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BS EN 14141:2013



BSI Standards Publication

Valves for natural gas transportation in pipelines — Performance requirements and tests

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This British Standard is the UK implementation of EN 14141:2013. It supersedes BS EN 14141:2003 which is withdrawn.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.

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English Version

Valves for natural gas transportation in pipelines - Performance requirements and tests

Robinetterie pour le transport de gaz naturel par des pipelines - Exigences de performance et essais

Armaturen für den Transport von Erdgas in Fernleitungen - Anforderungen an die Gebrauchstauglichkeit und deren Prüfung

This European Standard was approved by CEN on 18 April 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 14141:2013) 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 December 2013, and conflicting national standards shall be withdrawn at the latest by December 2013.

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 14141:2003.

The main changes compared to the previous edition are listed below:

- the scope was adjusted and revised;
- Clause 5 was specified and revised;
- Clause 10 was added;
- Annexes B, F and G were added;
- entire document was editorially revised and adjusted.

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, Former Yugoslav Republic of Macedonia, 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.

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Introduction

CEN/TC 69/WG 9 has been responsible for the development of a European performance standard of valves for use in pipelines for transportation of natural gas in accordance with EN 1594.

The significant properties of valves designed for a special application are defined by performance requirements accompanied by the description of tests to be carried out:

- by the manufacturer on the product during the manufacture; and
- by an independent accepted body on test samples for certification purposes;

to give proof that the valve meets the performance requirements of this European Standard.

A type test is included in this European Standard to satisfy the requirements of EN 1594.

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1 Scope

This European Standard applies to all valves (plug, ball, gate and check valves) used in onshore transmission pipelines for transport of natural gas in accordance with EN 1594, but with a differing temperature range according to the following three classes in accordance with EN 682:

- 1) - 10 °C to 60 °C;
- 2) - 20 °C to 60 °C;
- 3) the range stated by the purchaser for special design.

This European Standard comprises all valves which are components of the pipeline.

This European Standard specifies valves for pipelines with a maximum operating pressure (MOP) over 16 bar.

Control valves and safety valves are excluded from the scope of this European Standard.

This European Standard specifies requirements and appropriate verification tests carried out during production and for certification purposes to verify that the valves conform to the requirements. A summary of the product and type tests is given in Annex G.

This European Standard makes reference to EN 13942. All the requirements of EN 13942 should be met unless otherwise stated. Paragraphs marked with a dot [•] indicate requirements which are identical to EN 13942.

Additional national requirements and tests in accordance with individual national legal regulations not yet harmonised may be necessary and are to be advised in the purchase order.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 19, *Industrial valves - Marking of metallic valves*

EN 549, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*

EN 558, *Industrial valves — Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems — PN and Class designated valves*

EN 571-1, *Non destructive testing - Penetrant testing - Part 1: General principles*

EN 682, *Elastomeric Seals - Materials requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids*

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

EN 736-2:1997, *Valves - Terminology - Part 2: Definition of components of valves*

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

EN 1369:2012, *Founding - Magnetic particle testing*

EN 1371-1:2011, *Founding - Liquid penetrant testing- Part 1: Sand, gravity die and low pressure die castings*