



# SLOVENSKI STANDARD

## oSIST prEN 200:2022

01-december-2022

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### Sanitarne armature - Enojne pipe in kombinirane pipe za oskrbo z vodo tipa 1 in tipa 2 - Splošne tehnične zahteve

Sanitary tapware - Single taps and combination taps for water supply systems of type 1 and type 2 - General technical specification

Sanitärarmaturen - Auslaufventile und Mischbatterien für Wasserversorgungssysteme vom Typ 1 und Typ 2 - Allgemeine technische Spezifikation

Robinetterie sanitaire - Robinets simples et mélangeurs pour les systèmes d'alimentation en eau des types 1 et 2 - Spécifications techniques générales

Ta slovenski standard je istoveten z: **prEN 200**

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#### **ICS:**

91.140.70      Sanitarne naprave      Sanitary installations

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**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 200**

November 2022

ICS

Will supersede EN 200:2008

English Version

## Sanitary tapware - Single taps and combination taps for water supply systems of type 1 and type 2 - General technical specification

Robinetterie sanitaire - Robinets simples et  
mélangeurs pour les systèmes d'alimentation en eau  
des types 1 et 2 - Spécifications techniques générales

Sanitärarmaturen - Auslaufventile und Mischbatterien  
für Wasserversorgungssysteme vom Typ 1 und Typ 2 -  
Allgemeine technische Spezifikation

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 164.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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**prEN 200:2022 (E)****European foreword**

This document (prEN 200:2022) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 200:2008.

In comparison with the previous edition, the following technical modifications have been made:

- all test of hydraulic performance, acoustic characteristics and leaktightness were completely revised;
- Figures, Tables and dimensions were revised;
- normative references were updated;
- editorial changes have been made throughout the entire document.

This document acknowledges the field of application of tapware used in:

- water supply systems of Type 1 (see Figure 1 and Table 1) with a pressure range of 0,05 MPa (0,5 bar) to 1,0 MPa (10 bar);
- water supply systems of Type 2 (see Figure 2 and Table 1) with a pressure range of 0,01 MPa (0,1 bar) to 1,0 MPa (10 bar) – which combines mains-fed and cistern-fed water supply systems.

[oSIST prEN 200:2022](https://standards.iteh.ai/catalog/standards/sist/bc1175c3-db6f-4dbd-99d7-01eadd0d4dc2/osist-pren-200-2022)

<https://standards.iteh.ai/catalog/standards/sist/bc1175c3-db6f-4dbd-99d7-01eadd0d4dc2/osist-pren-200-2022>

## Introduction

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the product covered by this European Standard.

This document provides no information as to whether the product can be used without restriction in any of the Member States of the EU or EFTA.

It should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of these products remain in force.

This document identifies characteristics and technical requirements for single and combination taps.

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<https://standards.iteh.ai/catalog/standards/sist/bc1175c3-db6f-4dbd-99d7-01eadd0d4dc2/osist-pren-200-2022>

**prEN 200:2022 (E)****1 Scope**

This document specifies:

- a) the field of application for pillar taps, bib taps, single and multi-hole combination taps for use in:
  - 1) a supply system of Type 1 (see Figure 1);
  - 2) a supply system of Type 2 (see Figure 2);
- b) the dimensional, leak tightness, pressure resistance, hydraulic performance, mechanical strength, endurance, corrosion resistance of the surface of the product, sequence of testing and acoustic characteristics with which sanitary tapware products including their components (flexible hose, pullout spray) need to comply where applicable;
- c) test methods to verify the characteristics.

The tests described in this European Standard are type tests (laboratory tests) and not quality control or factory production control (FPC) tests carried out during manufacture.

This document applies to draw-off taps (single taps and combination taps) for use with sanitary appliances installed in rooms used for personal hygiene (cloakrooms, bathrooms etc.) and for food preparation (kitchens), i.e. for use with baths, wash basins, bidets, showers and sinks.

Figure 1 shows a supply system of Type 1 with a pressure range of (0,05 to 1,0) Mpa [(0,5 to 10) bar].

Figure 2 shows a supply system of Type 2 with a pressure range of (0,01 to 1,0) Mpa [(0,1 to 10) bar].

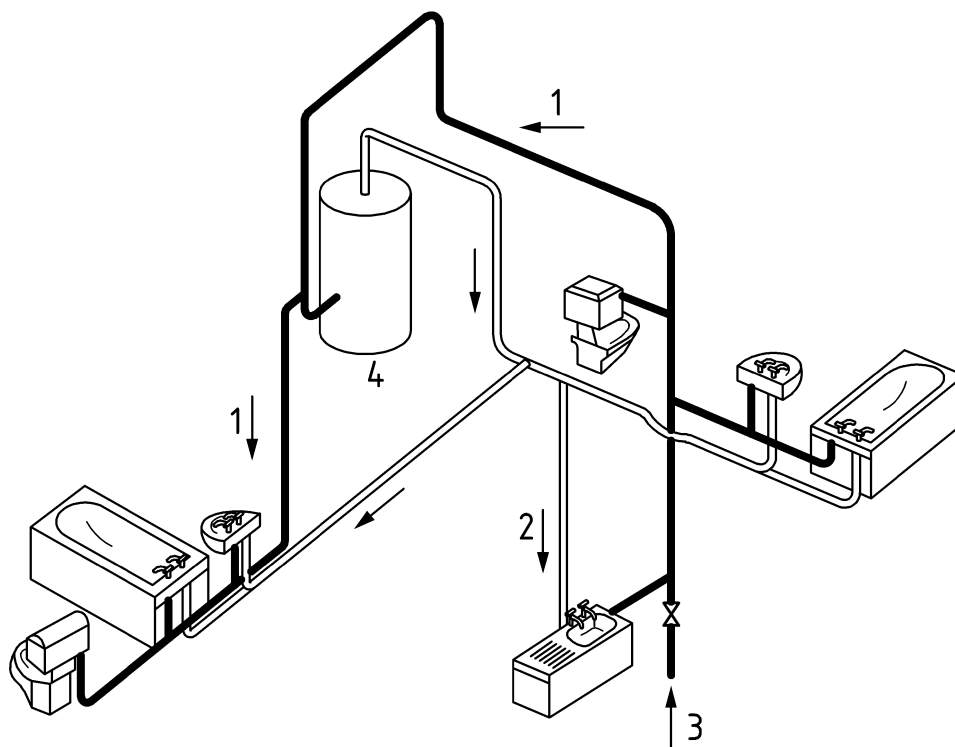
This document applies to sanitary draw-off taps of nominal size 1/2 and 3/4 (PN 10).

The conditions of use and classifications are given in Table 1.

**Table 1 — Conditions of use**

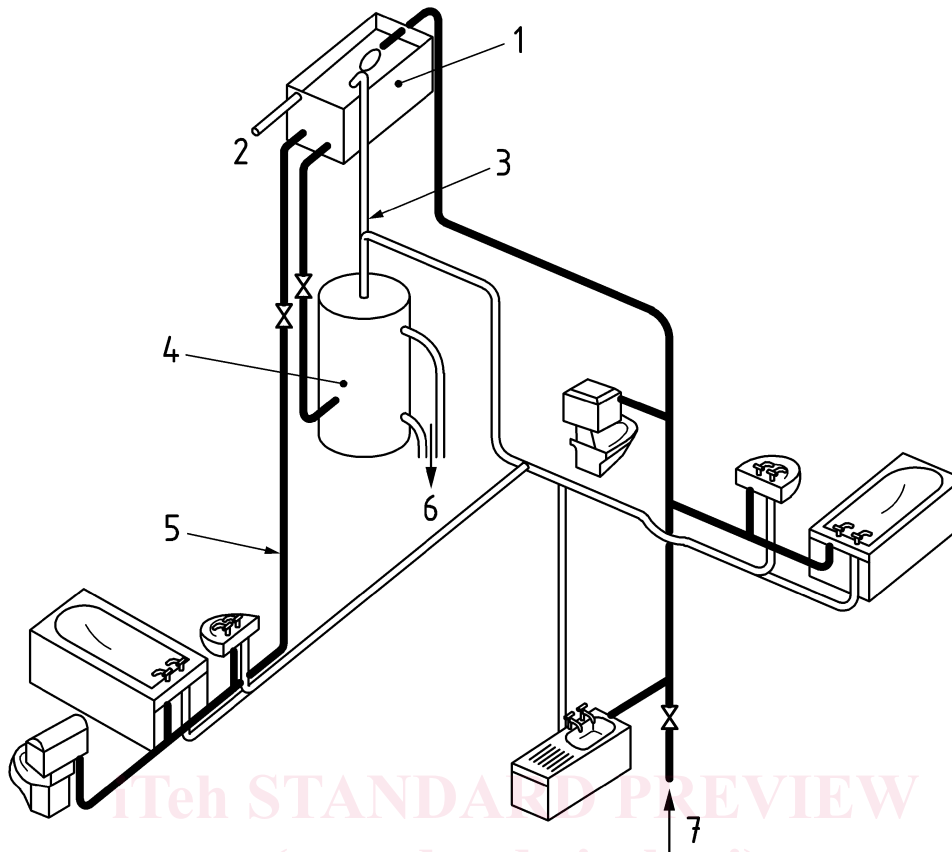
Water Supply System	Operating Range of Taps	
	Limits	Recommended <sup>a</sup>
Type 1 see Figure 1	<u>Dynamic Pressure</u> ≥ 0,05 MPa (0,5 bar) <u>Static Pressure</u> ≤ 1,0 MPa (10,0 bar)	<u>Dynamic Pressure</u> (0,1 to 0,5) MPa [(1,0 to 5,0) bar]
Type 2 see Figure 2	<u>Dynamic Pressure</u> ≥ 0,01 MPa (0,1 bar) <u>Static Pressure</u> ≤ 1,0 MPa (10,0 bar)	<u>Dynamic Pressure</u> <sup>b</sup> (0,02 to 0,1) MPa [(0,2 to 1,0) bar]
Temperature	≤ 70 °C	≤ 65 °C
<sup>a</sup> Measured at the point of discharge <sup>b</sup> Low pressure sanitary tapware complying with this standard may also be used with inlet supply pressures in the range from 0,1 MPa to 0,2 MPa (1,0 bar to 2,0 bar) on condition that acoustic performance is not a requirement of the installation		



**Key**

- 1 Cold water
- 2 Hot water
- 3 Mains supply pipe (Supply pressures up to 10 bar)
- 4 Water heater

**Figure 1** — Supply system of Type 1 with a pressure range of (0,05 to 1,0) MPa [(0,5 to 10) bar]



### Key

- 1 Cold water storage cistern (cover omitted for clarity)
- 2 Warning pipe
- 3 Vent pipe
- 4 Hot water cylinder
- 5 Alternative cistern fed cold supply to sanitary appliances
- 6 To boiler
- 7 Mains supply pipe (Supply pressures up to 10 bar)

**Figure 2 — Supply system of Type 2 with a pressure range of (0,01 to 1,0) MPa [(0,1 to 10) bar]**

## 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.

EN 246, *Sanitary tapware - General specifications for aerators*

EN 248, *Sanitary tapware - General specification for electrodeposited coatings of Ni-Cr*

EN 1057, *Copper and copper alloys — Seamless, round copper tubes for water and gas in sanitary and heating applications*

EN 1112, *Sanitary tapware - Shower outlets for sanitary tapware for water supply systems of type 1 and type 2 - General technical specification*

EN 1113, *Sanitary tapware - Shower hoses for sanitary tapware for water supply systems of type 1 and type 2 - General technical specification*

EN 1717, *Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow*

EN 13618, *Flexible hose assemblies in drinking water installations - Functional requirements and test methods*

EN 13959, *Anti-pollution check valves - DN 6 to DN 250 inclusive family E, type A, B, C and D*

EN 14506, *Devices to prevent pollution by backflow of potable water - Automatic diverter - Family H, type C*

EN 16145, *Sanitary tapware - Extractable outlets for sink and basin mixers - General technical specification*

EN 16146, *Sanitary tapware — Extractable shower hoses for sanitary tapware for supply systems type 1 and type 2 — General technical specification*

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

EN ISO 3822-1, *Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 1: Method of measurement (ISO 3822-1:1999)*

EN ISO 3822-2, *Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 2: Mounting and operating conditions for draw-off taps and mixing valves (ISO 3822-2:1995)*

EN ISO 3822-4, *Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 4: Mounting and operating conditions for special appliances*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

#### 3.1

##### **sanitary tapware aerator**

device which is fitted at the outlet of a sanitary tapware product to impact the flow rate and stream appearance of the water stream

Note 1 to entry: A distinction is made between stream appearance:

- a) aerators without air intake, (known as “laminar” stream);
- b) aerators with air intake;
- c) spray models (numerous single jets)

Note 2 to entry: See EN 246.

**prEN 200:2022 (E)****3.2****anti-pollution device**

devices to prevent pollution by backflow of potable water

Note 1 to entry: Reference EN 1717 for anti-pollution devices and their specific use

**3.3****cold water**

water with a temperature  $\leq 30$  °C, unless specified for a specific test

**3.4****diverter (manual and automatic)**

moveable component used to change the direction of the flow of water between optional outlets

**3.4.1****automatic**

mechanism rests in a default position and is changed by the end user to another outlet position but automatically returns to the default position on reduction of pressure

Note 1 to entry: In some cases, products can be semi-automatic should they have the ability to be locked in an optional outlet other than the default outlet position

**3.4.2****manual**

optional outlets manually selected by the end user

**3.5****exposed surfaces**

outside surfaces of sanitary tapware visible in use conditions<sup>2022</sup>

Note 1 to entry: See EN 248. <https://standards.iteh.ai/catalog/standards/sist/bc1175c3-db6f-4dbd-99d7-01eadd0d4dc2/osist-pren-200-2022>

**3.5.1****surfaces not considered as exposed surfaces**

internal surfaces of, for example operating members, caps, knobs etc. Parts usually or always hidden by another component e.g. linkage of a waste outlet fitting

**3.6****extractable hose**

flexible supply pipe which connects sanitary tapware to an extractable outlet

Note 1 to entry: See EN 16146

**3.7****extractable outlet**

moveable hand held outlet designed to be fitted to sanitary tapware via an extractable hose

Note to entry: See EN 16145.

**3.8****fitting**

component attached to the end of a flexible hose to facilitate connection between the water supply and the sanitary tapware

### 3.9

#### **flow control equipment**

manual equipment controlling the flow of water

### 3.10

#### **flow rate regulator**

device which is fitted to or within sanitary tapware, to enable dynamic control of the delivered water flow rate

### 3.11

#### **flexible hose assembly**

flexible hose with or without braiding and furnished with fittings to connect the sanitary tapware to the water supply

Note 1 to entry: See EN 13618.

### 3.12

#### **headworks**

mechanism that allows for the control of the obturator by the user. Typically, headworks are one of two design concepts:

- a) traditional, which uses a screw down method with a (typically) elastomeric seal to create leaktightness in the closed position
- b) modern, which uses (typically) ceramic plates with ports that align and occlude to create leaktightness in the closed position

### 3.14

#### **obturator**

moveable component in the valve whose position in the flow path permits or obstructs flow of water through the sanitary tapware

### 3.15

#### **shower hose**

flexible supply pipe which connects sanitary tapware to a shower hand set

Note 1 to entry: See EN 1113.

### 3.16

#### **shower outlet**

device for ablutionary purposes which allows water to be emitted in the form of jets or water droplets

Note 1 to entry: See EN 1112.

### 3.17

#### **taps**

sanitary tapware designed to deliver water to the end user, typically referred to in more detail as the following:

#### **3.17.1**

##### **single tap**

sanitary tapware designed to deliver a single temperature water

**prEN 200:2022 (E)****3.17.2****combination tap**

sanitary tapware designed to deliver single temperature water or mixed water by combining single temperature waters

**3.17.3****divided outlet tap**

combination tap where the water paths are kept separate through the outlet making the point of combining the water outside of the outlet

**4 Designation**

Sanitary tapware covered by this document are designated by characteristics identified in Table 2.

**Table 2 — Designation index**

Sanitary Tapware According to Application	
Supply System	Type 1 or Type 2
Type of sanitary tapware	Single taps and combination taps
Intended use	Basin, bidet, sink, bath, shower (including combinations)
Connection Size	G3/8, G1/2, G3/4 or G1", Male or Female (cross refer to dimensions table as appropriate)
Mounting method	Horizontal or vertical surfaces
Body	Single or multi-hole, visible or concealed
Diverter	With or without diverter
Type of outlet	Fixed, moveable, divided, extractable
Acoustic group and classification	<a href="https://www.iso.org/obp/ui/#iso:code:31000:01">https://www.iso.org/obp/ui/#iso:code:31000:01</a>
Taps for supply system of Type 1	Group I or Group II or U (unclassified/untested)
Flow rate	Nominal flow rate
Ref. to this European Standard	EN 200

Table 2 defines many useful elements that help to define the use and intended function of a product. Manufacturers may choose a selection of these elements as applicable to their sanitary tapware products that are pertinent to their specific market.

EXAMPLE      Examples of designation

Combination tap for supply system of Type 1, nominal size 1/2, 2-hole with combined visible body, for mounting on horizontal surface, diverter, fixed outlet, nominal flow rate, with acoustic group I, EN 200.

## 5 Marking and identification

### 5.1 Marking

Sanitary tapware shall be marked permanently and legibly with

- the manufacturer's or agent's name or identification;
- of the sanitary tapware on the body, handle or spout – visible after installation;
- of the obturator on the on/off obturator, (not applicable when the on/off obturator is of a special design to suit the body) - Does not need to be visible after installation.

NOTE 1 Permanently in this case means not removable without direct intent (e.g. might require the use of a tool or implement to remove).

NOTE 2 Visible after installation can be visible by use of a mirror or on the underside of a spout etc. This list is not exhaustive.

### 5.2 Identification

#### 5.2.1 Identification of inlets

Normal convention is to configure sanitary tapware with the cold water inlet on the right side of the product when the product is viewed from the front.

If the product is configured conventionally, no identification of the inlets is required.

If the product is not configured conventionally, or the product can be installed in multiple orientations that could be conventional or non-conventional, hot or cold inlets shall be identified as follows:

- Colour blue for cold or words/letters;
- Colour red for hot or words/letters.

In these cases, only one of the inlets needs to be identified. This marking need not be permanent.

#### 5.2.2 Identification of flow controls devices

Normal convention for flow control devices is to configure sanitary tapware with the cold water flow control device on the right, when the product is viewed from the front.

If the product is configured conventionally, no identification of the flow control device is required.

In all other cases, for flow control devices, to facilitate the understanding of the function, each device shall be permanently identified as follows:

- Colour blue for cold;
- Colour red for hot;
- Or words/letters or and other suitable means e.g. symbols, arrows etc.