Tööstusprotsessi kontrollklapid

Industrial process control valves

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1349:2010 sisaldab Euroopa standardi EN 1349:2009 ingliskeelset teksti.	This Estonian standard EVS-EN 1349:2010 consists of the English text of the European standard EN 1349:2009.
Standard on kinnitatud Eesti Standardikeskuse 31.01.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.01.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 11.11.2009.	Date of Availability of the European standard text 11.11.2009.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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EUROPÄISCHE NORM

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English Version

Industrial process control valves

Robinets de régulation des processus industriels

Stellgeräte für die Prozessregelung

This European Standard was approved by CEN on 10 October 2009.

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Foreword

This document (EN 1349:2009) has been prepared by Technical Committee CEN/TC 69 “Industrial Valves”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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

This document supersedes EN 1349:2000.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This European Standard has been established on the basis of different parts of EN 60534.

The terminology specific to control valves is provided in EN 60534-1. The general valve terminology can be found in EN 736-1, EN 736-2 and EN 736-3.

This document differs from EN 60534-3 by addition of basic series of face-to-face dimensions and addition of other control valve types.

The testing requirements of EN 60534-4 are basically the same, but hydrostatic test makes reference to EN 12266-1 which is an harmonised European Standard.

The marking requirements refer to EN 19 and EN 60534-5.

1 Scope

This European Standard applies to all industrial process control valves (hereafter referred to as control valves).

This European Standard specifies the design and performance requirements including material, pressure/temperature ratings, dimensions, testing and marking.

The range of nominal size is:

— DN 10; DN 15; DN 20; DN 25; DN 32; DN 40; DN 50; DN 65; DN 80; DN 100; DN 125; DN 150; DN 200; DN 250; DN 300; DN 350; DN 400; DN 450; DN 500; DN 600; DN 700; DN 750; DN 800; DN 900; DN 1 000; DN 1 200.

The range of PN is:

— PN 10; PN 16; PN 25; PN 40; PN 63; PN 100; PN 160; PN 250; PN 320; PN 400.

The range of Class is:

— Class 150; Class 300; Class 600; Class 900; Class 1 500; Class 2 500; Class 4 500.

Pinch valves are excluded from the scope of this European Standard.

Cast iron Class designated flanges are excluded from the scope of this European Standard.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 19:2002, *Industrial valves — Marking of metallic valves*

EN 558:2008, *Industrial valves — Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems — PN and Class designated valves*

EN 736-1:1995, *Valves — Terminology — Part 1: Definition of types of valves*

EN 736-2:1997, *Valves — Terminology — Part 2: Definition of components of valves*

EN 736-3:2008, *Valves — Terminology — Part 3: Definition of terms*

EN 1092-1, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 1: Steel flanges*

EN 1092-2:1997, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 2: Cast iron flanges*

EN 1092-3:2003, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 3: Copper alloy flanges*

EN 1759-1, *Flanges and their joint — Circular flanges for pipes, valves, fittings and accessories, Class designated — Part 1: Steel flanges, NPS ½ to 24*

EN 1759-3:2003, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, Class designated — Part 3: Copper alloy flanges*

EN 10226-1, *Pipe threads where pressure tight joints are made on the threads — Part 1: Taper external threads and parallel internal threads — Dimensions, tolerances and designation*

EN 12266-1:2003, *Industrial valves — Testing of valves — Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements*

EN 12516-1:2005, *Industrial valves — Shell design strength — Part 1: Tabulation method for steel valve shells*

EN 12516-2:2004, *Industrial valves — Shell design strength — Part 2: Calculation method for steel valve shells*

EN 12516-3:2002, *Valves — Shell design strength — Part 3: Experimental method*

EN 12516-4:2008, *Industrial valves — Shell design strength — Part 4: Calculation method for valve shells in metallic materials other than steel*

EN 12627, *Industrial valves — Butt welding ends for steel valves*

EN 12760, *Valves — Socket welding ends for steel valves*

EN 12982, *Industrial valves — End-to-end and centre-to-end dimensions for butt welding end valves*

EN 60534-1:2005, *Industrial-process control valves — Part 1: Control valve terminology and general considerations (IEC 60534-1:2005)*

EN 60534-2-1, *Industrial-process control valves — Part 2-1: Flow capacity — Sizing equations for fluid flow under installed conditions (IEC 60534-2-1:1998)*

EN 60534-2-3, *Industrial-process control valves — Part 2-3: Flow capacity — Test procedures (IEC 60534-2-3:1997)*

EN 60534-2-4, *Industrial-process control valves — Part 2-4: Flow capacity — Inherent flow characteristics and rangeability (IEC 60534-2-4:2009)*

EN 60534-2-5, *Industrial-process control valves — Part 2-5: Flow capacity: Sizing equations for fluid flow through multistage control valves with interstage recovery (IEC 60534-2-5:2003)*

EN 60534-4:2006, *Industrial-process control valves — Part 4: Inspection and routine testing (IEC 60534-4:2006)*

EN 60534-5:2004, *Industrial-process control valves — Part 5: Marking (IEC 60534-5:2004)*

EN 60534-9, *Industrial-process control valves — Part 9: Test procedure for response measurements from step inputs (IEC 60534-9:2007)*

EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*

ASME B1.20.1:1983, *Pipe Threads, General Purpose, Inch*