BS EN 1267:2012

BSI Standards Publication

Industrial valves — Test of flow resistance using water as test fluid

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National foreword

This British Standard is the UK implementation of EN 1267:2012. It supersedes BS EN 1267:1999 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PSE/18/1, Industrial valves, steam traps, actuators and safety devices against excessive pressure - Valves - Basic standards.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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English Version

Industrial valves - Test of flow resistance using water as test fluid

Robinetterie industrielle - Essai de résistance à l'écoulement utilisant l'eau comme fluide d'essai

Industriearmaturen - Messung des Strömungswiderstandes mit Wasser als Prüfmedium

This European Standard was approved by CEN on 26 November 2011.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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Foreword

This document (EN 1267:2012) has been prepared by Technical Committee CEN/TC 69 “Industrial valves”, 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of an identical text or by endorsement, at the latest by July 2012, and conflicting national standards shall be withdrawn at the latest by July 2012.

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 1267:1999.

The main changes compared to the previous edition are the following:

a) the scope was specified and editorially revised;

b) the normative references were updated;

c) Clause 3 on terms and definitions was revised;

d) Clause 4 on test facility was changed;

e) Clause 5 on test procedure was changed;

f) Annex A on lower ζ limit considerations was revised;

g) Annex D on evaluation of uncertainty of flow rate coefficient (K_v) and pressure losses coefficient (ζ) was added;

h) a bibliography was added.

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, Croatia, 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, Turkey and the United Kingdom.

1 Scope

This European Standard specifies a method for determining valve pressure loss coefficient and fluid flow coefficient using water as test fluid. This method is suitable

— for valves with low zeta values but higher than 0,1 by determining pressure loss, with respect to fluid flow rate and specific gravity, and

— for valves with equal inlet and outlet nominal size.

Industrial process control valves are excluded from this European Standard.

NOTE 1 For zeta values above 6, the pressure loss coefficient inaccuracy is higher than the pressure loss caused by the test tubes. It becomes the same configuration of tests as in EN 60534-2-3.

NOTE 2 If using air as test fluid, other standards e.g. EN 60534-2-3 and ISO 6358 should be referred to.

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 736-1:1995, *Valves — Terminology — Part 1: Definition of types of valves*

EN 736-3:2008, *Valves — Terminology — Part 3: Definition of terms*

EN 1057, *Copper and copper alloys — Seamless, round copper tubes for water and gas in sanitary and heating applications*

EN 24006:1993, *Measurement of fluid flow in closed conduits — Vocabulary and symbols (ISO 4006:1991)*

EN ISO 6708:1995, *Pipework components — Definition and selection of DN (nominal size) (ISO 6708:1995)*

ISO 7-1:1994, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 7194:2008, *Measurement of fluid flow in closed conduits — Velocity-area methods of flow measurement in swirling or asymmetric flow conditions in circular ducts by means of current-meters or Pitot static tubes*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
flow coefficient
K_v or C_v

[EN 736-3:2008, 3.4.1]