Optical fibre cables - Part 1-24: Generic specification - Basic optical cable test procedures - Electrical test methods

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NATIONAL FOREWORD

See Eesti standard EVS-EN 60794-1-24:2014 sisaldab Euroopa standardi EN 60794-1-24:2014 inglisekeelset teksti.	This Estonian standard EVS-EN 60794-1-24:2014 consists of the English text of the European standard EN 60794-1-24:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 29.08.2014.	Date of Availability of the European standard is 29.08.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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Lichtwellenleiterkabel - Teil 1-24: Fachgrundspezifikation - Grundlegende Prüfverfahren für Lichtwellenleiterkabel - Elektrische Prüfverfahren
(IEC 60794-1-24:2014)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 86A/1591/FDIS, future edition 1 of IEC 60794-1-24, prepared by SC 86A "Fibres and cables" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60794-1-24:2014.

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)	2015-03-17
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-06-17

This document supersedes EN 60794-1-2:2003 (partially).

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 60794-1-24:2014 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60794-1-2:2003 [1)]	NOTE	Harmonized as EN 60794-1-2:2003 [2)] (not modified).
IEC 60794-1-20	NOTE	Harmonized as EN 60794-1-20.

[1)] Withdrawn.

[2)] Superseded by EN 60794-1-22:2012, EN 60794-1-23:2012, EN 60794-1-2:2014, EN 60794-1-20:2014, EN 60794-1-24:2014 and the future EN 60794-1-21.

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OPTICAL FIBRE CABLES –

Part 1-24: Generic specification – Basic optical cable test procedures – Electrical test methods

1 Scope

This part of IEC 60794 applies to optical fibre cables for use with telecommunication equipment and devices employing similar techniques, and to cables having a combination of both optical fibres and electrical conductors.

The object of this standard is to define test procedures to be used in establishing uniform requirements for electrical requirements.

Throughout the standard the wording “optical cable” may also include optical fibre units, microduct fibre units, etc.

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.

Void.

3 Method H1: Short-circuit test (for OPGW and OPAC)

3.1 Object

The short-circuit test is intended to assess the performance of the OPGW (optical ground wire) under typical short-circuit, or the impact on the performance of OPAC (optical attached cable) under short-circuit current on the messenger wire.

3.2 Sample

3.2.1 OPGW testing

3.2.1.1 Two samples test method

A typical arrangement using two test samples is shown in Figure 1.

Two samples, each being at least 10 m long, shall be terminated at each end with suitable fittings. In sample A, one or more thermocouples shall be inserted into holes drilled into the optical unit to monitor the optical unit temperature. In sample B, one or more thermocouples shall be attached to the wires of the OPGW to monitor the OPGW temperature. Fibre optical attenuation shall be measured using a light source and power meter connected to each end of the test fibre of sample B. The test length of the optical fibre shall be a minimum of 100 m (when the sample is shorter than 100 m, concatenation shall be used) .