



**NSAI**  
Standards

Irish Standard  
I.S. EN 3645-001:2015

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

**I.S. EN 3645-001:2015**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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EUROPEAN STANDARD

**EN 3645-001**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN 3645-001:2013

English Version

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

Série aérospatiale - Connecteurs électriques circulaires, à  
contacts protégés, à accouplement par filetage, à pas  
rapide à trois filets, température d'utilisation 175 °C ou 200  
°C continu - Partie 001 : Spécification technique

Luft- und Raumfahrt - Elektrische Rundsteckverbinder,  
kontaktgeschützt, dreigängige Gewinde-Schnellkupplung,  
Betriebstemperatur 175 °C oder 200 °C konstant - Teil 001:  
Technische Lieferbedingungen

This European Standard was approved by CEN on 14 February 2015.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, 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: Avenue Marnix 17, B-1000 Brussels**

<b>Contents</b>	<b>Page</b>
<b>Foreword.....</b>	<b>3</b>
<b>Introduction .....</b>	<b>4</b>
<b>1 Scope .....</b>	<b>5</b>
<b>2 Normative references .....</b>	<b>5</b>
<b>3 Terms and definitions .....</b>	<b>6</b>
<b>4 Description .....</b>	<b>6</b>
<b>5 Design .....</b>	<b>7</b>
<b>6 Definition drawings and masses.....</b>	<b>8</b>
<b>7 Tests.....</b>	<b>64</b>
<b>8 Quality assurance .....</b>	<b>79</b>
<b>9 Designation and marking .....</b>	<b>95</b>
<b>10 Delivery conditions.....</b>	<b>95</b>
<b>11 Packaging .....</b>	<b>96</b>
<b>12 Storage.....</b>	<b>96</b>

## **Foreword**

This document (EN 3645-001:2015) 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 November 2015, and conflicting national standards shall be withdrawn at the latest by November 2015.

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.

This document supersedes EN 3645-001:2013.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**EN 3645-001:2015 (E)**

## **Introduction**

This family of connectors is derived from MIL-DTL-38999 series III, with which it is intermateable and interchangeable. It is particularly suitable for use in zones of severe environmental conditions on board aircraft, applying EN 2282.

These connectors are distinguishable from MIL-DTL-38999 by:

- A compatibility with size 8 power and quadrax contacts;
- Self-extinguishing materials;
- Compatibility with reduced diameter cables;
- Additional reinforced fuel resistant insert type;
- Additional insert with grounded cavities.

## 1 Scope

This European Standard specifies the general characteristics, the conditions for qualification, acceptance and quality assurance, as well as the test programs and groups for threaded ring coupling circular connectors, fire-resistant, intended for use in a temperature range from – 65 °C to 175 °C continuous or 200 °C continuous according to the classes.

## 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 2267-002, *Aerospace series — Cables, electrical, for general purpose — Operating temperatures between – 55 °C and 260 °C — Part 002: General*

EN 2282, *Aerospace series — Characteristics of aircraft electrical supplies*

EN 2346, *Aerospace series — Fire resistant electrical cables — Dimensions, conductor resistance and mass*

EN 2424, *Aerospace series — Marking of aerospace products*

EN 2591-100 (all parts), *Aerospace series — Elements of electrical and optical connection — Test methods — Part 100: General*

EN 3197, *Aerospace series — Design and installation of aircraft electrical and optical interconnection systems*

EN 3645-002, *Aerospace series — Connectors, electrical, circular, scoop-proof, triple start threaded coupling, operating temperature 175 °C or 200 °C continuous — Part 002: Specification of performance and contact arrangements*

EN 3909, *Aerospace series — Test fluids for electric components and sub-assemblies*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

ISO 68-1, *ISO general purpose screw threads — Basic profile — Part 1: Metric screw threads*

ISO 261, *ISO general-purpose metric screw threads — General plan*

ISO 262, *ISO general-purpose metric screw threads — Selected sizes for screws, bolts and nuts*

ISO 965-2, *ISO general purpose metric screw threads — Tolerances — Part 2: Limit of sizes for general purpose external and internal screw threads — Medium quality*

ISO 4524-1, *Metallic coatings — Test methods for electrodeposited gold and gold alloy coatings — Part 1: Determination of coating thickness*

MIL-DTL-38999K, *Connectors, electrical, circular, miniature, high density, quick disconnect (bayonet, threaded, and breech coupling), environment resistant, removable crimp and hermetic solder contacts, general specification for* <sup>1)</sup>

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1) Published by: DoD National (US) Mil. Department of Defense <http://www.defenselink.mil/>.

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