



# SLOVENSKI STANDARD

## SIST EN 3155-044:2020

01-februar-2020

Nadomešča:

SIST EN 3155-044:2009

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**Aeronavtika - Električni kontakti za uporabo v veznih elementih - 044. del:  
Kontakti, električni, moški 044, tip A, dvojno zaključeni, razred T - Standard za  
proizvod**

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

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -  
Teil 044: Elektrischer Stiftkontakt (044, Typ A, doppelt gecrimpt, Klasse T - Produktnorm

Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie  
044 : Contacts électriques, mâles 044, type A, double sertissage, classe T - Norme de  
produit

**Ta slovenski standard je istoveten z: EN 3155-044:2019**

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**ICS:**

49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems
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**SIST EN 3155-044:2020**

**en,fr,de**

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EUROPEAN STANDARD

**EN 3155-044**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2019

ICS 49.060

Supersedes EN 3155-044:2007

English Version

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

Série aérospatiale - Contacts électriques, utilisés dans les organes de connexion - Partie 044 : Contacts électriques, mâles 044, type A, double sertissage, classe T - Norme de produit

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen - Teil 044: Elektrischer Stiftkontakt 044, Typ A, doppelt gecrimpt, 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 3155-044:2019) 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 3155-044:2007.

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 3155-044:2019 (E)****1 Scope**

This document specifies the required characteristics and tests applicable to electrical contacts, male 044, 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 female contact is defined in EN 3155-045.

**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 3155-045, *Aerospace series — Electrical contacts used in elements of connection — Part 045: Contacts, electrical, female, 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)*

**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/>

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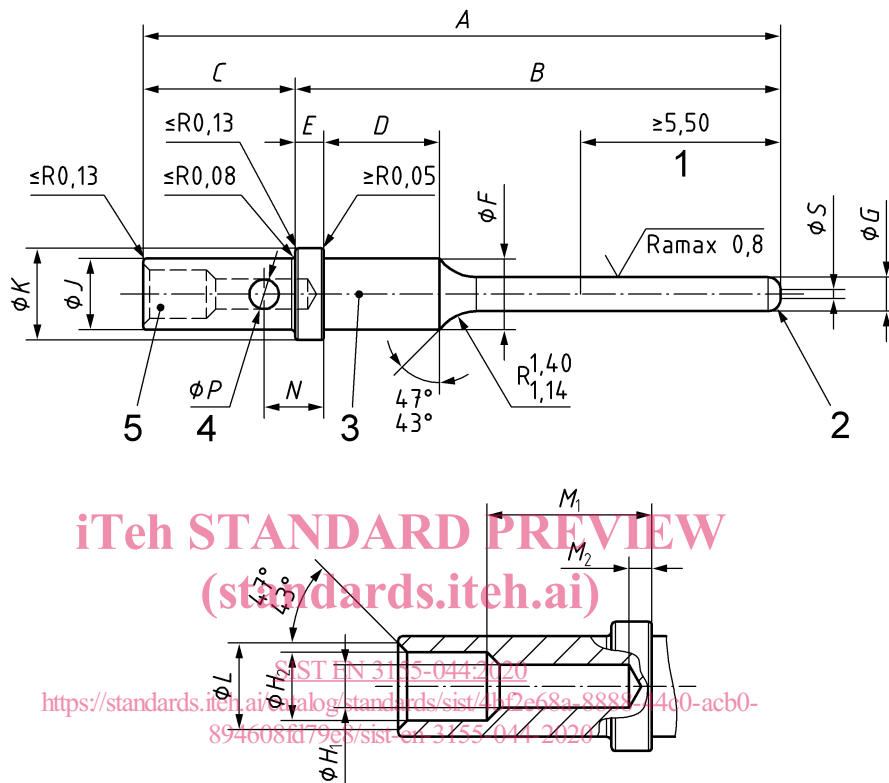
1) Published by: SAE National (US) Society of Automotive Engineers <http://www.sae.org/>

## 4 Required characteristics

### 4.1 Dimensions and mass

Dimensions are in millimetres.

See Figure 1 and Table 1.



#### Key

- 1 Approximately spherical.
- 2 See EN 3155-001 for Length of Selective Protection "LSP" definition.
- 3 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.
- 4 1 (one) side only.
- 5 White dot.

Figure 1 — Detail of barrel

**Table 1 — Connector contact**

Size		<i>A</i> max.	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i> <sub>1</sub>	<i>H</i> <sub>2</sub>
Contact	Barrel									
20	22	18,29	13,94 13,79	4,34 4,06	3,30 3,17	0,84 0,74	1,98 1,93	1,04 0,99	0,89 0,84	1,34 1,29

Size		<i>J</i>	<i>K</i>	<i>L</i>	<i>M</i> <sub>1</sub>	<i>M</i> <sub>2</sub>	<i>N</i>	<i>P</i>	<i>S</i> max.	Mass g
Contact	Barrel									
20	22	1,98 1,93	2,62 2,54	1,74 1,69	3,35 3,06	0,45 0,15	1,73 1,35	0,81 0,66	0,51	0,3

## 4.2 Marking by colour code

See Table 2.

**Table 2 — Marking by colour code**

Size		Band 1		Band 2
Contact	Barrel	Band 1		Band 2
20	22	Red		Green

The diagram shows a side view of a connector contact. It has a cylindrical barrel and a smaller contact tip. Three marking points are indicated with numbered circles: 1 is a white dot on the contact tip; 2 is a band on the barrel; 3 is a wider band on the barrel.

As an alternative, when the 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



#### 4.4 Permissible cables

See Table 3.

**Table 3 — Permissible cables**

Size		Size of conductors				Rated test current A
Contact	Barrel	ASD code	Section mm <sup>2</sup>	AWG <sup>a</sup>	∅ Insulation max.	
20	22	004	0,4	22	1,25	5

<sup>a</sup> AWG = Closest American Wire Gauge.

#### 4.5 Cable stripping

See Table 4.

**Table 4 — Cable stripping**

Size		Stripped length of cable mm ± 0,3
Contact	Barrel	
20	22	2,3

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#### 4.6 Tooling

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Conform to SAE-AS22520 and SAE-AS81969.

The qualification selector numbers used for crimping copper and copper alloy conductors in cables EN 2083 or EN 4434.

See Table 5.

**Table 5 — Tooling**

Size		Cable size		Crimping tool			Insertion tool	Extraction tools	
Contact	Barrel	ASD code	AWG <sup>a</sup>	Tool	Positioner	Selector number		Wired contact	Unwired contact
20	22	004	22	M22520/1-01	M22520/1-02 red	4	M81969/14-11	M81969/14-11	M81969/30-05

<sup>a</sup> AWG = Closest American Wire Gauge.