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REDLINE VERSION

Industriell processtyrning – Del 1: Reglerventiler – Allmänt

*Industrial-process control valves –
Part 1: Control valve terminology and general considerations*

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IEC 60534-1

Edition 4.0 2023-05
REDLINE VERSION

INTERNATIONAL STANDARD



Industrial-process control valves – Part 1: Control valve terminology and general considerations

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 23.060.40; 25.040.40

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INDUSTRIAL-PROCESS CONTROL VALVES –**Part 1: Control valve terminology and general considerations****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.
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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 60534-1:2005. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

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

This fourth edition cancels and replaces the third edition published in 2005. This edition constitutes a technical revision.

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

- a) update of the definitions given in IEC 60534-1 in order to harmonize them with current terminology;
- b) addition of terms common to individual standards in the 60534 series; and
- c) further clarification in existing definitions.

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

Draft	Report on voting
65B/1228/FDIS	65B/1235/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

IEC 60534 consists of the following parts, under the general title *Industrial-process control valves*:

- Part 1: *Control valve terminology and general considerations*
- Part 2-1: *Flow capacity – Sizing equations for fluid flow under installed conditions*
- Part 2-3: *Flow capacity – Test procedures*
- Part 2-4: *Flow capacity – Section Four: Inherent flow characteristics and rangeability*
- 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*
- Part 3-2: *Dimensions – Face-to-face dimensions for rotary control valves except butterfly valves*
- Part 3-3: *Dimensions – End-to-end dimensions for butt-weld, two-way, globe-type, straight pattern control valves*
- Part 4: *Inspection and routine testing*
- Part 5: *Marking*
- Part 6-1: *Mounting details for attachment of positioners to control valves – Section 1: Positioner mounting on linear actuators*
- Part 6-2: *Mounting details for attachment of positioners to control valves – Positioner mounting on rotary actuators*
- Part 7: *Control valve data sheet*
- Part 8-1: *Noise considerations – Section One: Laboratory measurement of noise generated by aerodynamic flow through control valves*

Part 8-2: *Noise considerations – Section 2: Laboratory measurement of noise generated by hydrodynamic flow through control valves*

Part 8-3: *Noise considerations – Control valve aerodynamic noise prediction method*

Part 8-4: *Noise considerations – Section 4: Prediction of noise generated by hydrodynamic flow*

Part 9: *Test procedure for response measurements from step inputs*

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under 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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INDUSTRIAL-PROCESS CONTROL VALVES –

Part 1: Control valve terminology and general considerations

1 Scope

This part of IEC 60534 applies to all types of industrial-process control valves (hereinafter referred to as control valves). This document establishes a partial basic terminology list and provides guidance on the use of all other parts of IEC 60534.

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 60534 (all parts), *Industrial-process control valves*

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Industriell processtyrning – Del 1: Reglerventiler – Allmänt

*Industrial-process control valves –
Part 1: Control valve terminology and general considerations*

Som svensk standard gäller europastandarden EN IEC 60534-1:2023. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 60534-1:2023.

Nationellt förord

Europastandarden EN IEC 60534-1:2023

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60534-1, Fourth edition, 2023 - Industrial-process control valves –
Part 1: Control valve terminology and general considerations**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60534-1, utg 2:2005, med eventuella tillägg, ändringar och rättelser, gäller ej fr o m 2026-06-27.

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English Version

**Industrial-process control valves - Part 1: Control valve
terminology and general considerations
(IEC 60534-1:2023)**

Vannes de régulation des processus industriels - Partie 1:
Terminologie des vannes de régulation et considérations
générales
(IEC 60534-1:2023)

Stellventile für die Prozessregelung - Teil 1: Begriffe und
allgemeine Betrachtungen
(IEC 60534-1:2023)

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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/1228/FDIS, future edition 4 of IEC 60534-1, 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 60534-1:2023.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2024-03-27 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2026-06-27 document have to be withdrawn

This document supersedes EN 60534-1:2005 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 60534-1:2023 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 standard indicated:

IEC 61987-21:2015 NOTE Approved as EN 61987-21:2016 (not modified)

ISO 6708:1995 NOTE Approved as EN ISO 6708:1995 (not modified)

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60534	series	Industrial-process control valves	-	-



IEC 60534-1

Edition 4.0 2023-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Industrial-process control valves –
Part 1: Control valve terminology and general considerations**

**Vannes de régulation des processus industriels –
Partie 1: Terminologie des vannes de régulation et considérations générales**

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