

SLOVENSKI STANDARD

SIST EN 61300-3-22:1997

01-december-1997

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-22: Examinations and measurements - Ferrule compression force (IEC 61300-3-22:1997)

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-22: Examinations and measurements - Ferrule compression force

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Grundlegende Prüf- und Meßverfahren -- Teil 3-22: Untersuchungen und Messungen - Federkraft der Stifte

Dispositifs d'interconnexion et composants passifs à fibres optiques - Méthodes fondamentales d'essais et de mesures - Partie 3-22: Examens et mesures - Force de compression des embouts

Ta slovenski standard je istoveten z: EN 61300-3-22:1997

ICS:

33.180.20	Povezovalne naprave za optična vlakna	Fibre optic interconnecting devices
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SIST EN 61300-3-22:1997

en

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English version

Fibre optic interconnecting devices and passive components
Basic test and measurement procedures
Part 3-22: Examinations and measurements - Ferrule compression force
(IEC 61300-3-22:1997)

Dispositifs d'interconnexion et
composants passifs à fibres optiques
Méthodes fondamentales d'essais et
de mesures
Partie 3-22: Examens et mesures
Force de compression des embouts
(CEI 61300-3-22:1997)

Lichtwellenleiter - Verbindungselemente
und passive Bauteile - Grundlegende
Prüf- und Meßverfahren
Teil 3-22: Untersuchungen und
Messungen - Druckkraft der Stifte
(IEC 61300-3-22:1997)

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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/846/FDIS, future edition 1 of IEC 61300-3-22, 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 61300-3-22 on 1997-03-11.

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) 1997-12-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1997-12-01

Endorsement notice

The text of the International Standard IEC 61300-3-22:1997 was approved by CENELEC as a European Standard without any modification.

SIST EN 61300-3-22:1997

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NORME INTERNATIONALE INTERNATIONAL STANDARD

**CEI
IEC**

61300-3-22

Première édition
First edition
1997-03

Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures –

Partie 3-22: Examens et mesures – Force de compression des embouts (standards.iteh.ai)

Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –

Part 3-22: Examinations and measurements – Ferrule compression force

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES AND
PASSIVE COMPONENTS –
BASIC TEST AND MEASUREMENT PROCEDURES –**

**Part 3-22: Examinations and measurements –
Ferrule compression force**

FOREWORD

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International Standard IEC 61300-3-22 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/846/FDIS	86B/947/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.

IEC 1300 consists of the following parts, under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*:

- Part 1: General and guidance
- Part 2: Tests
- Part 3: Examinations and measurements

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 3-22: Examinations and measurements – Ferrule compression force

1 General

1.1 *Scope and object*

This part of IEC 1300 describes the procedure to measure the spring-loaded force applied to a ferrule when the plugs mate with each other during normal service. This measurement procedure is applicable to a connector plug which has a spring-loaded ferrule.

2 General description

The device under test DUT is clamped and the ferrule compression force is measured when the ferrule endface is moved to a specified position.

3 Apparatus

The apparatus consists of the following elements:

3.1 *Fixed clamping device*

A fixed clamping device capable of gripping the device under test without altering any of its mechanical properties except for the position of the ferrule endface with respect to the connector mechanical reference.

3.2 *Force generator*

A force generator capable of smoothly applying the compressive force to the ferrule endface at the specified rate.

An example of suitable apparatus for this measurement is a compression tester. The apparatus is shown in figure 1.

3.3 *Position sensor*

A suitable instrument for measuring the position of the ferrule endface when the compressive force is applied.

3.4 *Force gauge*

A suitable instrument for measuring the compressive force as applied to the ferrule endface.

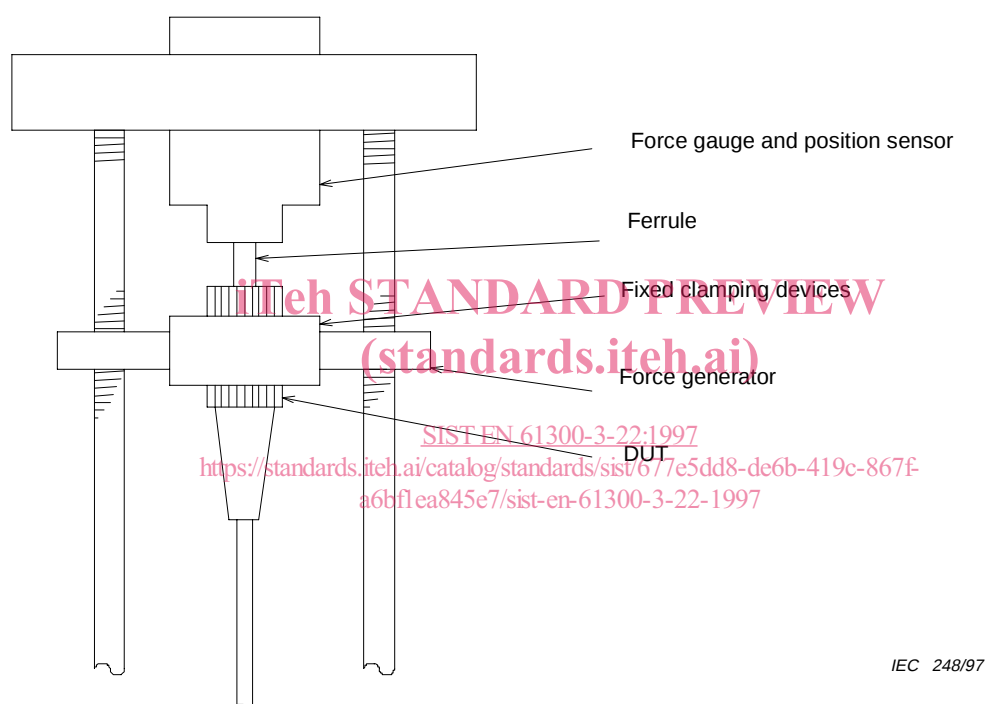
4 Procedure

The device under test shall consist of a fully assembled optical component prepared in accordance with the manufacturer's instructions. Unless otherwise specified, the device under test shall be subjected to the following measurement procedure in a non-operational model.

4.1 Securely fix the device under test to the fixed clamping device.

4.2 Smoothly apply the axial compressive load to the ferrule within the speed of 5 mm/min until the ferrule endface is moved to the specified position.

4.3 Measure the spring force when the ferrule endface is moved to the specified position. Figure 2 shows an example of ferrule compression force data in the case of a compression tester used as the apparatus.



IEC 248/97

Figure 1 – Example of test apparatus