



SLOVENSKI STANDARD
SIST EN 3155-040:2009

01-januar-2009

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Aerospace series - Electrical contacts used in elements of connection - Part 040:
Contacts, electrical, coaxial, size 12, male, type D, solder, class R - Product standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -
Teil 040: Elektrische koaxiale Stiftkontakte, Größe 12, Typ D, zum Löten, Klasse R -
Produktnorm

Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie
040 : Contacts, électriques, coaxiaux, taille 12, mâles, type D, à souder, classe R -
Norme de produit

Ta slovenski standard je istoveten z: EN 3155-040:2007

ICS:

49.060 Š^æ\ æš Ą^•[|b\ æ Aerospace electric
^|\ dā} æ[] !^{\ æš Ąã c^{\ ã equipment and systems

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3155-040

April 2007

ICS 49.060

English Version

**Aerospace series - Electrical contacts used in elements of
connection - Part 040: Contacts, electrical, coaxial, size 12,
male, type D, solder, class R - Product standard**

Série aérospatiale - Contacts électriques utilisés dans les
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Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung
in Verbindungselementen - Teil 040: Elektrische koaxiale
Stiftkontakte, Größe 12, Typ D, zum Löten, Klasse R -
Produktnorm

This European Standard was approved by CEN on 6 January 2006.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 3155-040:2007) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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 October 2007, and conflicting national standards shall be withdrawn at the latest by October 2007.

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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Introduction

The contacts defined by this standard are derived from those of AS 39029/74 and are intermateable with those of AS 39029/73.

1 Scope

This standard specifies the required characteristics, tests and tooling applicable to size 12, male coaxial, electrical contacts, type D, solder, class R, used in elements of connection according to EN 3155-002.

It shall be used together with EN 3155-001.

The associated female contacts are defined in EN 3155-031 and EN 3155-041.

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*, *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.* ¹⁾
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EN 3155-002, *Aerospace series — Electrical contacts used in elements of connection — Part 002: List and utilization of contacts.*

EN 3155-031, *Aerospace series — Electrical contacts used in elements of connection — Part 031: Contacts, electrical, coaxial, size 12, female, type D, crimp, class R — Product standard.* ¹⁾

EN 3155-041, *Aerospace series — Electrical contacts used in elements of connection — Part 041: Contacts, electrical, coaxial, size 12, female, type D, solder, class R — Product standard.*

MIL-I-81969, *Installing and removal tools, connector electrical contact, general specification for.* ²⁾

MIL-PRF-7808L, *Lubricating oil, aircraft turbine engine, synthetic base.* ²⁾

MIL-PRF-7870C, *Lubricating oil, general purpose, low temperature.* ²⁾

MIL-PRF-23699F, *Lubricating oil, aircraft turbine engine, synthetic base, NATO code number O-156.* ²⁾

MIL-PRF-87937D, *Cleaning compound, aerospace equipment.* ²⁾

* All parts quoted in this standard.

1) Published as AECMA Prestandard at the date of publication of this standard.

2) Published by: Department of Defense (DOD), The Pentagon, Washington D.C. 20301, USA.

AS 1241C, *Fire resistant phosphate ester hydraulic fluid for aircraft*.³⁾

AS 31971, *Pin, gage, for socket contact engagement test*.³⁾

AS 39029/73, *Contact, electrical connectors, socket, solder, removable shielded, size 12 (For MIL-C-83723 Series III, MIL-C-26482 Series 2, MIL-C-83733 and DOD-C-83527 connectors)*.³⁾

AS 39029/74, *Contact, electrical connectors, pin, solder, removable shielded, size 12 (For MIL-C-83723 Series III, MIL-C-26482 Series 2, MIL-C-83733 and DOD-C-83527 connectors)*.³⁾

AMS 1424, *Deicing/Anti-icing fluid, aircraft - SAE type 1*.³⁾

J-STD-004, *Requirements for soldering fluxes replaces QQ-S-571*.⁴⁾

TR 6058, *Aerospace series — Cable code identification list*.⁵⁾

3 Terms and definitions

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

4 Required characteristics

4.1 Specific characteristics

Type D contacts are contacts with screening feature, class R corresponds to an operating temperature range from – 65 °C to 150 °C.

4.2 Dimensions and mass

See Figure 1 for dimensions.

Dimensions and tolerances are given in millimetres.

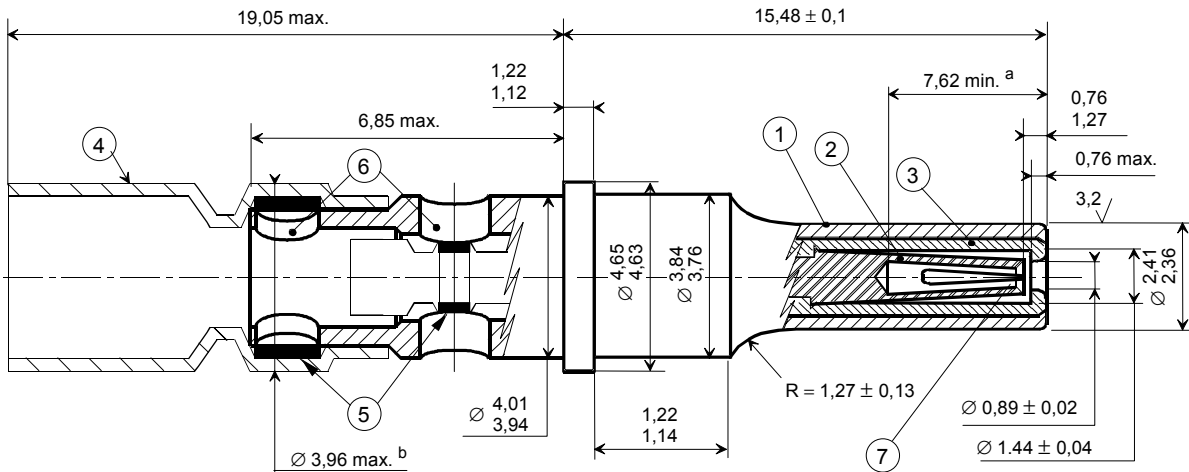
Contact mass: 2,50 g max.

3) Published by: Society of Automotive Engineering (SAE), 400 Commonwealth Drive, Warrendale, PA 15096, USA.

4) Published by: Electronic Industries Alliance (EIA), 2500 Wilson Boulevard, Arlington, Virginia 22201.

5) Published as AECMA Technical Report at the date of publication of this standard.

EN 3155-040:2007 (E)

**Key**

- 1 Male external contact body
- 2 Female central contact body
- 3 Dielectric
- 4 Heat shrinkable tubing
- 5 Solder rings
- 6 Inspection windows
- 7 See Note.
- ^a Depth
- ^b After termination

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NOTE Mates with 0,749/0,711 male contact diameter

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Figure 1

4.3 Marking by colour code

Not applicable

4.4 Material, surface treatment**4.4.1 Material**

Body: Copper alloy

4.4.2 Protective coating

Gold on appropriate undercoat for copper alloy parts

Thickness not specified

4.4.3 Dielectric

ETFE Fluoropolymer or equivalent

4.4.4 Heat shrinkable tubing

Radiation crosslinked polyvinylidene fluoride

4.4.5 Solder rings

Sn63 as per J-STD-004

4.5 Permissible cables

The cables should have dimensions within the values specified in Table 1, in millimetres.

Table 1

Cable diameter		min.	max.
Jacket	A	–	3,60
Shield	B	2,00	2,50
Dielectric	C	0,76	2,10
Conductor	D	0,28	0,66
Permissible cable code according to TR 6058		XE, XY, WL	

4.6 Stripping of cables and wiring method

Dimensions are in millimetres. See Figures 2, 3 and 4.

4.6.1 Assembly instructions

Strip cable as shown on Figures 2 or 3 or 4.

Insert cable into contact until it is fully seated.

Heat contact with appropriate tools as shown on Figure 5 until solder melts and flows and strain relief tubing conforms to cable.

4.6.2 Preparation of coaxial cable

Depending upon dielectric diameter value there are three possibilities.

The central conductor should always be pretinned after stripping.

4.6.2.1 Cable preparation for straight shield

When all diameters conform to Table 1.