



BSI Standards Publication

**Aerospace series —  
Connectors, electrical, circular,  
scoop-proof, triple start  
threaded coupling, operating  
temperature 175 °C or 200 °C  
continuous**

Part 007: Protective cover for plug —  
Product standard

**National foreword**

This British Standard is the UK implementation of EN 3645-007:2015. It supersedes BS EN 3645-007:2007 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ACE/6, Aerospace avionic electrical and fibre optic technology.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2015.  
Published by BSI Standards Limited 2015

ISBN 978 0 580 87963 0  
ICS 49.060

**Compliance with a British Standard cannot confer immunity from legal obligations.**

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 April 2015.

**Amendments/corrigenda issued since publication**

Date	Text affected
------	---------------

---

EUROPEAN STANDARD

**EN 3645-007**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2015

ICS 49.060

Supersedes EN 3645-007:2007

English Version

**Aerospace series - Connectors, electrical, circular, scoop-proof, triple start threaded coupling, operating temperature 175 °C or 200 °C continuous - Part 007: Protective cover for plug - Product standard**

Série aérospatiale - Connecteurs électriques circulaires à contacts protégés, à accouplement par filetage à pas rapide à trois filets, températures d'utilisation 175 °C ou 200 °C continu - Partie 007 : Bouchon de vol pour fiche - Norme de produit

Luft- und Raumfahrt - Elektrische Rundsteckverbinder, kontaktgeschützt, dreigängige Gewinde-Schnellkupplung, Betriebstemperatur 175 °C oder 200 °C konstant - Teil 007: Schutzkappe für freien Steckverbinder - Produktnorm

This European Standard was approved by CEN on 5 December 2014.

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>		Page
Foreword.....		3
1	Scope .....	4
2	Normative references .....	4
3	Terms and definitions .....	4
4	Required characteristics .....	5
5	Designation .....	6
6	Marking .....	7
7	Technical specification .....	7

## Foreword

This document (EN 3645-007:2015) 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 October 2015, and conflicting national standards shall be withdrawn at the latest by October 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 3645-007:2007.

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.

## 1 Scope

This European Standard specifies the characteristics of protective covers for plugs in the family of circular, electrical connectors, with triple start threaded coupling.

It applies to models in Table 2.

For plugs, see EN 3645-008, EN 3645-011 and EN 3645-012.

These connectors are derived from and interchangeable with models W, F, K and Z in specification MIL-DTL-38999/32.

## 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 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 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 3645-008, *Aerospace series — Connectors, electrical, circular, scoop-proof, triple start threaded coupling, operating temperature 175 °C or 200 °C continuous — Part 008: Non release plug with grounding ring — Product standard*

EN 3645-011, *Aerospace series — Connectors, electrical, circular, scoop-proof, triple start threaded coupling, operating temperature 175 °C or 200 °C continuous — Part 011: Lanyard release plug with grounding fingers — Type 1 — Product standard*

EN 3645-012, *Aerospace series — Connectors, electrical, circular, scoop-proof, triple start threaded coupling, operating temperature 175 °C or 200 °C continuous — Part 012: Lanyard release plug with grounding fingers — Type 2 — Product standard*

MIL-DTL-38999/32, *Connector, electrical, circular, cover, protective, plug, series III, metric* <sup>1)</sup>

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 3645-001 apply.

---

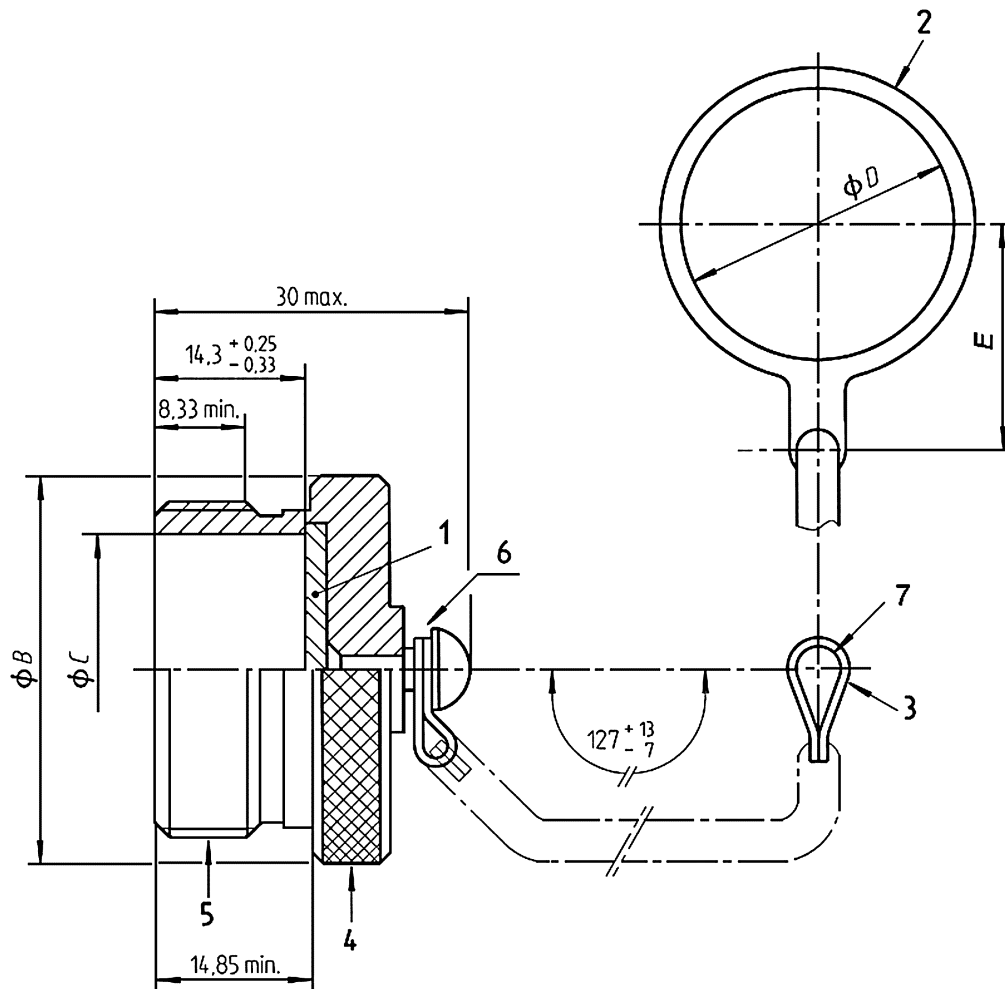
1) Published by: DoD National (US) Mil. Department of Defense. <http://www.defenselink.mil/>

## 4 Required characteristics

### 4.1 Dimensions and mass

See Figure 1 and Table 1.

Dimensions and tolerances are in millimetres.



#### Key

- 1 Sealing gasket shall be bonded or mechanically retained in protective cover
- 2 Attachment type with ring, see Table 4.
- 3 Attachment type with eyelet, see Table 4.
- 4 Milling or knurling
- 5 Thread *A*
- 6 Fastener – Stainless steel (chain or rope shall rotate freely on the fastener)
- 7 Eyelet hole diameter  $4,24^{+0,25}_{-0,13}$

Figure 1 — Plug protective cover

Table 1 — Plug protective cover – Dimensions

Shell size	See note <sup>a</sup>	A thread						B	C	D	E		Mass g max.	
		External thread – Class 2B									Aluminium	Stainless steel		
		External diameter		Diameter on side		Diameter at thread end							Models W, F and Z	Model K
min.	max.	min.	max.	min.	max.	max.	max.	min.	min.	max.				
09	0,0381	15,63	15,83	14,97	15,17	14,05	14,41	23,00	12,50	13,00	14,50	24,00	12	34
11		18,80	19,01	18,14	18,35	17,23	17,58	26,00	15,75	18,00	18,00	20,50	13	36
13		21,98	22,18	21,32	21,52	20,41	20,76	31,00	19,53	20,00	20,00	27,00	14	40
15		25,15	25,36	24,49	24,70	23,58	23,94	33,00	22,71	23,00	18,00	22,50	16	46
17		29,80	30,11	28,99	29,24	27,82	28,28	37,00	25,88	26,00	23,50	30,50	18	52
19	0,0508	31,39	31,69	30,58	30,83	29,41	29,87	40,00	28,55	29,00	25,00	31,50	20	58
21		34,56	34,87	33,75	34,01	32,59	33,05	44,00	31,72	32,00	26,50	33,00	22	64
23		37,74	38,04	36,93	37,18	35,76	36,22	46,00	34,90	34,00	27,50	34,00	24	70
25		40,91	41,22	40,10	40,36	38,94	39,40	50,00	38,07	39,00	30,00	38,00	27	80

<sup>a</sup> Sizes for protected threads: it is permissible to increase the maximum limit of the diameters for these sizes by the value given in this column.

## 4.2 Materials and surface treatment

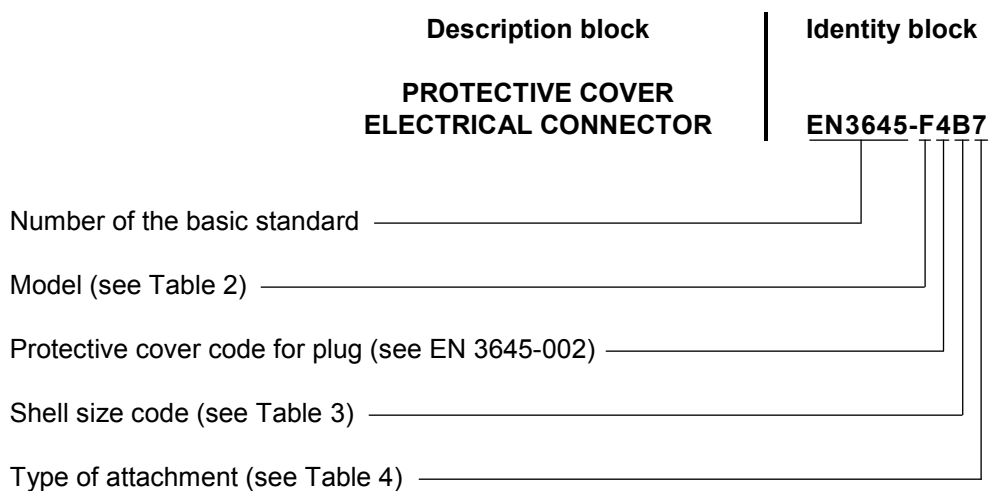
See Table 2.

## 4.3 Electrical, mechanical and climatic characteristics

See EN 3645-002.

## 5 Designation

EXAMPLE



NOTE If necessary, the code I9005 shall be placed between the classification block and the identity block.



**Table 2 — Model coding**

<b>Model</b>	<b>Description</b>
W	Protective cover for plug in cadmium-plated aluminium alloy, olive green – Salt spray resistance 500 h – Maximum operating temperature 175 °C continuous
F	Protective cover for plug in nickel-plated aluminium alloy – Maximum operating temperature 200 °C continuous
K	Protective cover for plug in stainless steel – Maximum operating temperature 200 °C continuous
Z	Protective cover for plug, zinc-nickel plated aluminium alloy – Non-reflective black – Maximum operating temperature 175 °C continuous

**Table 3 — Shell size code**

<b>Shell size</b>	<b>Code</b>
09	A
11	B
13	C
15	D
17	E
19	F
21	G
23	H
25	J

**Table 4 — Type of attachment**

<b>Attachment type</b>	<b>Description</b>
0	Stainless steel chain and eyelet
1	Stainless steel rope PTFE jacket and eyelet
2	Stainless steel rope PTFE jacket and ring
7	Stainless steel chain and ring

## **6 Marking**

According to EN 3645-001.

## **7 Technical specification**

According to EN 3645-001.





# British Standards Institution (BSI)

BSI is the national body responsible for preparing British Standards and other standards-related publications, information and services.

BSI is incorporated by Royal Charter. British Standards and other standardization products are published by BSI Standards Limited.

## About us

We bring together business, industry, government, consumers, innovators and others to shape their combined experience and expertise into standards-based solutions.

The knowledge embodied in our standards has been carefully assembled in a dependable format and refined through our open consultation process. Organizations of all sizes and across all sectors choose standards to help them achieve their goals.

## Information on standards

We can provide you with the knowledge that your organization needs to succeed. Find out more about British Standards by visiting our website at [bsigroup.com/standards](http://bsigroup.com/standards) or contacting our Customer Services team or Knowledge Centre.

## Buying standards

You can buy and download PDF versions of BSI publications, including British and adopted European and international standards, through our website at [bsigroup.com/shop](http://bsigroup.com/shop), where hard copies can also be purchased.

If you need international and foreign standards from other Standards Development Organizations, hard copies can be ordered from our Customer Services team.

## Subscriptions

Our range of subscription services are designed to make using standards easier for you. For further information on our subscription products go to [bsigroup.com/subscriptions](http://bsigroup.com/subscriptions).

With **British Standards Online (BSOL)** you'll have instant access to over 55,000 British and adopted European and international standards from your desktop. It's available 24/7 and is refreshed daily so you'll always be up to date.

You can keep in touch with standards developments and receive substantial discounts on the purchase price of standards, both in single copy and subscription format, by becoming a **BSI Subscribing Member**.

**PLUS** is an updating service exclusive to BSI Subscribing Members. You will automatically receive the latest hard copy of your standards when they're revised or replaced.

To find out more about becoming a BSI Subscribing Member and the benefits of membership, please visit [bsigroup.com/shop](http://bsigroup.com/shop).

With a **Multi-User Network Licence (MUNL)** you are able to host standards publications on your intranet. Licences can cover as few or as many users as you wish. With updates supplied as soon as they're available, you can be sure your documentation is current. For further information, email [bsmusales@bsigroup.com](mailto:bsmusales@bsigroup.com).

## BSI Group Headquarters

389 Chiswick High Road London W4 4AL UK

## Revisions

Our British Standards and other publications are updated by amendment or revision.

We continually improve the quality of our products and services to benefit your business. If you find an inaccuracy or ambiguity within a British Standard or other BSI publication please inform the Knowledge Centre.

## Copyright

All the data, software and documentation set out in all British Standards and other BSI publications are the property of and copyrighted by BSI, or some person or entity that owns copyright in the information used (such as the international standardization bodies) and has formally licensed such information to BSI for commercial publication and use. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI. Details and advice can be obtained from the Copyright & Licensing Department.

## Useful Contacts:

### Customer Services

**Tel:** +44 845 086 9001

**Email (orders):** [orders@bsigroup.com](mailto:orders@bsigroup.com)

**Email (enquiries):** [cservices@bsigroup.com](mailto:cservices@bsigroup.com)

### Subscriptions

**Tel:** +44 845 086 9001

**Email:** [subscriptions@bsigroup.com](mailto:subscriptions@bsigroup.com)

### Knowledge Centre

**Tel:** +44 20 8996 7004

**Email:** [knowledgecentre@bsigroup.com](mailto:knowledgecentre@bsigroup.com)

### Copyright & Licensing

**Tel:** +44 20 8996 7070

**Email:** [copyright@bsigroup.com](mailto:copyright@bsigroup.com)



...making excellence a habit.™