ICS 49.090 SLOVENSKÁ TECHNICKÁ NORMA Júl 2017

STN	**Letectvo a kozmonautika Optické kruhové jedno- a viackolíkové konektory spojené spojkou s trojnábehovým závitom Zapustené kontakty Časť 001: Technická špecifikácia**	**STN EN 4531-001** 31 1911

Aerospace series - Connectors, optical, circular, single and multipin, coupled by triple start threaded ring - Flush contacts - Part 001: Technical specification

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/17

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EUROPEAN STANDARD

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EN 4531-001

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Supersedes EN 4531-001:2012

English Version

Aerospace series - Connectors, optical, circular, single and multipin, coupled by triple start threaded ring - Flush contacts - Part 001: Technical specification

Série aérospatiale - Connecteurs optiques circulaires, mono et multibroches, à accouplement par bague filetée à trois filets - Contacts affleurants - Partie 001: Spécification technique

Luft- und Raumfahrt - Optische Rundsteckverbinder mit dreigängiger Schraubkupplung - Bündige Kontakte - Teil 001: Technische Lieferbedingungen

This European Standard was approved by CEN on 29 July 2016.

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

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

Ref. No. EN 4531-001:2017 E

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European foreword

This document (EN 4531-001:2017) 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 European 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of an identical text or by endorsement, at the latest by July 2017, and conflicting national standards shall be withdrawn at the latest by July 2017.

This document supersedes EN 4531-001:2012.

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Introduction

This family of fibre optic connectors coupled by triple start threaded ring is derived from MIL-DTL-38999L series III and EN 3645-001. It is suitable for use on aerospace on-board applications.

Two variants of female insert are defined:

— Flush variant (A-Type female insert) is only possible with multimode contact;

— Recessed variant (B-Type female insert) is required for single mode contact.

The optical contacts are capable of accepting single cable sizes up to a maximum of 1,9 mm outside diameter.

1 Scope

This European Standard specifies the general characteristics, the conditions for qualification, acceptance and quality assurance, as well as the test programs and groups for threaded ring coupling circular fibre optic self-locking connectors, fire-resistant or non fire-resistant, intended for use in a temperature range from −65 °C to 150 °C (cable dependent) continuous.

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 2591 (all parts), *Aerospace series — Elements of electrical and optical connection — Test methods*

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

EN 3645 (all parts), *Aerospace series — Connectors, electrical, circular, scoop proof, triple start threaded coupling, operating temperature 175 °C or 200 °C continuous*

EN 3909, *Aerospace series - Test fluids and test methods for electrical and optical components and sub-assemblies*

EN 4531-002, *Aerospace series — Connectors, optical, circular, single and multipin, coupled by triple start threaded ring — Flush contacts — Part 002: Specification of performance and contact arrangements*

EN 4531-101, *Aerospace series - Connectors, optical, circular, single and multipin, coupled by triple start threaded ring - Flush contacts - Part 101: Optical contact for EN 4641 multimode cable -55 °C to 125 °C - Product standard*

EN 4533-004, *Aerospace series — Fibre optic systems — Handbook — Part 004: Repair, maintenance and inspection*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

ISO 263, *ISO inch screw threads — General plan and selection for screws, bolts and nuts — Diameter range 0,06 to 6 in*[1)]

EN 61300-3-33, *Fibre optic interconnecting devices and passive components — Basic test and measurement procedures — Part 3-33: Examinations and measurements — Withdrawal force from a resilient alignment sleeve using gauge pins (IEC 61300-3-33:2012)*

MIL-STD-1373, *Screw thread, modified, 60° stub, double*[2)]

MIL-DTL-38999L, *Connectors, Electrical, Circular, Miniature, High Density, Quick Disconnect (Bayonet, Threaded, or Breech Coupling), Environment Resistant with Crimp Removable Contacts or Hermetically Sealed with fixed, Solderable Contacts General Specification for*[2)]

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1) Published as ISO International Standardisation Organisation http://www.iso.ch/.

2) Published as DoD National (US) Mil. Department of Defense http://www.defenselink.mil/.

MIL-I-81969/8-10, *Installing and removal tools, connector electrical contact, Types I and II, Class 2, composition A*[2)]

MIL-STD-454N, *Electronic equipment, Standard general requirements for*[2)]