



BSI Standards Publication

**Fibre optic interconnecting
devices and passive
components — Ferrule
assembly and fusion splicer
interface dimensions for a
fusion splice on connector**

National foreword

This Published Document is the UK implementation of IEC/TS 62965:2016.

The UK participation in its preparation was entrusted by Technical Committee GEL/86, Fibre optics, to Subcommittee GEL/86/2, Fibre optic interconnecting devices and passive components.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2016.
Published by BSI Standards Limited 2016

ISBN 978 0 580 90947 4
ICS 33.180.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 November 2016.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------



TECHNICAL SPECIFICATION

SPECIFICATION TECHNIQUE

**Fibre optic interconnecting devices and passive components –
Ferrule assembly and fusion splicer interface dimensions for a fusion splice on
connector**

**Dispositifs d'interconnexion et composants passifs à fibres optiques –
Dimensions de la fêrue équipée et de l'interface de l'épissureur par fusion
relatives à une épissure par fusion sur un connecteur**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 33.180.20

ISBN 978-2-8322-3699-4

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD 3

1 Scope 5

2 Normative references 5

3 Terms and definitions 5

4 Description 6

5 Interfaces 6

 5.1 General 6

 5.2 Dimensions of the ferrule assembly 6

 5.3 Fusion splicer interface 7

Annex A (informative) An example of a universal holder interface 8

Bibliography 10

Figure 1 – Ferrule assembly dimensions 6

Figure 2 – Fusion splicer interface 7

Figure A.1 – An example of a universal holder interface 8

Table 1 – Dimensions for a 2,5 mm diameter cylindrical ferrule assembly 6

Table 2 – Dimensions for a 1,25 mm diameter cylindrical ferrule assembly 7

Table 3 – Dimensions for the fusion splicer interface 7

Table A.1 – Dimensions for the universal holder example interface for a ferrule assembly with a 2,5 mm diameter cylindrical ferrule 9

Table A.2 – Dimensions for the universal holder example interface for a ferrule assembly with a 1,25 mm diameter cylindrical ferrule 9

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES
AND PASSIVE COMPONENTS –****Ferrule assembly and fusion splicer interface
dimensions for a fusion splice on connector**

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 the 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, issue 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) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

The main task of IEC technical committees is to prepare International Standards. In exceptional circumstances, a technical committee may propose the publication of a technical specification when

- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62965, which is a Technical Specification, has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

The text of this Technical Specification is based on the following documents:

Enquiry draft	Report on voting
86B/3971/DTS	86B/3986/RVC

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

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

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

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS –

Ferrule assembly and fusion splicer interface dimensions for a fusion splice on connector

1 Scope

IEC TS 62965, which is a Technical Specification, specifies a minimum set of dimensional requirements for fusion splice on connectors (FSOCs) ferrule assemblies and the interface dimensions of splicing tools to ensure that a compliant ferrule assembly is compatible with a compliant fusion splicer. This fusion splicer interface also provides an example of the dimensional requirements for a universal holder, into which an FSOC can be mounted. This fusion splicer interface applies to FSOCs with a cylindrical ferrule of 2,5 mm diameter or 1,25 mm diameter.

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.

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

3.1

ferrule assembly

component of an FSOC, which consists of a factory polished cylindrical ferrule, a flange and a pre-installed fibre fixed to the ferrule

3.2

fusion splice on connector

FSOC

optical connector which can be installed in the field by fusion splicing the pre-installed fibre of the ferrule assembly onto the fibre to be terminated

3.3

pre-installed fibre

portion of optical fibre where one end is fixed to the ferrule and factory polished with the endface of the ferrule, and the another end extends out of the flange and has a cleaved endface