

Thermostatic radiator valves —

Part 1: Requirements and test methods

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This British Standard was published under the authority of the Standards Board and comes into effect on 30 August 1991

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The following BSI references relate to the work on this standard:
Committee reference RHE/16
Draft for comment 84/74836 DC

ISBN 0 580 19759 X

Amendments issued since publication

Amd. No.	Date	Comments

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National foreword

This British Standard has been prepared under the direction of the Refrigeration, Heating and Air Conditioning Standards Policy Committee and is the English language version of EN 215-1 “*Thermostatic radiator valves — Part 1: Requirements and test methods*” published by the European Committee for Standardization (CEN). It supersedes BS 6284:1983 which is withdrawn.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 26, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

UDC 621.646.2-533.6:697.35:697.4:001.4:620.1

Key words: Heating installation, Central heating, Hotwater heating, Valves for heating installations, Thermostatic valves, Definitions, Designation, Mechanical properties, Performance evaluation, Tests, Performance tests, Technical notices.

English version

Thermostatic radiator valves Part 1: Requirements and test methods

Robinets thermostatiques d'équipement du
corps de chauffe
Partie 1: Exigences et méthodes d'essai

Thermostatische Heizkörperventile.
Teil 1: Anforderungen und Prüfung

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Brief history

This European Standard was prepared by the Technical Committee CEN/TC 105 “*Valves and fittings to equip radiators*”, the Secretariat of which has been allocated to Dansk Standardiseringsraad (DS).

This work on radiator valves started in September 1982 in CEN/TC 105 with the aim of drafting a standard for requirements and a test procedure to form the basis for a possible certification scheme for radiator valves.

According to the Common CEN/CENELEC Rules, following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

Foreword

This part of EN 215 forms the first part of a European Standard on thermostatic radiator valves. The second part of this standard is the Harmonization Document HD 1215, Part 2: Dimensions and details on connection.

This standard may be used as reference for a CENCER certification scheme on radiator valves.

The standard contains an Annex, which is for information only.

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1 Object and field of application

1.1 Object

This European Standard specifies definitions, requirements and test methods for thermostatic radiator valves (referred to hereafter as thermostatic valves).

1.2 Field of application

This standard applies to two port thermostatic valves with or without presetting facility for fitting to radiators in wet central heating installations up to a water temperature of 120 °C and a nominal pressure of PN 10.

This standard may be used as reference in a CENCER certification scheme on thermostatic radiator valves.

2 References

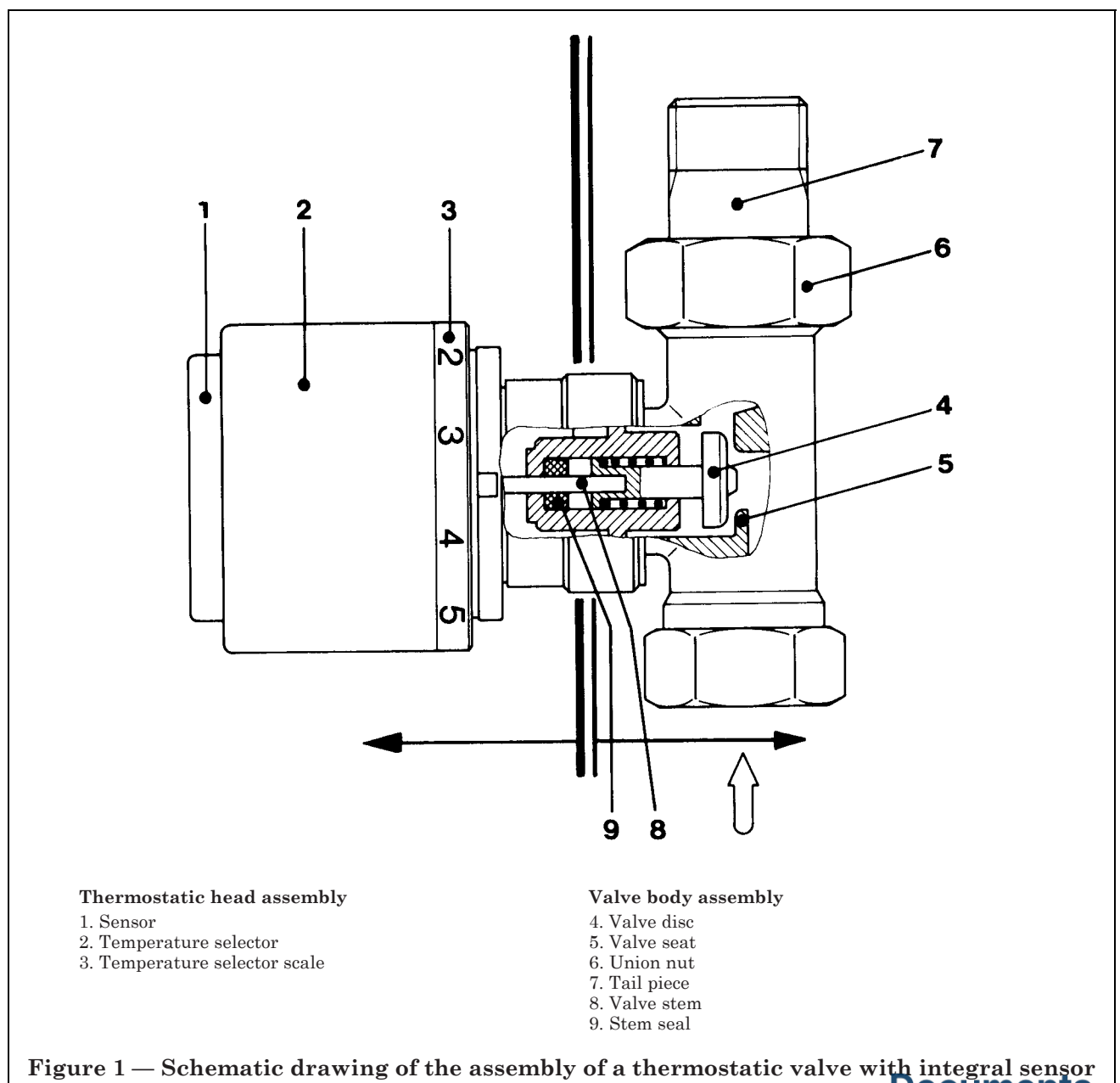
ISO 6708:1980, *Pipe components — Definition of nominal size*.

ISO 7268:1983, *Pipe components — Definition of nominal pressure*.

HD 1215-2:1987, *Thermostatic radiator valves — Part 2: Dimensions and details on connection*.

3 Definitions

3.1 Components (see Figure 1).



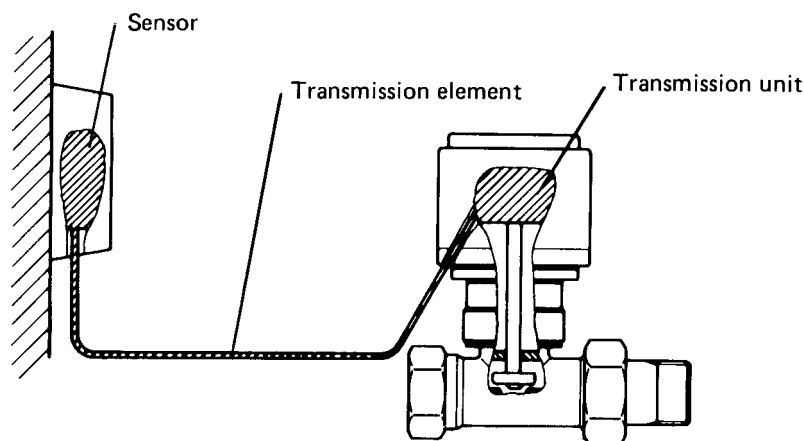


Figure 2 — Thermostatic element

3.1.1 sensor

that part of the thermostatic valve that senses the temperature (controlled value) (Figure 2)

3.1.2 transmission unit

that part of the thermostatic valve that converts a change of temperature or pressure of the sensor into a linear movement of the valve stem (Figure 2)

3.1.3 transmission element

that part of the thermostatic valve (e.g. capillary) that transmits the volume or pressure changes from the sensor or temperature selector to the transmission unit (Figure 2)

3.1.4 thermostatic element

the section containing all parts that are filled with the expansion medium (e.g. sensor, transmission element and transmission unit, shown as cross-hatched parts in Figure 2)

3.1.5 protection cap

a device that protects the valve stem and thread before the initial fitting of the thermostatic head assembly. It may be used to adjust the different flow rates as specified in 5.2.4 and 6.4.1.6

3.2 Types of thermostatic valves

3.2.1 thermostatic valve with integral sensor

a valve where the sensor, transmission unit and temperature selector constitute an assembly which is incorporated with the valve body assembly (Figure 3a)

3.2.2 thermostatic valve with integral temperature selector and with remote sensor

a valve where the temperature selector is incorporated within the valve. The sensor is separated from the transmission unit, and there is a transmission element between the sensor and the transmission unit (Figure 3b)

3.2.3 thermostatic valve with the remote sensor incorporating the selector

a valve where the sensor and temperature selector assembly is mounted remotely from the valve body assembly and from the transmission unit. There is a transmission element between the sensor and the transmission unit (Figure 3c)

3.2.4 thermostatic valve with remote sensor and remote selector

a valve where both the sensor and the temperature selector are separate from each other and from the valve body assembly with transmission unit. There is a transmission element between the sensor and the transmission unit and between the temperature selector and the transmission unit (Figure 3d)

3.2.5 thermostatic valve with presetting

a valve where a reduced flow rate can be obtained by means of mechanical preadjustment incorporated in the valve body assembly

3.3 types of connections

examples of connections used to fit the valve to the radiator and to the pipework are shown in Figure 4