

SLOVENSKI STANDARD

SIST EN 3155-075:2022

01-julij-2022

Nadomešča:

SIST EN 3155-075:2009

Aeronavtika - Električni kontakti za uporabo v veznih elementih - 075. del:
Kontakti, električni, quadrax, velikost 8, ženski, tip E, nagubani, razred R -
Standard za proizvod

Aerospace series - Electrical contacts used in elements of connection - Part 075:
Contacts, electrical, quadrax, size 8, female, type E, crimp, class R - Product standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -
Teil 075: Elektrische Quadrax Buchsenkontakte Größe 8, Typ E, crimpbar, Klasse R -
Produktnorm

Série aérospatiale - Contacts électriques dans les organes de connexion - Partie 075 :
Contacts électriques quadrax, taille 8, femelles, type E, à sertir, classe R - Norme de
produit

Ta slovenski standard je istoveten z: EN 3155-075:2022

ICS:

49.060

Letalska in vesoljska
električna oprema in sistemi

Aerospace electric
equipment and systems

SIST EN 3155-075:2022

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3155-075

May 2022

ICS 49.060

Supersedes EN 3155-075:2009

English Version

Aerospace series - Electrical contacts used in elements of connection - Part 075: Contacts, electrical, quadrax, size 8, female, type E, crimp, class R - Product standard

Série aérospatiale - Contacts électriques dans les organes de connexion - Partie 075 : Contacts électriques, quadrax, taille 8, femelles, type E, à sertir, classe R - Norme de produit

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen - Teil 075: Elektrische Quadrax Buchsenkontakte Größe 8, Typ E, crimpbar, Klasse R - Produktnorm

This European Standard was approved by CEN on 10 January 2022.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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 (EN 3155-075:2022) 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 document 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 document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2022, and conflicting national standards shall be withdrawn at the latest by November 2022.

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.

This document will supersede EN 3175-075:2009.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this document: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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EN 3155-075:2022 (E)

1 Scope

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

It is used together with EN 3155-001.

The associated male contacts are defined in EN 3155-074.

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 3155-002, *Aerospace series — Electrical contacts used in elements of connection — Part 002: List and utilization of contacts*

EN 3155-074, *Aerospace series — Electrical contacts used in elements of connection — Part 074: Contacts, electrical, quadrax, size 8, male, type E, crimp, class R — Product standard*¹⁾

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

EN 4008-003, *Aerospace series — Elements of electrical and optical connection — Crimping tools and associated accessories — Part 003: Positioner for crimping tool M22520/2-01 — Product standard*

SAE-AS22520, *Crimping Tools, Wire Termination, General Specification for*²⁾

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

¹⁾ Published as ASD-STAN Standard at the date of publication of this document by AeroSpace and Defence industries Association of Europe — Standardization (ASD-STAN), <https://www.asd-stan.org/>

²⁾ 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 terminological 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

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

4.2 Dimensions and mass

See Figure 1, Figure 2 and Table 1 for dimensions.

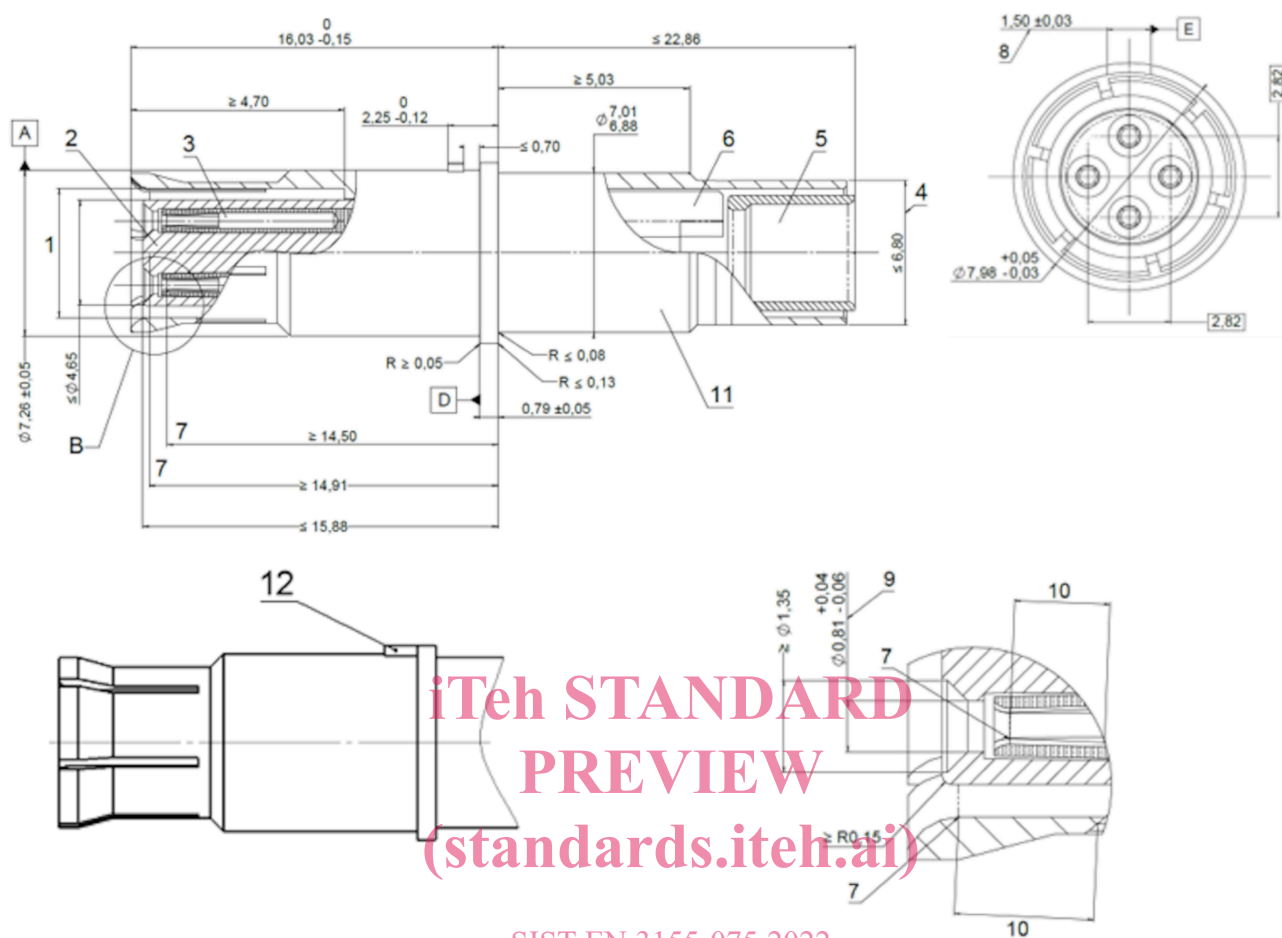
Contact mass: 6 g max.

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Dimensions and tolerances are given in millimetres.



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<https://standards.iteh.ai/catalog/standards/sist/c2f34d4a-efc6-4573-9088-a0384b27d38f/sist-en-3155-075-2022> **Detail B**

Key

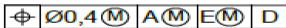
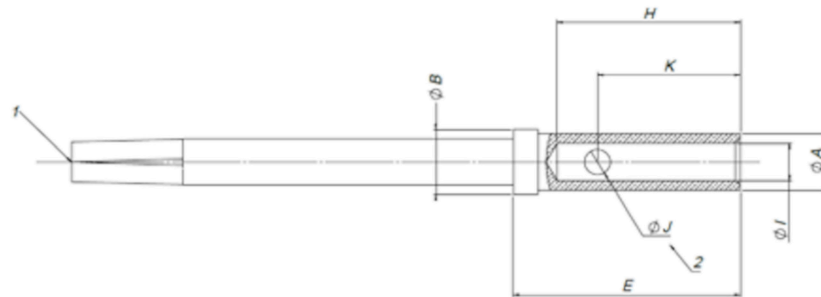
- 1 Mates with 5,51/5,56 male contact diameter
- 2 Front insulator
- 3 Inner contacts (4)
- 4 After crimping
- 5 Shield ferrule
- 6 Rear insulator
- 7 First point of electrical contact (point at which a square ended minimum gauge pin of the same basic diameter as the mating contact first engages the female contact spring member).
- 8 Orientation key aligned with shoulder diameter
- 9 Insulator opening 
- 10 Position of the first point and the maximum length of electrical contact (Point at which a square ended minimum gauge pin of the same basic diameter as the mating contact first engages the female contact spring member) (See EN 3155-001 for active area definition).
- 11 Manufacturer identification area
- 12 Orientation key alternative design

Figure 1 — Dimensions

**Key**

- 1 Compatible with a contact $\varnothing$ 0,622 to $\varnothing$ 0,648 (size 24)
- 2 One side only

Figure 2 — Configuration, dimensions and tolerances of socket contact size 24**Table 1 — Dimensions and tolerances of socket contact size 24**

$\varnothing A$	$\varnothing B$	E	H	$\varnothing I$	$\varnothing J$	K
1,24	1,47	5,03	3,58	0,85	0,52	3,1
1,32	1,51	5,13	3,99	0,90	0,62	3,3

4.3 Marking**4.3.1 Marking**

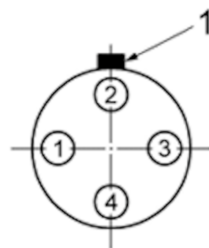
Marking shall be applied on contact body. This marking shall include:

– 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

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4.4 Material, surface treatment

4.4.1 Material

Body: Copper alloy.

4.4.2 Protective coating

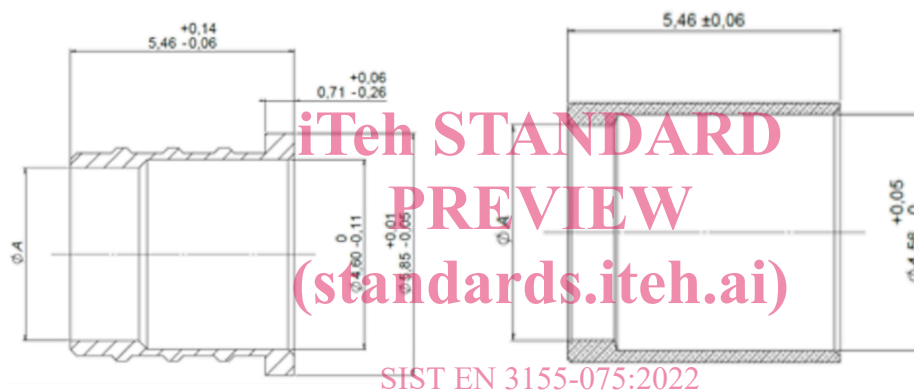
Gold and appropriate undercoat, thickness of protection see EN 3155-001, selective protection permitted.

4.4.3 Dielectric

PTFE Fluoropolymer or equivalent.

4.5 Permissible cables

The cables shall conform to Table 2.



Shield ferrule Shield ferrule optional shape
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Figure 4 — Cable Ferrule

Table 2 — Ferrule dimensions

Size	$\varnothing A$	Cable style
A	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.