



SLOVENSKI STANDARD
oSIST prEN 3155-074:2023
01-september-2023

**Aeronavtika - Električni kontakti za uporabo v veznih elementih - 074. del:
Kontakti, električni, quadrax, velikost 8, moški, tip E, nagubani, razred R -
Standard za proizvod**

Aerospace series - Electrical contacts used in elements of connection - Part 074:
Contacts, electrical, quadrax, size 8, male, type E, crimp, class R - Product standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -
Teil 074: Elektrische quadraxiale Stiftkontakte, Größe 8, Typ E, crimpbar, Klasse R -
Produktnorm

Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie
074: Contacts électriques, quadrax, taille 8, mâles, type E, à sertir, classe R - Norme de
produit

Ta slovenski standard je istoveten z: prEN 3155-074

ICS:

49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 3155-074

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ICS 49.060

Will supersede EN 3155-074:2009

English Version

Aerospace series - Electrical contacts used in elements of connection - Part 074: Contacts, electrical, quadrax, size 8, male, type E, crimp, class R - Product standard

Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie 074: Contacts électriques, quadrax, taille 8, mâles, type E, à sertir, classe R - Norme de produit

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen - Teil 074: Elektrische quadraxiale Stiftkontakte, Größe 8, Typ E, crimpbar, Klasse R - 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 3155-074:2023) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-STAN).

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 3155-074:2009.

prEN 3155-074:2023 includes the following significant technical changes with respect to EN 3155-074:2009:

- classes R and S added;
- normative references updated;
- optional design for orientation key added in Figure 1;
- dimensions in figures updated;
- specification of shield ferrule added (Figure 4);
- Table 4 “Tests”: tests EN 2591-201, -202, -222, -223, -301, -305 and -403 updated; tests EN 2591-203, -213, -221, -316 and -402 added;
- Clause 4.8.2 “Connectors for qualification tests” added;
- identity block in designation updated;
- document editorially revised.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

prEN 3155-074:2023 (E)**1 Scope**

This document specifies the required characteristics, tests and tooling applicable to male electrical Quadrax contacts, shielded, size 8, type E characteristic impedance 100 Ω , crimp, class P, R and S, used in elements of connection according to EN 3155-002.

It is used together with EN 3155-001.

The associated female contacts are specified in EN 3155-075.

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 3155-001, *Aerospace series — Electrical contacts used in elements of connection — Part 001: Technical specification*

EN 3375-008, *Aerospace series — Cable, electrical, for digital data transmission — Part 008: Single braid — Star Quad 100 ohms — Type KD — Product standard*

EN 3375-011, *Aerospace series — Cable, electrical, for digital data transmission — Part 011: Single braid — Star Quad 100 ohms — Lightweight — Type KL — Product standard*

EN 3375-012, *Aerospace series — Cable, electrical, for digital data transmission — Part 012: Single braid — Star Quad 100 ohms — 260 °C — Type KH — Product standard*

EN 3645-001, *Aerospace series — Connectors, electrical, circular, scoop-proof, triple start threaded coupling, operating temperature 175 °C or 200 °C continuous — Part 001: Technical specification*

EN 3660-063, *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 — Product standard*

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

SAE AS22520, *Crimping Tools, Wire Termination, General Specification For*¹

SAE AS81969/14A, *Installing and Removal Tools, Connector Electrical Contact, Type III, Class 2, Composition B*¹

¹ Published by: SAE International (US) Society of Automotive Engineers, <https://www.sae.org/>.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 3155-001 apply.

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

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

4 Required characteristics

4.1 Specific characteristics

These type E contacts are contacts with screening feature and specified high frequency characteristics, class P corresponds to an operating temperature range from -65 °C to 125 °C , class R corresponds to an operating temperature range from -65 °C to 150 °C and class S corresponds to an operating temperature range from -65 °C to 200 °C .

4.2 Dimensions and mass

Dimensions shall be in accordance with Figure 1, Figure 2 and Table 1.

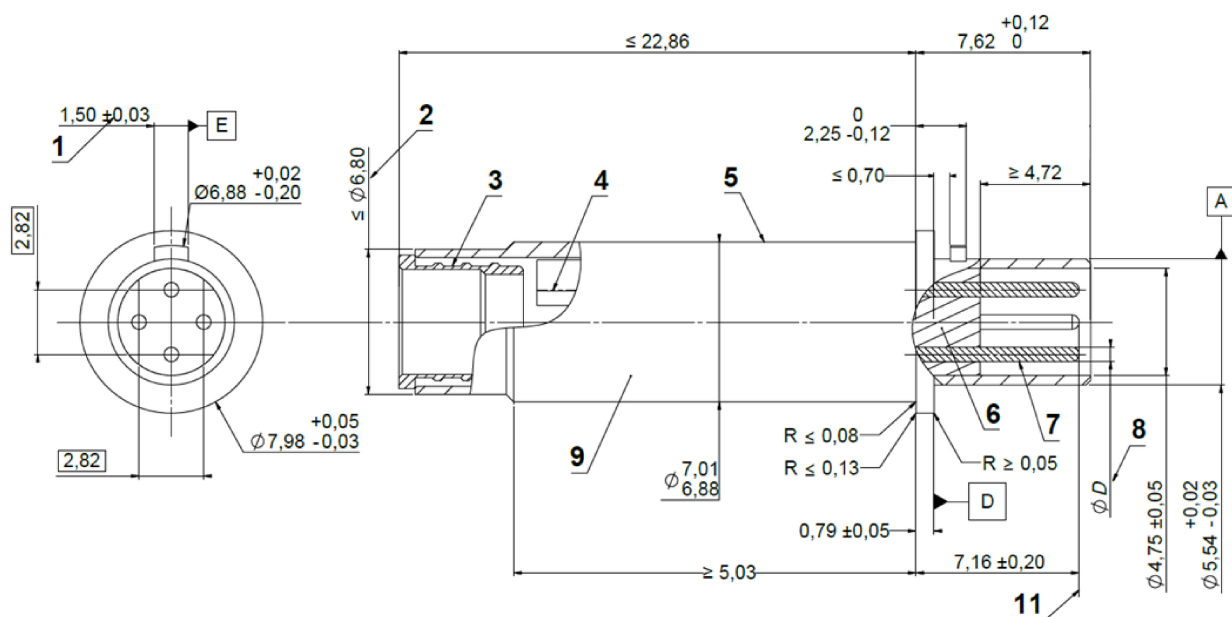
Contact mass: 3,9 g max.

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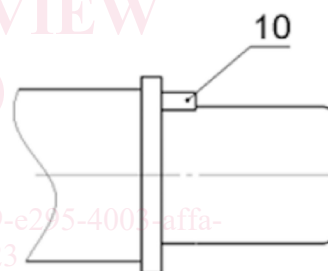
Dimensions and tolerances in millimetres



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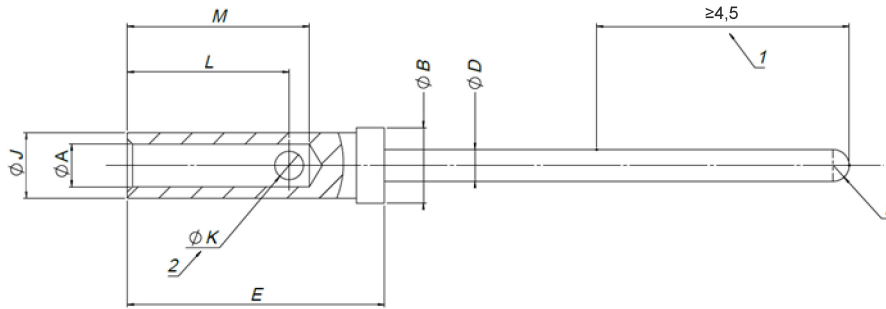


Key

- 1 orientation key
- 2 after crimping
- 3 shield ferrule
- 4 rear insulator
- 5 outer contact
- 6 front insulator
- 7 inner contacts (4)
- 8 $\oplus \phi 0,5(M) A(M) E(M) D$
- 9 manufacturer identification area
- 10 orientation key alternative design
- 11 end of inner contacts

Figure 1 — Configuration, dimensions and tolerances of male outer body

Dimensions and tolerances in millimetres

**Key**

- 1 min. see EN 3155-001 for Length of Selective Protection "LSP" definition
- 2 one side only

Figure 2 — Configuration of size 24 male signal contact**Table 1 — Dimensions and tolerances of male signal contact**

ϕA	ϕB	ϕD	E	ϕJ	ϕK	L	M	r (typ)
0,85	1,47	0,62	5,03	1,24	0,52	3,1	3,58	0,32
0,90	1,51	0,65	5,13	1,32	0,62	3,3	3,99	

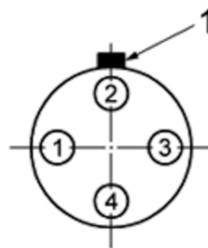
4.3 Marking**4.3.1 Marking**

Marking shall be applied on contact body. This marking shall include:

- the date of manufacture (year-week);
- the manufacturer's name or trademark.

4.3.2 Pin location identification

See Figure 3. (Not printed on product.)

**Key**

- 1 angular positioning key

Figure 3 — Front face view

prEN 3155-074:2023 (E)

4.4 Material, surface treatment

4.4.1 Material

Body: Copper alloy.

4.4.2 Protective coating

Gold and appropriate undercoat, thickness of protection according to EN 3155-001, selective protection permitted.

4.4.3 Dielectric

PTFE Fluoropolymer or equivalent.

4.5 Permissible cables

The cables shall be in accordance with Figure 4 and Table 2.

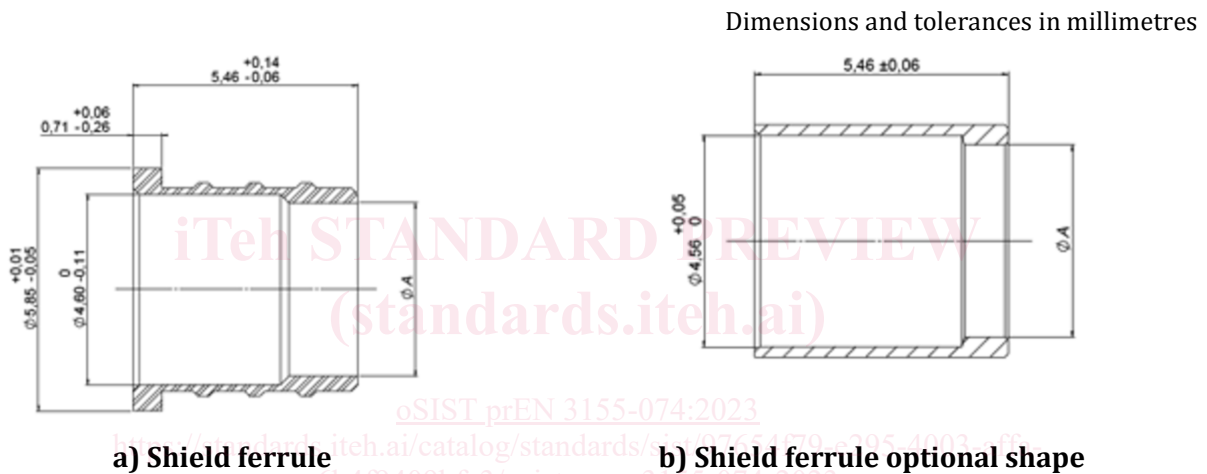


Figure 4 — Cable Ferrule

Table 2 — Ferrule dimensions

ϕA	Cable style
4,18 4,12	EN 3375-008 (KD)
	EN 3375-011 (KL) ^a
	EN 3375-012 (KH)
^a Additional shrinkable sleeve may be needed for KL cable if its diameter is lower or equal to 4,10 mm.	

4.6 Wiring

Preparation of the cable and crimping sequence is given in Figure 5 for information only.