
Aeronavtika - Dodatki za okrogle in pravokotne električne in optične konektorje - 031. del: Kabelska spojka, tip K, ravna, za toplotno skrčljive dele, oklopljena, tesnjena - Standard za proizvod

Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 031: Cable outlet, style K, straight, for heat shrinkable boot, shielded, sealed - Product standard

Luft- und Raumfahrt - Endgehäuse für elektrische und optische Rund- und Rechtecksteckverbinder - Teil 031: Endgehäuse, Bauform K, gerade, für wärmeschrumpfende Bauteile, Schirmschluß, abgedichtet - Produktnorm

[SIST EN 3660-031:2017](https://standards.iteh.ai/catalog/standards/sist/f5bd51a7-6627-4f15-b90e-3a11e520e007/sist-en-3660-031-2017)

Série Aérospatiale - Accessoires arrière pour connecteurs circulaires et rectangulaires électriques et optiques - Partie 031 : Raccord, type K, droit, blindé, étanche, pour manchon thermorétractable - Norme de produit

Ta slovenski standard je istoveten z: EN 3660-031:2017

ICS:

31.220.99	Druge elektromehanske komponente	Other electromechanical components
49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems

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EUROPEAN STANDARD

EN 3660-031

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2017

ICS 49.060

English Version

Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 031: Cable outlet, style K, straight, for heat shrinkable boot, shielded, sealed - Product standard

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This European Standard was approved by CEN on 17 April 2017.

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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 3660-031:2017) 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 March 2018, and conflicting national standards shall be withdrawn at the latest by March 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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EN 3660-031:2017 (E)**1 Scope**

This European Standard defines a range of cable outlets, style K, straight, shielded, sealed for heat shrinkable boot, for use with memory metal rings under the following conditions.

The mating connectors are listed in EN 3660-002.

Temperature range, Class N	: - 65 °C to 200 °C
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 : EN 3660-034 memory metal rings (for shield termination backshells).

These cable outlets are designed for termination of overall shielding braid 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 2591-100*, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 100: General*

EN 3645 (all parts), *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*

EN 3660-034, *Aerospace series — Cable outlet accessories for circular and rectangular electrical and optical connectors — Part 034: Memory metal rings, style Z, for the attachment of screens — Product standard*

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

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

* All its parts quoted in this European Standard.

AS85049, *Connector accessories, electrical general specification for*- 1)

A-A-59569, *Braid, wire (copper, tin-coated, silver-coated, or nickel coated, tubular or flat)*

3 Terms and definitions

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

4 Characteristics

4.1 Dimensions and mass

For dimensions and mass, see Figures 1, 2 and 3 and Tables 1, 2, 3 and 4.

For cable entry dimensions, see 4.2.

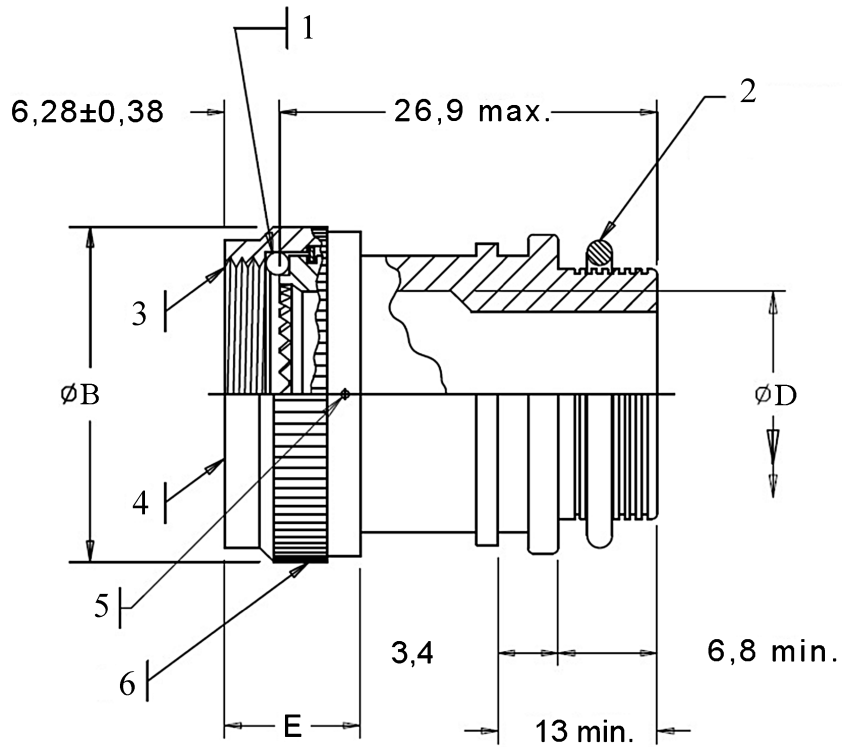
Dimensions are in millimetres.

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1) Published by: SAE National (US) Society of Automotive Engineers. <http://www.sae.org/>



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Key

- 1 O-ring
- 2 EN 3660-034 memory metal ring
- 3 Thread C
- 4 Marking
- 5 Three equally spaced holes 1 mm diameter for locking wire
- 6 Straight knurl, pitch manufacturers option

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Cable outlets may be manufactured as cast, fabricated or machined (manufacturers option).

No sharp edges/burrs permissible on internal surfaces/joints. Surface finish of $\sqrt{1,6 \mu\text{m max.}}$ on all internal surfaces.

Figure 1 — Cable outlet

Table 1 — Fixed dimensions of shell

Dimensions in millimetres

Shell size	Entry size max.	Cable dia. (ref) max.	C Thread	$\varnothing B$	$\varnothing D$	E
				max.	min.	max.
09	04	5,4	M12 × 1,0-6H	19,1	5,85	14,5
11	07	9,4	M15 × 1,0-6H	21,6	10,62	14,5
13	08	10,8	M18 × 1,0-6H	25,4	12,20	14,5
15	10	13,5	M22 × 1,0-6H	29,2	15,38	14,5
17	12	16,2	M25 × 1,0-6H	31,8	18,55	14,5
19	14	18,9	M28 × 1,0-6H	35,6	21,73	14,5
21	16	21,6	M31 × 1,0-6H	38,1	24,90	14,5
23	18	24,3	M34 × 1,0-6H	41,9	28,08	14,5
25	20	27,0	M37 × 1,0-6H	44,5	31,25	14,5

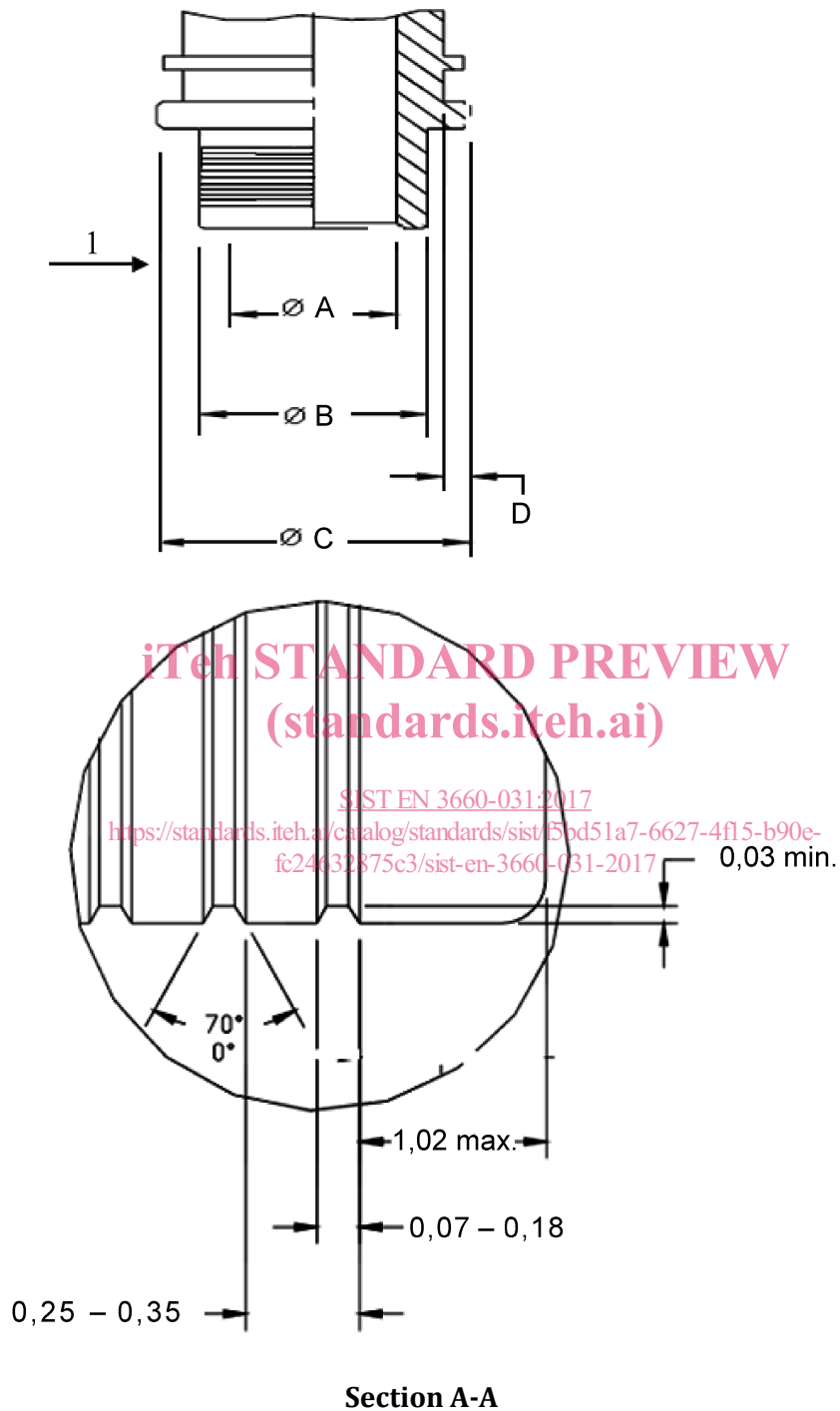
Table 2 — Mass for classes K, N, W, T and Z

Mass in grams

Shell size code	End-fitting size code (standards.itech.ai)										Classes	
	04	05	06	07	08	10	12	14	16	18		20
09	9,45	—	—	—	—	—	—	—	—	—	—	N, T, W, Z
	26,20	—	—	—	—	—	—	—	—	—	—	K
11	10,90	11,35	11,85	—	—	—	—	—	—	—	—	N, T, W, Z
	30,20	31,50	32,85	—	—	—	—	—	—	—	—	K
13	14,80	—	15,60	—	16,30	—	—	—	—	—	—	N, W, Z,
	41,00	—	44,10	—	45,15	—	—	—	—	—	—	K
15	19,63	—	20,35	—	20,90	21,60	—	—	—	—	—	N, T, W, Z
	54,40	—	56,40	—	57,90	59,90	—	—	—	—	—	K
17	—	—	22,40	—	22,95	23,50	23,65	—	—	—	—	N, T, W, Z
	—	—	62,10	—	63,60	65,10	65,60	—	—	—	—	K
19	—	—	26,60	—	27,20	27,70	—	28,20	—	—	—	N, T, W, Z
	—	—	73,70	—	75,40	76,80	—	78,20	—	—	—	K
21	—	—	—	—	26,65	—	27,30	—	27,95	—	—	N, T, W, Z
	—	—	—	—	73,90	—	75,70	—	77,50	—	—	K
23	—	—	—	—	—	30,90	—	31,30	—	31,85	—	N, T, W, Z
	—	—	—	—	—	85,60	—	86,80	—	88,30	—	K
25	—	—	—	—	—	—	34,60	—	35,00	—	35,70	N, T, W, Z
	—	—	—	—	—	—	95,90	—	97,00	—	98,90	K

4.2 Cable entry dimensions

See Figure 2 and Table 3.



Key

- 1 See detail section A-A for surface dimensions

Figure 2 — Cable entry

Table 3

Dimensions in millimetres

Cable outlet code	$\varnothing A$ + 0,25 - 0,5	$\varnothing B$		$\varnothing C$ $\pm 0,5$	D + 0,2 0
		min.	max.		
04	6,4	9,39	9,56	14,0	1,12
05	7,9	10,97	11,13	15,5	1,12
06	9,5	12,57	12,73	17,1	1,12
07	11,1	14,12	14,31	18,7	1,12
08	12,7	15,72	15,91	20,3	1,12
10	15,9	18,84	19,11	23,5	1,12
12	19,1	22,02	22,28	26,7	1,75
14	22,2	25,17	25,46	29,8	1,75
16	25,4	28,34	28,63	33,0	1,75
18	28,6	31,52	31,81	36,2	1,75
20	31,8	34,69	34,98	39,4	1,75

NOTE The cable outlet shall be selected in accordance with the maximum diameter of the cable bundle, see Table 1.

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4.3 Associated connectors

See EN 3660-002.

4.4 Standard AS85049 interface

See Figure 3 and Table 4.

All dimensions are in millimetres.