

SLOVENSKI STANDARD

SIST EN 3660-021:2009

01-december-2009

Aeronavtika - Dodatki za okrogle in pravokotne električne in optične konektorje - 021. del: Kabelska spojka, tip A, 90° netesnjena

Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 021: Cable outlet, style A, 90°, unsealed

Luft- und Raumfahrt - Endgehäuse für elektrische und optische Rund und Rechteck steckverbinder - Teil 021: Endgehäuse, Bauform A, 90° Ausführung

Série aérospatiale - Accessoires arrière pour connecteurs circulaires et rectangulaires électriques et optiques - Partie 021: Raccord coudé à 90° non étanche, type A, autofreinant avec brides serre-câbles pour EN 3645 - Norme de produit

Ta slovenski standard je istoveten z: EN 3660-021:2009

ICS:

49.060

Letalska in vesoljska
električna oprema in sistemi

Aerospace electric
equipment and systems

SIST EN 3660-021:2009

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3660-021

September 2009

ICS 49.060

English Version

Aerospace series - Cable outlet accessories for circular and rectangular electrical and optical connectors - Part 021: Cable outlet, style A, 90°, unsealed

Série aérospatiale - Accessoires arrière pour connecteurs circulaires et rectangulaires électriques et optiques - Partie 021: Raccord coudé à 90° non étanche, type A, auto-freinant avec brides serre-câbles pour EN 3645 - Norme de produit

Luft- und Raumfahrt - Endgehäuse für elektrische und optische Rund und Rechteck steckverbinder - Teil 021: Endgehäuse, Bauform A, 90° Ausführung

This European Standard was approved by CEN on 27 June 2009.

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This European Standard exists 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 Management Centre has the same status as the official versions.

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Foreword

This document (EN 3660-021:2009) 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 2010, and conflicting national standards shall be withdrawn at the latest by March 2010.

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.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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EN 3660-021:2009 (E)**1 Scope**

This product standard defines a range of cable outlets, style A, 90°, unsealed, self-locking, 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

2 Normative references

The following referenced documents are indispensable for the application 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 2591-100*, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 100: General.*

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.*

EN 3660-037, *Aerospace series — Cable outlet accessories for circular and rectangular electrical and optical connectors — Part 037: Bushing strip, elastomer, for cable outlet, style Z — Product standard.*

SAE AS85049, *Connector accessories, electrical general specification for.* ¹⁾

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**

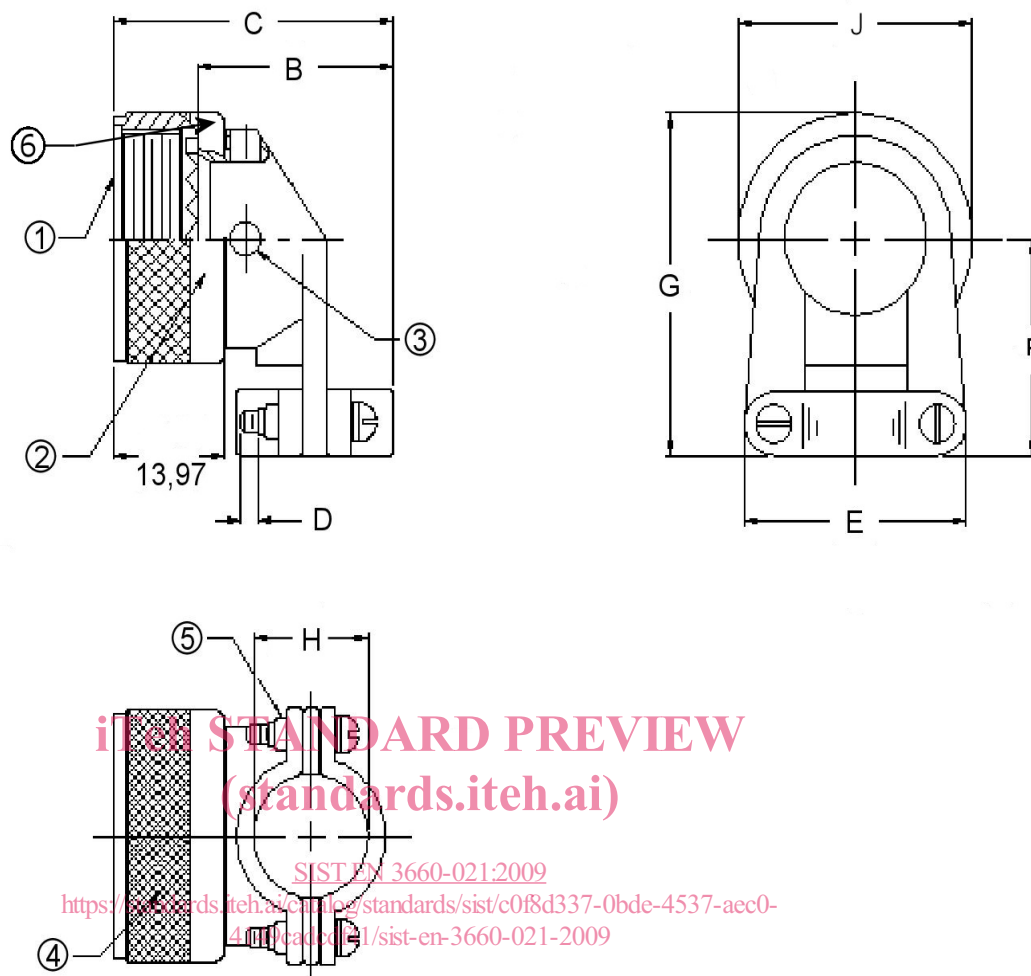
For dimensions and mass, see Figure 1 and Table 1.

For interface dimensions, see 4.2.

* All its parts quoted in this standard.

1) Published by: Society of Automotive Engineers, Inc. (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001.

Dimensions in millimetres

**Key**

- ① A Thread
- ② Marking, manufacturers option, see Clause 6.
- ③ 4 Drain holes, equally spaced: Ø 2,4 mm for shell size 9 + 11
Ø 3,2 mm for shell size 13 + 15
Ø 4,8 mm for shell size 17 – 25
- ④ Knurled, manufacturers option
- ⑤ Captive self-locking nut
- ⑥ Self-locking mechanism

NOTE Coupling nut to be captive on cable outlet body but rotatable.

Figure 1

EN 3660-021:2009 (E)

Table 1

Dimensions in millimetres

Shell size	A Thread	B ^a	C	D		E	F	G	H ^b	J	Screw size	Mass. max. g	
		max.	max.	min.	max.	max.	max.	max.	closed ± 0,8	max.	Class 2A inches	Classes N and W	Class K
09	M12 X 1-6H	21,8	29,0	1,52	9,65	22,4	20,6	31,5	5,56	21,97	6-32UNC	23,0	43,5
11	M15 X 1-6H	23,9	31,0			23,9	21,1	33,5	6,71	24,99		24,5	46,0
13	M18 X 1-6H	29,0	36,1			28,4	23,6	38,4	8,74	29,39		27,5	52,0
15	M22 X 1-6H	30,5	37,6			30,2	25,1	41,4	11,68	32,49		31,0	57,5
17	M25 X 1-6H	34,0	41,1			36,6	27,7	44,7	13,84	35,71		33,5	63,0
19	M28 X 1-6H	37,1	44,2			39,6	31,2	50,5	15,62	38,51	8-32UNC	34,5	65,0
21	M31 X 1-6H	40,1	47,2			42,9	33,0	53,8	17,73	41,71		36,5	68,0
23	M34 X 1-6H	43,4	50,5			44,5	34,5	56,9	19,81	44,91		40,0	75,0
25	M37 X 1-6H	46,5	53,6			47,8	36,1	59,7	21,59	47,47		42,0	79,5
^a B dimension is measured from the bottom of the accessory teeth to the end of the cable outlet.													
^b H cable entry is measured with saddle bars closed and bottomed on clamp ears.													

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4.2 Component parts

4.2.1 A bushing strip

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A bushing strip, see EN 3660-037, should be used to increase cable diameter to ensure proper function of the cable outlet clamp. Alternatively an appropriate elastomeric tape, as authorized by the OEM, may be used.

4.3 Interface dimensions

4.3.1 Associated connection

See EN 3660-002.

4.3.2 AS85049 Interface

See Figure 2 and Table 2.

Dimensions in millimetres

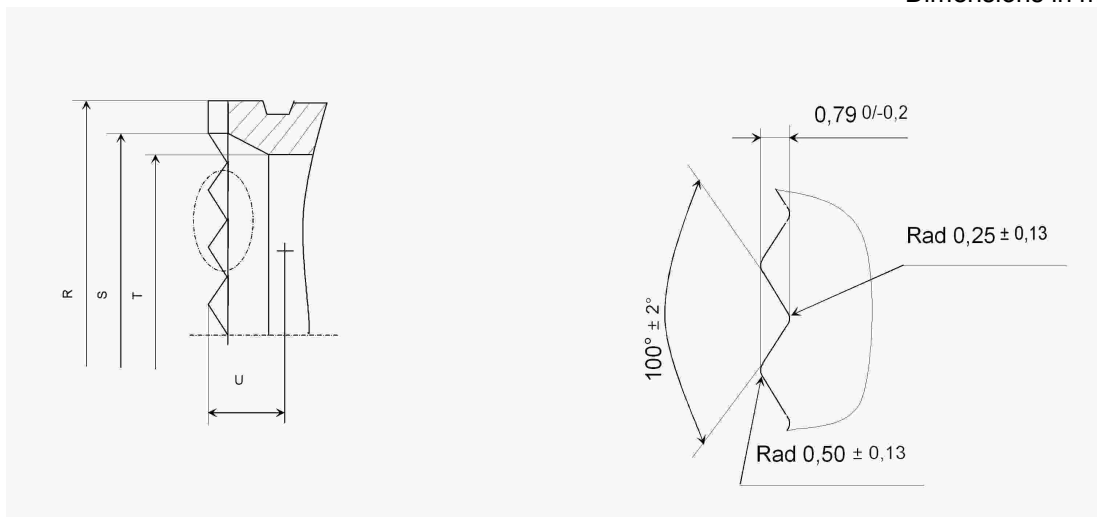


Figure 2

Table 2 (standards.itech.ai)

Dimensions in millimetres

Shell size	R 0 - 0,15 min.	S min.	T min.	U^a min.	N Number of teeth
09	10,57	7,50	6,70	2,90	12
11	13,56	10,80	9,90	2,90	16
13	16,58	13,80	12,80	2,90	20
15	20,57	16,90	16,00	2,90	24
17	23,57	20,10	19,20	2,90	28
19	26,57	22,80	21,40	2,90	32
21	29,57	26,00	24,60	2,90	36
23	32,56	29,10	27,70	2,90	40
25	35,56	32,30	30,90	1,70	44

^a Minimum penetration of T diameter.

4.4 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
Hardware	Screws, lock nuts	: Stainless steel/Passivated, silver plate optional