



NSAI
Standards

Irish Standard
I.S. EN ISO 28921-1:2017

Industrial valves - Isolating valves for low-temperature applications - Part 1: Design, manufacturing and production testing (ISO 28921-1:2013)

I.S. EN ISO 28921-1:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

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Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN ISO 28921-1:2017 is the adopted Irish version of the European Document EN ISO 28921-1:2017, Industrial valves - Isolating valves for low-temperature applications - Part 1: Design, manufacturing and production testing (ISO 28921-1:2013)

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 28921-1

February 2017

ICS 23.060.01

Supersedes EN 12567:2000

English Version

Industrial valves - Isolating valves for low-temperature applications - Part 1: Design, manufacturing and production testing (ISO 28921-1:2013)

Robinetterie industrielle - Robinets d'isolement pour application à basses températures - Partie 1: Conception, essais de fabrication et de production (ISO 28921-1:2013)

Industriearmaturen - Absperrventile für die Anwendung im Niedertemperaturbereich - Teil 1: Auslegung, Fertigung, Produktionsprüfung (ISO 28921-1:2013)

This European Standard was approved by CEN on 10 January 2017.

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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.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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EN ISO 28921-1:2017 (E)

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European foreword

The text of ISO 28921-1:2013 has been prepared by Technical Committee ISO/TC 153 “Valves” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 28921-1:2017 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 August 2017, and conflicting national standards shall be withdrawn at the latest by August 2017.

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.

EN ISO 28921-1 and EN ISO 28921-2 supersede EN 12567:2000.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 28921-1:2013 has been approved by CEN as EN ISO 28921-1:2017 without any modification.

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INTERNATIONAL STANDARD

**ISO
28921-1**

First edition
2013-05-01

Industrial valves — Isolating valves for low-temperature applications —

Part 1: Design, manufacturing and production testing

*Robinetterie industrielle — Robinets d'isolement pour application à
basses températures —*

Partie 1: Conception, essais de fabrication et de production



Reference number
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ISO 28921-1:2013(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 28921-1 was prepared by Technical Committee ISO/TC 153, *Valves*, Subcommittee SC 1, *Design, manufacture, marking and testing*.

ISO 28921 consists of the following parts, under the general title *Industrial valves — Isolating valves for low-temperature applications*:

- *Part 1: Design, manufacturing and production testing*
- *Part 2: Type testing*

Introduction

The purpose of this part of ISO 28921 is the establishment of basic requirements and practices for design, fabrication, material selection and production testing of valves used in low-temperature services. The intention is to provide requirements for design, material selection and valve preparation for valves to be used in low-temperature service.

Industrial valves — Isolating valves for low-temperature applications —

Part 1: Design, manufacturing and production testing

1 Scope

This part of ISO 28921 specifies requirements for design, dimensions, material, fabrication and production testing of isolation valves for low-temperature applications.

It applies to gate, globe, check, butterfly and ball valves and can be used for other valve types used in low-temperature services.

This part of ISO 28921 covers isolation valves for use in cryogenic temperature service where the design low-temperature service is $-50\text{ }^{\circ}\text{C}$ down to $-196\text{ }^{\circ}\text{C}$.

This part of ISO 28921 does not apply to valves for cryogenic services, designed in accordance with ISO 21011, used with cryogenic vessels.

Where the requirements of this part of ISO 28921 vary from those given in the valve product standards, the requirements of this part of ISO 28921 apply.

This part of ISO 28921 covers valves with body, bonnet, bonnet extension or cover made of metallic materials.

It covers valves of nominal sizes DN: 10; 15; 20; 25; 32; 40; 50; 65; 80; 100; 125; 150; 200; 250; 300; 350; 400; 450; 500; 600; 650; 700; 750; 800; 850; 900,

corresponding to nominal pipe sizes NPS: 3/8; 1/2; 3/4; 1; 1 1/4; 1 1/2; 2; 2 1/2; 3; 4; 5; 6; 8; 10; 12; 14; 16; 18; 20; 24; 26; 28; 30; 32; 34; 36,

and applies to pressure designations:

- PN 16; 25; 40; 100; 160; 250.
- Class 150; 300; 600; 800; 900; 1 500.

NOTE PN 250 and Class 1 500 in sizes DN > 100 and NPS > 4 are not covered in this part of ISO 28921.

2 Normative references

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

ISO 5208, *Industrial valves — Pressure testing of metallic valves*

ISO 5209, *General purpose industrial valves — Marking*

ISO 10434, *Bolted bonnet steel gate valves for the petroleum, petrochemical and allied industries*

ISO 10497, *Testing of valves — Fire type-testing requirements*

ISO 10631, *Metallic butterfly valves for general purposes*

ISO 14313, *Petroleum and natural gas industries — Pipeline transportation systems — Pipeline valves*

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