



BSI Standards Publication

Aerospace series – Cables, optical, 125 μm diameter cladding

Part 001: Technical specification

National foreword

This British Standard is the UK implementation of EN 4641-001:2018. It supersedes BS EN 4641-001:2009, which is withdrawn.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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Amendments/corrigenda issued since publication

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English Version

Aerospace series - Cables, optical, 125 μm diameter cladding - Part 001: Technical specification

Série aérospatiale - Câbles, optiques, diamètre
extérieur de la gaine optique 125 μm - Partie 001 :
Spécification technique

Luft- und Raumfahrt - Lichtwellenleiterkabel,
Mantelaußendurchmesser 125 μm - Teil 001:
Technische Spezifikation

This European Standard was approved by CEN on 2 March 2018.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 4641-001:2018) 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of an identical text or by endorsement, at the latest by January 2019, and conflicting national standards shall be withdrawn at the latest by January 2019.

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 supersedes EN 4641-001:2009.

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

1 Scope

This European Standard specifies the general characteristics, conditions for qualification, acceptance and quality assurance, as well as the test methods and groups for fibre optic cables with a cladding of 125 µm outside diameter.

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 2591-602, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 602: Optical elements — Variation of attenuation and optical discontinuity*

EN 3745-100 *, *Aerospace series — Fibres and cables, optical, aircraft use — Test methods — Part 100: General*

EN 3838, *Aerospace series — Requirements and tests on user-applied markings on aircraft electrical cables*

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

EN 9133, *Aerospace series — Quality Management Systems — Qualification Procedure for Aerospace Standard Products*

IEC 60793-1-42, *Optical fibres — Part 1-42: Measurement methods and test procedures — Chromatic dispersion*

ISO 2574, *Aircraft — Electrical cables — Identification marking*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 3745-100 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

tight structure cable

structure that allows no movement of the fibre and inner jacket between the inner jacket and the outer strength members

* And all parts quoted in this European Standard.