



**SLOVENSKI STANDARD**  
**oSIST prEN ISO 18984:2024**  
**01-april-2024**

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**Kroglični ventili za cevne sisteme iz termoplastov za napeljave tople in hladne vode pod tlakom - Vrste, mere in zahteve (ISO/DIS 18984:2024)**

Ball valves for thermoplastics piping systems for hot and cold water installations under pressure - Types, dimensions and requirements (ISO/DIS 18984:2024)

Kugelventile für thermoplastische Heiß- und Kaltwasserdruckrohrleitungen - Arten, Abmessungen und Anforderungen (ISO/DIS 18984:2024)

Robinets à tournant sphérique pour systèmes de canalisations en matières thermoplastiques pour installations d'eau chaude et froide sous pression - Types, dimensions et exigences (ISO/DIS 18984:2024)

**Ta slovenski standard je istoveten z: EN prEN ISO 18984**

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**ICS:**

23.060.20	Zapirni ventili (kroglasti in pipe)	Ball and plug valves
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# DRAFT INTERNATIONAL STANDARD

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## Ball valves for thermoplastics piping systems for hot and cold water installations under pressure — Types, dimensions and requirements

*Robinets à tournant sphérique pour systèmes de tuyauterie en matériaux thermoplastiques pour installations d'eau chaude et froide sous pression — Types, dimensions et exigences*

ICS: 23.060.20

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# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Requirements</b> .....	<b>4</b>
4.1 Design.....	4
4.1.1 Design operating conditions.....	4
4.1.2 Function.....	4
4.1.3 Design characteristics.....	4
4.1.4 Types of valve ends.....	5
4.2 Materials.....	5
4.2.1 General.....	5
4.2.2 Body / Shell material.....	5
4.2.3 Valve end materials.....	6
4.2.4 Materials for internal components and functional components of the valve.....	6
4.2.5 Metal parts.....	6
4.2.6 Sealing materials.....	6
4.2.7 Greases and lubricants.....	6
4.2.8 Adhesives.....	6
4.2.9 Assembly.....	6
<b>5 Application classes for hot water</b> .....	<b>6</b>
5.1 Design pressure for the application class.....	6
<b>6 Dimensions</b> .....	<b>7</b>
6.1 Face-to-face dimensions.....	7
6.1.1 Joint dimensions of the valve end connections (DN).....	7
6.2 Operation.....	7
6.3 Functional characteristics.....	7
6.4 Other requirements.....	7
6.4.1 Control of the manufacture of body and bonnet/cover.....	7
6.4.2 Permanent jointing.....	8
6.4.3 Wear.....	8
6.4.4 Operating instructions.....	8
<b>7 Marking, Documentation, Storage and transportation</b> .....	<b>8</b>
7.1 Marking and documentation.....	8
7.2 Preparation for storage and transportation.....	9
<b>8 Effect on water quality</b> .....	<b>9</b>
<b>Annex A (normative) PP Valve</b> .....	<b>10</b>
<b>Annex B (normative) PVC-C VALVE</b> .....	<b>14</b>
<b>Annex C (informative) Determination of <math>K_v</math></b> .....	<b>17</b>
<b>Bibliography</b> .....	<b>18</b>

## ISO/DIS 18984:2023(E)

### Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 07, *Valves and auxiliary equipment of plastics materials*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

Thermoplastic materials in pipe form such as mineral filled thermoplastic polymer, fiber reinforced thermoplastics, plasticized thermoplastics, blends and alloys may have further considerations with regards to prediction of long term strength which have to be taken into account in the corresponding product standards.

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# Ball valves for thermoplastics piping systems for hot and cold water installations under pressure — Types, dimensions and requirements

## 1 Scope

This document is applicable to 2-way or multi-way ball valve manufactured with thermoplastic materials to be used for the transport of pressurized water whether or not intended for human consumption (domestic systems) for applications in buildings and utility branches.

**NOTE** The two-way valve is generally used for sectioning and control, the multi-way one to divert or mix the flows; information on their functionality can be found in Appendix B information of ISO 16135.

The application classes are indicated in the relevant hot and cold water system standards.

This document defines the dimensions necessary for the assembly of the valves, ensuring its interchangeability and defines its physical and mechanical requirements.

## 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.

ISO 5211, *Industrial valves — Part-turn actuator attachments*

ISO 8233, *Thermoplastics valves — Torque — Test method*

ISO 8659, *Thermoplastics valves — Fatigue strength — Test method*

ISO 9393-2:2005, *Thermoplastics valves for industrial applications — Pressure test methods and requirements — Part 2: Test conditions and basic requirements*

ISO 9624, *Thermoplastics piping systems for fluids under pressure — Flange adapters and loose backing flanges — Mating dimensions*

ISO 15494, *Plastics piping systems for industrial applications — Polybutene (PB), polyethylene (PE), polyethylene of raised temperature resistance (PE-RT), crosslinked polyethylene (PE-X), polypropylene (PP) — Metric series for specifications for components and the system*

ISO 15874-1, *Plastics piping systems for hot and cold water installations — Polypropylene (PP) — Part 1: General*

ISO 15874-2, *Plastics piping systems for hot and cold water installations — Polypropylene (PP) — Part 2: Pipes*

ISO 15874-3, *Plastics piping systems for hot and cold water installations — Polypropylene (PP) — Part 3: Fittings*

ISO 15874-5, *Plastics piping systems for hot and cold water installations — Polypropylene (PP) — Part 5: Fitness for purpose of the system*

ISO 15877-1, *Plastics piping systems for hot and cold water installations — Chlorinated poly(vinyl chloride) (PVC-C) — Part 1: General*

## ISO/DIS 18984:2023(E)

ISO 15877-2, *Plastics piping systems for hot and cold water installations — Chlorinated poly(vinyl chloride) (PVC-C) — Part 2: Pipes*

ISO 15877-3, *Plastics piping systems for hot and cold water installations — Chlorinated poly(vinyl chloride) (PVC-C) — Part 3: Fittings*

ISO 15877-5, *Plastics piping systems for hot and cold water installations — Chlorinated poly(vinyl chloride) (PVC-C) — Part 5: Fitness for purpose of the system*

ISO 16135:2006, *Industrial valves — Ball valves of thermoplastics materials*

EN 558, *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 681-1, *Elastomeric seals - Material requirements for pipe joint seals used in water and drainage applications - Part 1: Vulcanized rubber*

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

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

EN 736-3, *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 1267, *Industrial valves - Test of flow resistance using water as test fluid*

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

EN 12570:2000, *Industrial valves - Method for sizing the operating element*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 736-1, EN 736-2 and EN 736-3 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

#### 3.1

##### nominal size

##### DN

alphanumeric designation of size for components of a pipework system, which is used for reference purposes, comprising the letters DN followed by a dimensionless whole number which is indirectly related to the physical size, in millimetres, of the bore or outside diameter of the end connections.

[SOURCE: ISO 6708:1995, definition 2.1]

#### 3.2

##### shell

pressure containing envelope of the valve

Note 1 to entry: It normally comprises the body and when included in the design a bonnet or cover and the body bonnet or body cover joint excluding sealing parts.