IEC 61300-3-25

Edition 3.0 2016-08

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –
Part 3-25: Examinations and measurements - Concentricity of non-angled ferrules and non-angled ferrules with fibre installed

Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures –
Partie 3-25: Examens et mesures - Concentricité des férules sans angle et des férules sans angle avec fibre montée

IEC 61300-3-25:2016 (en-fr)

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International Standard IEC 61300-3-25 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This third edition cancels and replaces the second edition published in 2013 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) deletion of method C due to potential damage of ferrule end face by the spindle. Method C is the ferrule bore reference method for bare ferrules according to IEC 61300-3-25:2013;
b) separation of original method A into method A-1 and method A-2 relating to the two different types of ferrule (with/without fibre fitted);
c) integration of the content of Annexes A and B into the test procedure.

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

CDV	Report on voting
86B/3900/CDV	86B/3956A/RVC

Full information on the voting for the approval of this document 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 61300 series, published under the general title, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*, can be found on the IEC website.

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

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- withdrawn,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

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

Part 3-25: Examinations and measurements – Concentricity of non-angled ferrules and non-angled ferrules with fibre installed

1 Scope

This part of IEC 61300 describes the procedure to determine the concentricity of the axis of the bore in a non-angled ferrule with the axis of the ferrule, and in the case of non-angled ferrules with fibre installed, to determine the concentricity of the axis of the fibre core with the axis of the ferrule.

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 General description

3.1 General

This procedure describes the measurement of concentricity of ferrules and ferrules with assembled fibres. Concentricity is defined as twice the distance between the axis of the ferrule and the axis of the inner diameter of the ferrule (ferrule bore), or in the case of ferrules with fibre installed, twice the distance between the axis of the ferrule and the axis of the core of the installed fibre (see Figure 1). When concentricity measurements are made on a ferrule with fibre installed the results will be affected by the geometry of the fibre, and by the fit of the fibre in the ferrule inner diameter. Imperfections of the cylindricity and circularity of the outside diameter of the ferrule will influence the measurement results.

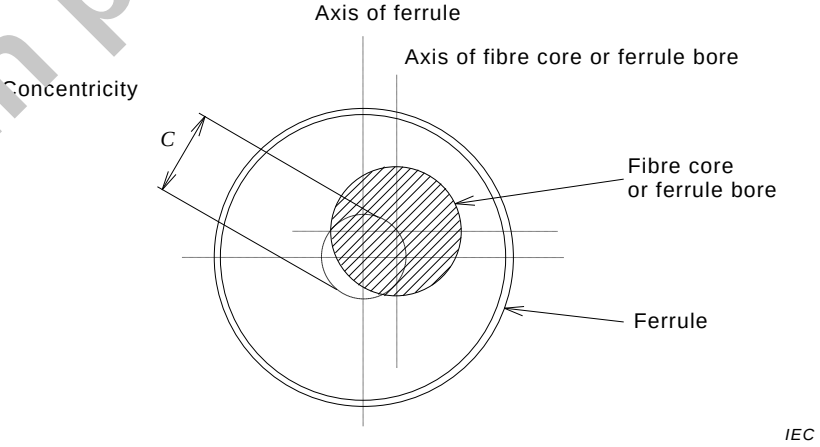

Figure 1 – Definition of concentricity

Two methods of concentricity measurement are described in 3.2 and 3.3.