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Industrial-process control valves - Part 2-3: Flow capacity - Test procedures

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. 09/16

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April 2016

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English Version

**Industrial-process control valves -
Part 2-3: Flow capacity - Test procedures
(IEC 60534-2-3:2015)**

Vannes de régulation des processus industriels -
Partie 2-3: Capacité d'écoulement - Procédures d'essais
(IEC 60534-2-3:2015)

Stellventile für die Prozessregelung -
Teil 2-3: Durchflusskapazität - Prüfverfahren
(IEC 60534-2-3:2015)

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European foreword

The text of document 65B/1025/FDIS, future edition 3 of IEC 60534-2-3, 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 60534-2-3:2016.

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) 2016-10-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-01-20

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IEC 60751:2008 NOTE Harmonized as EN 60751:2008 (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

<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	-
IEC 60534-2-1	2011	Industrial-process control valves - Part 2-1: Flow capacity - Sizing equations for fluid flow under installed conditions	EN 60534-2-1	2011
IEC 60534-8-2	-	Industrial-process control valves - Part 8-2: Noise considerations - Laboratory measurement of noise generated by hydrodynamic flow through control valves	EN 60534-8-2	-
IEC 61298-1	-	Process measurement and control devices - General methods and procedures for evaluating performance - Part 1: General considerations	EN 61298-1	-
IEC 61298-2	-	Process measurement and control devices - General methods and procedures for evaluating performance - Part 2: Tests under reference conditions	EN 61298-2	-

INTERNATIONAL STANDARD



**Industrial-process control valves –
Part 2-3: Flow capacity – Test procedures**



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INTERNATIONAL STANDARD



**Industrial-process control valves –
Part 2-3: Flow capacity – Test procedures**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INDUSTRIAL-PROCESS CONTROL VALVES –

Part 2-3: Flow capacity – Test procedures

FOREWORD

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International Standard IEC 60534-2-3 has been prepared by subcommittee 65B: Measurement and control devices, of IEC technical committee 65: Industrial-process measurement, control and automation.

The third edition cancels and replaces the second edition published in 1997, of which it constitutes a technical revision.

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

- a) Addition of informative Annexes B, C, D, E and F.
- b) Organizational and formatting changes were made to group technically related subject matter.

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

FDIS	Report on voting
65B/1025/FDIS	65B/1028/RVD

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 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 publication will remain unchanged until the stability date indicated on the IEC web site 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.

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INDUSTRIAL-PROCESS CONTROL VALVES –

Part 2-3: Flow capacity – Test procedures

1 Scope

This part of IEC 60534 is applicable to industrial-process control valves and provides the flow capacity test procedures for determining the following variables used in the equations given in IEC 60534-2-1:

- a) flow coefficient C ;
- b) liquid pressure recovery factor without attached fittings F_L ;
- c) combined liquid pressure recovery factor and piping geometry factor of a control valve with attached fittings F_{LP} ;
- d) piping geometry factor F_P ;
- e) pressure differential ratio factors x_T and x_{TP} ;
- f) valve style modifier F_d ;
- g) Reynolds number factor F_R .

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.

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IEC 60534-2-1:2011, *Industrial-process control valves – Part 2-1: Flow capacity – Sizing equations for fluid flow under installed conditions*

IEC 60534-8-2, *Industrial-process control valves – Part 8-2: Noise considerations – Laboratory measurement of noise generated by hydrodynamic flow through control valves*

IEC 61298-1, *Process measurement and control devices – General methods and procedures for evaluating performance – Part 1: General considerations*

IEC 61298-2, *Process measurement and control devices – General methods and procedures for evaluating performance – Part 2: Tests under reference conditions*

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