

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

मसौदा भारतीय मानक
प्रकाशिक तंतु केबल

भाग 2 इनडोर प्रकाशिक तंतु केबल्स
अनुभाग 10 सिंप्लेक्स एवं डुपलेक्स केबल्स के लिए परिवारिय विशिष्टि
(पहला पुनरीक्षण)

Draft Indian Standard
Optical Fibre Cables

Part 2 Indoor Optical Fibre Cables
Section 10 Family specification for
simplex and duplex cables
(First Revision)

ICS 33.180.10

Fibre Optics, Fibres, Cables And Devices
Sectional Committee, LITD 11

Last Date for Comments:
25th October 2023

NATIONAL FOREWORD

This draft Indian Standard (Part 1/Sec 2) (*First Revision*) which is identical with IEC 60794-1-12: 2023 “Optical fibre cables –Part 1-2: Generic specification – Basic optical cable test procedures – General guidance’ issued by the International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendation of Fibre Optics, Fibres, Cables And Devices Sectional Committee and approval of the Electronics and Information Technology Division Council.

This standard was originally published in 2018 and was identical to IEC 60794-2-10: 2011. The first revision of this standard has been undertaken to align it with the latest version IEC 60794-2-10: 2023

The text of IEC Standard may be approved as suitable for publication as an Indian Standard without deviations. Certain terminology and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’, and;
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted draft standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:-

<i>International Standards</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
IEC 60304 Standard colours for insulation for low-frequency cables and wires	IS 9938 : 1981 Recommended colours for PVC insulation for LF wires and cables	Technically Equivalent with IEC 60304: 1978
IEC 60793-1-20 Optical fibres – Part 1-20: Measurement methods and test procedures – Fibre geometry	IS/IEC 60793-1-20:2014 Optical fibres Part 1 Measurement methods and test procedures , Section 20 Fibre geometry	Identical
IEC 60793-1-21 Optical fibres – Part 1-21: Measurement methods and test procedures – Coating geometry	IS/IEC 60793-1-21: 2001 Optical fibres Part 1 Measurements methods and test procedures, Section 21 Coating geometry	-do-
IEC 60793-1-40 Optical fibres – Part 1-40: Attenuation measurement methods	IS/IEC 60793-1-40: 2001 Optical Fibres Part 1 Measurement Methods and Test Procedures Section 40 Attenuation measurement methods	-do-
IEC 60793-1-44 Optical fibres – Part 1-44: Measurement methods and test procedures – Cutoff wavelength	IS/IEC 60793-1-44: 2011 Optical Fibres Part 1 Measurement Methods and Test Procedures Section 44 Cut-Off Wavelength	-do-

IEC 60793-2-50 Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres	IS/IEC 60793-2-50: 2018 Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres (Doc No. LITD 11 (23459))	Identical
IEC 60794-1-1: 2022 Optical fibre cables – Generic specification – General	IS/IEC 60794-1-1: 2023 Optical Fibre Cables Part 1 Generic Specification Section 1 General (Second Revision) (Under Wide Circulation Doc. LITD 11 (23468))	-do-
IEC 60794-1-2 Optical fibre cables – Part 1-2: Generic specification – Basic optical cable test procedures – General guidance	IS/IEC 60794-1-2: 2021 Optical fibre cables – art 1 Generic specification Section 2 Basic optical cable test procedures General guidance (Under Wide Circulation Doc. LITD 11 (23469))	-do-
IEC 60794-2:2017 Optical fibre cables – Part 2: Indoor cables – Sectional specification	IS/IEC 60794-2:2017 Optical fibre cables Part 2 Indoor cables Sectional specification	-do-

The technical committee has reviewed the provisions of the following International Standard referred in this adopted draft standard and has decided that it is acceptable for use in conjunction with this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

<i>International Standard</i>	<i>Title</i>
IEC 60793-2	Optical fibres – Part 2: Product specifications – General
IEC 60793-2-10	Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres
IEC 60793-2-40	Optical fibres – Part 2-40: Product specifications – Sectional specification for category A4 multimode fibres
IEC 60794-1-21:2015	Optical fibre cables – Part 1-21: Generic specification – Basic optical cable test procedures – Mechanical tests methods
IEC 60794-1-22:2017	Optical fibre cables – Part 1-22: Generic specification – Basic optical cable test procedures – Environmental test methods
IEC 60794-1-23:2019	Optical fibre cables – Part 1-23: Generic specification – Basic optical cable test procedures – Cable element test methods

IEC 60794-1-24:2014	Optical fibre cables – Part 1-24: Generic specification – Basic optical cable test procedures – Electrical test methods
IEC 60811-201	Electric and optical fibre cables – Test methods for non-metallic materials – Part 201: General tests – Measurement of insulation thickness
IEC 60811-203	Electric and optical fibre cables – Test methods for non-metallic materials – Part 203: General tests – Measurement of overall dimensions

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2: 2022 ‘Rules for rounding off numerical values (*revised*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

SCOPE OF IEC 60794-2-10: 2023

This part of IEC 60794 is a family specification that covers simplex and duplex optical fibre cables for indoor use. The requirements of IEC 60794-2 are applicable to cables covered by this document.

For cables intended for installation in industrial applications specified in ISO/IEC 11801-1, MICE specifications can be additionally required (see Clause B.2).

NOTE– The Technical content of this document has not been enclosed as these are identical with the corresponding IEC Standard. For details please refer IEC 60794-2-10: 2023 or kindly contact.

Head (Electronics & IT Department)
Bureau of Indian Standards 9,
B.S. Zafar Marg, New Delhi-110002
Email: hlitd@bis.gov.in/ litd@bis.gov.in,
Telefax: 011-23237093