DIN 3509:2022-06 (E)

Valves for potable water supply in buildings - Draw-off taps (PN 10) - Requirements and tests

Contents

Page

Foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms and definitions 7

4 Materials 7
4.1 Requirement 7
4.2 Testing 8

5 Dimensions, designs 8
5.1 General 8
5.2 Draw-off tap with threaded hose union without collar 8
5.3 Draw-off tap with threaded hose union with collar 9
5.4 Draw-off tap with backflow preventer BA 10

6 Requirements for and testing of mechanical and hydraulic properties 11
6.1 General 11
6.2 Valves with safety combination device HD 12
6.2.1 Requirements 12
6.2.2 Testing 12
6.3 Valves with backflow preventer BA 12
6.3.1 Requirements 12
6.3.2 Testing 12
6.4 Bend test 12
6.4.1 Requirements 12
6.4.2 Testing 13
6.5 Torsional strength of actuating elements 13
6.5.1 Requirements 13
6.5.2 Testing 13
6.6 Requirements for the mechanical wear behaviour of the actuating element 14
6.6.1 General 14
6.6.2 Requirements 14
6.6.3 Test apparatus 14
6.6.4 Testing 14
6.7 Leaktightness 14
6.7.1 Leaktightness of the valve before shut-off 14
6.7.2 Leaktightness of the valve downstream of the shut-off 15
6.8 Strength under internal pressure 15
6.8.1 Requirements 15
6.8.2 Testing 15
6.9 Flow rate 15
6.9.1 Requirements 15
6.9.2 Testing 15
6.10 Noise behaviour 16
6.10.1 General 16
6.10.2 Requirements 16

6.10.3 Testing 16

7 Marking 16

Annex A (informative) Procedure and sequence of tests 18

Bibliography 19

Figures

Figure 1 — Draw-off tap with threaded hose union 8

Figure 2 — Draw-off tap with threaded hose union and safety combination device HD 9

Figure 3 — Draw-off tap with backflow preventer BA (schematic) 11

Figure 4 — Bend test 13

Tables

Table 1 — Dimensions 10

Table 2 — Bending moments 13

Table 3 — Requirements for the volume flow rate in l/s 15

Table 4 — Valve groups 16

Table A.1 — Procedure and sequence of tests 18