

Aerospace series - Connector, electrical and optical, rectangular, modular, rectangular inserts, operating temperature 175 °C (or 125 °C) continuous - Part 002: Specification of performance and contact arrangements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 4644-002:2016 sisaldab Euroopa standardi EN 4644-002:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 4644-002:2016 consists of the English text of the European standard EN 4644-002:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 21.12.2016.	Date of Availability of the European standard is 21.12.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 49.060, 49.090

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

**Aerospace series - Connector, electrical and optical,
rectangular, modular, rectangular inserts, operating
temperature 175 °C (or 125 °C) continuous - Part 002:
Specification of performance and contact arrangements**

Série aérospatiale - Connecteur, électrique et optique,
rectangulaire, modulaire, à inserts rectangulaires,
température de fonctionnement 175 °C (ou 125 °C)
continu - Partie 002: Spécification de performances et
arrangements de contacts

Luft- und Raumfahrt - Elektrische und optische
Rechtecksteckverbinder, modular, rechteckige
Kontakteinsätze, Dauerbetriebstemperatur 175 °C
(oder 125 °C) konstant - Teil 002: Leistungsdaten und
Kontaktanordnungen

This European Standard was approved by CEN on 21 November 2016.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

European foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions.....	6
4 Description of models.....	6
5 Description and codification of shell classes.....	7
6 Operating conditions - Permissible cables dimensions.....	7
7 Operating characteristics	8
8 Product standards.....	9
9 Polarization	10
10 Modules contact arrangements.....	24
11 Contacts.....	28
12 Sealing plugs.....	28
13 Rear accessories.....	28
14 Tooling contacts.....	28
15 Assembly and wiring instructions.....	28

European foreword

This document (EN 4644-002:2016) 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 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 June 2017, and conflicting national standards shall be withdrawn at the latest by June 2017.

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.

This document supersedes EN 4644-002:2012.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the common conditions for rectangular electrical modular connectors for receptacles and plugs with interchangeable modules and a continuous operating temperature of 175 °C (or 125 °C).

Contact arrangements for fibre optic contacts are described in EN 4639-002.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 3155-002, *Aerospace series — Electrical contacts used in elements of connection — Part 002: List and utilization of contacts*

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

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

EN 4639-002, *Aerospace series — Connectors, optical, rectangular, modular, multicontact, 1,25 diameter ferrule, with removable alignment sleeve holder — Part 002: List of product standards*

EN 4644-001, *Aerospace series — Connector, electrical and optical, rectangular, modular, rectangular inserts, operating temperature 175 °C (or 125 °C) continuous — Part 001: Technical specification*

EN 4644-003, *Aerospace series — Connector, electrical and optical, rectangular, modular, rectangular inserts, operating temperature 175 °C (or 125 °C) continuous — Part 003: Rectangular inserts — Product standard*

EN 4644-011, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 011: Plug, size 1, class A, C and E — Product standard*

EN 4644-012, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 012: Receptacle, size 1, class A, C and E — Product standard*

EN 4644-013, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 013: Plug, size 1, with ground block, without mounting holes, class B and F — Product standard*

EN 4644-014, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 014: Receptacle, size 1, with ground block, class B and F — Product standard*

EN 4644-021, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 021: Plug, size 2, without mounting holes, class A, C and E — Product standard*

EN 4644-022, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 022: Plug, size 2, with mounting holes, class A, C and E — Product standard*

EN 4644-023, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 023: Plug, size 2, with ground block, class B and F — Product standard

EN 4644-024, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 024: Receptacle, size 2, class A, C and E — Product standard

EN 4644-025, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 025: Receptacle, size 2, with flange, class A, C and E — Product standard

EN 4644-026, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 026: Receptacle, size 2, with ground block, class B and F — Product standard

EN 4644-124, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 124: Plug, size 2, class A, C and D — Product standard ¹⁾

EN 4644-125, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 125: Receptacle, size 2, class A, C and D — Product standard ¹⁾

EN 4644-126, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 126: Receptacle, size 2, with float mount, class A, C and D — Product standard ¹⁾

EN 4644-131, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 131: Plug, size 3, for rack and panel applications, class C and D — Product standard

EN 4644-133, Aerospace series — Connector, electrical and optical, rectangular, modular, rectangular inserts, operating temperature 175 °C (or 125 °C) continuous — Part 133: Receptacle, size 3, for rack and panel application, class C and D — Product standard

EN 4644-134, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 134: Plug, size 3, fix mount, class A, C and D — Product standard ¹⁾

EN 4644-135, Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 135: Receptacle, size 3, fix mount, class A, C and D — Product standard ¹⁾

¹⁾ In preparation at the date of publication of this European Standard.

EN 4644-136, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 136: Receptacle, size 3, float mount, class A, C and D — Product standard*¹⁾

EN 4644-141, *Aerospace series — Connector, electrical and optical, rectangular, modular, rectangular inserts, operating temperature 175 °C (or 125 °C) continuous — Part 141: Plug, size 4, for rack and panel applications, class C and D — Product standard*

EN 4644-142, *Aerospace series — Connector, electrical and optical, rectangular, modular, rectangular inserts, operating temperature 175 °C (or 125 °C) continuous — Part 142: Receptacle, size 4, for rack and panel application, class C and D — Product standard*

EN 4644-144, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 144: Plug, size 4, class A, C and D — Product standard*¹⁾

EN 4644-145, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 145: Receptacle, size 4, class A, C and D — Product standard*¹⁾

EN 4644-201, *Aerospace series — Connector, electrical and optical, rectangular, modular, rectangular inserts, operating temperature 175 °C (or 125 °C) continuous — Part 201: Locking and polarizing hardware — Product standard*

EN 4644-202, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 202: Polarizing hardware — Product standard*

EN 4644-203, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 203: Dust caps — Product standard*¹⁾

EN 4644-204, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 204: Tools — Product standard*¹⁾

EN 4644-301, *Aerospace series — Connector, electrical and optical, rectangular modular, operating temperature 175 °C (or 125 °C) continuous — Part 301: Cable outlet — Product standard*¹⁾

TR 4654-003, *Aerospace series — Connectors, electrical, EN 4644 specific products — Part 003: Inserts with PC tails electrical contacts*²⁾

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 4644-001 apply.

4 Description of models

Modular electrical rectangular, rack and panel or disconnect connectors, environmental resistant with four shells sizes 1, 2, 3 and 4, crimp contacts class R.

²⁾ Published as ASD-STAN Technical Report at the date of publication of this European Standard.
(<http://www.asd-stan.org/>)