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Flanges for waveguides - Part 1: General requirements

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/16

Obsahuje: EN 60154-1:2016, IEC 60154-1:2016

Oznámením tejto normy sa od 22.06.2019 ruší  
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EUROPEAN STANDARD

**EN 60154-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2016

ICS 33.120.10

Supersedes EN 60154-1:1994

English Version

**Flanges for waveguides -  
Part 1: General requirements  
(IEC 60154-1:2016)**Brides pour guides d'ondes -  
Partie 1: Exigences générales  
(IEC 60154-1:2016)Flansche für Hohlleiter -  
Teil 1: Allgemeine Anforderungen  
(IEC 60154-1:2016)

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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**

## European foreword

The text of document 46F/304/CDV, future edition 3 of IEC 60154-1, 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 60154-1:2016.

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
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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050	series	International Electrotechnical Vocabulary (IEV)	-	-
IEC 60068	series	Environmental testing	EN 60068	series
IEC 60153	series	Hollow metallic waveguides	EN 60153	series



# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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**Flanges for waveguides –  
Part 1: General requirements**

**Brides pour guides d'ondes –  
Partie 1: Exigences générales**





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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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Part 1: General requirements**

**Brides pour guides d'ondes –  
Partie 1: Exigences générales**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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**FLANGES FOR WAVEGUIDES –****Part 1: General requirements****FOREWORD**

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International Standard IEC 60154-1 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 third edition cancels and replaces the second edition published in 1982. This edition constitutes a technical revision.

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

- a) define the alignment pin and hole for waveguide alignment;
- b) specify the dimensions in the metric system.

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

CDV	Report on voting
46F/304/CDV	46F/318/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.

A list of all parts in the IEC 60154 series, published under the general title *Flanges for 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 IEC 60154 series of standards for flanges for waveguides, currently specifies the interface design up to 40 GHz for rectangular waveguides. In addition to this, the current issues of the IEC 60154 series of standards were issued in the 1970's and do not meet the needs of current applications. This new edition of IEC 60154-1 addresses these two issues.

## FLANGES FOR WAVEGUIDES –

### Part 1: General requirements

#### 1 Scope

This part of IEC 60154 specifies the dimensions of waveguide flanges for use in electronic equipment.

It covers requirements for flanges drilled before or after mounting on waveguides. It should be noted that for optimum electrical performance, post-drilling of the alignment holes after mounting is recommended.

The aim of this standard is to specify for waveguide flanges the mechanical requirements necessary to ensure compatibility and, as far as practicable, interchangeability as well as to ensure adequate electrical performance.

#### 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.

IEC 60050 (all parts), *International Electrotechnical Vocabulary* (available at <http://www.electropedia.org/>)

IEC 60068 (all parts), *Environmental testing*

IEC 60153 (all parts), *Hollow metallic waveguides*

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