

SLOVENSKI STANDARD

SIST EN 3155-045:2020

01-februar-2020

Nadomešča:

SIST EN 3155-045:2009

Aeronavtika - Električni kontakti za uporabo v spojnih elementih - 045. del:
Kontakti, električni, ženski, tip A, dvojno stiskanje, razred T - Standard za proizvod

Aerospace series - Electrical contacts used in elements of connection - Part 045:
Contacts, electrical, female, type A, double crimping, class T - Product standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -
Teil 045: Elektrischer Buchsenkontakte, Typ A, Doppel Crimpung, Klasse T -
Produktnorm

Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie
045 : Contacts électriques, femelles, type A, double sertissage, classe T - Norme de
produit

Ta slovenski standard je istoveten z: EN 3155-045:2019

ICS:

49.060

Letalska in vesoljska
električna oprema in sistemi

Aerospace electric
equipment and systems

SIST EN 3155-045:2020

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3155-045

December 2019

ICS 49.060

Supersedes EN 3155-045:2006

English Version

Aerospace series - Electrical contacts used in elements of connection - Part 045: Contacts, electrical, female, type A, double crimping, class T - Product standard

Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie 045 : Contacts électriques, femelles, type A, double sertissage, classe T - Norme de produit

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen - Teil 045: Elektrischer Buchsenkontakte, Typ A, Doppel Crimpung, Klasse T - Produktnorm

This European Standard was approved by CEN on 26 August 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.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 3155-045:2019) 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 June 2020, and conflicting national standards shall be withdrawn at the latest by June 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 3155-045:2006.

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.

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EN 3155-045:2019 (E)**1 Scope**

This document specifies the required characteristics, tests and tooling applicable to female electrical contacts 045, type A, double crimping, class T, used in elements of connection according to EN 3155-002.

It shall be used together with EN 3155-001.

The associated male contact is defined in EN 3155-044.

Double crimping contact has a barrel which is design to crimp conductor and jacket of cable in two locations, one on the conductor and the other on the jacket. This way protect the conductor from mechanical strengths.

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 — General*

EN 2997-001, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures — 65 °C to 175 °C continuous, 200 °C continuous, 260 °C peak — Part 001: Technical specification*

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 3155-044, *Aerospace series — Electrical contacts used in elements of connection — Part 044: Contacts, electrical, male 044, type A, double crimping, class T — Product standard*

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

SAE-AS22520, *Crimping tools, wire termination, general specification for*¹⁾

SAE-AS81969, *Installing and removal tools, connector electrical contact, general specification for*¹⁾

¹⁾ Published by: SAE National (US) Society of Automotive Engineers, <http://www.sae.org/>

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

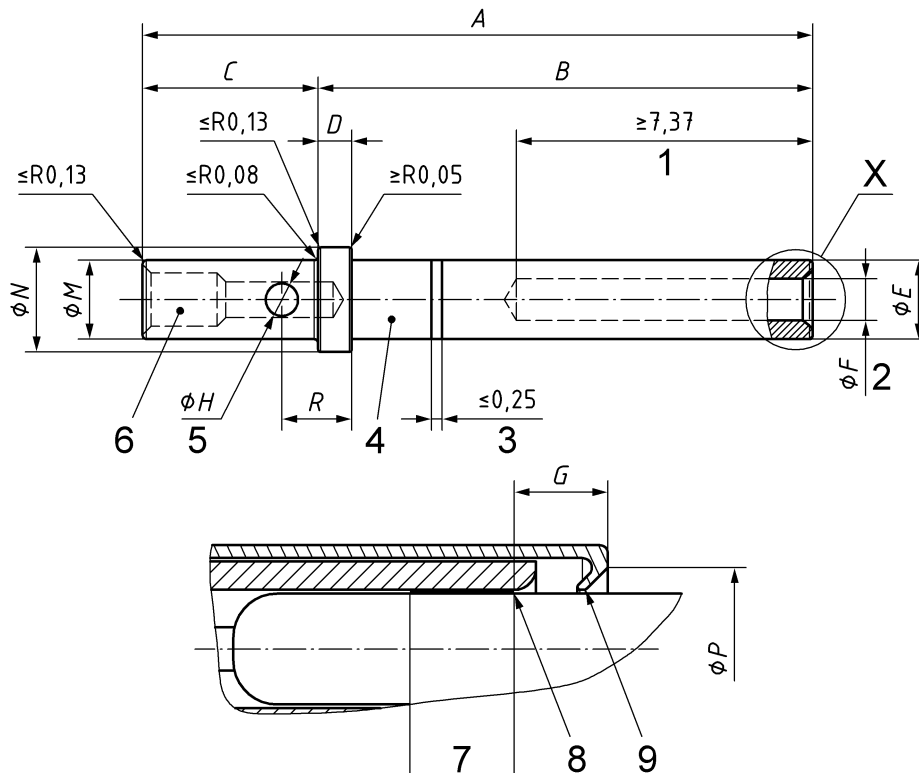
4.1 Dimensions and mass

See Figure 1 and Table 1.

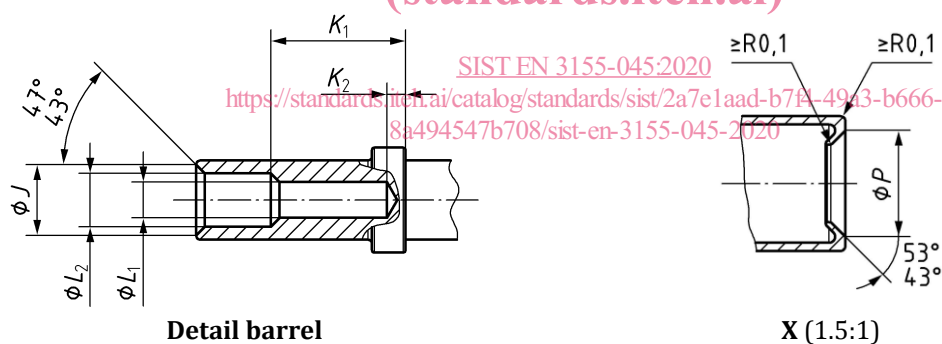
Dimensions and tolerances are given in millimetres.

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Detail X: Optional shape but specified dimensions shall be respected



Key

- 1 7,37 min., represents the length to allow full pin engagement.
- 2 ϕF represents the bore.
- 3 0,25 max., clearance between sleeve and body of the contact.
- 4 Manufacturer identification: The contacts shall be permanently and legibly marked with the manufacturer's symbol in a non-active area at a place chosen by the manufacturer.
- 5 1 (one) side only.
- 6 White dot.
- 7 Active area = 1 mm min.; see EN 3155-001 for active area definition.
- 8 First point 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).
- 9 The max. entry diameter shall be compliant with the value defined in EN 3155-001 test EN 2591-502. Restricted entry.

Figure 1

Table 1 — Connector contact

Size		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>J</i>
Contact	Barrel	max.					min.	max.		
20	22	16,66	12,37	4,34	0,84	1,98	1,05	1,14	0,81	1,74
			12,17	4,06	0,74	1,93			0,66	1,69

Size		<i>K</i> ₁	<i>K</i> ₂	<i>L</i> ₁	<i>L</i> ₂	<i>M</i>	<i>N</i>	<i>P</i>	<i>R</i>	Mass
Contact	Barrel							min.		g
20	22	3,35	0,45	0,89	1,34	1,98	2,62	1,52	1,73	0,35
		3,05	0,15	0,84	1,29	1,93	2,54		1,35	

4.2 Marking by colour code

See Table 2.

Table 2 — Marking

Size			
Contact	Barrel	Band 1	Band 2
20	22	Red	Green

As an alternative, when the 2 (two) bands colours are the same, 1 (one) 2 mm minimum width colour band shall be applied.

The position of the colour dots is non contractual with respect to the drawing.

1 White dot
 2 Band 1
 3 Band 2 the width of the band 2 shall be twice the width of the band 1.

4.3 Material, protective plating

- Body material : copper alloy
- Protective plating : selective protection permitted; minimum gold thickness: 1,27 µm nickel undercoat