



SLOVENSKI STANDARD

SIST EN 3155-018:2020

01-marec-2020

Nadomešča:

SIST EN 3155-018:2006

Aeronavtika - Električni kontakti za uporabo v veznih elementih - 018. del:
Električni kontakti, moški, tip A, nagubani, razred S - Standard za proizvod

Aerospace series - Electrical contacts used in elements of connection - Part 018:
Contacts, electrical, male, type A, crimp, class S - Product standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -
Teil 018: Elektrische Stiftkontakte, Typ A, crimpbar, Klasse S - Produktnorm

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

Ta slovenski standard je istoveten z: EN 3155-018:2020

ICS:

49.060

Letalska in vesoljska
električna oprema in sistemi

Aerospace electric
equipment and systems

SIST EN 3155-018:2020

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3155-018

January 2020

ICS 49.060

Supersedes EN 3155-018:2005

English Version

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

Série aérospatiale - Contacts électriques utilisés dans
les organes de connexion - Partie 018 : Contacts
électriques, mâles, type A, à sertir, classe S - Norme de
produit

Luft- und Raumfahrt - Elektrische Kontakte zur
Verwendung in Verbindungselementen - Teil 018:
Elektrische Stiftkontakte, Typ A, crimpbar, Klasse S -
Produktnorm

This European Standard was approved by CEN on 13 October 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.

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

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European foreword

This document (EN 3155-018:2020) 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 document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2020, and conflicting national standards shall be withdrawn at the latest by July 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 3155-018:2005.

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.

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EN 3155-018:2020 (E)**1 Scope**

This document specifies the required characteristics, tests and tooling applicable to male contacts 018, 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 female contacts are defined in EN 3155-019.

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*, *Aerospace series — Elements of electrical and optical connection — Test methods — General*

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

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-AS22520, *Crimping tools, wire termination, general specification for*²⁾

SAE-AS81969, *Installing and removal tools, connector electrical contact, general specification for*²⁾

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/>

* All its parts quoted in this standard.

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/>

4 Required characteristics

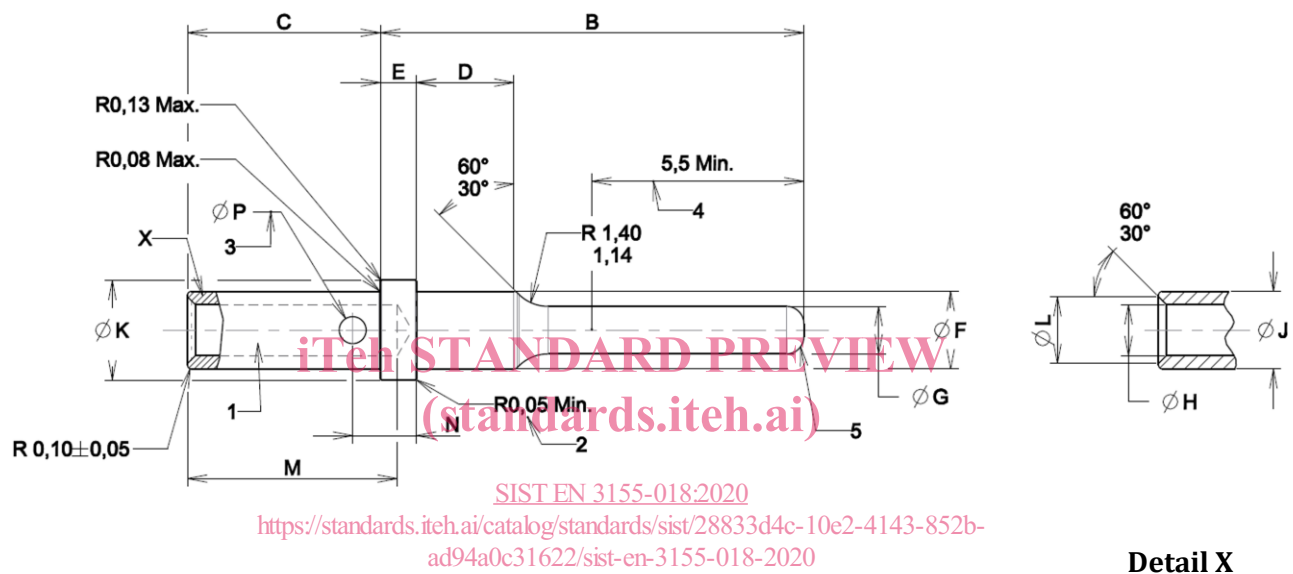
4.1 Specific characteristics

Type A contacts are for general application and class S corresponds to an operating temperature range from $-65\text{ }^{\circ}\text{C}$ to $200\text{ }^{\circ}\text{C}$.

4.2 Dimensions and mass

See Figure 1, Figure 2 and Table 1.

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

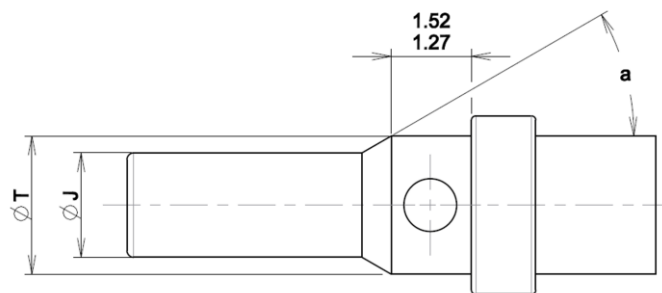


Key

- 1 Colour bands, see Table 2.
- 2 Break allowed
- 3 One side only
- 4 See EN 3155-001 for Length of Selective Protection "LSP" definition
- 5 Approximately spherical

Figure 1

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Key

- ^a 28° to 32° for contact 20-22, 14° to 16° for other contacts

Figure 2 — Barrel, contacts 20-22, 16-18 and 12-18

Table 1

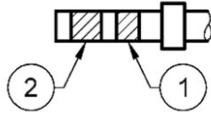
Size		B	C	D	E	Ø F min.	Ø G max.	Ø H	Ø J
Contact	Barrel								
20	22	13,94	4,34	3,30	0,84	1,98	1,04	0,90	1,22
		13,79	4,06	3,17	0,74	1,93	0,99	0,85	1,17
20	20	13,94	4,34	3,30	0,84	1,98	1,04	1,27	1,98
		13,79	4,06	3,17	0,74	1,93	0,99	1,22	1,93
20	18	13,94	4,34	3,30	0,84	1,98	1,04	1,35	1,98
		13,79	4,06	3,17	0,74	1,93	0,99	1,30	1,93
16	16	14,33	6,53	3,30	1,22	2,62	1,61	1,73	2,62
		14,17	6,25	3,17	1,12	2,56	1,56	1,68	2,56
16	14	14,33	6,53	3,30	1,22	2,62	1,61	1,95	2,62
		14,17	6,25	3,17	1,12	2,56	1,56	1,90	2,56
16	18	14,33	6,53	3,30	1,22	2,62	1,61	1,35	1,98
		14,17	6,25	3,17	1,12	2,56	1,56	1,30	1,93
12	12	14,33	6,53	3,05	1,22	3,83	2,41	2,59	3,83
		14,17	6,25	2,92	1,12	3,76	2,36	2,49	3,76
12	18	14,33	6,53	3,05	1,22	3,83	2,41	1,35	1,98
		14,17	6,25	2,92	1,12	3,76	2,36	1,30	1,93

Size		Ø K	Ø L	M	N	Ø P min.	Ø T	Mass g max.
Contact	Barrel							
20	22	2,62	1,16	4,75	1,73	0,56	1,98	0,31
		2,54	1,01	3,94	1,35	0,46	1,93	
20	20	2,62	1,68	4,75	1,73	0,81	–	0,35
		2,54	1,57	3,94	1,35	0,66		
20	18	2,62	1,68	4,75	1,73	0,81	–	0,35
		2,54	1,57	3,94	1,35	0,66		
16	16	3,38	2,26	7,21	2,16	1,07	–	0,68
		3,30	2,11	6,35	1,73	0,91		
16	14	3,38	2,26	7,21	2,16	1,07	–	0,68
		3,30	2,11	6,35	1,73	0,91		
16	18	3,38	1,68	7,21	2,16	1,07	2,62	0,68
		3,30	1,57	6,35	1,73	0,91	2,56	
12	12	4,83	3,45	7,21	2,16	1,07	4,01	1,38
		4,75	3,30	6,35	1,73	0,91	3,94	
12	18	4,83	1,68	7,21	2,16	1,07	4,01	1,38
		4,75	1,57	6,35	1,73	0,91	3,94	

4.3 Marking by colour code

See Table 2.

Table 2 — Marking by colour code

Size		Colour identification bands according to ISO 8843 	
Contact	Barrel	① Band 1	② Band 2 ^a
20	22	Red	Green
20	20	Red	Red
20	18	Red	Brown ^b
16	16	Blue	Blue
16	14	Blue	White ^c
16	18	Blue	Brown ^b
12	12	Yellow	Yellow
12	18	Yellow	Brown ^b
As an alternative, when the two bands colours are the same, one 2 mm minimum width colour band shall be applied.			
^a The Width of the band 2 shall be twice the width of the band 1.			
^b Violet colour band not to be used for new manufacture.			
^c Orange colour band not to be used for new manufacture.			

4.4 Material, protective plating

- Body material : copper alloy
- Protective plating : gold an appropriate undercoat, thickness of protection see EN 3155-001, selective protection permitted.

4.5 Permissible cables

See Table 3.