SLOVENSKI STANDARD
SIST EN 60153-1:2016

01-november-2016

Votli kovinski valovodi - 1. del: Splošne zahteve in merilne metode (IEC 60153-1:2016)

Hollow metallic waveguides - Part 1: General requirements and measuring method (IEC 60153-1:2016)

Ta slovenski standard je istoveten z: EN 60153-1:2016

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33.120.10 Koaksialni kabli. Valovodi Coaxial cables. Waveguides

SIST EN 60153-1:2016 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 60153-1

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English Version

Hollow metallic waveguides - Part 1: General requirements and measuring methods (IEC 60153-1:2016)

Guides d'ondes métalliques creux -
Partie 1: Exigences générales et méthodes de mesure
(IEC 60153-1:2016)

Metallische Hohlleiter -
Teil 1: Allgemeine Anforderungen und Messverfahren
(IEC 60153-1:2016)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

The text of document 46F/302/CDV, future edition 2 of IEC 60153-1, prepared by SC 46F "RF and microwave passive components", of IEC/TC 46 "Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60153-1:2016.

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) 2017-03-22
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-06-22

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Endorsement notice

The text of the International Standard IEC 60153-1:2016 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60050	series	International Electrotechnical Vocabulary (IEV)	-	-
IEC 60068	series	Environmental testing	EN 60068	series
IEC 60154	series	Flanges for waveguides	EN 60154	series
IEC 60261	-	Sealing test for pressurized waveguide tubing and assemblies	HD 138 S2	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Hollow metallic waveguides –
Part 1: General requirements and measuring methods

Guides d'ondes métalliques creux –
Partie 1: Exigences générales et méthodes de mesure

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HOLLOW METALLIC WAVEGUIDES –

Part 1: General requirements and measuring methods

FOREWORD

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International Standard IEC 60153-1 has been prepared by subcommittee 46F: RF and microwave passive components, of IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories.

This second edition cancels and replaces the first edition published in 1964. This edition constitutes a technical revision.

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

a) expand the operation frequency range;
b) revise the equation of attenuation.

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

CDV	Report on voting
46F/302/CDV	46F/316/RVC

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 2.

It is to be read in conjunction with IEC 60154: Flanges for waveguides.

A list of all parts in the IEC 60153 series, published under the general title *Hollow metallic waveguides*, can be found on the IEC website.

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

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

INTRODUCTION

This International Standard relates to straight hollow metallic tubing for use as waveguides in electronic equipment. In recent years, the operation frequency of waveguide components and systems has been extended to 1 THz and above. However, the first edition of the IEC 60153 series of standards only specified the aperture dimensions for ordinary rectangular waveguide for frequencies up to 325 GHz. In addition, the first edition of the IEC 60153 series of standards, dating from the 1960's, does not meet the needs of the current applications. This new edition of IEC 60153-1 addresses these two issues by extending the frequency coverage to 3 300 GHz and by addressing current applications for this type of waveguide.

This standard takes into account IEC 60068 when necessary.

When there is a difference between the general requirements and the relevant specification sheet, the latter prevails.