

STN	Optické káble Časť 1-124: Kmeňová špecifikácia Základné skúšobné postupy pre optické káble Mechanické skúšobné metódy Skúška inštalovania mikrotrubičkovej kabeláže, metóda E24	STN EN IEC 60794-1-124 35 9223
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Optical fibre cables - Part 1-124: Generic specification - Basic optical cable test procedures - Mechanical tests methods - Installation test for microduct cabling, Method E24

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

**Optical fibre cables - Part 1-124: Generic specification - Basic
optical cable test procedures - Mechanical tests methods -
Installation test for microduct cabling, Method E24
(IEC 60794-1-124:2025)**

Câbles à fibres optiques - Partie 1-124: Spécification
générique - Procédures fondamentales d'essais des câbles
optiques - Méthodes d'essais mécaniques - Essai
d'installation pour un câblage en microconduits, Méthode
E24
(IEC 60794-1-124:2025)

Lichtwellenleiterkabel - Teil 1-124: Fachgrundspezifikation -
Grundlegende Prüfverfahren für Lichtwellenleiterkabel -
Mechanische Prüfverfahren - Installationsprüfung für
Mikrokabel, Verfahren E24
(IEC 60794-1-124:2025)

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EN IEC 60794-1-124:2025 (E)**European foreword**

The text of document 86A/2552/FDIS, future edition 1 of IEC 60794-1-124, 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 IEC 60794-1-124:2025.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60794-1-1	-	Optical fibre cables - Part 1-1: Generic specification - General	EN IEC 60794-1-1	-
IEC 60794-1-21	-	Optical fibre cables - Part 1-21: Generic specification - Basic optical cable test procedures - Mechanical tests methods	EN 60794-1-21	-



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibre cables –

Part 1-124: Generic specification – Basic optical cable test procedures –

Mechanical tests methods – Installation test for microduct cabling, Method E24

Câbles à fibres optiques –

Partie 1-124: Spécification générique – Procédures fondamentales d'essais des câbles optiques – Méthodes d'essais mécaniques – Essai d'installation pour un câblage en microconduits, Méthode E24

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

**Part 1-124: Generic specification – Basic optical cable test procedures –
Mechanical tests methods – Installation test for microduct cabling,
Method E24**

FOREWORD

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IEC 60794-1-124 has been prepared by subcommittee 86A: Fibres and cables: of IEC technical committee 86: Fibre optics. It is an International Standard.

This first edition cancels and replaces Method E24 of the first edition of IEC 60794-1-21 published in 2015 and Amendment 1:2020. This edition constitutes a technical revision.

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

- a) addition of a blowing route (see Figure 2) which includes a change in the direction of curvature. This was achieved by introducing a third mandrel;
- b) addition of Annex A (Figure A.1 which shows a practical implementation of the blowing route;
- c) addition of Annex B which describes the so-called Crash Test;
- d) addition of Annex C which describes a cable blowing out procedure.

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

Draft	Report on voting
86A/2552/FDIS	86A/2577/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*, 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

The national working committee DKE/UK 412.6 "*Optical fibres and optical fiber cables*" of the DKE German Commission for Electrical, Electronic & Information Technologies (www.dke.de) is responsible for this document.

This document was prepared in cooperation with DKE/UK 412.6 "*Optical fibres and optical fibre cables*".

A VDE "application rule" was published in Germany [1]¹.

Two different blowing routes are presented in this document which can be used to characterize the blowing performance of microduct cables. The first track (Figure 1, Method A) is identical with the track which has been used in IEC 60794-21 Method E24 for many years. Even though the creation of the track seemed to be very simple, it was not used by many facilities because of its excessive length. A 100 m length track requires a lot of space which is not usually available in facilities. It also seemed to be over simplified because only bends of the same curvature were included. The second track (Figure 2, Method B) was designed to include the end-users' requirements which were to have a more compact set-up (only 45 m between mandrel centres) and to have a more realistic route including curvature changes in bends.

¹ Numbers in square brackets refer to the Bibliography

OPTICAL FIBRE CABLES –

Part 1-124: Generic specification – Basic optical cable test procedures – Mechanical tests methods – Installation test for microduct cabling, Method E24

1 Scope

This part of IEC 60794 contains test procedures, referred to as Method E24, for evaluating the behaviour of microduct cabling (microduct optical cable, fibre unit or hybrid cable etc.) when blown into a microduct or protected microduct.

This document describes two blowing track layouts: Method A consists of two mandrels and two long straight sections in between (same curvature). Method B consists of 3 mandrels. The middle mandrel forces the cable to experience both left- and right-hand bending, which is a feature of any realistic blowing route.

In addition, this document describes an optional procedure to check the capability of blowing out an installed cable.

2 Normative references

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IEC 60794-1-21, *Optical fibre cables – Part 1-21: Generic specification – Basic optical cable test procedures – Mechanical test methods*

IEC 60794-1-1, *Optical fibre cables – Part 1-1: Generic specification – General*

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