SLOVENSKI STANDARD
oSIST prEN 3660-003:2020

01-september-2020

Aeronavtika - Dodatki za okrogle in pravokotne električne in optične konektorje - 003. del: Tesnilna matica, tip A - Standard za proizvod

Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 003: Grommet nut, style A - Product standard

Luft- und Raumfahrt - Endgehäuse für elektrische und optische Rund- und Rechtecksteckverbinder - Teil 003: Dichtungsmutter, Bauform A - Produktnorm

Série aérospatiale - Accessoires arrière pour connecteurs circulaires et rectangulaires électriques et optiques - Partie 003 : Écrou de passe-fil, type A - Norme de produit

Ta slovenski standard je istoveten z: **prEN 3660-003**

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

oSIST prEN 3660-003:2020 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 3660-003

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ICS 49.060

Will supersede EN 3660-003:2018

English Version

Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 003: Grommet nut, style A - Product standard

Série aérospatiale - Accessoires arrière pour connecteurs circulaires et rectangulaires électriques et optiques - Partie 003 : Écrou serre-fils, type A - Norme de produit

Luft- und Raumfahrt - Endgehäuse für elektrische und optische Rund- und Rechtecksteckverbinder - Teil 003: Dichtungsmutter, Bauform A - Produktnorm

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 3660-003:2020) 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-STAN, prior to its presentation to CEN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 3660-003:2018.

1 Scope

This document defines a range of grommet nuts, style A, for use under the following conditions:

Associated electrical connector(s): EN 3660-002

Temperature range, Class N: −65 °C to 200 °C

Class W: −65 °C to 175 °C

Class K: −65 °C to 260 °C

Class A: −65 °C to 200 °C

Class T: −65 °C to 175 °C

Class Z: −65 °C to 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 (all parts), *Aerospace series - Elements of electrical and optical connection - Test methods*

EN 3660-001, *Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 001: Technical specification*

EN 3660-002, *Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 002: Index of product standards*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 3660-001 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at https://www.iso.org/obp/ui
- IEC Electropedia: available at http://www.electropedia.org/

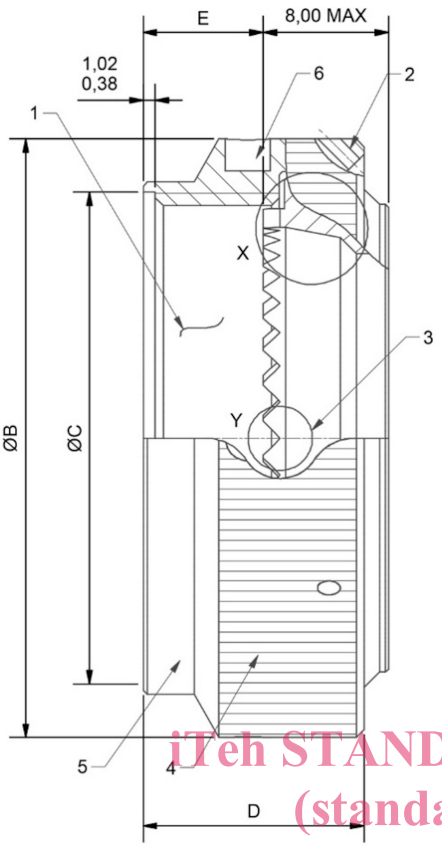
4 Characteristics

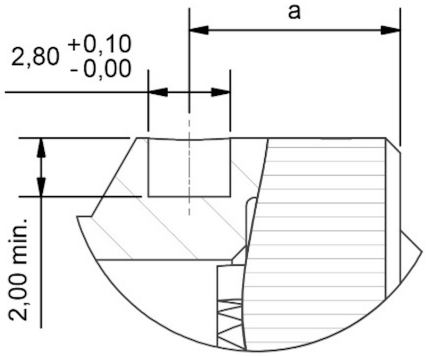
4.1 Dimensions and mass

For dimensions and mass, see Figure 1 and Table 1.

For interface dimensions, see 4.2.

Dimensions in millimetres





Detail Z

Key

1	Thread *A*
2	3 (three) off-wire lock holes equi-spaced for 0,8 mm max. diameter wire
3	Teeth *N* (see Table 2)
4	Knurled, manufacturer's option
5	Marking (see Clause 6)
6	4 (four) equi-spaced blind holes for torque wrench (see Figure 1, detail Z)
NOTE	For details X and Y, see 4.2.2
a	The location of blind holes axis can be left to the manufacturer's preference. Location of blind holes is not mandatory

Figure 1

Table 1

Shell size	*A* Thread Class 2B	*Ø B*	*Ø C*	*D*	*E* [a]	Mass	
						Classes N, A, W, T and Z	Class K
	inches	max. mm	+ 0,64 0 mm	0 − 1,57 mm	0 − 0,56 mm	max. g	
08	0,500–20UNF	19,47	12,74	13,72	7,75	5,25	13,22
10	0,625–24UNEF	22,47	15,88	13,72	7,75	6,18	17,31
12	0,750–20UNEF	25,47	19,05	13,72	7,75	7,6	19,77
14	0,875–20UNEF	28,67	22,23	13,72	7,75	8,8	23,53
16	1,000–20UNEF	31,67	25,40	13,72	7,75	10,25	27,96
18	1,063–18UNEF	34,67	27,00	13,72	7,75	12,98	29,99
20	1,188–18UNEF	37,67	30,18	13,72	7,75	14,19	33,67
22	1,313–18UNEF	40,67	33,35	13,72	7,75	15,79	37,32
24	1,438–18UNEF	44,07	36,53	13,72	7,75	17,56	41,38
28	1,750–18UNS	50,97	44,45	17,30	7,75	22,92	71,54

[a] *E* dimension is taken when the coupling nut is pulled in forward position.

4.2 Interface dimensions

4.2.1 Associated connection

See EN 3660-002.

4.2.2 Front interface

See Figure 2, Figure 3 and Table 2.

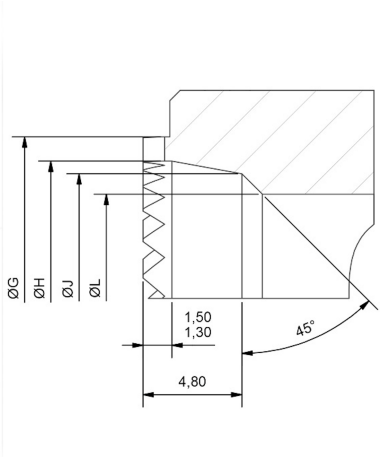


Figure 2 — Detail X

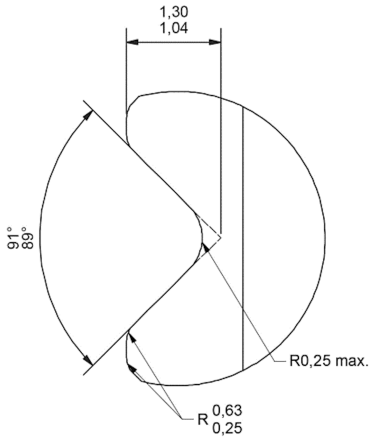


Figure 3 — Detail Y

Table 2

Dimensions in millimetres

Shell size	*Ø G* Ref.	*Ø H* + 0,10 0	*Ø J* + 0,18 0	*Ø L* + 0,18 0	*N* **Number of teeth**
08	11,10	9,15	7,92	6,68	12
10	14,53	12,36	11,13	9,35	15
12	17,45	15,30	14,07	12,62	21
14	20,62	18,48	17,25	14,68	24
16	23,80	21,65	20,42	17,73	30
18	25,20	23,08	21,85	19,86	33
20	28,37	26,25	25,02	23,04	36
22	31,55	29,43	28,20	26,21	39
24	34,72	32,60	31,37	29,13	42
28	42,75	38,90	37,67	35,10	54

4.3 Material and finish

Material/Finish Class N: aluminium/electroless nickel plated

Material/Finish Class W: aluminium/olive drab cadmium plated

Material/Finish Class K: stainless steel/passivated

Material/Finish Class A: aluminium/black anodized

Material/Finish Class T: aluminium (nickel PTFE plated)

Material/Finish Class Z: aluminium (black zinc nickel plated)

4.4 Assembly torque

These torque values are intended for installation use only, see Table 3.

Table 3

Shell size	Torque Nm ± 0,5	
	Classes N, W, A, T and Z	Class K
08	4,5	6,3
10		8,6
12		12,2
14		13,1
16		
18		
20	9,0	15,4
22		
24		
28	13,6	16,7

4.5 Coupling thread strength torque

These torque values are for test purposes only, see EN 2591-420 and Table 4.

Table 4

Shell size	Torque Nm ± 0,5	
	Classes N, W, A, T and Z	Class K
08	5,6	8,5
10		11,3
12		15,8
14		17,0
16		
18		
20	11,3	19,8
22		
24		
28	17,0	21,5

4.6 Tests

Test details to be in accordance with Table 5, EN 3660-001 and EN 2591-100.

Qualification to be in accordance with EN 3660-001.