SLOVENSKI STANDARD
SIST EN 3660-063:2016

01-januar-2016

Nadomešča:
SIST EN 3660-063:2010

Aeronavtika - Dodatki za okrogle in pravokotne električne in optične konektorje - 063. del: Kabelska spojka, tip K, ravna, za toplotno skrčljive dele, oklopljena, tesnjena, samozapiralna za EN 3645 - Standard za proizvod

Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 063: Cable outlet, style K, straight, for heat shrinkable boot, shielded, sealed, self-locking for EN 3645 - Product standard

Luft- und Raumfahrt - Endgehäuse für elektrische und optische Rund- und Rechtecksteckverbinder - Teil 063: Endgehäuse, Bauform K, gerade, für wärmeschrumpfende Bauteile, Schirmanschluss, abgedichtet, selbstsichernd für EN 3645 - Produktnorm

Série aérospatiale - Accessoires arrière pour connecteurs circulaires et rectangulaires électriques et optiques - Partie 063 : Raccord type K, droit, blindé, étanche, pour manchon thermorétractable, auto-freiné pour EN 3645 - Norme de produit

Ta slovenski standard je istoveten z: **EN 3660-063:2015**

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 3660-063:2016 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 3660-063

November 2015

ICS 49.060

Supersedes EN 3660-063:2009

English Version

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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
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (EN 3660-063:2015) 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of an identical text or by endorsement, at the latest by May 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.

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.

This document supersedes EN 3660-063:2009.

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 European Standard defines a range of cable outlets, style K, straight, shielded, sealed, self-locking (anti-rotational), heat shrinkable boot, and / or metallic bands for use under the following conditions:

Associated electrical connector(s) : EN 3660-002.

NOTE Class N in EN 3660-001 cross refers to class F in EN 3660-063.

Temperature range, Class F (N) : – 65 °C to 200 °C (see note above);

Class K : – 65 °C to 200 °C;

Class W : – 65 °C to 175 °C;

Class T : – 65 °C to 175 °C (Nickel PTFE plating);

Class Z : – 65 °C to 175 °C (Zinc Nickel plating).

Associated electrical accessories : prEN 3660-033 Metallic band (for shield termination).

These cable outlets are designed for termination of overall shielding braid and / or individual cable shields. They accommodate/permit the termination of heat shrinkable boots.

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- [1], *Aerospace series — Elements of electrical and optical connection — Test methods*

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

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*

prEN 3660-033, *Aerospace series — Cable outlet accessories for circular and rectangular electrical and optical connectors — Part 033: Stainless steel banding band, style Z, for attachment of individual and/or overall screens to cable outlets — Product standard* [2]

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

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

DIN 82, *Knurling*

1) All its parts quoted in this European Standard.

2) In preparation at the date of publication of this European Standard.

3 Terms and definitions

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

(Self-locking / anti-rotational definition) A self-locking or anti-rotational mechanism provides a nut rotation with a moderate torque in the mated direction and provides a greater torque in the unmated direction.

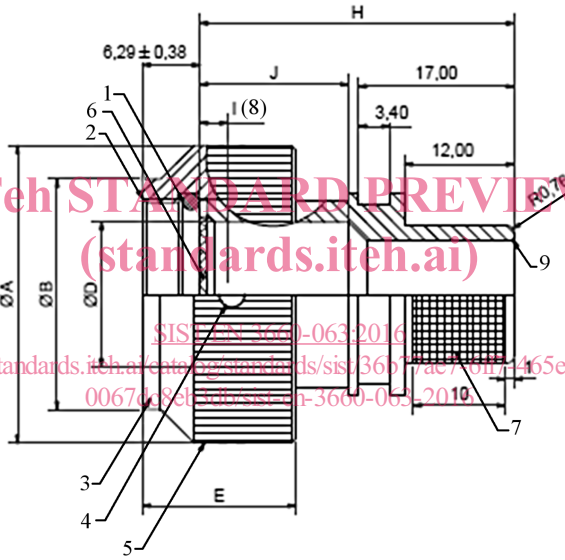
4 Characteristics

4.1 Dimensions and mass

For dimensions and mass, see Figures 1 and 2 and Tables 1 to 5 inclusive.

For cable entry dimensions, see 4.2.

All dimensions are in millimetres.



Key

1 O-Ring
2 Thread *C*
3 Marking
4 Four tooling holes spaced 90° apart. Ø 2,60, depth, 1,27.
5 Straight knurl. Pitch manufacturer's option.
6 Number of teeth *N*
7 RKV 08 DIN 82. Figure 2. (Please note there may be crossover dependent on diameter and pitch.)
8 Minimum penetration of Ø *D* from the front of serrations.
9 Break edge

NOTE 1 Cable outlets may be manufactured as cast, fabricated or machined (manufactures option).

NOTE 2 No sharp edges / burrs permissible on internal or external surfaces / joints.

Surface finish of $\sqrt{}$ 1,6 µm max. on all internal surfaces

Figure 1

Table 1 — Fixed dimensions of shell

Dimensions in millimetres

Shell size	*Ø A* max.	*Ø B* max.	*C* **Thread**	*Ø D* min.	*E* max.	*I* min.	*N* **Number of teeth**
09	21,79	15,24	M12 × 1,0-6H0.100R	6,70	16,76	2,90	12
11	24,99	18,21	M15 × 1,0-6H0.100R	9,90	16,76	2,90	16
13	29,39	21,18	M18 × 1,0-6H0.100R	12,80	16,76	2,90	20
15	32,49	25,14	M22 × 1,0-6H0.100R	16,00	16,76	2,90	24
17	35,71	28,12	M25 × 1,0-6H0.100R	19,20	16,76	2,90	28
19	38,50	31,09	M28 × 1,0-6H0.100R	21,40	16,76	2,90	32
21	41,70	34,06	M31 × 1,0-6H0.100R	24,60	16,76	2,90	36
23	44,91	36,90	M34 × 1,0-6H0.100R	27,70	16,76	2,90	40
25	47,98	39,88	M37 × 1,0-6H0.100R	30,90	16,76	1,70	44

Table 2 — Variable dimensions of wiring chamber

Dimensions in millimetres

Length code wiring chamber	*H* max.	*J*
A	27,10	8,20
B	35,10	16,20
C	40,10	21,20
D	50,10	31,20

Table 3 — Mass for classes F (N), W, T and Z *(1 of 2)*

Nominal mass in grams

Shell size code	**Cable entry – size code**												**Length code wiring chamber**
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**J**	**K**	**L**	**M**	
09	10,7	11,3	—	—	—	—	—	—	—	—	—	—	A
	11,4	12,0	—	—	—	—	—	—	—	—	—	—	B
	11,9	12,5	—	—	—	—	—	—	—	—	—	—	C
	12,7	13,3	—	—	—	—	—	—	—	—	—	—	D
11	12,4	13,1	13,7	14,3	—	—	—	—	—	—	—	—	A
	13,4	14,1	14,7	15,3	—	—	—	—	—	—	—	—	B
	14,0	14,7	15,3	15,9	—	—	—	—	—	—	—	—	C
	15,2	15,9	16,6	17,1	—	—	—	—	—	—	—	—	D

Table 3 — Mass for classes F (N), W, T and Z *(2 of 2)*

Nominal mass in grams

Shell size code	Cable entry – size code												Length code wiring chamber
	A	B	C	D	E	F	G	H	J	K	L	M	
13	14,5	14,9	15,3	16,1	16,6	17,2	—	—	—	—	—	—	A
	15,7	16,2	16,6	17,3	17,9	18,4	—	—	—	—	—	—	B
	16,5	16,9	17,4	18,1	18,7	19,2	—	—	—	—	—	—	C
	18,1	18,5	18,9	19,6	20,2	20,7	—	—	—	—	—	—	D
15	17,8	18,2	18,6	19,0	19,2	20,0	21,2	—	—	—	—	—	A
	19,3	19,7	20,1	20,5	20,8	21,6	22,7	—	—	—	—	—	B
	20,3	20,7	21,1	21,4	21,7	22,5	23,7	—	—	—	—	—	C
	22,2	22,6	23,0	23,3	23,6	24,4	25,6	—	—	—	—	—	D
17	20,0	20,5	20,9	21,2	21,5	21,8	23,0	24,0	—	—	—	—	A
	21,8	22,3	22,7	23,0	23,3	23,6	24,8	25,8	—	—	—	—	B
	23,0	23,4	23,8	24,1	24,4	24,7	25,9	27,0	—	—	—	—	C
	25,2	25,6	26,0	26,4	26,7	27,0	28,1	29,2	—	—	—	—	D
19	21,2	21,6	22,0	22,4	22,6	22,9	23,5	24,9	—	—	—	—	A
	23,2	23,6	24,0	24,4	24,6	24,9	25,5	26,9	—	—	—	—	B
	24,4	24,8	25,2	25,6	25,9	26,2	26,7	28,2	—	—	—	—	C
	26,9	27,3	27,7	28,1	28,4	28,7	29,2	30,6	—	—	—	—	D
21	25,7	26,1	26,5	26,9	27,2	27,5	28,0	28,4	29,6	—	—	—	A
	28,0	28,4	28,8	29,2	29,4	29,7	30,3	30,7	31,9	—	—	—	B
	29,4	29,8	30,2	30,6	30,9	31,2	31,7	32,1	33,3	—	—	—	C
	32,3	32,7	33,1	33,4	33,7	34,0	34,6	35,0	36,2	—	—	—	D
23	27,1	27,5	27,9	28,3	28,5	28,8	29,4	29,8	30,3	31,3	—	—	A
	29,6	30,0	30,4	30,8	31,1	31,4	32,0	32,3	32,9	33,8	—	—	B
	31,2	31,6	32,0	32,4	32,7	33,0	33,5	33,9	34,5	35,4	—	—	C
	34,4	34,8	35,2	35,6	35,9	36,2	36,7	37,1	37,7	38,6	—	—	D
25	33,1	33,5	33,9	34,3	34,5	34,9	35,4	35,8	36,4	36,6	37,7	—	A
	35,9	36,4	36,8	37,1	37,4	37,7	38,3	38,6	39,2	39,4	40,5	—	B
	37,7	38,1	38,5	38,9	39,2	39,5	40,0	40,4	41,0	41,2	42,3	—	C
	41,3	41,7	42,1	42,4	42,7	43,0	43,6	44,0	44,5	44,7	45,8	—	D

Table 4 — Mass for class K

Nominal mass in grams

Shell size code	End-fitting – size code												Length code wiring chamber
	A	B	C	D	E	F	G	H	J	K	L	M	
09	26,9	28,5	—	—	—	—	—	—	—	—	—	—	A
	28,7	30,3	—	—	—	—	—	—	—	—	—	—	B
	29,8	31,4	—	—	—	—	—	—	—	—	—	—	C
	31,9	33,6	—	—	—	—	—	—	—	—	—	—	D
11	31,0	32,8	34,6	36,0	—	—	—	—	—	—	—	—	A
	33,5	35,3	37,0	38,5	—	—	—	—	—	—	—	—	B
	35,0	36,8	38,6	40,0	—	—	—	—	—	—	—	—	C
	38,1	39,9	41,7	43,1	—	—	—	—	—	—	—	—	D
13	35,9	37,0	38,2	40,1	41,6	43,0	—	—	—	—	—	—	A
	39,0	40,1	41,3	43,2	44,7	46,1	—	—	—	—	—	—	B
	41,0	42,1	43,2	45,1	46,7	48,1	—	—	—	—	—	—	C
	44,9	46,0	47,1	49,0	50,6	51,9	—	—	—	—	—	—	D
15	42,9	44,0	45,1	46,0	46,8	48,9	52,0	—	—	—	—	—	A
	46,7	47,8	48,9	49,8	50,6	52,7	55,8	—	—	—	—	—	B
	49,1	50,2	51,3	52,2	53,0	55,1	58,2	—	—	—	—	—	C
	53,9	55,0	56,0	57,0	57,7	59,9	63,0	—	—	—	—	—	D
17	48,2	49,3	50,4	51,4	52,1	52,9	56,1	58,8	—	—	—	—	A
	52,8	53,9	55,0	55,9	56,6	57,4	60,6	63,4	—	—	—	—	B
	55,6	56,7	57,8	58,7	59,4	60,3	63,4	66,2	—	—	—	—	C
	61,3	62,4	63,4	64,4	65,1	65,9	69,1	71,9	—	—	—	—	D
19	52,1	53,2	54,3	55,2	55,9	56,8	58,3	62,1	—	—	—	—	A
	57,1	58,2	59,3	60,3	60,9	61,8	63,3	67,1	—	—	—	—	B
	60,2	61,4	62,4	63,4	64,1	64,9	66,4	70,2	—	—	—	—	C
	66,5	67,6	68,7	69,7	70,3	71,2	72,7	76,5	—	—	—	—	D
21	62,0	63,2	64,2	65,2	65,9	66,7	68,2	69,2	72,4	—	—	—	A
	67,8	68,9	70,0	70,9	71,6	72,4	74,0	74,9	78,1	—	—	—	B
	71,4	72,5	73,5	74,5	75,2	76,0	77,5	78,5	81,7	—	—	—	C
	78,5	79,6	80,7	81,7	82,3	83,2	84,7	85,7	88,8	—	—	—	D
23	66,1	67,2	68,3	69,2	69,9	70,8	72,3	73,3	74,7	77,0	—	—	A
	72,5	73,6	74,7	75,6	76,3	77,2	78,7	79,7	81,1	83,4	—	—	B
	76,5	77,6	78,7	79,7	80,3	81,2	82,7	83,7	85,1	87,5	—	—	C
	84,5	85,6	86,7	87,7	88,4	89,2	90,7	91,7	93,1	95,5	—	—	D
25	78,6	79,8	80,8	81,8	82,5	83,3	84,8	85,8	87,3	87,7	90,7	—	A
	85,8	86,9	88,0	88,9	89,6	90,4	91,9	92,9	94,4	94,8	97,8	—	B
	90,2	91,3	92,4	93,4	94,1	94,9	96,4	97,4	98,8	99,3	102,3	—	C
	99,1	100,2	101,3	102,3	103,0	103,8	105,3	106,3	107,7	108,2	111,2	—	D

4.2 Cable entry dimensions

See Figure 2, Table 5.

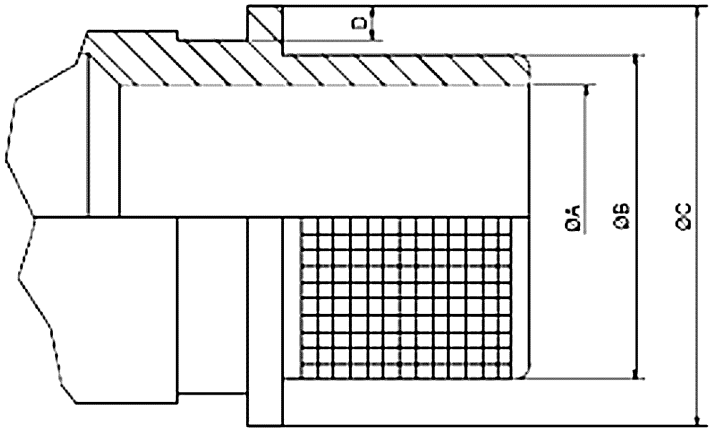


Figure 2 — Cable entry

Table 5

Dimensions in millimetres

Cable entry size code	Ø *A* ± 0,1	Ø *B* ± 0,1	Ø *C* ± 0,3	*D* + 0,2 0	Bundle/cable diameter min.	Bundle/cable diameter max.
A	4,7	7,7	12,2	1,12	2,0	4,0
B	6,4	9,4	14,0	1,12	3,9	5,5
C	7,9	11,0	15,5	1,12	5,4	7,5
D	9,5	12,6	17,1	1,12	7,4	9,0
E	11,1	14,1	18,7	1,12	9,4	10,5
F	12,7	15,7	20,3	1,12	10,4	12,0
G	15,9	18,9	23,5	1,12	12,4	15,5
H	19,1	22,0	26,7	1,12	15,4	18,5
J	22,2	25,2	29,8	1,75	18,4	21,5
K	25,5	28,4	33,0	1,75	21,4	25,0
L	28,6	31,5	36,2	1,75	25,4	28,0
M	31,8	34,7	39,4	1,75	28,4	31,0

NOTE The cable entry shall be selected in accordance with the maximum diameter of the cable bundle.

4.3 Associated connectors

See EN 3660-002.