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REDLINE VERSION

Industriell processtyrning – Reglerventiler – Del 4: Inspektion och provning

*Industrial-process control valves –
Part 4: Inspection and routine testing*

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IEC 60534-4

Edition 4.0 2021-12
REDLINE VERSION

INTERNATIONAL STANDARD

**Industrial-process control valves –
Part 4: Inspection and routine testing**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 23.060

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INDUSTRIAL-PROCESS CONTROL VALVES –

Part 4: Inspection and routine testing

FOREWORD

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- 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.
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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 60534-4:2006. 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 60534-4 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 2006. This edition constitutes a technical revision.

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

- a) remove details about hydrostatic test but state that to be performed according to valve design code;
- b) include mandatory test for valve packing;
- c) put in evidence limits of reduced differential pressure seat leakage test procedure;
- d) introduce details about low temperature seat leakage test;
- e) extend dimensional range for leakage class VI to less than 25 mm and over 400 mm seat diameter;
- f) include stroking time tests.

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

Draft	Report on voting
65B/1208/FDIS	65B/1211/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/standardsdev/publications.

A list of all parts in the IEC 60534 series, published under the general title *Industrial-process control valves*, 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
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INDUSTRIAL-PROCESS CONTROL VALVES –

Part 4: Inspection and routine testing

1 Scope

This part of IEC 60534 specifies the requirements for the inspection and routine testing of control valves manufactured in conformity with the other parts of IEC 60534.

This document is applicable to valves with pressure ratings not exceeding Class 2500. The requirements for actuators apply only to pneumatic actuators.

This document does not apply to the types of control valves where radioactive service, fire safety testing, or other hazardous service conditions are encountered. If a standard for hazardous service conflicts with the requirements of this document, the standard for hazardous service should take precedence.

NOTE This document can be extended to higher pressure ratings by agreement between the purchaser and the manufacturer.

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*

~~IEC 61298 (all parts), *Process measurement and control devices – General methods and procedures for evaluating performance*~~

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Industriell processtyrning – Reglerventiler – Del 4: Inspektion och provning

*Industrial-process control valves –
Part 4: Inspection and routine testing*

Som svensk standard gäller europastandarden EN IEC 60534-4:2022. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 60534-4:2022.

Nationellt förord

Europastandarden EN IEC 60534-4:2022

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60534-4, Fourth edition, 2021 - Industrial-process control valves - Part 4: Inspection and routine testing**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60534-4, utgåva 1, 2006, gäller ej fr o m 2025-01-20.

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

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English Version

Industrial-process control valves - Part 4: Inspection and routine
testing
(IEC 60534-4:2021)

Vannes de régulation des processus industriels - Partie 4:
Inspection et essais individuels de série
(IEC 60534-4:2021)

Stellventile für die Prozessregelung - Teil 4: Abnahme und
Prüfungen
(IEC 60534-4:2021)

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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/1208/FDIS, future edition 4 of IEC 60534-4:2021, 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 60534-4:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022–10–20 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2025–01–20 document have to be withdrawn

This document supersedes EN 60534-4:2006 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 60534-4:2021 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 61298 (series) NOTE Harmonized as EN 61298 (series)

ISO 15848-2 NOTE Harmonized as EN ISO 15848-2

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.cenelec.eu.

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

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Industrial-process control valves –
Part 4: Inspection and routine testing**

**Vannes de régulation des processus industriels –
Partie 4: Inspection et essais individuels de série**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INDUSTRIAL-PROCESS CONTROL VALVES –

Part 4: Inspection and routine testing

FOREWORD

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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

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- replaced by a revised edition, or
- amended.

INDUSTRIAL-PROCESS CONTROL VALVES –

Part 4: Inspection and routine testing

1 Scope

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This document is applicable to valves with pressure ratings not exceeding Class 2500. The requirements for actuators apply only to pneumatic actuators.

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NOTE This document can be extended to higher pressure ratings by agreement between the purchaser and the manufacturer.

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*