



SLOVENSKI STANDARD
SIST EN 60794-5-20:2014

01-september-2014

Optični kabli - 5-20. del: Skupinska specifikacija za mikrokanale za zunanjo uporabo za optične enote, mikrokanale in zaščitene mikrokanale za vgradnjo z vpihovanjem (IEC 60794-5-20:2014)

Optical fibre cables - Part 5-20: Family specification for outdoor microduct fibre units, microducts and protected microducts for installation by blowing

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Ta slovenski standard je istoveten z: **EN 60794-5-20:2014**

ICS:

33.180.10 (Optična) vlakna in kabli Fibres and cables

SIST EN 60794-5-20:2014 en

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EUROPEAN STANDARD

EN 60794-5-20

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2014

ICS 33.180.01; 33.180.10

English Version

Optical fibre cables - Part 5-20: Family specification - Outdoor
microduct fibre units, microducts and protected microducts for
installation by blowing
(IEC 60794-5-20:2014)

To be completed
(CEI 60794-5-20:2014)

Lichtwellenleiterkabel - Teil 5-20: Familienspezifikation für
Mikrorohr-LWL-Einheiten, Mikrorohre und geschützte
Mikrorohre zur Installation durch Einblasen für die
Anwendung im Freien
(IEC 60794-5-20:2014)

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Foreword

The text of document 86A/1497/CDV, future edition 1 of IEC 60794-5-20, 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 60794-5-20:2014.

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) 2014-12-21
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-03-21

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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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60304	-	Standard colours for insulation for low-frequency cables and wires	HD 402 S2	-
IEC 60793-1-40 (mod)	-	Optical fibres - Part 1-40: Measurement methods and test procedures - Attenuation	EN 60793-1-40	-
IEC 60793-1-53	-	Optical fibres - Part 1-53: Measurement methods and test procedures - Water immersion tests	EN 60793-1-53	-
IEC 60793-2-10	-	Optical fibres - Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres	EN 60793-2-10	-
IEC 60793-2-50	-	Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres	EN 60793-2-50	-
IEC 60794-1-1	-	Optical fibre cables - Part 1-1: Generic specification - General	EN 60794-1-1	-
IEC 60794-1-2	-	Optical fibre cables - Part 1-2: Generic specification - Cross reference table for optical cable test procedures	EN 60794-1-2	-
IEC 60794-1-21	-	Optical fibre cables - Part 1-21: Generic specification - Basic optical cable test procedures - Mechanical tests methods	EN 60794-1-21	-
IEC 60794-1-22	-	Optical fibre cables - Part 1-22: Generic specification - Basic optical cable test procedures - Environmental test methods	EN 60794-1-22	-
IEC 60794-3	2001	Optical fibre cables - Part 3: Sectional specification - Outdoor cables	EN 60794-3	2002
IEC 60794-5	-	Optical fibre cables - Part 5: Sectional specification - Microduct cabling for installation by blowing	EN 60794-5	-
IEC 60794-5-10	-	Optical fibre cables - Part 5-10: Family specification - Outdoor microduct optical fibre cables, microducts and protected microducts for installation by blowing	EN 60794-5-10	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60811-202	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 202: General tests - Measurement of thickness of non-metallic sheath	EN 60811-202	-
IEC 60811-203	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 203: General tests - Measurement of overall dimensions	EN 60811-203	-
IEC 60811-501	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 501: Mechanical tests - Tests for determining the mechanical properties of insulating and sheathing compounds	EN 60811-501	-
IEC 60811-601	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 601: Physical tests - Measurement of the drop point of filling compounds	EN 60811-601	-
IEC 60811-602	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 602: Physical tests - Separation of oil in filling compounds	EN 60811-602	-
IEC 60811-604	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 604: Physical tests - Measurement of absence of corrosive components in filling compounds	EN 60811-604	-
ISO/IEC 11801	-	Information technology - Generic cabling for customer premises	EN ISO/IEC 11801	-

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IEC 60794-5-20

Edition 1.0 2014-02

INTERNATIONAL STANDARD



Optical fibre cables –
Part 5-20: Family specification – Outdoor microduct fibre units, microducts and protected microducts for installation by blowing

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE



ICS 33.180.01, 33.180.10

ISBN 978-2-8322-1420-6

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CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references	6
3 Symbols	7
4 General requirements	8
4.1 Construction	8
4.1.1 General	8
4.1.2 Microduct fibre units	9
4.1.3 Microducts	9
4.1.4 Protected microducts	9
4.1.5 Microduct fittings	9
4.1.6 Microduct hardware	10
4.2 Optical fibres	10
4.3 Installation performance tests	10
4.3.1 Installation conditions	10
4.3.2 Tests applicable	11
4.3.3 Mechanical and environmental tests	11
5 Microduct fibre unit	11
5.1 Tests applicable.....	11
5.2 Family requirements and test conditions for microduct fibre unit tests	12
5.3 Tensile performance	12
5.4 Crush.....	12
5.5 Repeated bending.....	13
5.6 Torsion	13
5.7 Kink	13
5.8 Bend.....	13
5.9 Temperature cycling	13
5.10 Ageing	14
5.11 Water immersion.....	14
5.12 Buffer removal	14
6 Microduct	14
6.1 Tests applicable.....	14
6.2 Tensile performance	15
6.3 Crush.....	15
6.4 Impact	16
6.5 Repeated bending.....	16
6.6 Torsion	16
6.7 Kink	16
6.8 Bend.....	16
6.9 Microduct route verification test	17
6.10 Microduct pressure withstand.....	17
6.11 Ageing	17
7 Protected microducts	17
7.1 Tests applicable.....	17
7.2 Tensile performance	18
7.3 Crush.....	18

7.4	Impact	19
7.5	Repeated bending.....	19
7.6	Kink	19
7.7	Bend.....	19
7.8	Microduct route verification test	19
7.9	Microduct pressure withstand.....	20
7.10	Ageing	20
Annex A	(informative) Examples of microduct fibre units, microducts, and protected microducts.....	21
Annex B	(informative) Product descriptions (blank detail specification and minimum requirements)	22
Annex C	(normative) Product constructions	25
Annex D	(normative) Transmission requirements	28
D.1	Attenuation of cabled fibre	28
D.2	Fibre bandwidth requirements	29
Annex E	(normative) IEC 60794-1-21 Method Exx – Microduct inner clearance test	30
E.1	Object.....	30
E.2	General.....	30
E.3	Sample	30
E.4	Test equipment.....	30
E.5	Procedure	30
E.6	Requirements	30
E.7	Details to be recorded.....	31
Figure A.1	Protected microducts, tight package	21
Figure A.2	Microduct fibre units	21
Table 1	– Tests applicable for installation performance.....	11
Table 2	– Tests applicable for mechanical and environmental performance of microduct fibre unit	11
Table 3	– Tests applicable for mechanical and environmental performance of microduct	15
Table 4	– Tests applicable for mechanical and environmental performance of protected microduct	18
Table B.1	– Microduct fibre unit description	22
Table B.2	– Microduct description	23
Table B.3	– Protected microduct description	24
Table C.1	– Typical microduct fibre unit construction	25
Table C.2	– Microduct construction	26
Table C.3	– Protected microduct construction	27
Table D.1	– Multimode maximum cable attenuation coefficient (dB/km)	28
Table D.2	– Single-mode maximum cable attenuation coefficient (dB/km) – Premises cabling applications	28
Table D.3	– Single-mode maximum cable attenuation coefficient (dB/km) – All other applications	29
Table D.4	– Minimum multimode fibre bandwidth (MHz×km)	29

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OPTICAL FIBRE CABLES –

**Part 5-20: Family specification –
Outdoor microduct fibre units, microducts and
protected microducts for installation by blowing**

FOREWORD

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International Standard IEC 60794-5-20 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

The text of this standard is based on the following documents:

CDV	Report on voting
86A/1497/CDV	86A/1543/RVC

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of 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 publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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OPTICAL FIBRE CABLES –

Part 5-20: Family specification – Outdoor microduct fibre units, microducts and protected microducts for installation by blowing

1 Scope

This part of IEC 60794 is a family specification that covers outdoor microduct fibre units and corresponding microducts and protected microducts for installation by blowing. The protected microducts are intended for duct, directly buried or lashed applications.

Microduct fibre units differ from microduct optical fibre cables (see IEC 60794-5-10) in that they provide less protection to the fibres that they contain. Specifically, microduct fibre units rely on the structure of the microduct, protected microduct or appropriate housing to support installation and to provide additional mechanical protection for the optical fibre over the lifetime of the product.

Systems built with components covered by this standard are subject to the requirements of sectional specification IEC 60794-5 where applicable.

Annex A gives examples of microduct optical fibre units and microducts.

Annex B describes a blank detail specification for outdoor microduct fibre units and the associated microducts and incorporates some minimum requirements. Detail product specifications may be prepared on the basis of this family specification using Annex B as a guide. Annex C provides normative product constructions for microduct optical fibre units, microducts and protected microducts.

The parameters specified in this standard may be affected by measurement uncertainty arising either from measurement errors or calibration errors due to lack of suitable standards. Acceptance criteria should be interpreted with respect to this consideration.

The number of fibres tested is intended to be representative of the microduct fibre unit design and should be agreed between the customer and supplier.

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 60304, *Standard colours for insulation for low-frequency cables and wires*

IEC 60793-1-40, *Optical fibres – Part 1-40: Measurement methods and test procedures – Attenuation*

IEC 60793-1-53, *Optical fibres – Part 1-53: Measurement methods and test procedures – Water immersion*

IEC 60793-2-10, *Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres*