1

Contact size	**24**	**23**	**22**	**20**	**16**	**12**	**10**	**8**	**4**	**0**
Band No. 1 [a]	Black	Violet	Green	Red	Blue	Yellow	White	Red	Blue	Yellow

Electrical conductors Cross-sectional area [b] mm^2		**AWG** [c]	**Band No. 2** [a]
max.	min.		
0,15	0,05	26 28 30	White
0,24	0,09	24 26 28	Grey
0,4	0,13	22 24 26	Green
0,4	0,09	22 24 26 28	Black
0,61	0,21	20 22 24	Red
0,93	0,33	18 20 22	Violet
0,93	0,21	18 20 22 24	Brown
1,34	0,59	16 18 20	Blue
1,94	0,93	14 16 18	Orange
1,94	0,59	14 16 18 20	White
3,18	1,82	12 14	Yellow
5,3	2,88	10 12	Brown
9	4,65	08 10	
22	14	04 06	
53	34	00 02	

Thermocouple contacts	Nickel/chromium	Nickel/aluminium	Iron	Copper/nickel	Copper/tellurium
Point	Yellow	Black	Blue	Red	Green
High temperature contacts	260 °C class				
Point	White				

[a] It is possible to have only one band if the colour of bands No. 1 and No. 2 is identical.

[b] The dimensions stated for conductor sections are from ISO 2635 except for sizes below 0,15 mm^2 (AWG 26).

[c] AWG = American Wire Gauge (ref.)

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