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National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Tel: (01) 807 3838

BUILDING VALVES - EXPANSION VALVES - TESTS AND REQUIREMENTS

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Building valves - Expansion valves - Tests and requirements

Robinetterie de bâtiment - Soupapes d'expansion - Essais
et prescriptions

Gebäudearmaturen - Sicherheitsventile für
Expansionswasser - Prüfungen und Anforderungen

This European Standard was approved by CEN on 3 February 2000.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Central Secretariat: rue de Stassart, 36 B-1050 Brussels

CONTENTS

	Page
Foreword	3
Introduction	3
1 Scope	4
2 Normative references	4
3 Definitions	4
4 Materials and surface finishes	5
5 Design and dimensional requirements	6
6 Hydraulic tests and requirements	7
7 Mechanical tests and requirements	11
8 Acoustic tests and requirements	13
9 Classification	13
10 Designation	14
11 Marking	14
Annex A (Informative) : Safety equipment for water heaters	15

FOREWORD

This European Standard 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of an identical text or by endorsement, at the latest by September 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Annex A of this European Standard is informative.

INTRODUCTION

In respect of potential adverse effect on the quality of water intended for human consumption, caused by the product covered by this standard:

- a) This standard provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA.
- b) It should be noted that, whilst awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and or the characteristics of this product remain in force.

1 SCOPE

This European Standard specifies, dimensions, materials and performance requirements (including methods of test) for expansion valves, of nominal sizes from DN 15 to DN 40, having working pressures¹⁾ from 0,1 MPa (1 bar) to 1,0 MPa (10 bar).

Expansion valves are intended for fitting to the cold water supply of storage water heaters, having a maximum distribution temperature of 95 °C, for all energy sources.

Expansion valves do not control the temperature and alone does not constitute the protection required for storage water heaters. Expansion valves limit pressure, in the water heaters to what they are fitted, that is produced by thermal expansion of the water.

NOTE : The use of the device specified in this Standard does not override the need to use controls (e.g. thermostats and cut-outs) which act directly on the power sources of water heaters.

2 NORMATIVE REFERENCES

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest addition of the publication referred to applies.

EN 1254-2	Copper and copper alloys - Plumbing Fittings - Part 2: Fittings with compression ends for use with copper tubes.
EN 1982	Copper and copper alloys - ingots and castings
EN 12420	Copper and copper alloys - forgings
EN ISO 6509	Corrosion of metals and alloys - Determination of dezincification resistance of brass (ISO 6509 : 1981)
ISO 7-1:1994	Pipe threads where pressure-tight joints are made on the threads - Part 1: Dimensions, tolerances and designation.
ISO 228-1:1994	Pipe threads where pressure-tight joints are not made on the thread - Part 1: Dimensions, tolerances and designation.
ISO 7005-3:1988	Metallic flanges - Part 3 : Copper alloy and composite flanges.

3 DEFINITIONS

For the purposes of this Standard, the following definitions apply:

3.1 expansion valve opens automatically at a specified set pressure to discharge fluid. It is fitted to prevent the pressure of the water in the water heater from exceeding the maximum working pressure by discharging a quantity of water to the drain.

3.1 Pressures

3.2.1 nominal set pressure (P_{nr}) is the pressure of the expansion valve which is set on production.

¹⁾ All pressures are gauge unless otherwise stated

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