



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN 3155-003:2019

Aerospace series - Electrical contacts used in elements of connection - Part 003: Contacts, electrical, female, type A, crimp, class S - Product standard

Luft- und Raumfahrt - Elektrische
Kontakte zur Verwendung in
Verbindungselementen - Teil 003:
Elektrische Buchsenkontakte, Typ A,

Série aéronautique - Contacts électriques
utilisés dans les organes de connexion -
Partie 003 : Contacts électriques,
femelles, type A, à sertir, classe S - Norme

10/2019



National Foreword

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EUROPEAN STANDARD ^{ILNAS-EN 3155-003:2019} **EN 3155-003**
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English Version

**Aerospace series - Electrical contacts used in elements of
 connection - Part 003: Contacts, electrical, female, type A,
 crimp, class S - Product standard**

Série aérospatiale - Contacts électriques utilisés dans
 les organes de connexion - Partie 003 : Contacts
 électriques, femelles, type A, à sertir, classe S - Norme
 de produit

Luft- und Raumfahrt - Elektrische Kontakte zur
 Verwendung in Verbindungselementen - Teil 003:
 Elektrische Buchsenkontakte, Typ A, crimpbar, Klasse
 S - Produktnorm

This European Standard was approved by CEN on 15 April 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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European foreword

This document (EN 3155-003:2019) 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 April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

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

This document supersedes EN 3155-003:2005.

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

1 Scope

This document specifies the required characteristics, tests and tooling applicable to female electrical contacts 003, type A, crimp, class S used in elements of connection according to EN 3155-002.

It shall be used together with EN 3155-001.

The associated male contacts are defined in EN 3155-008.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

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

EN 2591 (all parts), *Aerospace series — Elements of electrical and optical connection — Test methods*

EN 3155-001, *Aerospace series — Electrical contacts used in elements of connection — Part 001: Technical specification*

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

EN 3155-008, *Aerospace series — Electrical contacts used in elements of connection — Part 008: Contacts, electrical, male, type A, crimp, class S — Product standard*

EN 3545-001, *Aerospace series — Connectors, electrical, rectangular, with sealed and non-sealed rear, plastic housing, locking device, operating temperatures – 55 °C to 175 °C — Part 001: Technical specification*

EN 4165-001, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 001: Technical specification*

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

ISO 8843, *Aircraft — Crimp-removable contacts for electrical connectors — Identification system*¹⁾

SAE-AS 22520, *Crimping tools, wire termination, general specification* for²⁾

SAE-AS 81969, *Installing and removal tools, connector electrical contact, general specification* for²⁾

TR 4837, *Aerospace series — Applicable crimping tools for electrical contact product standards EN 3155-003, EN 3155-008 and EN 3155-009 for contact size # 10 and barrel size # 10 only*³⁾

1) Published by: ISO International Organization for Standardization, <http://www.iso.ch/>

2) Published by: SAE National (US) Society of Automotive Engineers, <http://www.sae.org/>

3) Published as ASD-STAN Technical Report at the date of publication of this standard by AeroSpace and Defence industries Association of Europe - Standardization (ASD-STAN), www.asd-stan.org

TR 4843, *Aerospace series — Applicable crimping tools for electrical contact product standards EN 3155-003, EN 3155-008 and EN 3155-009 for contact size #20 and barrel size #22 only*⁴⁾

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 3155-001 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <http://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Required characteristics

4.1 Specific characteristics

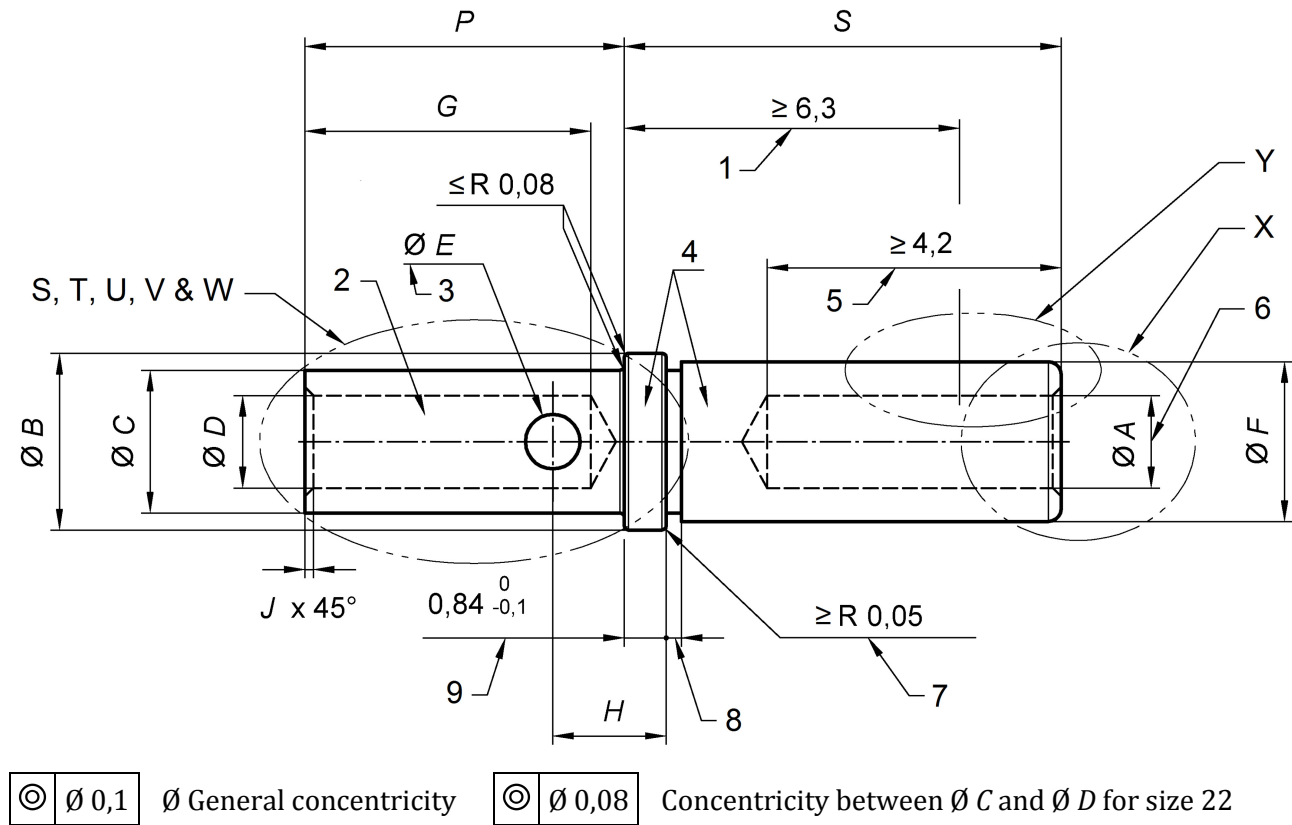
Type A contacts are for general application and class S corresponds to an operating temperature range from – 65 °C to 200 °C.

⁴⁾ In preparation at the date of publication of this standard.

4.2 Dimensions and mass

See Figure 1 to Figure 8 and Table 1.

Dimensions and tolerances are given in millimetres and apply after surface treatment.



$\varnothing 0,1$ $\varnothing$ General concentricity $\varnothing 0,08$ Concentricity between $\varnothing C$ and $\varnothing D$ for size 22

$\varnothing 0,025$ Concentricity between $\varnothing C$ and $\varnothing D$ for all size contacts except size 22

Key

- 1 Position of the first point and the maximum length of electrical contact (point at which a square ended minimum gauge pin of the same basic diameter as the mating contact first engages the female contact spring member) (see EN 3155-001 for active area definition).
- 2 Colour bands, see Table 2.
- 3 One side only
- 4 Manufacturer identification
- 5 This dimension represents the length to allow full pin engagement
- 6 $\varnothing A$ represents the bore
- 7 Break allowed
- 8 Clearance between sleeve and body of the contact 0,15 max. for contact size 22, 0,25 max. for other contacts
- 9 Not applicable for contact size 22

Figure 1 — Connector contact