

**Fibre optic interconnect devices and passive components - Basic test and measurement procedures -  
- Part 3-48: Examinations and measurements - Spring  
compression force of the coupling sleeve for  
rectangular ferrule multi-fibre connectors**

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**Fibre optic interconnect devices and passive components -  
Basic test and measurement procedures -  
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Spring compression force of the coupling sleeve for rectangular ferrule  
multi-fibre connectors  
(IEC 61300-3-48:2013)**

Dispositifs d'interconnexion et  
composants passifs à fibres optiques -  
Procédures fondamentales d'essais et de  
mesures -  
Partie 3-48: Examens et mesures - Force  
de compression du ressort du manchon  
de couplage des connecteurs multifibres  
munis de férules rectangulaires  
(CEI 61300-3-48:2013)

Lichtwellenleiter -  
Verbindungselemente und passive  
Bauteile -  
Grundlegende Prüf- und Messverfahren -  
Teil 3-48: Messungen -  
Federdruckkraft der Kupplungshülse für  
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Ferrulen  
(IEC 61300-3-48:2013)

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Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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## Foreword

The text of document 86B/3522/CDV, future edition 1 of IEC 61300-3-48, 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 approved by CENELEC as EN 61300-3-48:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-05-19
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-08-19

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61300-3-1	NOTE	Harmonised as EN 61300-3-1.
IEC 61754-7	NOTE	Harmonised as EN 61754-7.
IEC 61754-10	NOTE	Harmonised as EN 61754-10.
IEC 61754-18	NOTE	Harmonised as EN 61754-18.

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

### **Part 3-48: Examinations and measurements – Spring compression force of the coupling sleeve for rectangular ferrule multi-fibre connectors**

#### **1 Scope**

The purpose of this part of IEC 61300 is to describe the procedure required to measure the spring compression force of the coupling sleeve for rectangular ferrule multi-fibre connectors.

#### **2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

None.

#### **3 General description**

The measurement of the coupling sleeve compression force is made with the optical connector fixed. Then the coupling sleeve is moved to the stipulated position to measure the coupling sleeve compression force with a force gauge.

#### **4 Apparatus**

##### **4.1 General**

The apparatus consists of the following elements. See Figures 1 and 2.

##### **4.2 Fixture**

The fixture shall be able to hold the optical connector without influencing the measurement of the spring compression force of the coupling sleeve. The fixture shall be able to hold the optical connector with a force larger than the stipulated coupling sleeve compression force. If measurement is repeated, the location of the optical connector shall not be changed.

##### **4.3 Force transfer cup**

The force transfer cup shall push only the coupling sleeve without contacting any other elements of the optical connector.

##### **4.4 Force gauge**

The force gauge shall be able to measure at least from 2,9 N to 6,9 N (compression force range). The force gauge is placed so that its pushing direction is the same as the coupling sleeve steering direction.