SLOVENSKI STANDARD
SIST EN 4531-002:2016

01-marec-2016

Nadomešča:
SIST EN 4531-002:2012

Aeronavtika - Konektorji, optični, okrogli, z enim ali več zatiči, priključeni z navojnim obročkom - Izravnani kontakti - 002. del: Specifikacija lastnosti in razporeditev kontaktov

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

Luft- und Raumfahrt - Optische Rundsteckverbinder mit dreigängiger Schraubkupplung - Bündige Kontakte - Teil 002: Leistungsdaten und Kontaktanordnungen

Série aérospatiale - Connecteurs optiques circulaires à accouplement par bague filetée à trois filets - Contacts affleurants - Partie 002: Spécification de performances et arrangements des contacts

Ta slovenski standard je istoveten z: **EN 4531-002:2016**

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 4531-002:2016 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN 4531-002:2012

English Version

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

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European Foreword

This document (EN 4531-002:2016) 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of an identical text or by endorsement, at the latest by July 2016, and conflicting national standards shall be withdrawn at the latest by July 2016.

This document supersedes EN 4531-002:2012.

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1 Scope

This standard defines the performance and contact arrangements of circular optical connectors, coupled by triple start threaded ring.

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 3645-001, *Connectors, electrical, circular, scoop proof, triple start threaded coupling, operating temperature 175 °C or 200 °C continuous — Part 001: Technical specification*

EN 4531 (all parts), *Aerospace series — Connectors, optical, circular, single and multipin, coupled by triple start threaded ring — Flush contacts.*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 4531-001 apply.

4 Description and codification of models

See Table 1.

Table 1

Environmental class	Description
J	Composite receptacles and plugs, cadmium plated, olive drab – 2 000 h salt spray
M	Composite receptacles and plugs, nickel-plated – 2 000 h salt spray
X	Composite receptacles and plugs, without plating – 2 000 h salt spray
Z	Aluminium receptacles and plugs, black Zinc-Nickel plated – 500 h salt spray
F	Aluminium receptacles and plugs, Nickel plated – 48 h salt spray
W	Aluminium receptacles and plugs, Cadmium plated – 500 h salt spray
N	Aluminium receptacles and plugs, Hard anodic non-conductive – 500 h salt spray
K	Stainless steel receptacles and plugs – 500 h salt spray
S	Stainless steel receptacles and plugs, Nickel plated – 500 h salt spray

5 Operating conditions

5.1 Optical performances

The optical performances are defined in the product standards in relationship with the used cable.

5.2 Combinations of plugs and receptacles

Table 2 shows the combinations:

1) which achieve the characteristics specified for each model;

2) for the characteristics of the pair of connectors of the component with the lowest performance;

3) for other combinations subject to the approval of the Design Authority.

Table 2

Receptacle shell	Plug shell								
	J	M	X	Z	F	W	N	K	S
J	1)	3)	2)	2)	3)	2)	2)	3)	3)
M	3)	1)	2)	3)	2)	3)	3)	3)	3)
X	2)	2)	1)	2)	2)	2)	2)	3)	3)
Z	2)	3)	2)	1)	3)	2)	2)	3)	3)
F	3)	2)	2)	3)	1)	3)	3)	3)	3)
W	2)	3)	2)	2)	3)	1)	2)	3)	3)
N	2)	3)	2)	2)	3)	2)	1)	3)	3)
K	3)	3)	3)	3)	3)	3)	3)	1)	2)
S	3)	3)	3)	3)	3)	3)	3)	2)	1)

5.3 Sleeve code and material

See Table 3.

The description of female insert variants is given in EN 4531-001.

Sleeve material according to EN 4531-001.

Table 3

	Sleeve code	Description
Male insert	A	No sleeve
Female insert	B	Cavity for flushed contact
	C	Cavity for recessed contact

5.4 Climatic conditions

Temperature range: refer to product standard.

Fluid resistance: see EN 4531-001.

Corrosion resistance: see Table 1.

5.5 Mechanical conditions

Mechanical endurance: refer to product standard.

6 Type codes

See Table 4.

Table 4

Type code	EN 4531- Product standard	Description
0	003	Square flange receptacle
7	004	Jam nut receptacle
5	005	Plug

7 Polarization

See EN 3645-001.

8 Shell sizes and contact arrangements

See Table 5 and Figures 1 to Figures 7. View of the front side of the male insert.

Table 5

Shell		Contacts layout	
Shell size	**Size code**	**Number of ways**	**Arrangement code**
9	A	1	01
11	B	2	02
13	C	4	04
15	D	6	06
19	F	8	08
21	G	12	12
25	J	24	24

Size 9-01
1 optical way

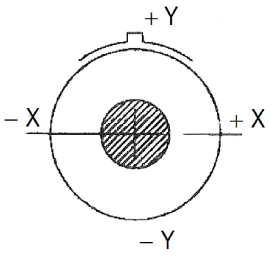

Figure 1

Size 11-02
2 optical ways

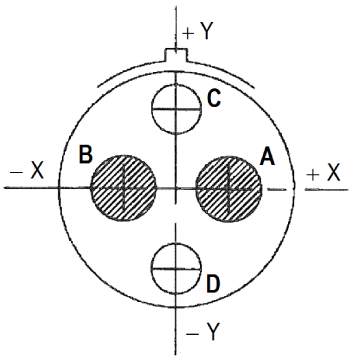

Figure 2

Size 13-04
4 optical ways

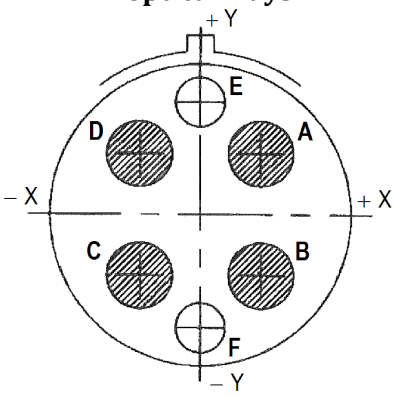

Figure 3

Size 15-06
6 optical ways

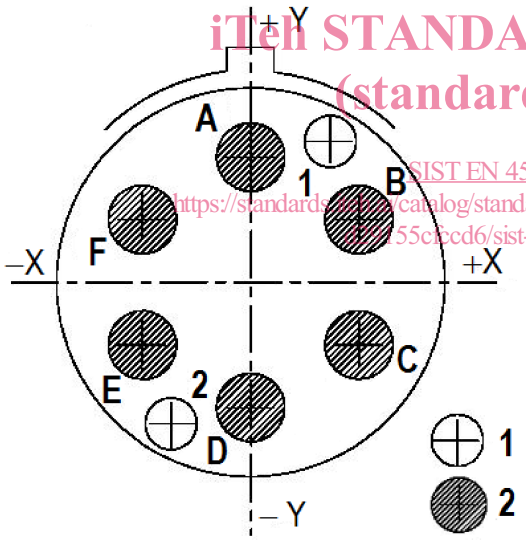

Figure 4

Size 19-08
8 optical ways

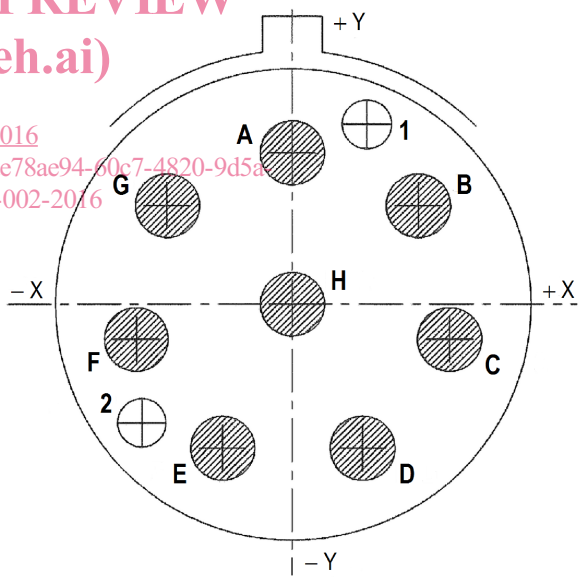

Figure 5