



BSI Standards Publication

**Aerospace series —  
Connectors, electrical,  
rectangular, modular —  
Operating temperature 175 °C  
continuous**

Part 018: Protective cover for all receptacles  
series 2 — Product standard

**National foreword**

This British Standard is the UK implementation of EN 4165-018:2015. It supersedes BS EN 4165-018:2007 which is withdrawn.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.

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Date	Text affected
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EUROPEAN STANDARD

**EN 4165-018**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2015

ICS 49.060

Supersedes EN 4165-018:2007

English Version

**Aerospace series - Connectors, electrical, rectangular, modular -  
Operating temperature 175 °C continuous - Part 018: Protective  
cover for all receptacles series 2 - Product standard**

Série aérospatiale - Connecteurs électriques rectangulaires  
modulaires - Température d'utilisation 175 °C continu -  
Partie 018 : Bouchon de vol pour toutes les embases série  
2 - Norme de produit

Luft- und Raumfahrt - Elektrischer Rechtecksteckverbinder  
in modularer Bauweise - Betriebstemperatur 175 °C  
konstant - Teil 018: Schutzkappe für Steckdose, Serie 2 -  
Produktnorm

This European Standard was approved by CEN on 5 March 2015.

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## **European foreword**

This document (EN 4165-018:2015) 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of an identical text or by endorsement, at the latest by January 2016, and conflicting national standards shall be withdrawn at the latest by January 2016.

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## **1 Scope**

This European Standard defines the protective cover for all receptacles series 2 used in the family of rectangular electrical connectors.

The connector accessory bodies corresponding to those protective covers are defined in EN 4165-004, EN 4165-011 and EN 4165-025.

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

EN 4165-001, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 001: Technical specification*

EN 4165-002, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 002: Specification of performance and contact arrangements*

EN 4165-004, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 004: Stackable mounting receptacle 2 and 4 modules, series 2 — Product standard*

EN 4165-011, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 011: Flange mounting receptacle 2 and 4 modules, series 2 — Product standard.*

EN 4165-025, *Aerospace series — Connectors, electrical, rectangular, modular — Operating temperature 175 °C continuous — Part 025: Module receptacle — Product Standard*

## **3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 4165-001 apply.

## **4 Required characteristics**

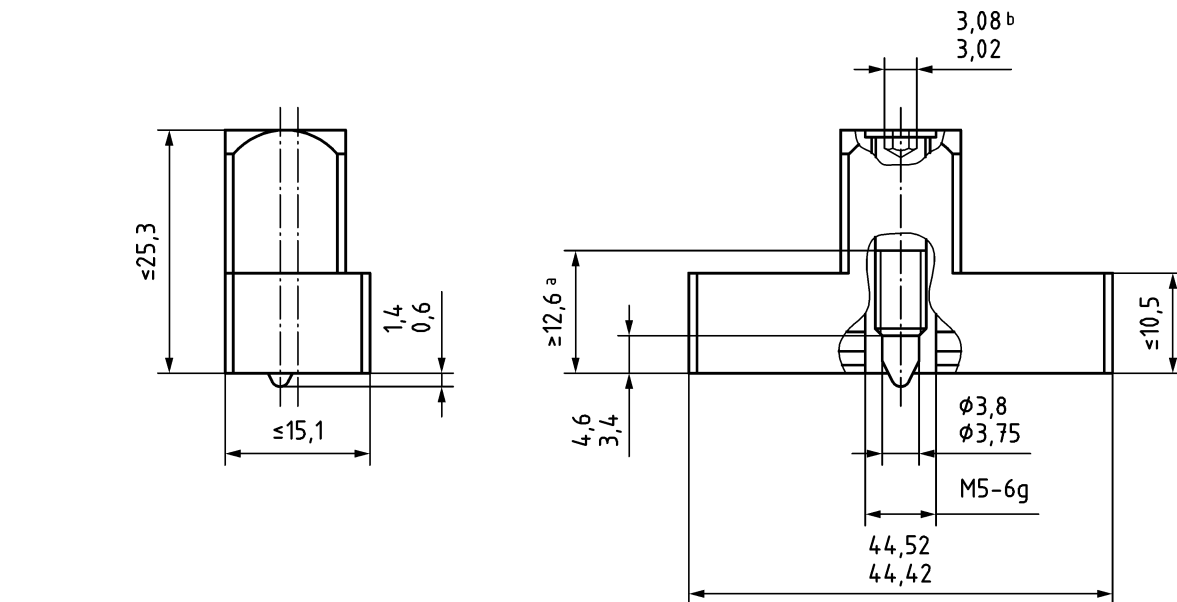
See Figure 1 for 2 modules, Figure 2 for 4 modules and Figure 3 for single module.

## 5 Protective cover

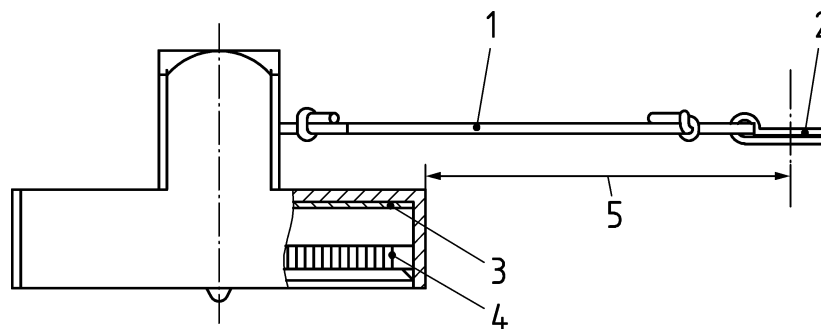
### 5.1 For 2 modules, classes W and F

Mass max. = 18,5 g

Dimensions in millimetres



- <sup>a</sup> active thread
- <sup>b</sup> hexagonal drive



#### Key

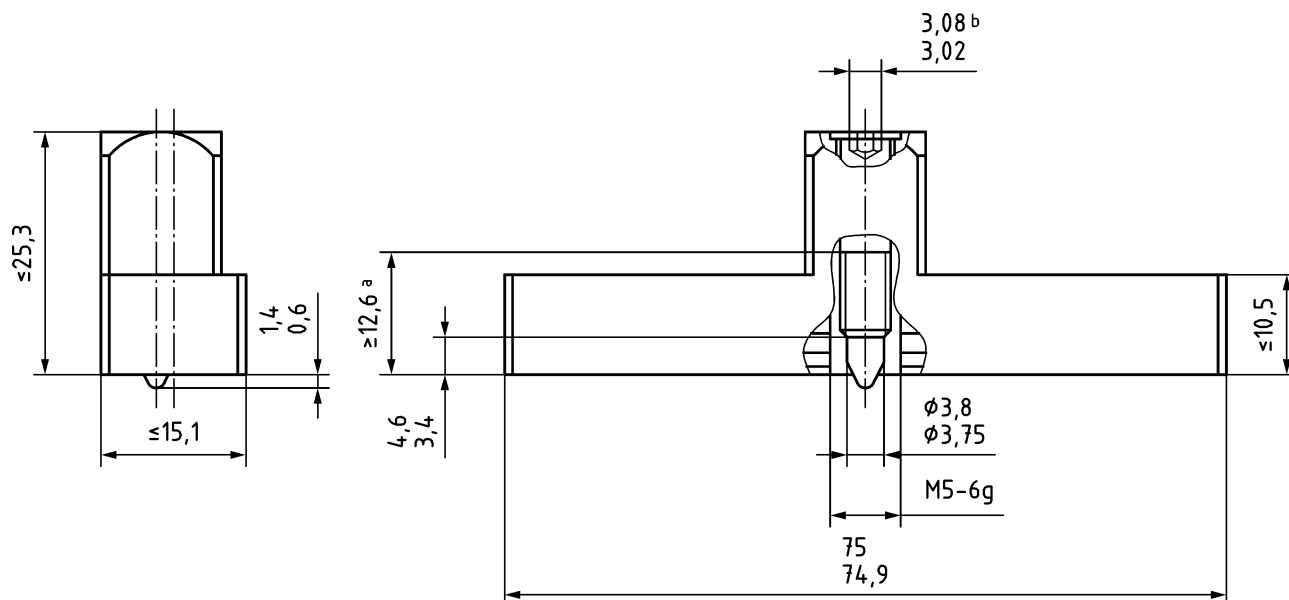
- 1 Unlosable cord
- 2 Eyelet (hole diameter min. = 3,4 mm, hole diameter max. = 4,5 mm)
- 3 Seal
- 4 Shield device
- 5 Cord length

Figure 1 — Protective cover for 2 modules

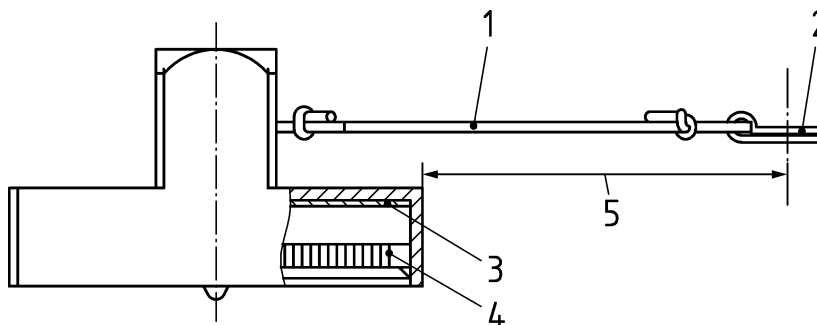
**5.2 For 4 modules, classes W and F**

Mass max. = 22 g

Dimensions in millimetres



- <sup>a</sup> active thread
- <sup>b</sup> hexagonal drive



**Key**

- 1 Unlosable cord
- 2 Eyelet (hole diameter min. = 3,4 mm, hole diameter max. = 4,5 mm)
- 3 Seal
- 4 Shield device
- 5 Cord length

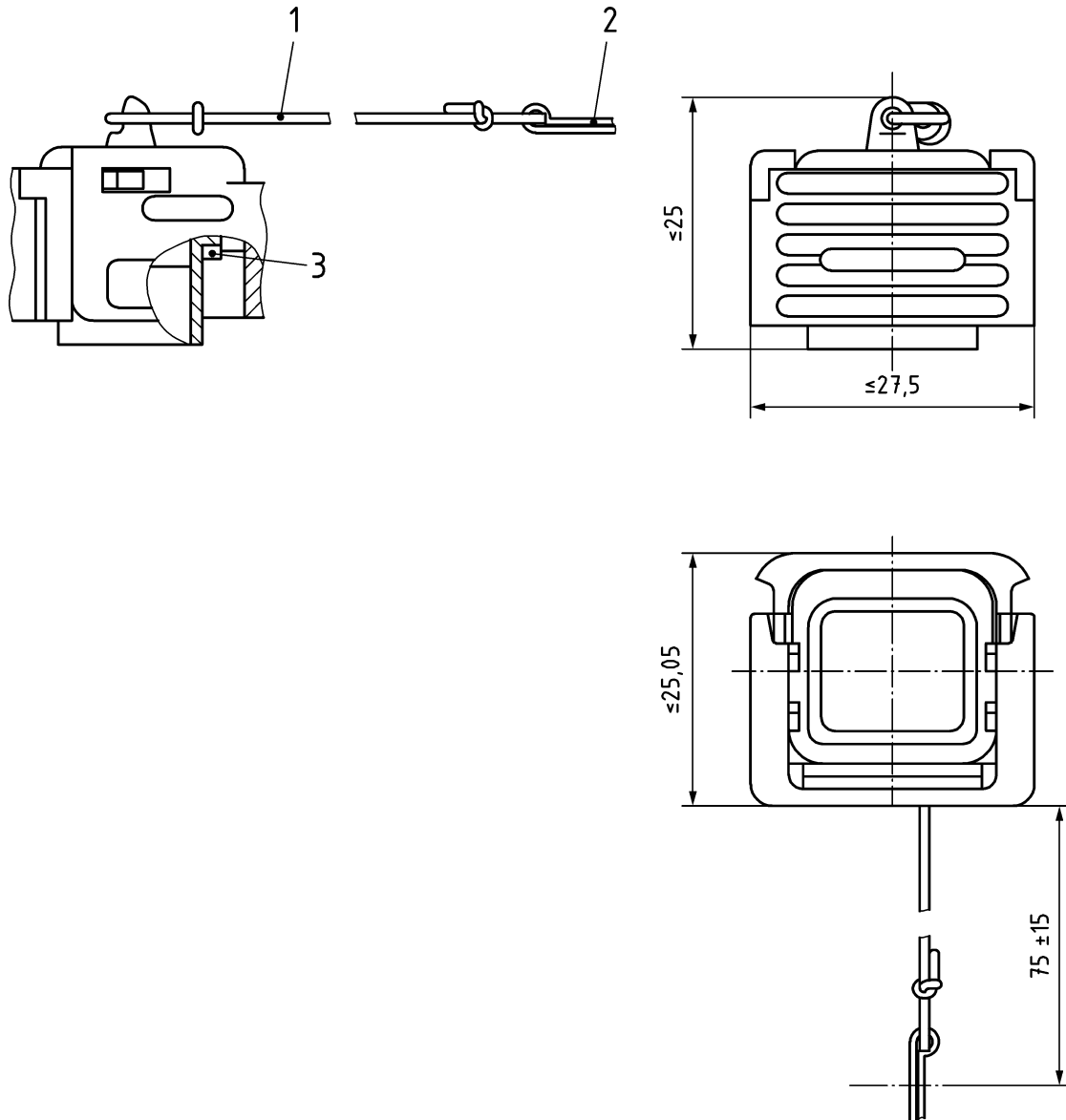
**Figure 2 — Protective cover for 4 modules**



### 5.3 For single module

Mass max. = 11 g

Dimensions in millimetres



#### Key

- 1 Unlosable cord
- 2 Eyelet (hole diameter min. = 3 mm, hole diameter max. = 4,5 mm)
- 3 Seal

Figure 3 — Protective cover for single module

## 5.4 Protective cover for receptacle class

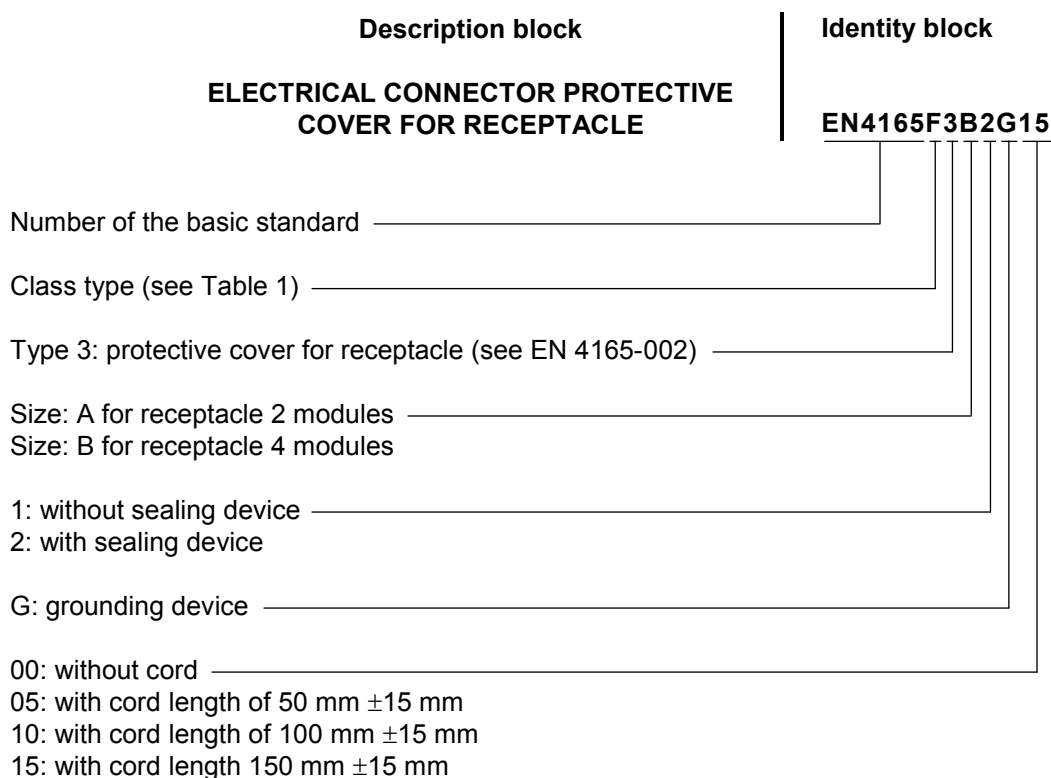
See Table 1.

**Table 1**

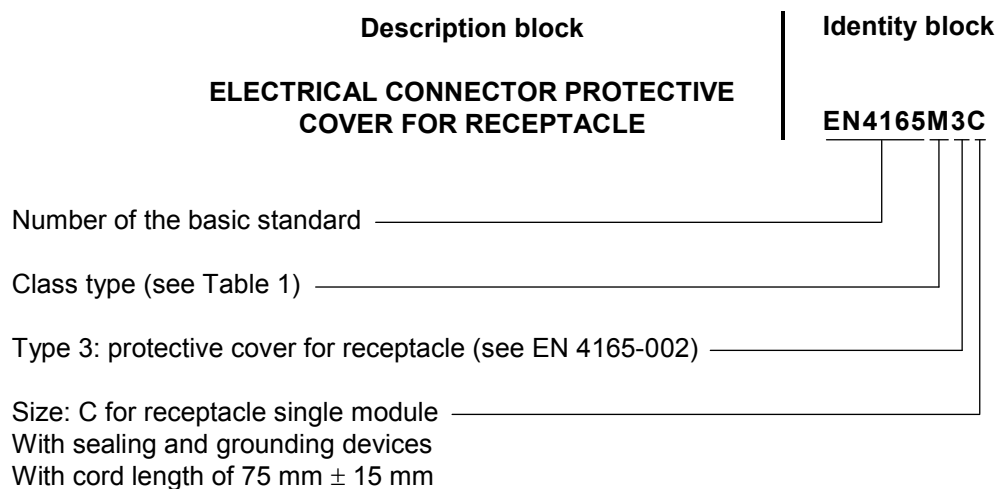
<b>Class</b>	<b>Description</b>
<b>W</b>	Protective cover for receptacle with housing (shell) olive drab cadmium plated, aluminium alloy, 500 hours resistance to salt mist, maximum operating temperature 175 °C continuous
<b>F</b>	Protective cover for receptacle with housing (shell) black nickel plated, aluminium alloy, 96 hours resistance to salt mist, maximum operating temperature 175 °C continuous
<b>M</b>	Protective cover for receptacle with housing (shell) nickel plated, composite, 500 hours resistance to salt mist, maximum operating temperature 175 °C continuous

## 6 Designation

EXAMPLE 1



EXAMPLE 2



## 7 Marking

Unless there are other specific contractual requirements, the marking shall be in accordance with EN 2424, category P.

## 8 Technical specification

See EN 4165-001.





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