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**Plinske jeklenke - Samozaporni ventili za plinske jeklenke - Specifikacija in preskus tipa (ISO/DIS 17879.2:2026)**

Gas cylinders - Self-closing cylinders valves - Specification and type testing (ISO/DIS 17879.2:2026)

Gasflaschen - Selbstschließende Flaschenventile - Spezifikation und Baumusterprüfung (ISO/DIS 17879.2:2026)

Bouteilles à gaz - Robinets de bouteilles équipés de clapets auto-obturants - Spécifications et essais de type (ISO/DIS 17879.2:2026)

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| 23.060.40 | Tlačni regulatorji | Pressure regulators |

**oSIST prEN ISO 17879:2026****en,fr,de**

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# DRAFT International Standard

## ISO/DIS 17879.2

### Gas cylinders — Self-closing cylinders valves — Specification and type testing

*Bouteilles à gaz — Robinets de bouteilles équipés de clapets auto-obturants — Spécifications et essais de type*

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## ISO/DIS 17879.2:2026(en)

## 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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at [www.iso.org/patents](http://www.iso.org/patents). ISO shall not be held responsible for identifying any or all such patent rights.

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 2, *Cylinder fittings*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 23, *Transportable gas cylinders*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 17879:2017), which has been technically revised.

The main changes are as follows:

- harmonization with the 2024 edition of ISO 10297;
- modification of requirements and testing of valves used in acetylene service including the deletion of former [Annex B](#);
- update of [Annex B](#) (former [Annex C](#)) on the oxygen pressure surge test by adopting the structure of the respective Annex C in ISO 10297:2024.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

**ISO/DIS 17879.2:2026(en)****Introduction**

This document has been written so that it is suitable to be referenced in the UN Model Regulations. In this document, the unit bar is used due to its universal use in the field of technical gases. However, bar is not an SI unit, and the corresponding SI unit for pressure is Pa ( $1 \text{ bar} = 10^5 \text{ Pa} = 10^5 \text{ N/m}^2$ ).

Pressure values in this document are given as gauge pressure (pressure exceeding atmospheric pressure) unless noted otherwise.

Any tolerances given in this document include measurement uncertainties.

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# Gas cylinders — Self-closing cylinders valves — Specification and type testing

## 1 Scope

This document specifies design, type testing, marking and manufacturing tests and examinations requirements for:

- a) self-closing cylinder valves;
- b) self-closing cylinder valves with integrated pressure regulator (VIPR), which include VIPR designs where the primary valve operating mechanism is located upstream of the pressure regulating system (VIPR type A) and where the primary valve operating mechanism is located at the low-pressure side of the pressure regulating system (VIPR type C);

used for refillable transportable gas cylinders which convey compressed, liquefied or dissolved gases.

NOTE 1 The main applications for such self-closing cylinder valves are in the calibration gas and beverage industries.

NOTE 2 Where there is no risk of ambiguity, cylinder valves and VIPRs are addressed with the collective term “valves” within this document.

This document does not apply to:

- VIPR designs where the pressure regulating system is acting as the primary valve operating mechanism (VIPR type B) and designs where closure of the primary valve operating mechanism is obtained by closing the seat of the pressure regulating mechanism (such designs are covered by ISO 10297);
- valves for cryogenic equipment, portable fire extinguishers and liquefied petroleum gas (LPG);
- quick-release cylinder valves (e.g. for fire-extinguishing, explosion protection and rescue applications) - requirements for quick-release cylinder valves are specified in ISO 17871 which contains normative references to this document;
- ball valves.

NOTE 3 Requirements for valves for cryogenic vessels are specified in ISO 21011 and at a regional level, e.g. in EN 1626. Requirements for valves for portable fire extinguishers are specified at a regional level, e.g. in EN 3 series. Requirements for self-closing LPG cylinder valves are specified in ISO 14245. Requirements for quick-release cylinder valves are given in ISO 17871. Requirements for ball valves are given in ISO 23826.

This document only covers the function of a valve as a closure.

NOTE 4 Other additional functions that can be integrated into the valve can be covered by other standards. Such standards do however not constitute requirements of this document.

NOTE 5 Definition of and specific requirements for VIPRs in addition to those given in this document are specified in ISO 22435 for industrial applications or ISO 10524-3 for medical applications. Similarly, certain specific additional requirements for residual pressure valves (RPV) are given in ISO 15996.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

## ISO/DIS 17879.2:2026(en)

ISO 148-1, *Metallic materials — Charpy pendulum impact test — Part 1: Test method*

ISO 10156, *Gas cylinders — Gases and gas mixtures — Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets*

ISO 10286, *Gas cylinders — Vocabulary*

ISO 10297:2024, *Gas cylinders — Cylinder valves — Specification and type testing*

ISO 11114-1, *Gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 1: Metallic materials*

ISO 11114-2, *Gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 2: Non-metallic materials*

ISO 11114-6, *Gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 6: Oxygen pressure surge testing*

ISO 11117, *Gas cylinders — Valve protection caps and guards — Design, construction and tests*

ISO 13341, *Gas cylinders — Fitting of valves to gas cylinders*

ISO 14246, *Gas cylinders — Cylinder valves — Manufacturing tests and examinations*

ISO 15615:2022, *Gas welding equipment — Acetylene manifold systems for welding, cutting and allied processes — Safety requirements in high-pressure devices*

ISO/TR 11364, *Gas cylinders — Compilation of national and international valve stem/gas cylinder neck threads and their identification and marking system*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO 10286 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

#### 3.1

##### **self-closing cylinder valve**

cylinder valve with a normally closed *valve operating mechanism* (3.9) that is actuated by a separate *operating device* (3.10) which is not an integral part of the cylinder valve

#### 3.2

##### **residual pressure valve**

##### **RPV**

valve which incorporates a *residual pressure device* (3.3)

#### 3.3

##### **residual pressure device**

##### **RPD**

device that is designed to prevent ingress of contaminants by maintaining a positive pressure within the gas cylinder relative to atmosphere by closing off its internal gas passages in the discharging direction

Note 1 to entry: This definition can be different from definitions given in applicable transport regulations.

## ISO/DIS 17879.2:2026(en)

### 3.4 valve with integrated pressure regulator

#### VIPR

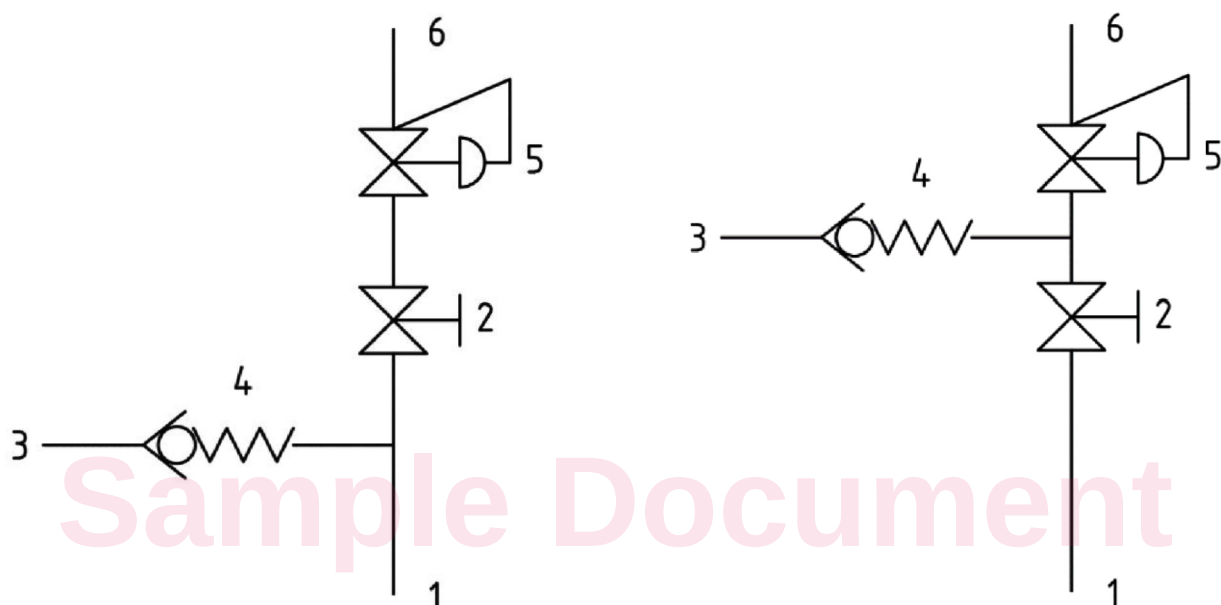
device intended to be permanently fitted to a gas cylinder which comprises of at least a shut-off function and pressure regulating system

### 3.5

#### VIPR type A

VIPR design where the primary *valve operating mechanism* (3.9) is located upstream of the *pressure regulating system* (3.8)

Note 1 to entry: For typical designs, see [Figure 1](#).



a) Valve filling connection upstream of the primary valve operating mechanism

b) Valve filling connection between the primary valve operating mechanism and the pressure regulating system

#### Key

- 1 valve inlet connection
- 2 primary valve operating mechanism
- 3 valve filling connection
- 4 filling connection closing device
- 5 pressure regulating system
- 6 valve outlet connection

**Figure 1 — General structure of VIPR type A designs**

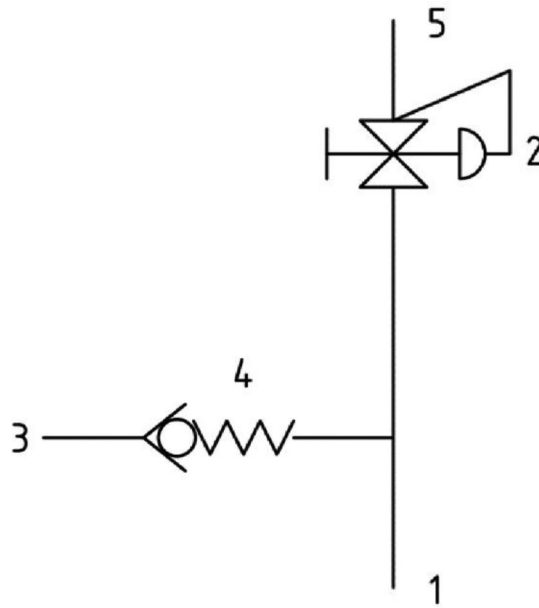
### 3.6

#### VIPR type B

VIPR design where the *pressure regulating system* (3.8) is also acting as the primary *valve operating mechanism* (3.9)

Note 1 to entry: See [Figure 2](#).

## ISO/DIS 17879.2:2026(en)

**Key**

- 1 valve inlet connection
- 2 pressure regulating system including primary valve operating mechanism
- 3 valve filling connection
- 4 filling connection closing device
- 5 valve outlet connection

**Figure 2 — General structure of a VIPR type B design**

**3.7****VIPR type C**

VIPR design where the primary valve operating mechanism (3.9) is located downstream of the pressure regulating system (3.8)

Note 1 to entry: The primary valve operating mechanism can be a flow selector.

Note 2 to entry: See [Figure 3](#).