Sanitary tapware - Mechanical mixing valves (PN 10) - General technical specifications

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 817:2008 sisaldab Euroopa standardi EN 817:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 817:2008 consists of the English text of the European standard EN 817:2008.
Standard on kinnitatud Eesti Standardikeskuse 18.08.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 18.08.2008 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 25.06.2008.	Date of Availability of the European standard text 25.06.2008.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 91.140.70

Võtmesõnad: akustilised omadused, hüdraulilised omadused, kraanid ja liitmikud, lekkekindlus, liigitused, mehaanilised omadused, mõõtmed, märgistus, sanitaartehnilised kraanid, segamisventiilid, tähistus, tööomaduste hindamine, väsimustestid

EUROPEAN STANDARD

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English Version

Sanitary tapware - Mechanical mixing valves (PN 10) - General technical specifications

Robinetterie sanitaire - Mitigeurs mécaniques (PN 10) - Spécifications techniques générales

Sanitärarmaturen - Mechanisch einstellbare Mischer (PN 10) - Allgemeine technische Spezifikation

This European Standard was approved by CEN on 29 May 2008.

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Foreword

This document (EN 817:2008) has been prepared by Technical Committee CEN/TC 164 “Water supply”, 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of an identical text or by endorsement, at the latest by December 2008, and conflicting national standards shall be withdrawn at the latest by December 2008.

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 817:1997.

This European Standard acknowledges the field of application for mechanical mixing valves used in water supply systems with a pressure range of (0,05 to 1,0) MPa (0,5 bar to 10 bar).

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

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 European Standard 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 mechanical mixing valves.

1 Scope

This European Standard specifies:

— the dimensional, leaktightness, pressure resistance, hydraulic performance, mechanical strength, endurance and acoustic characteristics with which mechanical mixing valves need to comply;

— test methods to verify the characteristics.

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

This European Standard applies to PN 10 mechanical mixing valves for use with sanitary appliances installed in rooms used for bodily hygiene (cloakrooms, bathrooms, etc.) and in kitchens, i.e. for use with baths, wash basins, bidets, showers and sinks.

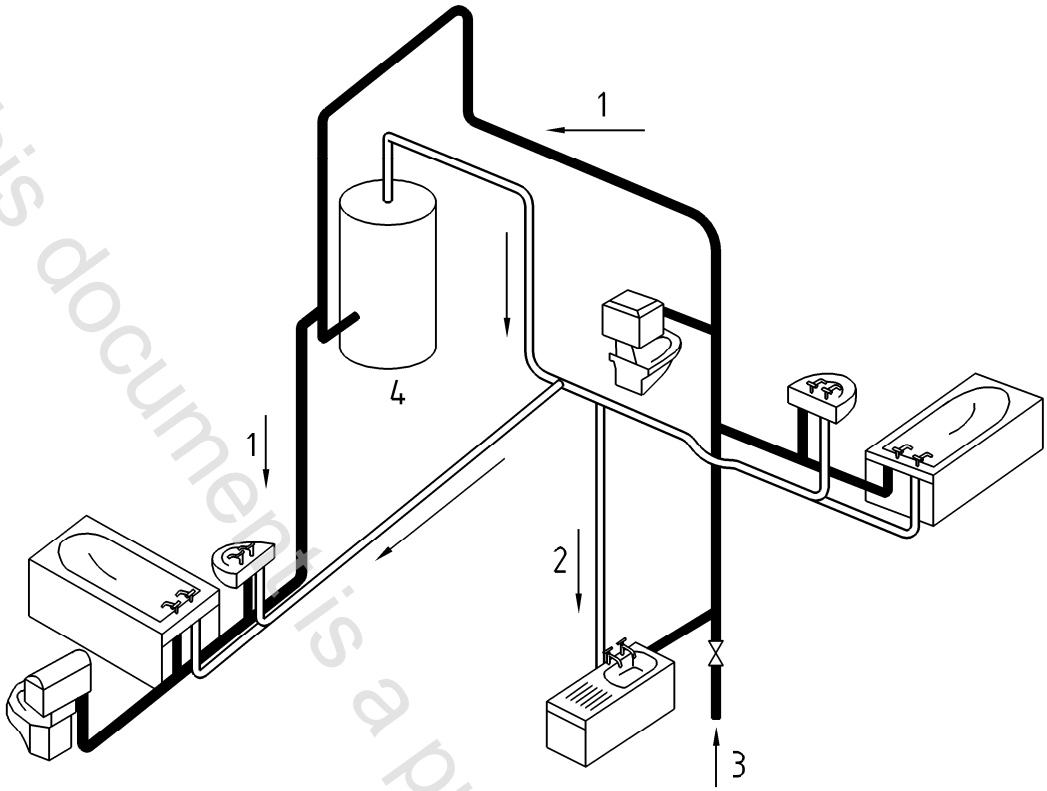
The conditions of use and classifications are given in Table 1.

Table 1 — Conditions of use/classifications

Water supply system	**Operating range of mechanical mixing valves**		**Flow rate classes**	**Acoustics**	**Marking**
	Limits	**Recommended**	**See Table 14**	**See Clause 14**	**See Clause 4**
Pressure	Dynamic pressure ≥ 0,05 MPa (0,5 bar) Static pressure ≤ 1,0 MPa (10,0 bar)	Dynamic pressure (0,1 to 0,5) MPa [(1,0 to 5,0) bar]	Z ≤ 0,15 l/s A ≤ 0,25 l/s S ≤ 0,33 l/s B ≤ 0,42 l/s C ≤ 0,50 l/s D ≤ 0,63 l/s	Group I - Group II – unclassified	for example IA IIC / B I /- [a] II /- [a]
Temperature	≤ 90 °C	≦ 65 °C			

[a] Without flow rate class: mechanical mixing valves without interchangeable outlet accessories are tested with the original outlet accessories of the manufacturer and are not marked with a flow rate class.

NOTE Mechanical mixing valves for use at pressures lower than those in Table 1 are covered by EN 1286.



Key

1 cold water
2 hot water
3 mains supply pipe (supply pressures up to 10 bar)
4 water heater

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

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 246, *Sanitary tapware — General specifications for flow rate regulators*

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

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*

prEN 13618-1, *Hose assembly — Flexible hose assembly — Part 1: Product standard for flexible hose assembly (with or without braiding)*

prEN 13618-2, *Water supply — Hose assembly — Part 2: Semi-rigid hose assembly*

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

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)*

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 3822-4:1997, *Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 4: Mounting and operating conditions for special appliances (ISO 3822-4:1997)*

3 Terms, definitions and designation

3.1 Terms and definitions

For the purpose of this document, the following term and definition applies.

mechanical mixing valve
valve which mixes hot and cold water and which, by means of a control device, allows the user to adjust between ‘all cold water’ and ’all hot water’, which implies the flow rate of the mixture obtained may be adjusted between ‘no flow’ and ‘maximum flow’ using either the same control device or another separate control device