

INTERNATIONAL STANDARD

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**Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces –
Part 35: Type LSHE connector family for harsh environments**

**Dispositifs d'interconnexion et composants passifs fibroniques – Interfaces de connecteurs fibroniques –
Partie 35: Famille de connecteurs de type LSHE pour environnements hostiles**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CONNECTOR INTERFACES –**Part 35: Type LSHE connector family for harsh environments**

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International Standard IEC 61754-35 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86B/4271/FDIS	86B/4285/RVD

Full information on the voting for the approval of this International Standard 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.

A list of all parts in the IEC 61754 series, published under the general title *Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces*, can be found on the IEC website.

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INTRODUCTION

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CONNECTOR INTERFACES –

Part 35: Type LSHE connector family for harsh environments

1 Scope

This part of IEC 61754 defines the standard connector interface dimensions for LSHE family of connectors with up to four termini. This connector family is targeting deployment under harsh environmental conditions.

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 61753-1, *Fibre optic interconnecting devices and passive components – Performance standard – Part 1: General and guidance*

IEC 61754-1, *Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces – Part 1: General and guidance*

IEC 61755 (all parts), *Fibre optic interconnecting devices and passive components – Connector optical interfaces*

3 Terms and definitions

No terms and definitions are listed in this document.

4 Description

The LSHE connector family is intended to be used outdoor, in industrial and, more generally, in harsh environments. It is therefore designed to survive under harsh conditions, according to IEC 61753-1. A connection comprises a plug connector and a socket, each one containing an insert with up to four termini. Each terminus hosts a 2,5 mm (nominal) ferrule, which may be physical contact (PC) or angled PC (APC) polished. Within a connection, the ferrules are aligned through resilient sleeves housed in an adaptor that may be fixed either on the plug side or on the socket side (hermaphrodite connection system). Each terminus may support any type of fibre (SM, MM or other) provided the termini facing each other in the connection contain compatible fibres. The same applies to the polishing type (PC or APC) of the mating termini. Within one connector, different types of fibre and termini may be used. The mechanical connection between the plug connector and the socket is ensured by a push-pull mechanism.

5 Connector Interfaces

5.1 General

General requirements defined in IEC 61754-1 shall be applied for this document.