

Aerospace series - Connectors, electrical, rectangular,
modular - Operating temperature 175 °C continuous -
Part 002: Specification of performance and contact
arrangements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 4165-002:2023 sisaldab Euroopa standardi EN 4165-002:2023 ingliskeelset teksti.	This Estonian standard EVS-EN 4165-002:2023 consists of the English text of the European standard EN 4165-002:2023.
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English Version

Aerospace series - Connectors, electrical, rectangular,
modular - Operating temperature 175 °C continuous - Part
002: Specification of performance and contact
arrangements

Série aérospatiale - Connecteurs modulaires -
Température d'utilisation 175 °C continu - Partie 002:
Spécification de performances et arrangement de
contacts

Luft- und Raumfahrt - Elektrischer
Rechtecksteckverbinder in modularer Bauweise -
Betriebstemperatur 175 °C constant - Teil 002:
Leistungsdaten und Kontaktanordnungen

This European Standard was approved by CEN on 24 July 2022.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 4165-002:2023) 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 document has received the approval of the National Associations and the Official Services of the member countries of ASD STAN, 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of an identical text or by endorsement, at the latest by January 2024, and conflicting national standards shall be withdrawn at the latest by January 2024.

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

This document supersedes EN 4165-002:2015 and EN 4165-002:2015/AC:2016.

EN 4165-002:2023 includes the following significant technical changes with respect to EN 4165-002:2015:

- normative references updated;
- Clause 5 Description and codification of shell classes updated;
- Table 5 Chimneys/Accessories combinations: contacts size 23R added;
- 7.1 Electrical conditions updated;
- Non-developed layouts withdrawn (Clause 9);
- Clause 10 Contacts updated;
- Clause 12 Rear accessories updated;
- Clause 13 Tooling contacts updated;
- editorial revision of the document.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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

1 Scope

This document specifies a number of conditions common to rectangular electrical modular connectors for receptacles, plugs and rack and panel, with interchangeable modules and continuous operating temperature 175 °C.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2591-207, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 207: Voltage proof test*

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

EN 3155-082, *Aerospace series — Electrical contacts used in elements of connection — Part 082: Contacts, electrical, female, type A, crimp, class S — Product standard*

EN 3197, *Aerospace series — Design and installation of aircraft electrical and optical interconnection systems*¹

EN 4165-001, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 001: Technical specification*

EN 4165-003, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 003: Modules series 2 and series 3 — Product standard*

EN 4165-004, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 004: Stackable mounting receptacle 2 and 4 modules, series 2 — Product standard*

EN 4165-005, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 005: Stackable mounting receptacle 2 and 4 modules, series 3 — Product standard*

EN 4165-006, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 006: Plug for 2 and 4 modules, series 2 — Product standard*

EN 4165-007, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 007: Plug for 2 and 4 modules, series 3 — Product standard*

EN 4165-008, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 008: Rack and panel plug for 2 and 4 modules, series 2 — Product standard*

EN 4165-009, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 009: Rack and panel plug for 2 and 4 modules, series 3 — Product standard*

¹ Published as ASD-STAN Standard at the date of publication of this document by AeroSpace and Defence industries Association of Europe — Standardization (ASD-STAN), <https://www.asd-stan.org/>.

EN 4165-010, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 010: Rack and panel rear mounted plug 2 and 4 modules, series 2 — Product standard

EN 4165-011, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 011: Flange mounting receptacle 2 and 4 modules, series 2 — Product standard

EN 4165-012, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 012: Flange mounting receptacle 2 and 4 modules, series 3 — Product standard

EN 4165-013, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 013: Cable clamp 2 and 4 modules for connectors, series 2 and series 3 — Product standard

EN 4165-014, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 014: Shielded accessory body, 2 and 4 modules for connectors, series 2 and series 3 — Product standard

EN 4165-015, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 015: Round chimney for accessory (1 per module cavity), 2 and 4 modules — Product standard

EN 4165-016, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 016: Double oval chimney for accessory (1 per 2 modules) — Product standard

EN 4165-017, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 017: Blank chimney for accessory (1 per module cavity) — Product standard

EN 4165-018, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 018: Protective cover for all receptacles series 2 — Product standard

EN 4165-024, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 024: Single module plug — Product standard

EN 4165-025, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 025: Single module receptacle — Product standard

EN 4165-026, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 026: Accessories for single module connector — Product standard

EN 4165-027, Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 027: Rack and panel rear mounted plug for 2 and 4 modules, series 3 — Product standard

EN 4529-002, Aerospace series — Elements of electrical and optical connection — Sealing plugs — Part 002: Index of product standards