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BSI Standards Publication

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

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National foreword

This British Standard is the UK implementation of EN 817:2024, incorporating corrigendum July 2025. It supersedes BS EN 817:2008, which is withdrawn.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags. Text altered by CEN corrigendum July 2025 is indicated in the text by AC AC.

The UK participation in its preparation was entrusted to Technical Committee B/504/-/8, Sanitary tapware.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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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 21 July 2024 and includes the Corrigendum issued by CEN on 16 July 2025.

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European foreword

This document (EN 817:2024+AC:2025) 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of an identical text or by endorsement, at the latest by March 2025, and conflicting national standards shall be withdrawn at the latest by March 2025.

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

This document includes the corrigendum EN 817:2024/AC:2025 which corrects 12.4.2.

The start and finish of text introduced or altered by corrigendum is indicated in the text by  .

This document supersedes EN 817:2008.

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

- all test of hydraulic performance, acoustic characteristics and leaktightness have been completely revised;
- new endurance test for single sequential control devices has been created;
- figures, tables and dimensions have been revised;
- normative references have been updated.

This document acknowledges the field of application for mechanical mixing valves used in water supply systems of type 1 (see Figure 1 and Table 1) with a pressure range of (0,05 to 1,0) MPa [(0,5 to 10) bar].

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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

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Introduction

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

NOTE Attention is drawn to existing national regulations that might apply concerning the use and/or the characteristics of these products.

This document identifies characteristics and technical requirements for mechanical mixing valves.

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1 Scope

This document specifies:

- a) the field of application for mechanical mixing valves for use in a supply system of Type 1 (see Figure 1);
- b) the dimensional, leaktightness, 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, pull out spray) need to comply where applicable;
- c) test methods to verify the characteristics.

The tests described in this document 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 (mechanical mixing valves) 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.

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 ^a
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]
Temperature	≤ 70 °C	≤ 65 °C
^a Measured at the point of discharge		

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].