

Aerospace series - Electrical contacts used in elements
of connection - Part 001: Technical Specification

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 3155-001:2016 sisaldab Euroopa standardi EN 3155-001:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 3155-001:2016 consists of the English text of the European standard EN 3155-001:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 14.09.2016.	Date of Availability of the European standard is 14.09.2016.
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English Version

**Aerospace series - Electrical contacts used in elements of
connection - Part 001: Technical Specification**

Série aérospatiale - Contacts électriques utilisés dans
les organes de connexion - Partie 001 : Spécification
technique

Luft- und Raumfahrt - Elektrische Kontakte zur
Verwendung in Verbindungselementen - Teil 001:
Technische Lieferbedingungen

This European Standard was approved by CEN on 4 April 2016.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 3155-001:2016) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries 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 ASD, 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of an identical text or by endorsement, at the latest by March 2017, and conflicting national standards shall be withdrawn at the latest by March 2017.

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

This document supersedes EN 3155-001:2009.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies:

- the electrical, mechanical, environmental and dimensional characteristics of electrical contacts used in elements of connection, including coaxial, triaxial and quadrax contacts;
- the conditions for qualification, acceptance testing and quality assurance;
- the test programs and groups.

It is applicable to removable crimp contacts, wrap contacts, solder contacts used in connectors or in other elements of electrical connection.

In case of conflict or missing information between the EN 3155-001 and the product standards, the product standard shall govern.

2 Normative references

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

EN 2083, *Aerospace series — Copper or copper alloy conductors for electrical cables — Product standard*

EN 2242, *Aerospace series — Crimping of electric cables with conductors defined by EN 2083, EN 4434 and EN 2346*

EN 2424, *Aerospace series — Marking of aerospace products*

EN 2591-100*, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 100: General*

EN 3197, *Aerospace Series — Design and installation of aircraft electrical and optical interconnection systems*

EN 4434, *Aerospace series — Copper or copper alloy lightweight conductors for electrical cables — Product standard (Normal and tight tolerances)*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

EN ISO 1302, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation (ISO 1302)*

EN ISO 27874, *Metallic and other inorganic coatings — Electrodeposited gold and gold alloy coatings for electrical, electronic and engineering purposes — Specification and test methods (ISO 27874)*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling plans indexed by acceptance quality level (AQL) for lot-by-lot inspection*

* All parts quoted in this European Standard.

ISO 8843, *Aircraft — Crimp-removable contacts for electrical connectors — Identification system*

IEC 60352-1, *Solderless connections — Part 1: Wrapped connections — General requirements, test methods and practical guidance* ¹⁾

TR 3198, *Aerospace series — Manufacturers' identification monograms and marks for EN aerospace products* ²⁾

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 2591-100 and the following apply.

3.1

LSP

Length of Selective Protection

3.2

point of electrical contact

position of point of application of the force which provides contact pressure

3.3

contact active area

part of the contact which allows current to pass between the contact male and female

3.4

contact transition area

all mechanical liaisons that contribute to electrical performance and which are different from contact active area defined in 3.3

3.5

coaxial contact male or female

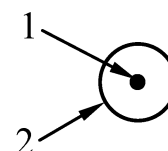
assembly of two contacts arranged coaxially enabling the connection of coaxial, shielded or bifilar cables

See Figure 1.

NOTE 1 Male coaxial contact where the outer contact is male; the central contact(s) may be male or female.

NOTE 2 Female coaxial contact where the outer contact is female; the central contact(s) may be male or female.

Coupling face



Key

- 1 Centre contact
- 2 Outer contact

Figure 1

1) Published by: IEC International Electrotechnical Commission. <http://www.iec.ch/>

2) Published as ASD-STAN Technical Report at the date of publication of this European Standard.
<http://www.asd-stan.org/>