
**Aeronavtika - Dodatki za okrogle in pravokotne električne in optične konektorje -
005. del: Kabelska spojka, tip A, 90°, netesnjena, z razbremenilno sponko -
Standard za proizvod**

Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 005: Cable outlet, style A, 90°, unsealed with clamp strain relief - Product standard

Luft- und Raumfahrt - Endgehäuse für elektrische und optische Rund- und Rechtecksteckverbinder - Teil 005: Endgehäuse, Bauform A, 90° Ausführung, nicht abgedichtet, mit Zugentlastungsklemme - Produktnorm

Série aérospatiale - Accessoires arrière pour connecteurs circulaires et rectangulaires électriques et optiques - Partie 005 : Raccord, type A, coudé à 90°, non étanche, avec brides serre-câbles - Norme de produit

Ta slovenski standard je istoveten z: prEN 3660-005

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 3660-005:2020**en,fr,de**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 3660-005

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ICS 49.060

Will supersede EN 3660-005:2018+AC:2019

English Version

Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 005: Cable outlet, style A, 90°, unsealed with clamp strain relief - Product standard

Série aérospatiale - Accessoires arrière pour connecteurs circulaires et rectangulaires électriques et optiques - Partie 005 : Raccord coudé à 90° non étanche type A avec brides serre-câbles - Norme de produit

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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.

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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 3660-005:2020) 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 3660-005:2018+AC:2019.

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prEN 3660-005:2020 (E)**1 Scope**

This document defines a range of cable outlets, style A, 90°, unsealed with clamp strain relief 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 260 °C

Class T: -65 °C to 175 °C (nickel PTFE plating)

Class Z: -65 °C to 175 °C (black zinc nickel plating)

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*

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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:

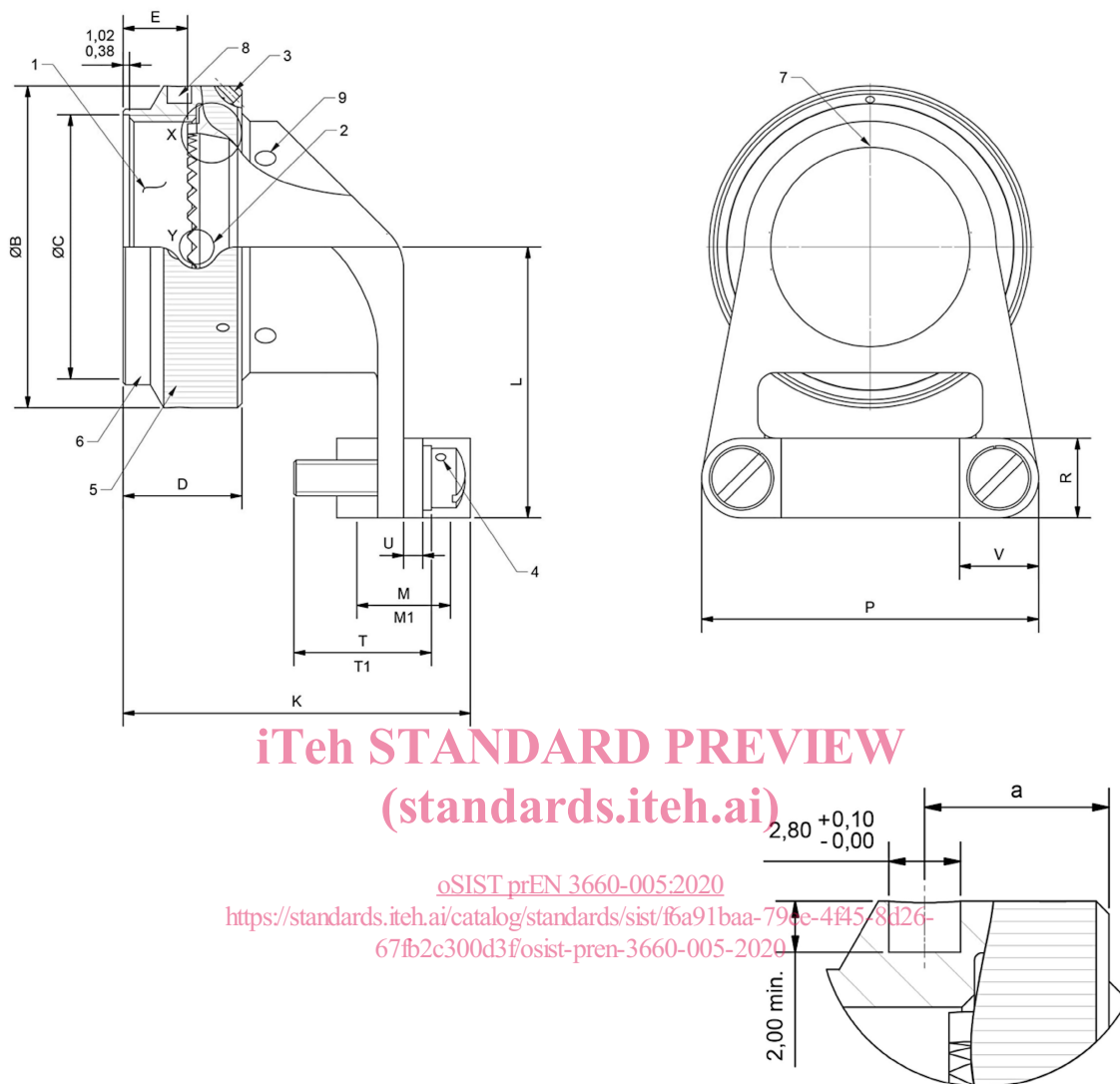
- ISO Online browsing platform: available at <https://www.iso.org/obp/ui>
- IEC Electropedia: available at <http://www.electropedia.org/>

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



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Detail Z

Key

- | | | | |
|---|---|---|--|
| 1 | Thread A | 6 | Marking (see Clause 6) |
| 2 | Teeth N (see Table 2) | 7 | Valley of start tooth to be at vertical centre line of accessory at position shown. See Note 4 |
| 3 | 3 (three) off-wire lock holes equi-spaced for 0,8 mm max. diameter wire | 8 | 4 (four) blind holes for torque wrench equi-spaced (see Figure 1, detail Z) |
| 4 | Fillister head screw with wire-locking hole | 9 | Drain holes, manufacturer's option |
| 5 | Knurled, manufacturer's option | | |
- NOTE 1 For details X and Y, see 4.2.2
- NOTE 2 Coupling nut to be captive on cable outlet body but free to rotate
- NOTE 3 Dimension K is the dimension for the clamp in its maximum in the closed position for M_1 entry size
- NOTE 4 Valley of start of tooth to be at vertical centre line of accessory at position shown: Within $\pm 3^\circ$ for shell sizes 08-12. Within $\pm 2^\circ$ for shell sizes 14-18. Within $\pm 1^\circ$ for shell sizes 20 and larger
- 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 inches	$\varnothing B$	$\varnothing C$	D	E^a	K	L	M^b Wire accommodation	
		max.	+ 0,64 0	0 - 1,57	0 - 0,56	max.	$\pm 1,57$	max.	min.
		mm	mm	mm	mm	mm	mm	mm	
08	0,500-20UNF	19,47	12,74	13,72	7,75	28,97	18,95	5,2	3,2
10	0,625-24UNEF	22,47	15,88	13,72	7,75	30,05	20,45	7,3	4,8
12	0,750-20UNEF	25,47	19,05	13,72	7,75	34,95	22,02	9,8	7,4
14	0,875-20UNEF	28,67	22,23	13,72	7,75	36,47	23,62	11,3	9,0
16	1,000-20UNEF	31,67	25,40	13,72	7,75	40,26	25,25	15,1	12,8
18	1,063-18UNEF	34,67	27,00	13,72	7,75	43,10	29,74	16,3	13,2
20	1,188-18UNEF	37,67	30,18	13,72	7,75	46,29	31,34	17,9	15,0
22	1,313-18UNEF	40,67	33,35	13,72	7,75	49,45	32,92	19,5	16,3
24	1,438-18UNEF	44,07	36,53	13,72	7,75	52,63	34,49	20,3	18,0
28	1,750-18UNS	50,97	44,45	17,30	7,75	60,25	39,93	20,7	19,0

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Shell size	M_1^b Wire accommodation		P	R	Screw size Class 2A inches	T^b	T_1^b	U	V	Mass Classes	
	max.	min.	$\pm 0,5$	$\pm 0,5$		$\pm 0,8$	$\pm 0,8$	max.	min.	N, A, W, T and Z	K
	mm	mm	mm	mm		mm	mm	mm	mm	max.	g
08	5,2	3,2	18,6	6,35	6-32UNC	12,7	12,7	2,2	7,30	13,12	31,12
10	7,3	4,8	20,6	6,35	6-32UNC	12,7	12,7	2,2	7,10	15,95	38,04
12	10,6	7,4	24,6	6,35	6-32UNC	12,7	15,9	2,2	6,80	19,6	43,04
14	12,0	9,0	26,1	6,35	6-32UNC	12,7	15,9	2,2	6,60	22,46	49,69
16	16,0	12,8	33,0	6,35	6-32UNC	12,7	15,9	2,2	7,80	26,64	63,27
18	18,0	13,2	36,4	9,53	8-32UNC	15,9	19,1	2,2	9,00	33,09	67,14
20	21,0	15,0	39,0	9,53	8-32UNC	15,9	22,3	2,2	8,80	37,54	79,70
22	24,3	16,3	41,5	9,53	8-32UNC	15,9	25,4	2,2	8,80	44,31	92,44
24	27,5	18,0	44,6	9,53	8-32UNC	15,9	28,6	2,2	9,20	51,04	101,24
28	30,0	19,0	50,8	12,70	8-32UNC	19,5	31,8	2,2	12,10	66,26	162,12

^a E dimension is taken when the coupling nut is pulled in forward position.^b M and T dimensions are for variant A; M_1 and T_1 dimensions are for variants B. M and M_1 diameters are clamp hardware limits and not wire bundle accommodation sizes.

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.

Dimensions in millimetres

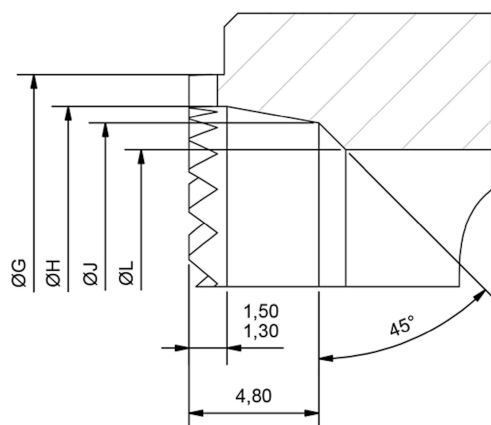


Figure 2 — Detail X

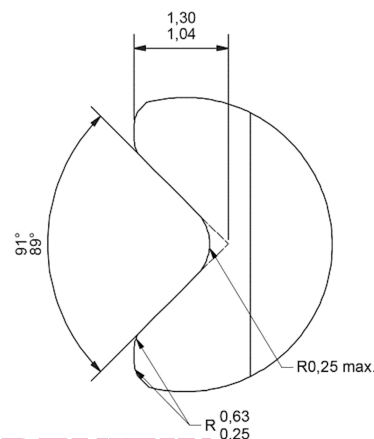


Figure 3 — Detail Y

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Table 2

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

prEN 3660-005:2020 (E)**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		
22	9,0	15,4
24		
28	13,6	16,7

4.5 Couple thread strength torque

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