



SLOVENSKI STANDARD SIST EN 3155-022:2009

01-januar-2009

5 YfcbUj h_U!`9`Y_f] b]_cbhU_h`nUi dcfUvc`j`j Ynb]` `Y`Ya Ybh]` `!`\$&&`"XY.
?cbhU_h`z`Y`Y_f] b]z`dfUj c`_c]b]z`a c`y`_]z`h`d`5`z`bU] i VUb]z`f`Uhf`Y`X`F` `!`G`H`U`b`X`U`F`X`n`U`
dfc]nj cX

Aerospace series - Electrical contacts used in elements of connection - Part 022:
Contacts, electrical rectangular, male, type A, crimp, class R - Product standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -
Teil 022: Elektrische Stiftkontakte rechteckig, Typ A, crimpbar, Klasse R - Produktnorm
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Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie
022 : Contacts électriques rectangulaires mâles, type A, à sertir, classe R - Norme de
produit
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Ta slovenski standard je istoveten z: EN 3155-022:2006

ICS:

49.060 Š`c`p` \`a`š` Á`^`•`[`|`b` \`æ` Aerospace electric
^`|` \`d`ã` }`a`í`]`!`^`{` a`š` Á`ã` c`^` {`ã` equipment and systems

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3155-022

July 2006

ICS 49.060

English Version

**Aerospace series - Electrical contacts used in elements of
connection - Part 022: Contacts, electrical rectangular, male,
type A, crimp, class R - Product standard**

Série aérospatiale - Contacts électriques utilisés dans les
organes de connexion - Partie 022 : Contacts électriques
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Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung
in Verbindungselementen - Teil 022: Elektrische
Stiftkontakte rechteckig, 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.



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

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

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Foreword

This European Standard (EN 3155-022:2006) 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.

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EN 3155-022:2006 (E)**1 Scope**

This standard specifies the required characteristics, tests and tooling applicable to rectangular male contacts 022, type A, crimp, class R, 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 3155-023. They also mate with the female non-removable size 22 solder contacts of EN 3218-005 and EN 3218-006.

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.

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*

EN 3155-023, *Aerospace series — Electrical contacts used in elements of connection — Part 023: Contacts, electrical, female 023, type A, crimp, class R — Product standard*

EN 3218-005, *Aerospace series — Connectors rectangular with metallic shells and screw-locking — Part 005: Plug with non-removable size 22 solder contacts — Product standard*

EN 3218-006, *Aerospace series — Connectors rectangular with metallic shells and screw-locking — Part 006: Receptacle with non-removable size 22 solder contacts — Product standard*

EN 4008-011, *Aerospace series — Elements of electrical and optical connection — Crimping tools and associated accessories — Part 011: Positioned for crimping tool M22520/2 for EN 3155-022 — Product standard¹⁾*

MIL-DTL-22520, *Crimping tools, terminal, hand or power actuated, wire termination, and tool kits, general specification for²*

MIL-C-22520/1-01, *Crimping tools, terminal, hand, wire termination for wire barrel sizes 12 through 20²⁾*

MIL-C-22520/2-01, *Crimping tools, terminal, hand, wire termination for wire barrel sizes 20 through 28²⁾*

MIL-C-22520/7-01, *Crimping tools, terminal, hand, wire termination for wire barrel sizes 16, 20 and 22²⁾*

1) In preparation at the date of publication of this standard.

2) 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 R corresponds to an operating temperature range from $-65\text{ }^{\circ}\text{C}$ to $150\text{ }^{\circ}\text{C}$.

4.2 Dimensions and mass

See Figure 1.

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

Mass of one contact: 0,1 g max.

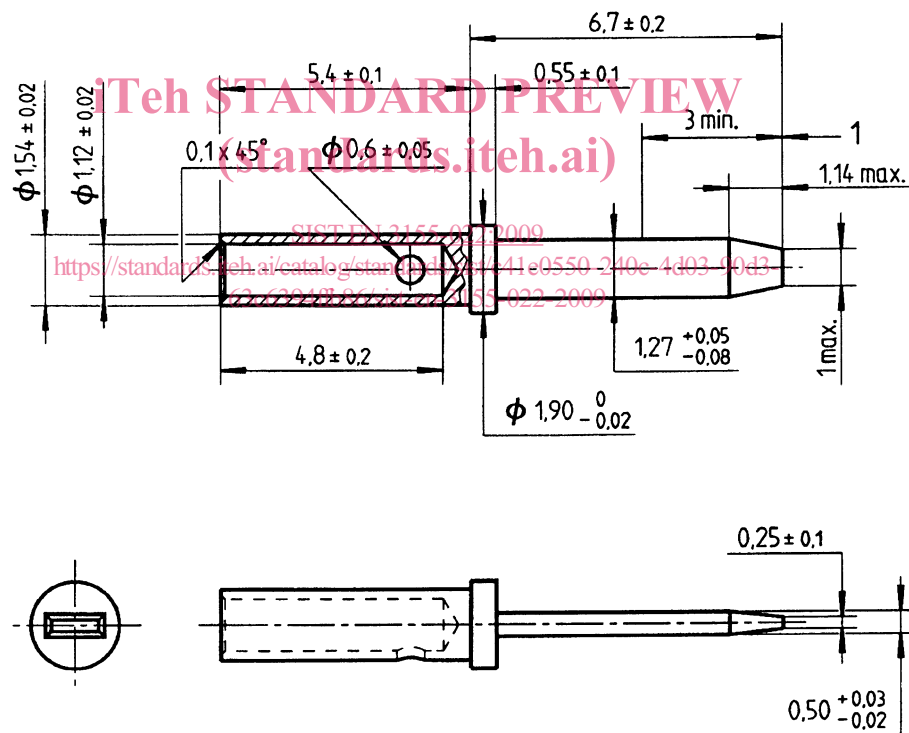


Figure 1

EN 3155-022:2006 (E)

4.3 Marking by colour code

None.

4.4 Material, surface treatment

- Body material: copper alloy.
- Surface treatment: gold on appropriate undercoat for parts in copper alloy. Thickness of protection not specified. Selective protection acceptable.

4.5 Permissible cables

See Table 1.

Table 1

Size		Size of conductors			Rated test current A
Contact	Barrel	AECMA code	Section mm ²	AWG ^a	
22	20	006	0,60	20	7,5
		004	0,40	22	5
		002	0,25	24	3
		001	0,15	26	3

^a AWG = Closest American Wire Gage

4.6 Tooling

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4.6.1 Crimping tools

Conform to MIL-DTL-22520, see Table 2.

The qualification selector numbers used for crimping copper and copper alloy conductors in cables EN 2083 are indicated in Table 2.

These selector numbers shall be used for qualification of the contacts and in service, unless otherwise specified by the user.

It is the responsibility of the user if the parameters in Table 2 are changed for service use.

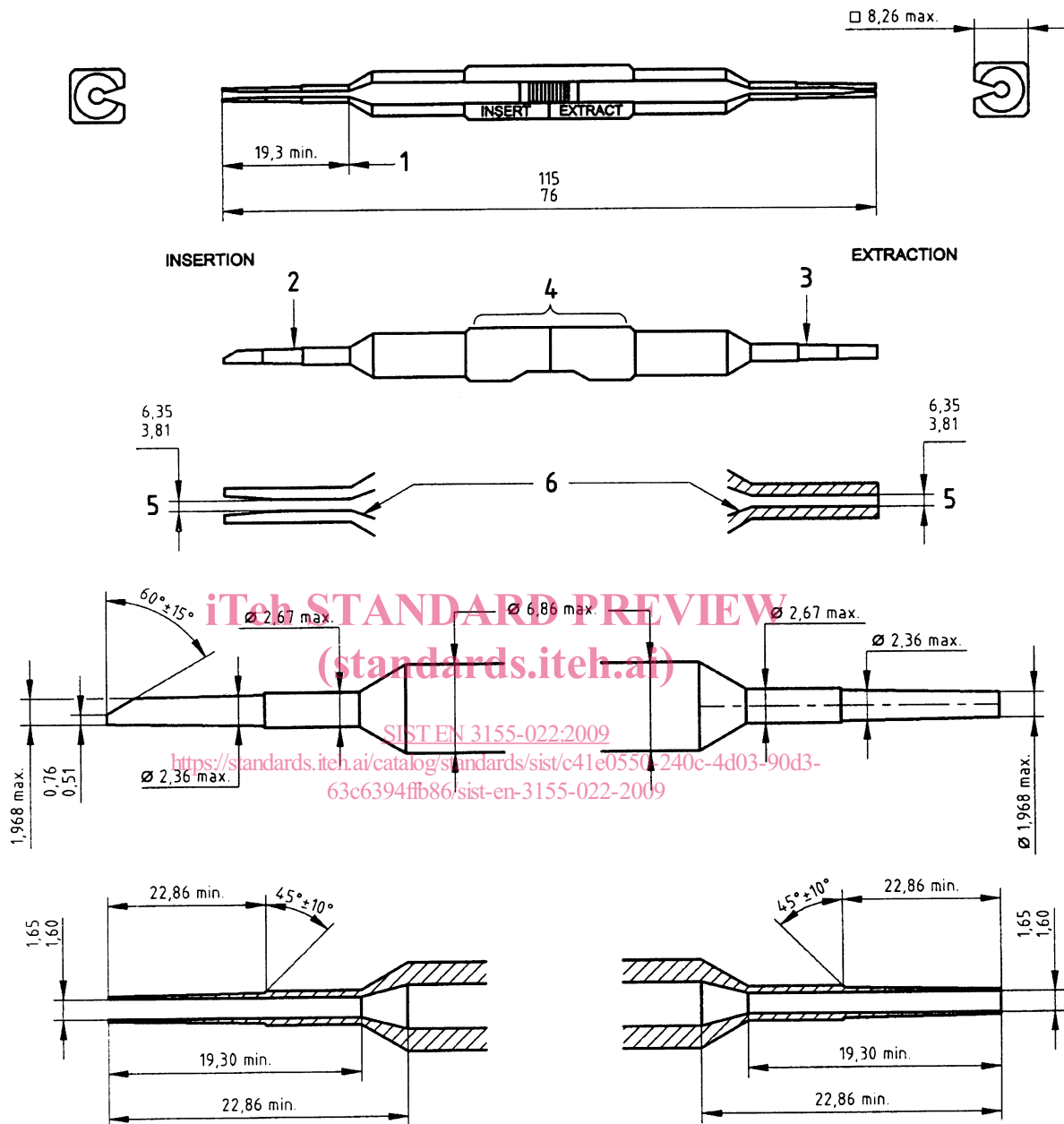
Table 2

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
22	20	001	26	Not applicable	—	EN 4008-011	2	Not applicable	—
		002	24		—		3		—
		004	22		—		4		—
		006	20		—		4		—

^a AWG = Closest American Wire Gage

4.6.2 Insertion/extraction tool

See Figure 2.



Key

- | | |
|----------------|--|
| 1 Both ends | 4 Body design optional |
| 2 Colour red | 5 Slit is measured with the tool in a free state |
| 3 Colour green | 6 Slot design optional break edges 0,25 |

NOTE Tip of tool must be capable of accepting a pin of $\varnothing 2,08 \pm 0,12$ after being inserted into a $1,98 \pm 0,12$ hole to a depth of min. 5,84.

Figure 2

4.7 Cable stripping

Stripped length: $(5,2 \pm 0,2)$ mm.