Fibre optic interconnecting devices and passive components — Performance standard

Part 056-2: Single mode fibre pigtailed style optical fuse for category C — Controlled environment
This British Standard is the UK implementation of EN 61753-056-2:2013. It is identical to IEC 61753-056-2:2012.

The UK participation in its preparation was entrusted by Technical Committee GEL/86, Fibre optics, to Subcommittee GEL/86/2, Fibre optic interconnecting devices and passive components.

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.

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

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Amendments/corrigenda issued since publication

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Performance standard -
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Kontrollierte Umgebung
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Foreword


The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-10-08
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-01-08

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61753-056-2:2012 was approved by CENELEC as a European Standard without any modification.
Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

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INTRODUCTION

1) The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning optical fuse.

IEC takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured the IEC that he/she is willing to negotiate licences either free of charge or under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with IEC. Information may be obtained from:

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22a Wallenberg street,
Tel-Aviv 69719,
Israel

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ISO (www.iso.org/patents) and IEC (http://patents.iec.ch) maintain on-line databases of patents relevant to their standards. Users are encouraged to consult these databases for the most up-to-date information concerning patents.


2) The optical fuse is a passive device, designed to protect equipment and fibre cables from damage due to optical overpower, spikes and surges. The optical fuse produces a controlled, permanent, signal blocking at a predetermined power threshold in an optical fibre transmission line. The optical fuse is wavelength independent over its entire specified spectral range. IEC 60869-1 contains generic information on optical fuses. The optical fuse has a maximum allowed power input $P_{in \, max}$. Beyond this power it is dysfunctional and can let light through. Numerical values for $P_{in \, max}$ are given in Annex B.
1 Scope

This part of IEC 61753 contains the minimum initial test and measurement requirements and severities which a fibre optical fuse satisfies in order for it to be categorised as meeting the requirements of single mode fibre pigtailed style optical fuse used in controlled environments. Optical performance specified in this document relates to in-line type configurations fuses only.

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.


IEC 60869-1, Fibre optic interconnecting devices and passive components – Fibre optic passive power control devices – Part 1: Generic specification

IEC 61300-1, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General and guidance

IEC 61300-2-1, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-1: Tests – Vibration (sinusoidal)

IEC 61300-2-4, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-4: Fibre/cable retention

IEC 61300-2-9, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-9: Tests – Shock

IEC 61300-2-14, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-14: Tests – High optical power

IEC 61300-2-17, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-17: Tests – Cold

IEC 61300-2-18, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-18: Tests – Dry heat – High temperature endurance

1 To be published.