



SLOVENSKI STANDARD

SIST EN 3155-027:2008

01-junij-2008

5 YfcbUj H_U!`9`Y_f] b]`cbHU_H`nUi dcfUWc`j`j Ynb] \ `Y`Ya YbH] \ `!`\$&+`"XY`
?cbHU_H]žYY_f] b]žyYbg_]žhd`5 žbU i VUb]žfUhfYX`F`!`GHubXUfX`nUdfc]nj cX

Aerospace series - Electrical contacts used in elements of connection - Part 027:
Contacts, electrical, female, type A, crimp, class R - Product standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -
Teil 027: Elektrische Buchsenkontakte, Typ A, crimpbar, Klasse R - Produktnorm

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(ctrique utilisés dans les organes de connexion) - Partie
027 : Contacts électriques, femelles, type A, à sertir, classe R - Norme de produit

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ICS:

49.060

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en,de

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ICS 49.060

English Version

Aerospace series - Electrical contacts used in elements of
connection - Part 027: Contacts, electrical, female, type A,
crimp, class R - Product standard

Série aérospatiale - Contacts électriques utilisés dans les
organes de connexion - Partie 027 : Contacts électriques,
femelles, type A, à sertir, classe R - Norme de produit

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung
in Verbindungselementen - Teil 027: Elektrische
Buchsenkontakte, Typ A, crimpbar, Klasse R -
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.



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Foreword

This European Standard (EN 3155-027:2006) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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 October 2006, and conflicting national standards shall be withdrawn at the latest by October 2006.

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.

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Introduction

The contacts defined by this standard are derived from those of AS 39029/94 and intermateable with those of AS 39029/93.

1 Scope

This standard specifies the required characteristics and tests applicable to female electrical contacts 027, type A, crimp, class R, used in elements of connection according to EN 3155-002.

The associated male contacts are defined in EN 3155-026.

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*, *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 3155-026, *Aerospace series — Electrical contacts used in elements of connection — Part 026: Contacts, electrical, male, type A, crimp, class R — Product standard.*

EN 3682-001, *Aerospace series — Connectors, plug and receptacle, electrical, rectangular, interchangeable insert type, rack to panel, operating temperature 150 °C continuous — Part 001: Technical specification.*

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⁾

AS 39029, *Contacts, electrical connector, general specification for.*³⁾

* All parts quoted in this standard.

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

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

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

AS 39029/93, *Contacts, electrical connector, pin, crimp removable, (for DOD-C-83527, connectors)*.³⁾

AS 39029/94, *Contacts, electrical connector, socket, crimp removable, (for DOD-C-83527, 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 R corresponds to an operating temperature range from – 65 °C to 150 °C.

4.2 Dimensions and mass

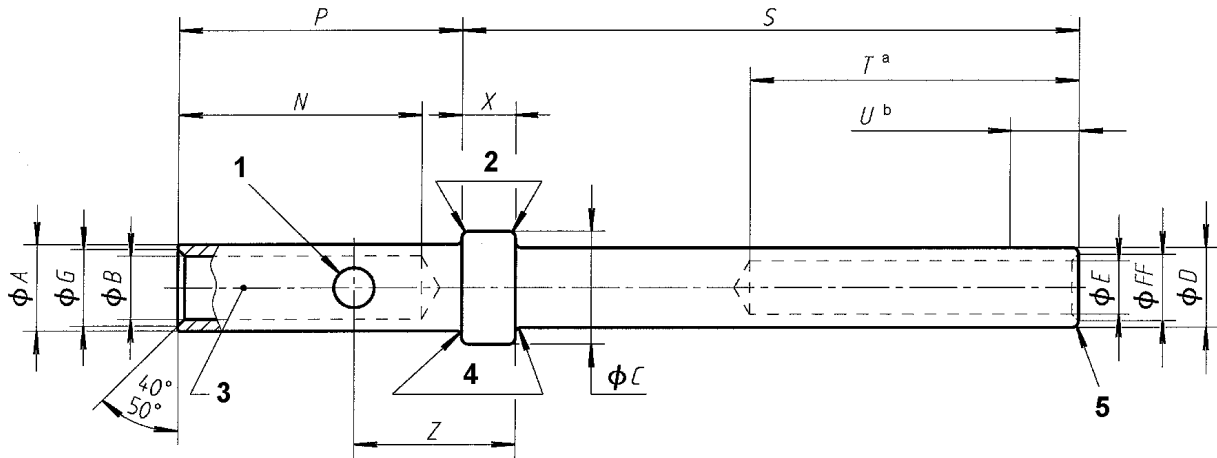
See Figure 1, Figure 2, Figure 3 and Table 1.

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

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$\textcircled{\text{C}}$ $\phi 0,05$ ϕ General concentricity Contact size 22 and 20
 $\textcircled{\text{C}}$ $\phi 0,10$ ϕA
 $\textcircled{\text{C}}$ $\phi 0,08$ ϕB Contact size 16 and 12
 $\textcircled{\text{C}}$ $\phi 0,15$ ϕA
 $\textcircled{\text{C}}$ $\phi 0,10$ ϕB

Key

- 1 1 hole $\varnothing H$
- 2 Radius K
- 3 Colour bands, see Table 2
- 4 Radius J
- 5 Radius 0,1 min.
- ^a See Note 2
- ^b See Note 1

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

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

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Figure 1

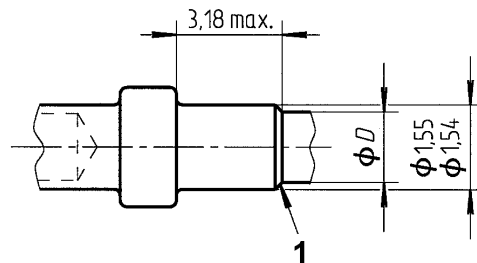
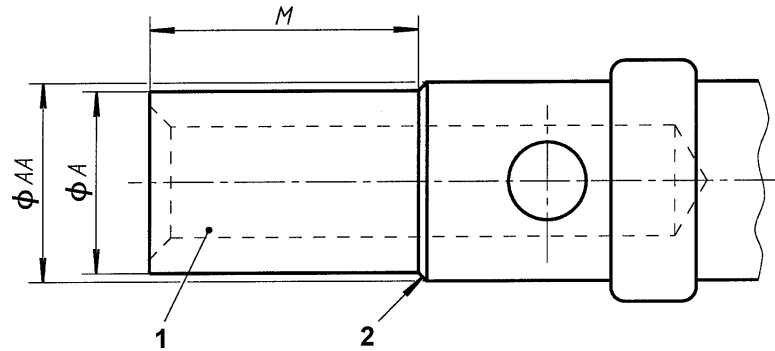


Figure 2 — Barrel, contacts 22-22

**Key**

- 1 Colour bands, see Table 2
- 2 Chamfer or radius

Figure 3 — Barrel, contacts 12-12, 16-16 and 20-20 (optional)**Table 1**

Size		A	B	C	D	E	G	H	J	K	M
Contact	Barrel					min.				max.	min.
22	22	1,32 1,27	0,95 0,86	1,78 1,73	1,55 1,50	0,79	1,19 1,04	0,56 0,46	0,05	0,08	–
20	20	1,73 1,65	1,17 1,09	2,13 2,08	1,88 1,73	1,05	1,47 1,32	0,84 0,64	0,05	0,08	2,72
16	16	2,62 2,57	1,73 1,68	3,40 3,30	2,87 2,69	1,63	2,29 2,03	1,07 0,91	0,08	0,13	3,81
12	12	3,84 3,76	2,59 2,49	4,83 4,72	4,09 4,01	2,43	3,56 3,30	1,07 0,91	0,08	0,13	3,81

Size		N	P	S	T	U	X	Z	AA	FF	Mass
Contact	Barrel				min.	max.				min.	g max.
22	22	4,19 3,43	6,02 5,87	10,41 10,19	7,11	1,09	0,86 0,74	4,09 3,35	–	1,09	0,16
20	20	4,83 3,81	4,19 3,94	19,05 18,92	8,26	1,04	0,86 0,74	1,75 1,37	1,83 1,68	1,42	0,37
16	16	7,37 6,35	6,53 6,22	18,24 18,03	11,89	1,52	1,22 1,12	2,11 1,75	2,82 2,72	2,18	0,76
12	12	7,37 6,35	6,53 6,22	18,24 18,03	11,89	1,52	1,22 1,12	2,11 1,75	4,01 3,94	2,95	1,60

4.3 Marking by colour code

See Table 2.