
5 YfcbUj h_U! ?cbY_lcf 1ždfUj c_cfb]žg' _cj]bg_]a `c\]y^Ya]b`j]U b]a `nU_`YdUb^Ya
!`\$\$&`XY. `GdYWZ_ UW^U`Ugfbcgj`]b`fUndcfYX]h^j ` _cbfU_lcj

Aerospace series - Connectors, rectangular, with metallic shells and screw-locking - Part 002: Specification of performance and contact arrangements

Luft- und Raumfahrt - Rechtecksteckverbinder mit metallischem Gehäuse und Schraubverriegelung - Teil 002: Leistungsdaten und Kontaktanordnungen

Série aérospatiale - Connecteurs rectangulaires à boîtiers métalliques et à verrouillage par vis - Partie 002 : Spécification de performances et d'arrangements des contacts

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Ta slovenski standard je istoveten z: EN 3218-002:2006

ICS:

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

SIST EN 3218-002:2009

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3218-002

April 2006

ICS 49.060

English Version

**Aerospace series - Connectors, rectangular, with metallic shells
and screw-locking - Part 002: Specification of performance and
contact arrangements**

Série aéronautique - Connecteurs rectangulaires à boîtiers
métalliques et à verrouillage par vis - Partie 002 :
Spécification de performances et d'arrangements des
contacts

Luft- und Raumfahrt - Rechtecksteckverbinder mit
metallischem Gehäuse und Schraubverriegelung - Teil 002:
Leistungsdaten und Kontaktanordnungen

This European Standard was approved by CEN on 27 February 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

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Foreword

This document (EN 3218-002:2006) 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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EN 3218-002:2006 (E)**1 Scope**

This standard specifies the performance and contact arrangements of rectangular connectors with metallic shells and screw-locking as defined in EN 3218-001.

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 2265-002, *Aerospace series – Cables, electrical, for general purpose – Operating temperatures between – 55 °C and 150 °C – Part 002: General.* ¹⁾

EN 2266-002, *Aerospace series – Cables, electrical, for general purpose – Operating temperatures between – 55 °C and 200 °C – Part 002: General.*

EN 2591-209, *Aerospace series – Elements of electrical and optical connection – Test methods – Part 209: Current temperature derating.*

EN 3155-022, *Aerospace series – Electrical contacts used in elements of connection – Part 022: Contacts, electrical rectangular, male, type A, crimp, class R – Product standard.*

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

EN 3197, *Aerospace series – Installation of aircraft electrical and optical interconnection systems.* ¹⁾

EN 3218-001, *Aerospace series – Connectors, rectangular, with metallic shells and screw-locking – Part 001: Technical specification.*

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 3218-007, *Aerospace series – Connectors, rectangular, with metallic shells and screw-locking – Part 007: Plug with rear-removable size 20 crimp contacts – Product standard.*

EN 3218-008, *Aerospace series – Connectors, rectangular, with metallic shells and screw-locking – Part 008: Receptacle with rear-removable size 20 crimp contacts – Product standard.*

EN 3218-009, *Aerospace series – Connectors, rectangular, with metallic shells and screw-locking – Part 009: Protective covers for EN 3218-005 and EN 3218-007 connectors – Product standard.*

EN 3218-010, *Aerospace series – Connectors, rectangular, with metallic shells and screw-locking – Part 010: Protective covers for EN 3218-006 and EN 3218-008 connectors – Product standard.*

EN 3218-011, *Aerospace series – Connectors, rectangular, with metallic shells and screw-locking – Part 011: Tool, insert extraction for EN 3218-005 to EN 3218-008 connectors – Product standard.*

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

EN 4008-003, *Aerospace series – Elements of electrical and optical connection – General accessories and tooling – Part 003: Filler plugs for contacts used in elements of electrical connection – Product standard.*²⁾

3 Coding of connector models and finishing of housings

See Table 1.

Table 1

Code	Connector model	Code	Finishing of housing
A	Receptacle	A	Anodized
D	Plug	C	Cadmium-plated
T	Protective cover for plug	N	Nickel-plated
U	Protective cover for receptacle		

4 Definitions

See EN 3218-001.

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5 Operating conditions (standards.iteh.ai)

5.1 Mating of plug and receptacle

<https://standards.iteh.ai/catalog/standards/sist/d7d8042a-05d4-4d02-91e0-2009>
A plug shall be mated with a receptacle having the same finish.

5.2 Mating of protective cover and connector

The protective cover shall have the same finish as the plug or receptacle to which it is fitted.

5.3 Type of termination

See Table 2.

²⁾ In preparation at the date of publication of this standard.

Table 2

Code	Type of termination
1C	1C - Crimp contact, size 22, front-removable
1C0	1C0 Without contacts
1C1	1C1 With contacts for cable size code 006 ^a
1C2	1C2 With contacts for cable sizes codes 004 and 002 ^a
1C3	1C3 With contacts for cable size code 001 ^a
2D	2D - Fixed solder contact, size 22
2D1	2D1 With contacts for cable sizes codes 002, 004, 006 and 010 ^a
2D2	2D2 With contacts for cable sizes codes 001, 002, 004 and 006 ^a
2F	2F - Crimp contact, size 20, rear-removable
2F0	2F0 Without contacts
2F1	2F1 With contacts for cable sizes codes 001, 002, 004 and 006 ^a

^a According to Table 3.

5.4 Permissible cables

The connectors covered by this standard shall be used with cables which dimensions are defined in Table 3.

Table 3

Size code ^a	Section mm ²	AWG ^b	Diameter on insulation	
			min.	max.
010 ^c	1,00	18	1,44	1,60
006	0,60	20	1,20	1,60
004	0,40	22	0,96	1,35
002	0,25	24	0,82	1,35
001	0,15	26	0,72	1,02

^a See EN 2265-002 or EN 2266-002.

^b Closest American Wire Gauge.

^c Cable usable only for solder contacts.

5.5 Operating characteristics

5.5.1 Electrical characteristics

Heating: see EN 3218-001 and EN 2591-209.

Insulation resistance at room temperature: 5 000 MW

Withstand voltage: – at sea level: 1 500 V root-mean-square value
– 1,1 kPa (30 000 m): 400 V root-mean-square value

Permissible current per contact: according to contact standards

5.5.2 Climatic characteristics

Operating temperature: from – 65 °C to 150 °C

Resistance to corrosion and fluids: see EN 3218-001.

5.5.3 Mechanical characteristics

Number of mating and unmating operations: 500

6 List of product standards

EN 3218-005, EN 3218-006, EN 3218-007, EN 3218-008, EN 3218-009, EN 3218-010 and EN 3218-011.

[SIST EN 3218-002:2009](https://standards.iteh.ai/catalog/standards/sist/d7d8042a-05d4-4d02-91e0-9d6a95a3200d/sist-en-3218-002-2009)

7 Polarization and coding

Coding is done by the user.

See Table 4.

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