

Industrial-process control valves - Part 3-1: Dimensions  
- Face-to-face dimensions for flanged, two-way,  
globe-type, straight pattern and centre-to-face  
dimensions for flanged, two-way, globe-type, angle  
pattern control valves

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 60534-3-1:2019 sisaldab Euroopa standardi EN IEC 60534-3-1:2019 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 60534-3-1:2019 consists of the English text of the European standard EN IEC 60534-3-1:2019.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 05.04.2019.	Date of Availability of the European standard is 05.04.2019.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 23.060, 25.040.40

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Koduleht [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage [www.evs.ee](http://www.evs.ee); phone +372 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

English Version

Industrial-process control valves - Part 3-1: Dimensions - Face-to-face dimensions for flanged, two-way, globe-type, straight pattern and centre-to-face dimensions for flanged, two-way, globe-type, angle pattern control valves  
(IEC 60534-3-1:2019)

Vannes de régulation des processus industriels - Partie 3-1:  
Dimensions - Dimensions face à face des vannes de  
régulation à soupape, à deux voies, à brides, à tête droite et  
dimensions face à axe des vannes de régulation à  
soupape, à deux voies, à brides, d'équerre  
(IEC 60534-3-1:2019)

Stellventile für die Prozeßregelung - Teil 3-1: Abmessungen  
- Einbaulängen von geflanschten Durchgangsventilen und  
geflanschten Eckventilen  
(IEC 60534-3-1:2019)

This European Standard was approved by CENELEC on 2019-03-13. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

## European foreword

The text of document 65B/1142/FDIS, future edition 2 of IEC 60534-3-1, prepared by SC 65B "Measurement and control devices" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60534-3-1:2019.

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) 2019-12-13
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-03-13

This document supersedes EN 60534-3-1:2000.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

## Endorsement notice

The text of the International Standard IEC 60534-3-1:2019 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 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.

NOTE 1 Where 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 60534-1	-	Industrial-process control valves - Part 1: Control valve terminology and general considerations	EN 60534-1	-

## CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references .....	5
3 Terms and definitions .....	5
4 Nominal sizes and pressure ratings .....	6
4.1 Nominal sizes .....	6
4.2 Pressure ratings .....	6
5 Face-to-face and centre-to-face dimensions .....	7
6 Tolerances .....	7
7 Flange facings .....	7
Bibliography.....	13
Figure 1 – Face-to-face and centre-to-face dimensions.....	6
Figure 2 – End-to-end and centre-to-end dimensions.....	6
Figure 3 – Details of RTJ flanges.....	7
Table 1 – Face-to-face dimensions for flanged, two-way, globe-style, straight pattern control valves: PN-designated valves.....	8
Table 2 – Face-to-face dimensions for flanged, two-way, globe-style, straight pattern control valves: class-designated valves .....	9
Table 3 – Centre-to-face dimensions for flanged, two-way, globe-style, angle pattern control valves: PN-designated valves.....	10
Table 4 – Centre-to-face dimensions for flanged, two-way, globe-style, angle pattern control valves: class-designated valves .....	11
Table 5 – Dimension “X” to be added to face-to-face dimensions of straight pattern valves to obtain end-to-end dimensions of valves with ring joint ends .....	12

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## INDUSTRIAL-PROCESS CONTROL VALVES –

**Part 3-1: Dimensions – Face-to-face dimensions for flanged, two-way, globe-type, straight pattern and centre-to-face dimensions for flanged, two-way, globe-type, angle pattern control valves**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60534-3-1 has been prepared by subcommittee 65B: Measurement and control devices, of IEC technical committee 65: Industrial-process measurement, control and automation.

This second edition cancels and replaces the first edition published in 2000. This edition constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- this document has been extended to cover face-to-face dimensions and centre-to-face dimensions for control valves PN 160 and PN 250 (Class 900 and 1 500);
- definitions of end-to-end dimensions and centre-to-end dimensions have been added for valves with flange facings where the gasket contact surfaces are not located at the extreme ends of the valve;

- Table 5 of adjustment value “X” for end-to-end dimensions of straight pattern valves with ring joint ends has been added;
- ANSI/ISA references have been added in Tables 1 to 4;
- ANSI/ISA references have been added in the bibliography.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
65B/1142/FDIS	65B/1146/RVD

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.

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.

A bilingual version of this publication may be issued at a later date.