SLOVENSKI STANDARD
SIST EN 4531-101:2016

01-marec-2016

Nadomešča:
SIST EN 4531-101:2012

Aeronavtika - Konektorji, optični, okrogli, z enim ali več zatiči, priključeni z navojnim obročkom - Izravnani kontakti - 101. del: Optični kontakt za kabel EN 4641 - 55 °C do 125 °C - Standard za proizvod

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

Luft- und Raumfahrt - Optische Rundsteckverbinder mit dreigängiger Schraubkupplung - Bündige Kontakte - Teil 101: Optischer Kontakt für EN 4641 -55 °C bis 125 °C - Produktnorm

Série aérospatiale - Connecteurs optiques circulaires à accouplement par bague filetée à trois filets - Contacts affleurants - Partie101: Contact optique pour câble multimode EN 4641 -55 °C à 125 °C - Norme de produit

Ta slovenski standard je istoveten z: **EN 4531-101:2016**

ICS:

31.220.10	Vtiči in vtičnice, konektorji	Plug-and-socket devices. Connectors
49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems

SIST EN 4531-101:2016 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 4531-101

January 2016

ICS 49.060

Supersedes EN 4531-101:2012

English Version

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

Série aérospatiale - Connecteurs optiques circulaires à accouplement par bague filetée à trois filets - Contacts affleurants - Partie101: Contact optique pour câble multimode EN 4641 -55 °C à 125 °C - Norme de produit

Luft- und Raumfahrt - Optische Rundsteckverbinder mit dreigängiger Schraubkupplung - Bündige Kontakte - Teil 101: Optischer Kontakt für EN 4641-Multimodekabel, -55 °C bis 125 °C - Produktnorm

This European Standard was approved by CEN on 8 June 2015.

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

European Foreword

This document (EN 4531-101:2016) 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 July 2016, and conflicting national standards shall be withdrawn at the latest by July 2016.

This document supersedes EN 4531-101:2012.

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, 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 standard defines the performance and dimensions of optical PC profiled contact for multimode 62,5 micrometres/125 micrometres or 50 micrometres/125 micrometres fibre and (1,8 ± 0,1) mm diameter cable.

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 4531-001, *Aerospace series — Connectors, optical, circular, single and multipin, coupled by triple start threaded ring — Flush contacts — Part 001: Technical specification*

EN 4533 (all parts), *Aerospace series — Fibre optic systems — Handbook*

EN 4641 (all parts), *Aerospace series — Cables, optical, 125 µm diameter cladding*

TR 4646, *Aerospace series — Termination procedure for EN 4531 optical contact* [1)]

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

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

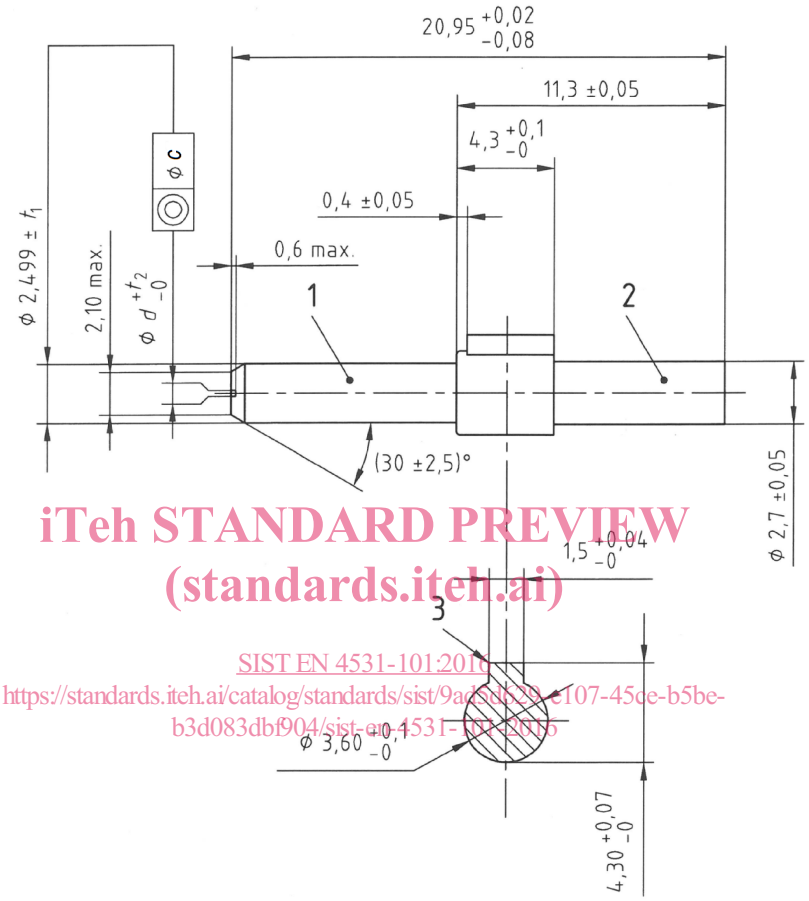
2) Published by: DoD National (US) Mil. Department of Defense http://www.defenselink.mil/

3 Termini dimensions

See Figure 1.

Dimensions and tolerances are in millimetres.

Dimensions of t_1, t_2, c and d of Figure 1 are detailed Table 1.



Key

1 ferrule
2 flange
3 chamfer or radius = 0,05 min./0,2 max.

Figure 1

Table 1

EN 4531-	Cable	Optical fibre type micrometre	Outer diameter mm	c µm	d µm	t_1 µm	t_2 µm
101	EN 4641-xxx	62,5/125 or 50/125	1,8 ± 0,1	3	127	1	3

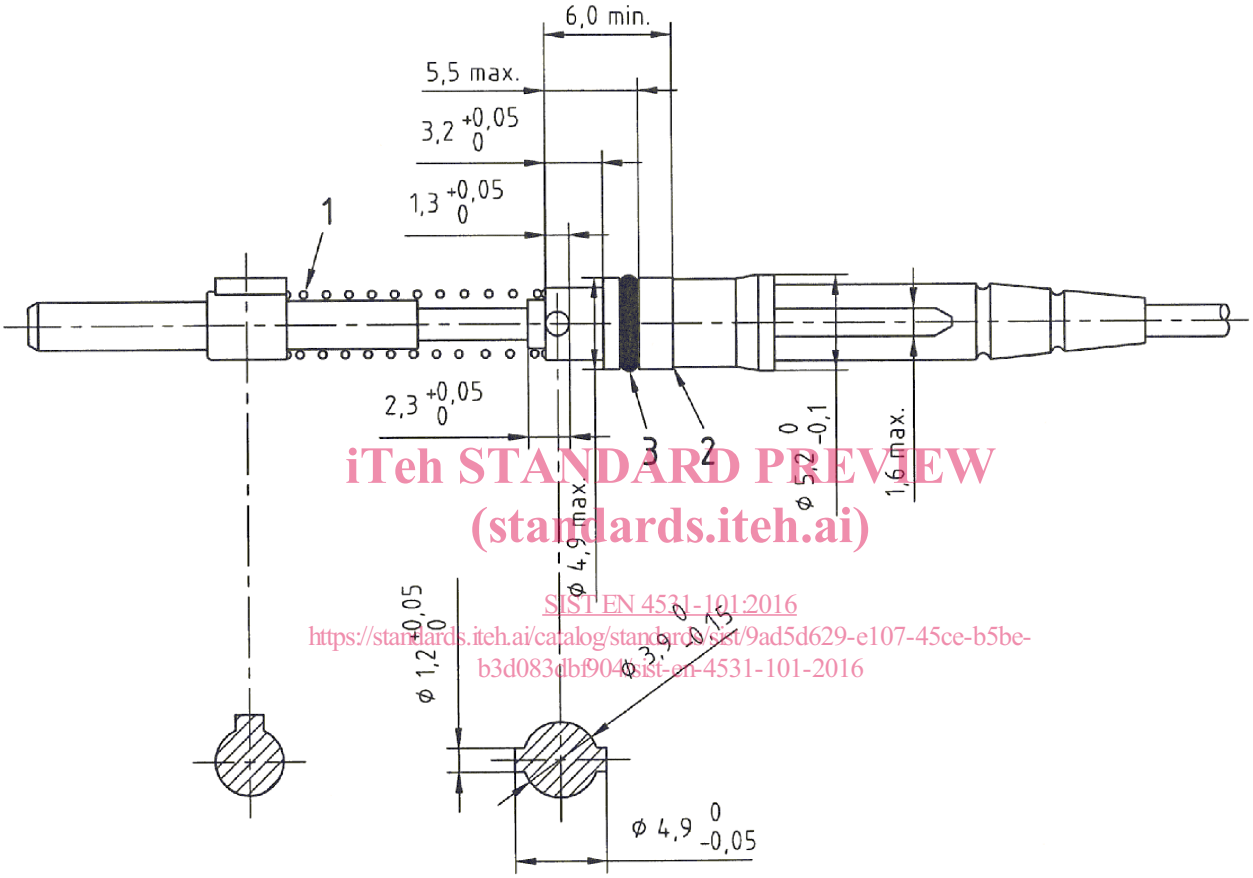
4 General dimensions of the optical termini

4.1 Contact dimension and mass

See Figure 2.

Dimensions and tolerances are in millimetres.

Mass of the contact: 1,5 g maximum.



Key

1 spring force when spring length is 13,5 mm = 9 N min.
When spring length is 8,5 mm, spring force shall be between 13 N and 15 N
Spring is never compressed to joined coils

2 beginning of bending

3 o-ring

Figure 2

4.2 Boot dimension

4.2.1 Long version

See Figure 3 and Table 2.

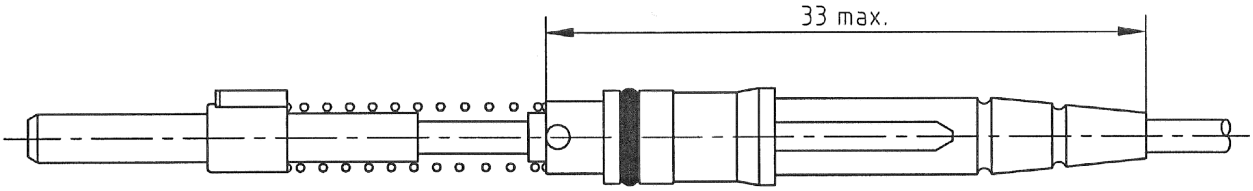


Figure 3

4.2.2 Short version

See Figure 4 and Table 2.

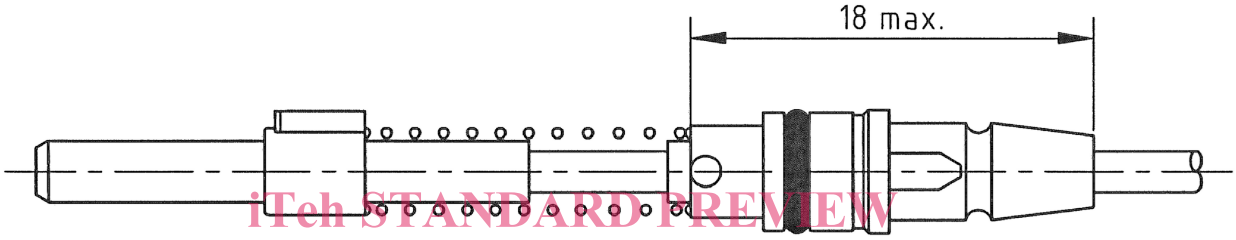


Figure 4

Table 2

	Boot code	Boot colour
Long boot	L	Blue
Short boot	S	Blue

4.3 Material

See Table 3.

Table 3

Flange material	Code
Composite	C
Metal	M

Ferrule material: Zirconia ($Zr\ O_2$)