
Konektorski vmesniki optičnih vlaken – 18. del: Družina konektorjev tipa MT-RJ (IEC 61754-18:2001)*

Fibre optic connector interfaces - Part 18: Type MT-RJ connector family (IEC 61754-18:2001)

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EUROPEAN STANDARD

EN 61754-18

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2002

ICS 33.180.20

English version

Fibre optic connector interfaces
Part 18: Type MT-RJ connector family
(IEC 61754-18:2001)

Interfaces de connecteurs
pour fibres optiques
Partie 18: Famille de connecteurs
de type MT-RJ
(CEI 61754-18:2001)

Steckgesichter von LWL-Steckverbindern
Teil 18: Steckverbinderfamilie
der Bauart MT-RJ
(IEC 61754-18:2001)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 86B/1594/FDIS, future edition 1 of IEC 61754-18, prepared by SC 86B, Fibre optic interconnecting devices and passive components, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61754-18 on 2002-03-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2002-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2005-03-01

Endorsement notice

The text of the International Standard IEC 61754-18:2001 was approved by CENELEC as a European Standard without any modification.

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INTERNATIONAL STANDARD

IEC 61754-18

First edition
2001-12

Fibre optic connector interfaces –

Part 18: Type MT-RJ connector family

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Commission Electrotechnique Internationale
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC CONNECTOR INTERFACES –

Part 18: Type MT-RJ connector family

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the 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 National Committees.
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International Standard IEC 61754-18 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

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

| FDIS | Report on voting |
|---------------|------------------|
| 86B/1594/FDIS | 86B/1627/RVD |

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 3.

The committee has decided that the contents of this publication will remain unchanged until 2004. At this date, the publication will be

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

FIBRE OPTIC CONNECTOR INTERFACES –

Part 18: Type MT-RJ connector family

1 Scope

This part of IEC 61754 defines the standard interface dimensions for the type MT-RJ family of connectors.

2 Description

The parent connector for the type MT-RJ connector family is a plug connector having single or multiple fibres in a rectangular ferrule nominally 4,4 mm × 2,5 mm aligned by two 0,7 mm diameter pins and corresponding holes. The connector includes a single coupling latch and a ferrule spring loaded in the direction of the optical axis. The plug connector has a single male key which may be used to orientate the connector and the component to which it is mated.

Connector interfaces are configured as a plug without pins, an adaptor and a plug with pins or alternatively as a plug without pins and a receptacle with pins. Adaptors use ribs to pre-align ferrules. Receptacles with and without ribs are defined.

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3 Interfaces

Subsequent pages define the standard interfaces for the type MT-RJ connector family.

This standard contains the following standard interfaces:

Interface **61754-18-1** MT-RJ plug connector interface, without pins, consisting of

- Interface 61754-18-1-1 for single fibre
- Interface 61754-18-1-2 for two fibres with a pitch of 0,25 mm
- Interface 61754-18-1-3 for two fibres with a pitch of 0,75 mm
- Interface 61754-18-1-4 for four fibres with a pitch of 0,25 mm

Interface **61754-18-2** MT-RJ plug connector interface, with pins, consisting of

- Interface 61754-18-2-1 for single fibre
- Interface 61754-18-2-2 for two fibres with a pitch of 0,25 mm
- Interface 61754-18-2-3 for two fibres with a pitch of 0,75 mm
- Interface 61754-18-2-4 for four fibres with a pitch of 0,25 mm

Interface **61754-18-3** MT-RJ adaptor interface

Interface **61754-18-4** MT-RJ receptacle interface, with pins, without ribs, consisting of

- Interface 61754-18-4-1 for single fibre
- Interface 61754-18-4-2 for two fibres with a pitch of 0,25 mm
- Interface 61754-18-4-3 for two fibres with a pitch of 0,75 mm
- Interface 61754-18-4-4 for four fibres with a pitch of 0,25 mm

Interface **61754-18-5** MT-RJ receptacle interface, with pins, with ribs, consisting of

Interface 61754-18-5-1 for single fibre

Interface 61754-18-5-2 for two fibres with a pitch of 0,25 mm

Interface 61754-18-5-3 for two fibres with a pitch of 0,75 mm

Interface 61754-18-5-4 for four fibres with a pitch of 0,25 mm

The following standards are intermateable.

3.1 Plug-adaptor-plug

| Plug without pins | Adaptor | Plug with pins |
|-------------------|------------|----------------|
| 61754-18-1-1 | 61754-18-3 | 61754-18-2-1 |
| 61754-18-1-2 | 61754-18-3 | 61754-18-2-2 |
| 61754-18-1-3 | 61754-18-3 | 61754-18-2-3 |
| 61754-18-1-4 | 61754-18-3 | 61754-18-2-4 |

3.2 Plug-receptacle – without ribs

| Plug without pins | Receptable with pins |
|-------------------|----------------------|
| 61754-18-1-1 | 61754-18-4-1 |
| 61754-18-1-2 | 61754-18-4-2 |
| 61754-18-1-3 | 61754-18-4-3 |
| 61754-18-1-4 | 61754-18-4-4 |

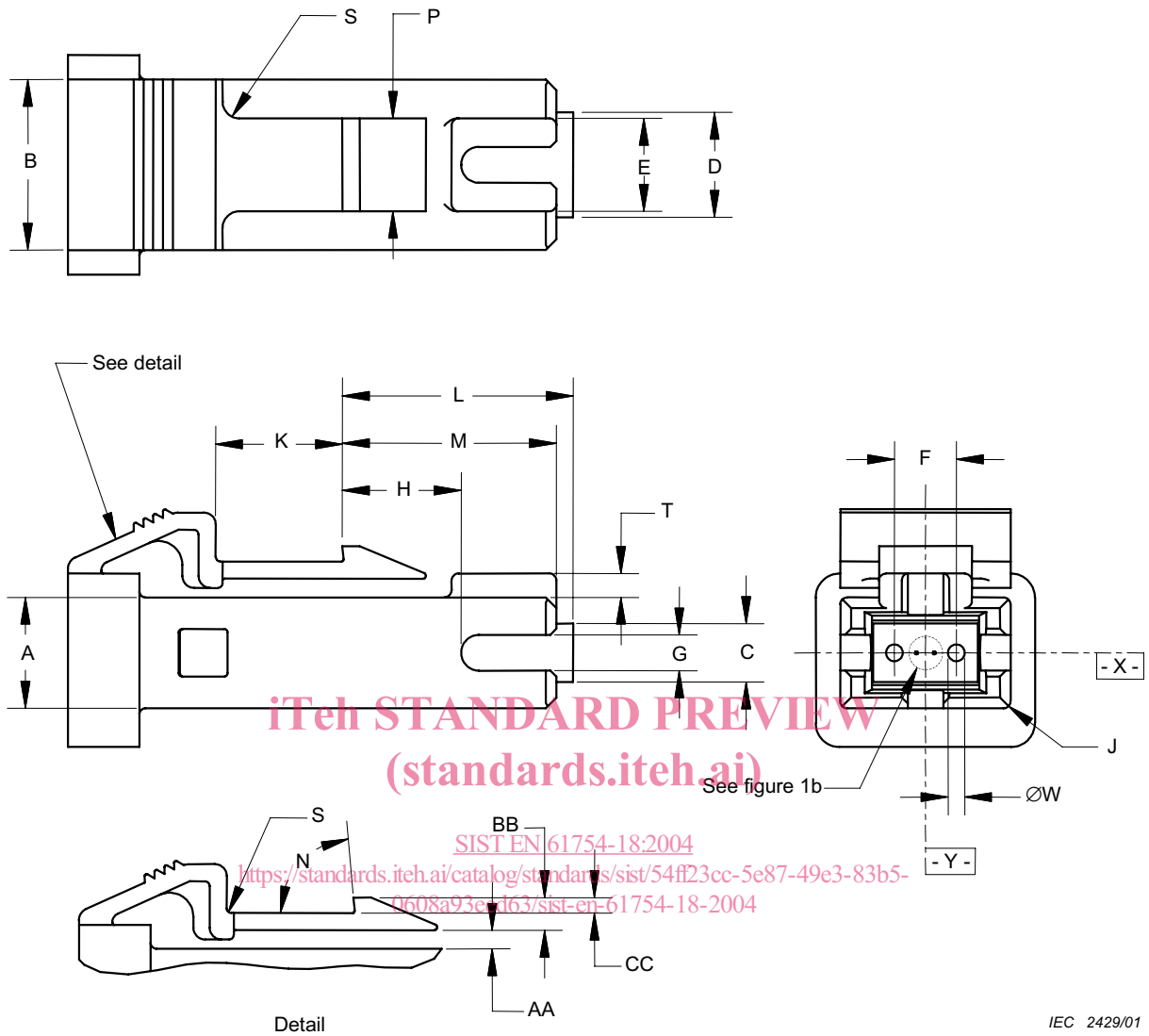
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3.3 Plug-receptacle – with ribs

| Plug without pins | Receptacle with pins |
|-------------------|----------------------|
| 61754-18-1-1 | 61754-18-5-1 |
| 61754-18-1-2 | 61754-18-5-2 |
| 61754-18-1-3 | 61754-18-5-3 |
| 61754-18-1-4 | 61754-18-5-4 |



IEC 2429/01

Figure 1a – Plug connector interface – without guide pins

Table 1a – Plug connector interface dimensions – without guide pins

| Reference | Dimensions (mm) | | Notes |
|-----------|-----------------|---------|---------------------------|
| | Minimum | Maximum | |
| A | 4,61 | 4,69 | |
| B | 7,11 | 7,19 | |
| C | 2,4 | 2,5 | |
| D | 4,35 | 4,45 | |
| E | 3,8 | 4 | |
| F | 2,597 | 2,603 | |
| G | 1,45 | 1,55 | |
| H | – | 5,3 | |
| J | 0,25 | 0,5 | Radius |
| K | 5,1 | – | |
| L | 9,35 | 9,75 | 1 |
| M | 7,9 | 9 | |
| N | 82 | 88 | Degrees |
| P | 3,8 | 4 | |
| S | – | 0,8 | Radius |
| T | 0,9 | 1,1 | |
| W | | | See tolerance grade table |
| AA | 0,63 | 1,2 | |
| BB | 1,27 | 1,42 | |
| CC | 0,6 | 0,77 | |

NOTE 1 When reference L = 9,1 mm, the force exerted by the ferrule must be less than or equal to 11,8 N, and when reference L = 9,3 mm, the force exerted by the ferrule must be greater than or equal to 7,8 N.

NOTE 2 Dimensions apply after termination

Table 1b – Tolerance grade table

| Reference | Dimensions (mm) | | Notes |
|-----------|-----------------|---------|-------|
| | Minimum | Maximum | |
| 1 | 0,699 | 0,700 | 1,3 |
| 2 | 0,699 | 0,701 | 1,3 |

NOTE 1 Append tolerance grade number to the interface number.

NOTE 2 Dimensions apply after termination.

NOTE 3 Each pin-hole shall accept a gauge as shown in figure 1c to a depth of 5,5 mm with a maximum force of 1,7 N. In addition, both pin-holes of a plug shall accept a gauge as shown in figure 1d to a depth of 5,5 mm with a maximum force of 3,4 N.