

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Optical fibre cables –
Part 1-307: Generic specification – Basic optical cable test procedures – Cable
element test methods – Tube kinking, method G7**

**Câbles à fibres optiques –
Partie 1-307: Spécification générique – Procédures fondamentales d’essai des
câbles optiques – Méthodes d’essais des éléments de câble – Pliure du tube,
méthode G7**





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IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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CONTENTS

FOREWORD.....	3
INTRODUCTION	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	6
4 General requirements.....	6
5 Method G7: Tube kinking.....	6
5.1 Object	6
5.2 Method G7A.....	6
5.2.1 Sample	7
5.2.2 Apparatus	7
5.2.3 Procedure	8
5.2.4 Requirements	8
5.2.5 Details to be specified	8
5.2.6 Details to be reported.....	8
5.3 Method G7B.....	9
5.3.1 Object.....	9
5.3.2 Sample	9
5.3.3 Apparatus	9
5.3.4 Procedure	10
5.3.5 Requirements	11
5.3.6 Details to be specified	11
5.3.7 Details to be reported.....	11
Bibliography.....	12
Figure 1 – Tube kinking test set-up method G7A.....	7
Figure 2 – Tube kinking test set-up method G7B.....	10
Figure 3 – Schematic representation of tube movement during tube kinking test set-up method G7B.....	11
Table 1 – Recommended parameters for the tube kinking test.....	8

INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

**Part 1-307: Generic specification – Basic optical cable test procedures –
Cable element test methods – Tube kinking, method G7**

FOREWORD

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IEC 60794-1-307 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics. It is an International Standard.

This first edition partially cancels and replaces the second edition of IEC 60794-1-23 published in 2019. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 60794-1-23:2019:

- a) renumbering of the existing test method G7 as G7A;
- b) addition of test parameter L and calculated loop diameter D in Table 1 for method G7A;
- c) addition of a new test procedure for tubes routed within installation devices and numbering it as G7B.

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

Draft	Report on voting
86A/2537/FDIS	86A/2548/RVD

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

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

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

A list of all parts in the IEC 60794 series, published under the general title *Optical fibre cables*, can be found on the IEC website.

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

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

This document contains method G7 of IEC 60794-1-23:2019, which will be withdrawn. The system for optical fibre test methods has been restructured and renumbered.

The optical cable element test methods contained in IEC 60794-1-23:2019 will now be individually numbered in the IEC 60794-1-3xx series. Each test method is now considered to be an individual document rather than part of a multi-test method compendium. Full cross-reference details are given in IEC 60794-1-2.

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OPTICAL FIBRE CABLES –

Part 1-307: Generic specification – Basic optical cable test procedures – Cable element test methods – Tube kinking, method G7

1 Scope

This part of IEC 60794 describes test procedures used in establishing uniform requirements of tubes for the mechanical property kinking.

This document 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.

Throughout the document, the wording "optical cable" can also include optical fibre units, microduct fibre units, etc.

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.

IEC 60794-1-2, *Optical fibre cables – Part 1-2: Generic specification – Basic optical cable test procedures – General guidance*

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

4 General requirements

IEC 60794-1-2 is the reference guide to test methods of all types. It shall be considered for general requirements and definitions.

5 Method G7: Tube kinking

5.1 Object

The purpose of this test is to determine the ability of tubes containing optical fibres to withstand mechanical stresses encountered during cable installation and splicing. The test is carried out on tubes taken from an optical cable. The goal is to determine if the tube shows no kink when coiled in a storage area.