

Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak —

Part 2: Specification of performance and contact arrangements

The European Standard EN 2997-2:1997 has the status of a
British Standard

ICS 49.060

National foreword

This British Standard is the English language version of EN 2997-2:1997.
The UK participation in its preparation was entrusted to Technical Committee ACE/6, Aerospace avionic, electrical and fibre optic technology, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 23 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Amendments issued since publication

Amd. No.	Date	Comments

This British Standard, having been prepared under the direction of the Engineering Sector Board, was published under the authority of the Standards Board and comes into effect on 15 October 1997

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ICS 49.060

Descriptors: Aircraft industry, connecting equipment, electric connectors, characteristics, specifications

English version

**Aerospace series — Connectors, electrical, circular,
coupled by threaded ring, fire-resistant or non
fire-resistant, operating temperature 175 °C
continuous, 200 °C continuous, 260 °C peak —
Part 2: Specification of performance and contact
arrangements**

Série aérospatiale — Connecteurs électriques
circulaires à accouplement par bague fileté,
résistant au feu ou non, températures
d'utilisation 175 °C continu, 200 °C
continu, 260 °C en pointe —
Partie 2: Spécification de performances et
d'arrangements des contacts

Luft- und Raumfahrt — Elektrische
Rundsteckverbinder mit Schraubkupplung,
feuerbeständig oder nicht feuerbeständig,
Betriebstemperaturen 175 °C konstant, 200 °C
konstant, 260 °C Spitze —
Teil 2: Leistungsdaten und
Kontaktanordnungen

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European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 1997, and conflicting national standards shall be withdrawn at the latest by December 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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0 Introduction

This family of connectors is derived from MIL-C-83723 series III, type T with which it is intermateable.

1 Scope

This standard defines the performance and contact arrangements of circular electrical connectors, coupled by threaded ring.

2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 2591-209, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 209: Current temperature derating.*

EN 2997-001, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 001: Technical specification¹⁾.*

EN 2997-003, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 003: Square flange receptacle — Product standard¹⁾.*

EN 2997-004, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 004: Jam-nut mounted receptacle — Product standard¹⁾.*

EN 2997-005, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 005: Hermetic square flange receptacle — Product standard¹⁾.*

EN 2997-006, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 006: Hermetic jam-nut mounted receptacle — Product standard¹⁾.*

EN 2997-007, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 007: Hermetic receptacle with round flange attached by soldering or brazing — Product standard¹⁾.*

EN 2997-008, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 008: Plug — Product standard¹⁾.*

EN 2997-009, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 009: Protective cover for receptacle — Product standard¹⁾.*

EN 2997-010, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 010: Protective cover for plug — Product standard¹⁾.*

EN 2997-011, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures 175 °C continuous, 200 °C continuous, 260 °C peak — Part 011: Dummy receptacle — Product standard¹⁾.*

EN 3155-002, *Aerospace series — Electrical contacts used in elements of connection — Part 002: List and utilization of contacts¹⁾.*

EN 3155-004, *Aerospace series — Electrical contacts used in elements of connection — Part 004: Contacts, electrical, male 004, type A, crimp, class T — Product standard¹⁾.*

¹⁾ Published as AECMA Prestandard at the date of publication of this standard

EN 3155-005, *Aerospace series — Electrical contacts used in elements of connection — Part 005: Contacts, electrical, female 005, type A, crimp, class T — Product standard*²⁾.

EN 3155-018, *Aerospace series — Electrical contacts used in elements of connection — Part 018: Contacts, electrical, male 018, type A, crimp, class S — Product standard*²⁾.

EN 3155-019, *Aerospace series — Electrical contacts used in elements of connection — Part 019: Contacts, electrical, female 019, type A, crimp, class S — Product standard*²⁾.

EN 3197, *Aerospace series — Installation of aircraft electrical and optical interconnection systems*²⁾.

EN 3660-002, *Aerospace series — Cable outlet accessories for circular and rectangular electrical and optical connectors — Part 002: Index of product standards*²⁾.

EN 4008-003, *Aerospace series — Elements of electrical and optical connection — General accessories and tooling — Part 003: Filler plugs for contacts used in elements of electrical connection*³⁾.

MIL-C-83723D, *Connectors, electrical, (circular, environment resisting), receptacles and plugs, general specification for*⁴⁾.

3 Description and codification of models

See Table 1.

4 Terminology

See EN 2997-001.

5 Operating conditions

5.1 Combinations of plugs and receptacles

Table 2 shows the combinations marked by * which achieve the characteristics specified for each model.

For other combinations, the characteristics of the pair of connectors are those of the component with the lowest performance.

²⁾ Published as AECMA Prestandard at the date of publication of this standard

³⁾ In preparation at the date of publication of this standard

⁴⁾ Published by: Department of Defense (DOD), the Pentagon, Washington, D.C. 20301 USA

Table 1

Models	Description
Connectors	
W	Sealed plug with housing (shell) in olive-green cadmium-plated aluminium alloy, conducting finish, 500 h resistance to salt mist, crimp contacts, maximum operating temperature 175 °C continuous
WS	Sealed plug and receptacle with housing (shell) in olive-green cadmium alloy, conducting finish, 500 h resistance to salt mist, crimp contacts, plug with grounding-spring-system screening ring, maximum operating temperature 175 °C continuous
K	Sealed plug with housing (shell) in passivated stainless steel, crimp contacts, fire-resistant, maximum operating temperature 200 °C continuous
R	Sealed plug with housing (shell) in nickel-plated aluminium alloy, crimp contacts, maximum operating temperature 200 °C continuous
RS	Sealed plug and receptacle with housing (shell) in nickel-plated aluminium alloy, crimp contacts, plug with grounding-spring-system screening ring, maximum operating temperature 200 °C continuous
S	Sealed plug and receptacle with housing (shell) in passivated stainless steel, crimp contacts, fire-resistant, plug with grounding-spring-system screening ring, maximum operating temperature 200 °C continuous
Y	Hermetic receptacle with housing (shell) in passivated stainless steel, solder contacts, maximum operating temperature 200 °C continuous
KE	Sealed plug with housing (shell) in passivated stainless steel, crimp contacts, fire-resistant, maximum operating temperature 260 °C peak
SE	Sealed plug and receptacle with housing (shell) in passivated stainless steel, crimp contacts, fire-resistant, plug with grounding-spring-system screening ring, maximum operating temperature 260 °C peak
YE	Hermetic receptacle with housing (shell) in passivated stainless steel, solder contacts, maximum operating temperature 260 °C peak
Protective covers	
K	Protective cover for plug in passivated corrosion resisting steel — Maximum operating temperature 200 °C continuous
R	Protective cover for receptacle or plug in nickel-plated aluminium alloy — Maximum operating temperature 200 °C continuous
W	Protective cover for receptacle or plug in olive-green cadmium-plated aluminium alloy — Maximum operating temperature 175 °C continuous
KE	Protective cover for receptacle or plug in passivated corrosion resisting steel — Maximum operating temperature 260 °C peak
Dummy receptacles	
K	Dummy receptacle in passivated stainless steel — Maximum operating temperature 200 °C continuous
R	Dummy receptacle in nickel-plated aluminium alloy — Maximum operating temperature 200 °C continuous
W	Dummy receptacle in olive-green cadmium-plated aluminium alloy — Maximum operating temperature 175 °C continuous
KE	Dummy receptacle in passivated corrosion resisting steel — Maximum operating temperature 260 °C peak