



SLOVENSKI STANDARD SIST EN 3155-017:2009

01-februar-2009

5 YfcbUj h_U!`9`Y_f] b]`_cbhU_h`nUi dcfUvc`j`j Ynb] \ `YYa Ybh] \ `!`\$%+`"XY.
?cbhU_h]z`Y`f] b]z`dcXbc`y`Y`nUf`Y`Y`z`y`Ybg`_z`h`d`5`z`b`U`i`V`U`b`z`f`U`n`f`Y`X`D`!`G`h`U`b`X`U`f`X`
n`U`d`f`c`]`n`j`c`X

Aerospace series - Electrical contacts used in elements of connection - Part 017:
Contacts, electrical, relay base, female, type A, crimp, class P - Product standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -
Teil 017: Elektrische Buchsenkontakte, Steckfassung für Relais, Typ A, crimpbar, Klasse
P - Produktnorm

Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie
017 : Contacts électriques, pour socles de relais, femelles, type A, à sertir, classe P -
Norme de produit

Ta slovenski standard je istoveten z: EN 3155-017:2006

ICS:

49.060 Š^æ\ æš /æ\ |b\ æ Aerospace electric
^|\ dā} æ\]!^ { æš /æ\ c^ { ã equipment and systems

SIST EN 3155-017:2009 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 3155-017:2009

<https://standards.iteh.ai/catalog/standards/sist/869eeb33-a609-4b08-b3f1-7a3ca0d7e4ef/sist-en-3155-017-2009>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3155-017

July 2006

ICS 49.060

English Version

**Aerospace series - Electrical contacts used in elements of
connection - Part 017: Contacts, electrical, relay base, female,
type A, crimp, class P - Product standard**

Série aérospatiale - Contacts électriques utilisés dans les
organes de connexion - Partie 017 : Contacts électriques,
pour socles de relais, femelles, type A, à sertir, classe P -
Norme de produit

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung
in Verbindungselementen - Teil 017: Elektrische
Buchsenkontakte, Steckfassung für Relais, Typ A,
crimpbar, Klasse P - Produktnorm

This European Standard was approved by CEN on 6 January 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, 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 United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents		Page
Foreword.....		3
0 Introduction		4
1 Scope		4
2 Normative references		4
3 Definitions		5
4 Required characteristics		5
5 Designation		10
6 Marking		10
7 Technical specification		10

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 3155-017:2009](https://standards.iteh.ai/catalog/standards/sist/869eeb33-a609-4b08-b3f1-7a3ca0d7e4ef/sist-en-3155-017-2009)

<https://standards.iteh.ai/catalog/standards/sist/869eeb33-a609-4b08-b3f1-7a3ca0d7e4ef/sist-en-3155-017-2009>

Foreword

This European Standard (EN 3155-017:2006) has been prepared by the AeroSpace and Defense 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 **January 2007**, and conflicting national standards shall be withdrawn at the latest by **January 2007**.

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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.

ITEH STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 3155-017:2009

<https://standards.iteh.ai/catalog/standards/sist/869eeb33-a609-4b08-b3f1-7a3ca0d7e4ef/sist-en-3155-017-2009>

EN 3155-017:2006 (E)**0 Introduction**

The contacts defined by this standard are derived from those of MIL-C-39029/92.

1 Scope

This standard specifies the required characteristics, tests and tooling applicable to female electrical contacts 017, type A, crimp, class P, used in elements of connection (relay bases) according to EN 3155-002.

It shall be used together with EN 3155-001.

The associated male contacts are defined in the standards of relays associated to the relay bases listed in EN 3155-002.

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 or copper alloy conductors for electrical cables — Product standard*

EN 2591 (series), *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*

MIL-DTL-22520, *Crimping tools, terminal, hand or power actuated, wire termination, and tool kits, general specification for*¹⁾

MIL-C-22520/1, *Crimping tools, terminal, hand, wire termination for wire barrel sizes 12 through 20*¹⁾

MIL-C-22520/2, *Crimping tools, terminal, hand, wire termination for wire barrel sizes 20 through 28*¹⁾

MIL-C-22520/7, *Crimping tools, terminal, hand, wire termination for wire barrel sizes 16, 20 and 22*¹⁾

MIL-C-39029, *Contacts, electrical connector, general specification for*¹⁾

MIL-C-39029/92, *Contacts, electrical connector, socket, crimp removable, (for MIL-R-6106 and MIL-S-12833/40 and /41 relay sockets)*¹⁾

MIL-I-81969, *Installing and removal tools, connector electrical contact, general specification for*¹⁾

MIL-I-81969/14, *Installing and removal tools, connector electrical contact, type III, class 2, composition B*¹⁾

MIL-I-81969/30, *Installing and removal tools, connector electrical contact, type II, class 2, composition C for unwired*¹⁾

¹⁾ Published by: Department of Defense (DOD), the Pentagon, Washington D.C. 20301 USA.

3 Definitions

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

4 Required characteristics

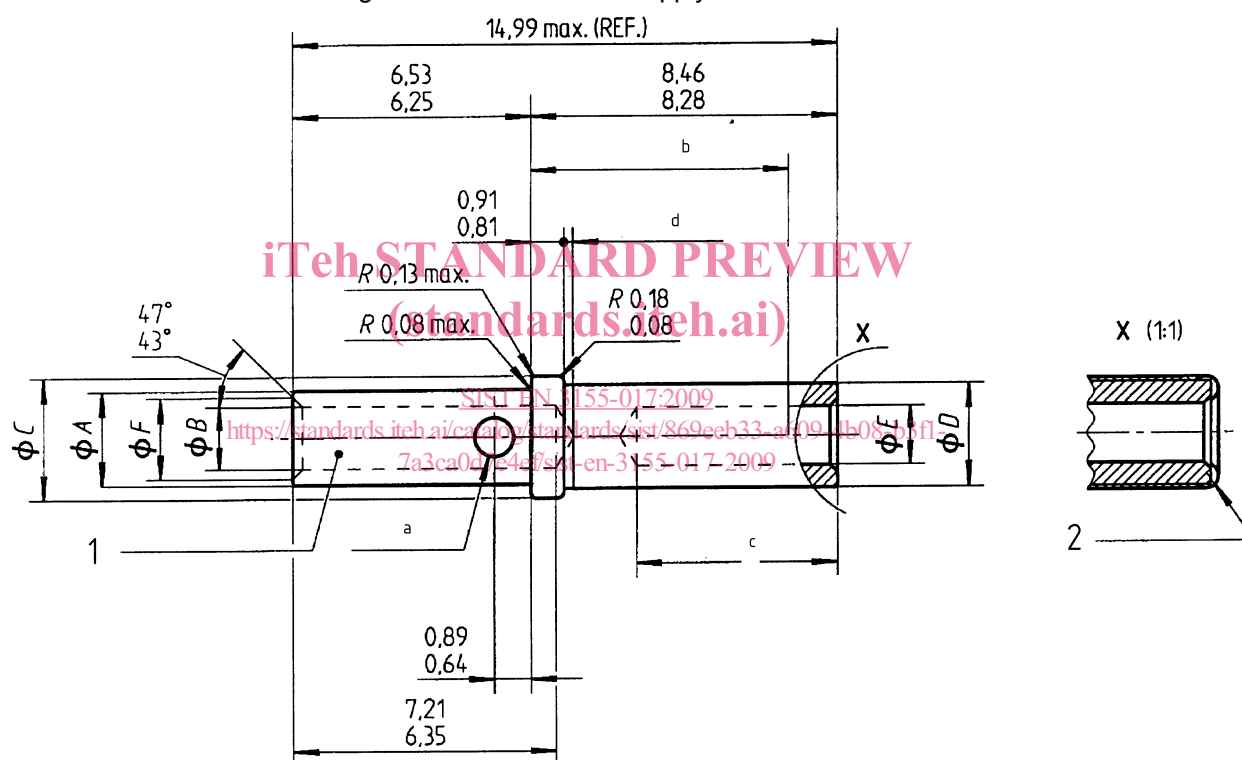
4.1 Specific characteristics

Type A contacts are for general application and class P corresponds to an operating temperature range from $-65\text{ }^{\circ}\text{C}$ to $125\text{ }^{\circ}\text{C}$.

4.2 Dimensions and mass

See Figures 1 and 2 and Table 1.

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



Key

1 Colour bands, see Table 2

2 Full radius

a $\varnothing G$ (one side only)

b 7,11 min., see note 1

c 5,54 min., see note 2

d 0,25 max., see note 3

NOTE 1 Point at which a square ended gauge pin of the same basic diameter as the mating contact first engages the female contact spring member.

NOTE 2 This dimension represents the length of the bore $\varnothing E$ which includes the active zone of protection (see EN 3155-001, 5.3.2).

NOTE 3 Clearance between sleeve and body of the contact

Figure 1 — Contact sizes 16 and 12 and barrel size 16-16

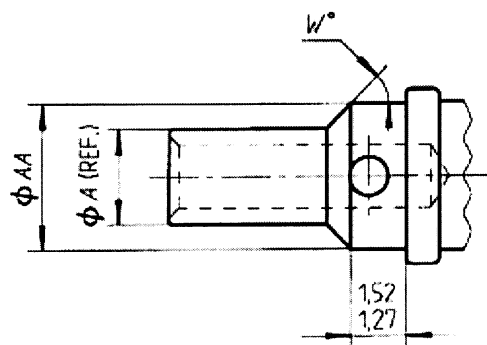


Figure 2 — Barrel sizes 16-20, 12-12 and 12-16

Table 1

Size		A	B	C	D	E	F	G	W°	AA	Mass g max.
Contact	Barrel	Dia.	Dia.		max.	min.					
16	20	1,98	1,27	3,38	2,87	1,62	1,68	0,81	46	2,62	0,45
		1,93	1,22	3,30			1,57	0,66	44	2,57	
16	16	2,62	1,73	3,38	2,87	1,62	2,26	1,07	—	—	0,50
		2,57	1,68	3,30			2,11	0,91	44	3,94	
12	16	2,62	1,73	4,83	4,09	2,426	2,26	1,07	46	4,01	0,85
		2,57	1,68	4,75			2,11	0,91	44	3,94	
12	12	3,84	2,59	4,83	4,09	2,426	3,45	1,07	16	4,01	0,95
		3,76	2,49	4,75			3,30	0,91	14	3,94	

4.3 Marking by colour code

(standards.iteh.ai)

See Table 2.

SIST EN 3155-017:2009

<https://standards.iteh.ai/catalog/standards/sist/869eeb33-a609-4b08-b3f1-7a3ca0d7e4ef/sist-en-3155-017-2009>

Table 2

Size		Two bands according to ISO 8843		Three bands according to MIL-C-39029/92 ^a		
Contact	Barrel	Band 1	Band 2	Band 1	Band 2	Band 3
16	20	Blue	Red	Green	Orange	Yellow
16	16	Blue	Blue	Green	Orange	Orange
12	16	Yellow	Blue	Green	Orange	Blue
12	12	Yellow	Yellow	Green	Orange	Green

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

Key

- 1 Band 1
- 2 Band 2
- 3 Band 3

4.4 Material, surface treatment

- Body material: copper alloy.
- Surface treatment: gold on appropriate undercoat, of specified, selective protection permitted, thickness of protection not specified.

4.5 Permissible cables

See Table 3.

Table 3

Size		Size of conductors			Rated test current A
Contact	Barrel	AECMA code	Section mm ²	AWG ^a	
16	20	006	0,60	20	7,5
		004	0,40	22	5
		002	0,25	24	3
16	16	012	1,20	16	13
		010	1,00	18	10
		006	0,60	20	7,5
12	16	012	1,20	16	13
		010	1,00	18	10
		006	0,60	20	7,5
12	12	030	3,00	12	25
		020	2,00	14	17

^a AWG = Closest American Wire Gage

4.6 Tooling

4.6.1 Crimping tools **ITeh STANDARD PREVIEW** (standards.iteh.ai)

Conform to MIL-DTL-22520.

See Table 4.

SIST EN 3155-017:2009

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

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

Table 4

Contact		Cable size		Tools M22520/1-01		Tools M22520/2-01		Tools M22520/7-01	
Contact size	Barrel size	AECMA code	AWG ^a	Positioner	Selector number	Positioner	Selector number	Positioner	Selector number
16	20	002	24	M22520/1-02 Blue	2	Not applicable	—	M22520/7-03	3
		004	22		3		4		
		006	20		4		5		
		—	—		—		—		
16	16	006	20	M22520/1-02 Blue	4	Not applicable	—	M22520/7-03	5
		010	18		5		6		
		012	16		6		7		
		—	—		—		—		
12	16	006	20	M22520/1-02 Yellow	4	Not applicable	—	Not applicable	—
		010	18		5		—		
		012	16		6		—		
		—	—		—		—		
12	12	020	14	M22520/1-02 Yellow	7	Not applicable	—	Not applicable	—
		030	12		8		—		
		—	—		—		—		
		—	—		—		—		

^a AWG = Closest American Wire Gage