SLOVENSKI STANDARD

SIST EN 3155-071:2008

01-marec-2008

Aeronavtika - Električni kontakti za uporabo v veznih elementih - 071. del: Kontakti, električni, ženski, tip A, nagubani, razred S - Standard za proizvod

Aerospace series - Electrical contacts used in elements of connection - Part 071: Contacts, electrical, female, type A, crimp, class S - Product standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen - Teil 071: Elektrische Buchsenkontakte, Typ A, crimpbar, Klasse S - Produktnorm

Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie 071: Contacts électriques, femelles, type A, à sertir, classe S - Norme de produit

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 3155-071:2007) 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of an identical text or by endorsement, at the latest by June 2008, and conflicting national standards shall be withdrawn at the latest by June 2008.

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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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

The contacts defined by this standard are derived from those of SAE-AS39029/57 and, intermateable with those of SAE-AS39029/58.

1 Scope

This standard specifies the required characteristics, tests and tooling applicable to female electrical contacts 071, 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 and EN 3155-070.

2 Normative references

The following referenced documents are indispensable for the application 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.

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

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

EN 2591-*, *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.* 1)

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 3155-070, *Aerospace series — Electrical contacts used in elements of connection — Part 070: Contacts, electrical, male, 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).*

MIL-DTL-22520, *Crimping tools, wire termination, general specification for.* 2)

MIL-I-81969, *Installing and removal tools, connector electrical contact, general specification for*. 2)

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* All parts quoted in Table 7.

1) Published as ASD Prestandard at the date of publication of this standard.

2) Published by: Department of Defence (DOD), the Pentagon, Washington D.C. 20301 USA.

SAE-AS39029, *Contacts, electrical connector, general specification for.* [3)]

SAE-AS39029/57, *Contacts, electrical connector, socket, crimp removable (for MIL-C-24308, MIL-C-38999 series II, MIL-C-55302/68, /71, /72, /75 and MIL-C-83733 connectors).* [3)]

SAE-AS39029/58, *Contacts, electrical connector, pin, crimp removable (for MIL-C-24308, MIL-C-38999 series I, II, III, and IV and MIL-C-55302/69 and MIL-C-83733 connectors).* [3)]

3 Terms and definitions

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

4 Required characteristics

4.1 Specific characteristics

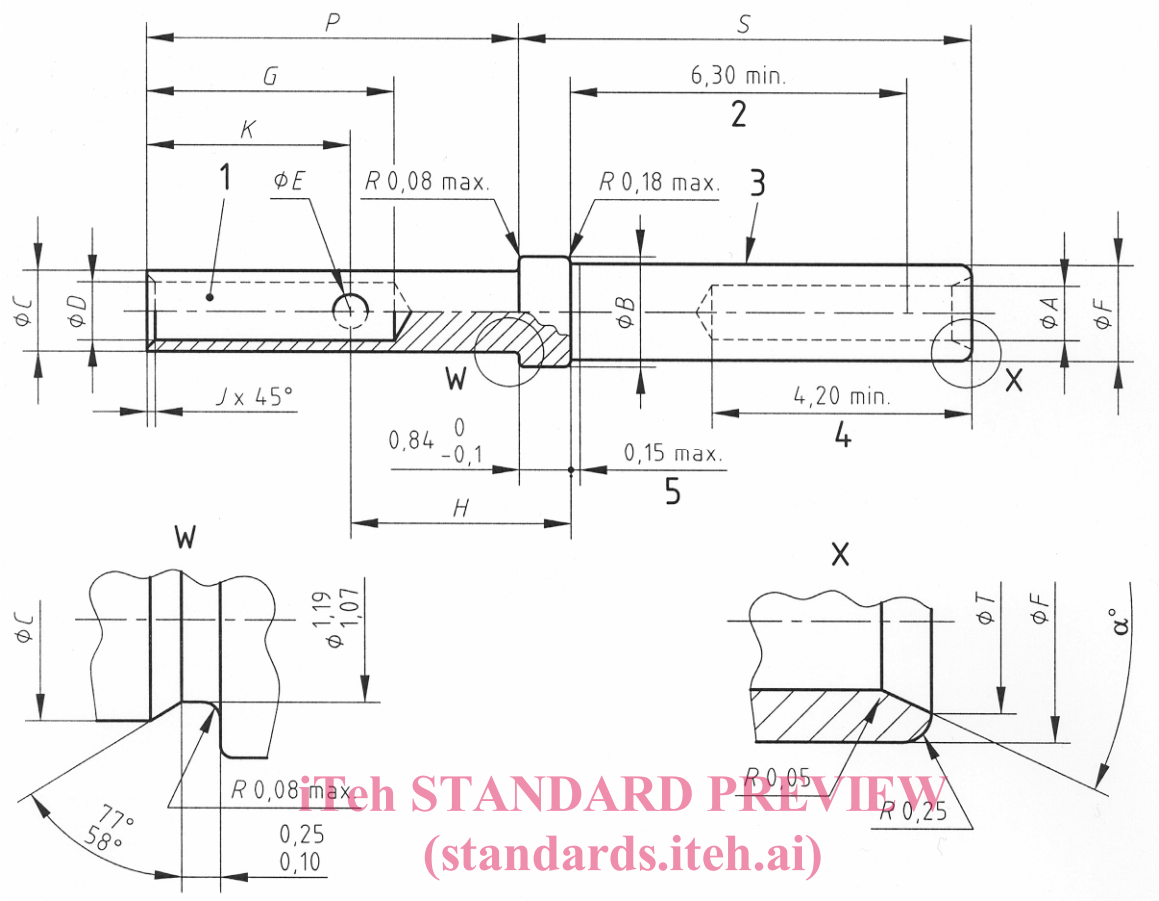
Type A contacts are for general application and class S corresponds to an operating temperature range from – 65 °C to 200 °C.

4.2 Dimensions and mass

See Figure 1 and Table 1.

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

3) Published by: Society of Automotive Engineering (SAE), 400 Commonwealth Drive, Warrendale, PA 15096, USA.



Key

1 Colour bands, see Table 2.

2 Point at which a square ended gauge pin of the same diameter as the mating contact first engages the female contact spring member.

3 Manufacturer identification

4 This dimension represents both the length of the bore ∅ *A* which includes the active zone of protection (see EN 3155-001).

5 Clearance between sleeve and body of the contact.

◎ ∅ 0,10	∅ General concentricity	◎ ∅ 0,05	∅ *A* and ∅ *C*

Figure 1

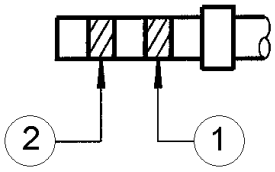
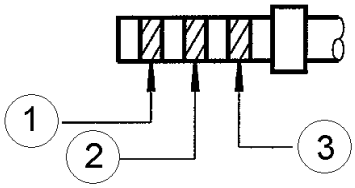
Table 1

Size		*A*	*B*	*C*	*D*	*E*	*F*	*G*	*J*	*K*	*P*	*S*	*T*	*α*°	Mass g
Contact	Barrel						max.						min.		max.
22	22	0,89 0,79	1,80 1,75	1,32 1,27	0,95 0,90	0,56 0,46	1,57	3,99 3,58	0,13 0,08	3,28 3,10	6,02 5,87	7,34 7,09	1,19	44 50	0,10

4.3 Marking by colour code

See Table 2.

Table 2

Size		Two bands according to ISO 8843		Three bands according to SAE-AS39029/57[a]		
						
Contact	**Barrel**	**① Band 1**	**② Band 2**	**① Band 1**	**② Band 2**	**③ Band 3**
22	22	Green	Green	Orange	Green	Blue

[a] Contacts supplied with three colour bands must conform to this EN standard.

4.4 Material, surface treatment

— Body material: copper alloy

— Surface treatment: gold an appropriate undercoat, thickness of protection not specified, selective protection permitted.

4.5 Permissible cables

See Table 3.

Table 3

Size		Size of conductors			Rated test current A
Contact	**Barrel**	**AECMA Code**	**Section mm²**	**AWG [a]**	
22	22	004	0,40	22	5
		002	0,25	24	3
		001	0,15	26	2

[a] AWG = Closest American Wire Gage.

4.6 Tooling

4.6.1 Crimping tools

Conform to MIL-DTL-22520, see Table 4.

The qualification selector numbers used for crimping copper or copper alloy conductors in cables EN 2083 and EN 4434 are indicated in Table 4.

It is the responsibility of the user if the parameters in Table 4 are changed for service use.