



# SLOVENSKI STANDARD

## SIST EN 60154-4:2017

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Nadomešča:  
SIST HD 129.4 S1:2002

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### Ustrezne specifikacije za prirobnice za krožne valovode (IEC 60154-4:2017)

Relevant specifications for flanges for circular waveguides (IEC 60154-4:2017)

Flansche für Hohlleiter - Teil 4: Allgemeine Empfehlungen für Flansche für Rundrohr-Hohlleiter (IEC 60154-4:2017)

Brides pour guides d'ondes - Partie 4: Spécifications particulières de brides pour guides d'ondes circulaires (IEC 60154-4:2017)

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**Ta slovenski standard je istoveten z: EN 60154-4:2017**

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### **ICS:**

33.120.10 Koaksialni kabli. Valovodi Coaxial cables. Waveguides

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EUROPEAN STANDARD

**EN 60154-4**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2017

ICS 33.120.10

Supersedes HD 129.4 S1:1977

English Version

Flanges for waveguides -  
Part 4: Relevant specifications for flanges  
for circular waveguides  
(IEC 60154-4:2017)

Brides pour guides d'ondes -  
Partie 4: Spécifications particulières applicables aux brides  
pour guides d'ondes circulaires  
(IEC 60154-4:2017)

Flansche für Hohlleiter -  
Teil 4: Allgemeine Anforderungen an Flansche  
für Rundhohlleiter  
(IEC 60154-4:2017)

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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**

**EN 60154-4:2017****European foreword**

The text of document 46F/346A/CDV, future edition 2 of IEC 60154-4, 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 60154-4:2017.

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) 2018-01-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-07-28

This document supersedes HD 129.4 S1:1977.

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The text of the International Standard IEC 60154-4:2017 was approved by CENELEC as a European Standard without any modification.

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

IEC 60153	NOTE	Harmonized in HD 123 / EN 60153 series.
IEC 60153-4	NOTE	Harmonized as HD 123.4.
ISO/IEC 17025:2005	NOTE	Harmonized as EN ISO/IEC 17025:2005 (not modified).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60154-1	2016	Flanges for waveguides - Part 1: General requirements	EN 60154-1	2016

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IEC 60154-4

Edition 2.0 2017-03

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Flanges for waveguides –**  
**Part 4: Relevant specifications for flanges for circular waveguides**

**Brides pour guides d'ondes –**  
**Partie 4: Spécifications particulières applicables aux brides pour guides d'ondes circulaires**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## FLANGES FOR WAVEGUIDES –

## Part 4: Relevant specifications for flanges for circular waveguides

## FOREWORD

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International Standard IEC 60154-4 has been prepared by subcommittee 46F: RF and microwave passive components, of IEC technical committee TC 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories.

This second edition cancels and replaces the first edition published in 1969. This edition constitutes a technical revision.

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

- a) revise the estimation for return loss at connection interface of waveguides;
- b) add two type of waveguide flange for high frequency application, i.e. over 50 GHz;
- c) expand the operation frequency range up to 3,3 THz;
- d) rename the frequency band over R1200, i.e. R1.2K.

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

CDV	Report on voting
46F/346A/CDV	46F/358/RVC

Full information on the voting for the approval of this International Standard 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 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 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.

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SIST EN 60154-4:2017

## FLANGES FOR WAVEGUIDES –

### Part 4: Relevant specifications for flanges for circular waveguides

#### 1 Scope

This part of IEC 60154-4 specifies the dimensions of flanges for circular waveguides for use in electronic equipment.

It covers requirements for flanges drilled before or after mounting on waveguides.

The aim of this document 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 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.

IEC 60154-1:2016, *Flanges for waveguides – General requirements*

[SIST EN 60154-4:2017](https://standards.iteh.ai/catalog/standards/sist/8303fe10-de2d-4533-8431-eba82cf8ede8/sist-en-60154-4-2017)

#### 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 4 General

##### 4.1 Standardized types

The series of flanges for circular waveguides covered by this document is shown in Figures B.1 to B.4.

Dimensions of flanges for preferred waveguide sizes are given in Table A.1.

Dimensions of flanges for both intermediate and preferred waveguide sizes are given in Table B.1.

##### 4.2 Type designation

For the standardized types of flanges, the type designation comprises:

- the code: 60154 IEC;