
Optični kabli - 1-113. del: Splošne specifikacije - Osnovni preskusni postopki za optične kable - Mehanske preskusne metode - Odpornost proti šibrenici, metoda E13

Optical fibre cables - Part 1-113: Generic specification - Basic optical cable test procedures - Mechanical tests methods - Shotgun resistance, Method E13

Sample Document

Ta slovenski standard je istoveten z: **prEN IEC 60794-1-113:2026**

ICS:

19.060	Mehansko preskušanje	Mechanical testing
33.180.10	(Optična) vlakna in kabli	Fibres and cables

oSIST prEN IEC 60794-1-113:2026 **en**

Sample Document

get full document from standards.iteh.ai



86A/2681/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER: IEC 60794-1-113 ED1	
DATE OF CIRCULATION: 2026-04-10	CLOSING DATE FOR VOTING: 2026-07-03
SUPERSEDES DOCUMENTS: 86A/2487/CD, 86A/2677/CC	

IEC SC 86A : FIBRES AND CABLES	
SECRETARIAT: France	SECRETARY: Mr Laurent Gasca
OF INTEREST TO THE FOLLOWING COMMITTEES:	HORIZONTAL FUNCTION(S):
ASPECTS CONCERNED:	
<input checked="" type="checkbox"/> SUBMITTED FOR CENELEC PARALLEL VOTING Attention IEC-CENELEC parallel voting The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting. The CENELEC members are invited to vote through the CENELEC online voting system.	<input type="checkbox"/> NOT SUBMITTED FOR CENELEC PARALLEL VOTING

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Recipients of this document are invited to submit, with their comments, notification of any relevant "In Some Countries" clauses to be included should this proposal proceed. Recipients are reminded that the CDV stage is the final stage for submitting ISC clauses. (SEE [AC/22/2007](#) OR [NEW GUIDANCE DOC](#)).

TITLE:

Optical fibre cables - Part 1-113: Generic specification - Basic optical cable test procedures - Mechanical tests methods – Shotgun resistance, Method E13

PROPOSED STABILITY DATE: 2029

NOTE FROM TC/SC OFFICERS:

Copyright © 2026 International Electrotechnical Commission, IEC. All rights reserved. It is permitted to download this electronic file, to make a copy and to print out the content for the sole purpose of preparing National Committee positions. You may not copy or "mirror" the file or printed version of the document, or any part of it, for any other purpose without permission in writing from IEC.

IEC CDV 60794-1-113 © IEC 2026

CONTENTS

1		
2	FOREWORD	2
3	1 Scope	5
4	2 Normative references	5
5	3 Terms and definitions	5
6	4 General requirements	5
7	5 Method E13: Shotgun resistance	6
8	5.1 General	6
9	5.2 Method E13A: Shotgun test	6
10	5.2.1 Object	6
11	5.2.2 Sample	6
12	5.2.3 Apparatus	6
13	5.2.4 Procedure	7
14	5.2.5 Requirements	7
15	5.2.6 Details that shall be specified	8
16	5.2.7 Details that shall be reported	8
17	5.3 Method E13B: Shotgun simulation	8
18	5.3.1 Object	8
19	5.3.2 Sample	9
20	5.3.3 Apparatus	9
21	5.3.4 Procedure	11
22	5.3.5 Requirements	12
23	5.3.6 Details that shall be specified	12
24	5.3.7 Details that shall be reported	12
25	Annex A (informative) Illustration of typical shotgun damages	13
26	Annex B (informative) Calculation of the mass of the drop weight and height for	
27	method E13B	14
28		
29	Figure 1 – Method E13A – Apparatus for shotgun damage test	7
30	Figure 2 – Method E13B test set-up	10
31	Figure 3 – Drop weight incorporating shot pellet support pin	10
32	Figure 4 – Alternative drop weight and shot pellet support pin	11
33	Figure A.1 – Examples of damages after shotgun resistance test	13
34		
35		
36		
37		

INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRES CABLES –

**Part 1-113: Generic specification – Base optical cable test procedures –
Mechanical test methods – Shotgun resistance, Method E13**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 60794-1-119 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre Optics. It is an International Standard.

This first edition of IEC 60794-1-119 cancels and replaces the Method E13: Shotgun damage from the first edition of IEC 60794-1-21 published in 2015 and Amendment 1 in 2020. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Define more precisely the installation of the cable under test for Method E13A;
- b) Add an optical monitoring to assess the optical continuity of the fibre(s) after the test for both test methods E13A and E13B;
- c) Add a visual inspection of each element of the cable after the completion of the test for both test methods E13A and E13B, together with acceptance criteria;

IEC CDV 60794-1-113 © IEC 2026

- 95 d) Add parts 5.2.7 Details to be reported, and 5.3.7 Details to be reported for both test methods
 96 E13A and E13B.
- 97 e) Add two annexes to exemplify the damages for shotgun resistance tests (Annex A,
 98 informative), and the computation of the mass and drop height of the drop weight for Method
 99 E13B (Annex B informative).

100

101 The text of this International Standard is based on the following documents:

Draft	Report on voting
XX/XX/FDIS	XX/XX/RVD

102

103 Full information on the voting for its approval can be found in the report on voting indicated in
 104 the above table.

105 The language used for the development of this International Standard is.

106 This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in
 107 accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available
 108 at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are
 109 described in greater detail at www.iec.ch/publications.

110 The committee has decided that the contents of this document will remain unchanged until the
 111 stability date indicated on the IEC website under webstore.iec.ch in the data related to the
 112 specific document. At this date, the document will be

- 113 • reconfirmed,
- 114 • withdrawn, or
- 115 • revised.

116

117
118

INTRODUCTION

119 This document contains test methods E13 of IEC 60794-1-21:2015 and IEC 60794-1-
120 21:2015/AMD1:2020, which will be withdrawn. The system for optical fibre test methods have
121 been restructured and renumbered. The mechanical tests contained in IEC 60794-1-21 will now
122 be individually numbered in the IEC 60794-1-1xx series. Each test method is now considered
123 to be an individual document rather than part of a multi-test method compendium. Full cross-
124 reference details are given in IEC 60794-1-2.

125
126

Sample Document

get full document from standards.iteh.ai