

<b>STN</b>	<b>Malé lekárske plynové nádoby Strmeňové ventilové spoje Pin-index (ISO 407: 2023)</b>	<b>STN EN ISO 407</b>  07 8610
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Small medical gas cylinders - Pin-index yoke-type valve connections (ISO 407:2023)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/24

Obsahuje: EN ISO 407:2023, ISO 407:2023

Oznámením tejto normy sa ruší  
STN EN ISO 407 (07 8610) zo septembra 2021

**138095**

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Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024  
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii  
v znení neskorších predpisov.

EUROPEAN STANDARD

EN ISO 407

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2023

ICS 11.040.10

Supersedes EN ISO 407:2021

English Version

## Small medical gas cylinders - Pin-index yoke-type valve connections (ISO 407:2023)

Petites bouteilles à gaz médicaux - Raccords de robinets du type étrier avec ergots de sécurité (ISO 407:2023)

Kleine Gasflaschen für die medizinische Anwendung - Ventilseitenstutzen mit Anschlussbügel nach dem PIN-Index-System (ISO 407:2023)

This European Standard was approved by CEN on 1 July 2023.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

**EN ISO 407:2023 (E)**

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## **European foreword**

This document (EN ISO 407:2023) has been prepared by Technical Committee ISO/TC 58 "Gas cylinders" in collaboration with Technical Committee CEN/TC 23 "Transportable gas cylinders" the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by February 2024, and conflicting national standards shall be withdrawn at the latest by February 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 407:2021.

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## **Endorsement notice**

The text of ISO 407:2023 has been approved by CEN as EN ISO 407:2023 without any modification.

# INTERNATIONAL STANDARD

# ISO 407

Fifth edition  
2023-07

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## Small medical gas cylinders — Pin- index yoke-type valve connections

*Petites bouteilles à gaz médicaux — Raccords de robinets du type  
étrier avec ergots de sécurité*



Reference number  
ISO 407:2023(E)

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CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
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Published in Switzerland

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## ISO 407:2023(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.

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 documents 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)).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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, *Cylinders 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 fifth edition cancels and replaces the fourth edition (ISO 407:2021) of which it constitutes a minor revision.

The main changes are as follows:

- correction of [Figure 1](#).

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).

# Small medical gas cylinders — Pin-index yoke-type valve connections

## 1 Scope

This document is applicable to pin-index yoke-type valve connections for medical gas cylinders, with a working pressure up to a maximum of 200 bar or test pressure up to a maximum of 300 bar, or both.

NOTE 1 This type of connection is primarily used for small cylinders (5 l or below).

NOTE 2 In this document the unit bar is used, due to its universal use in the field of technical gases. It should, however, be noted that bar is not an SI unit, and that the corresponding SI unit for pressure is Pa (1 bar =  $10^5$  Pa =  $10^5$  N/m<sup>2</sup>).

This document specifies:

- basic dimensions;
- requirements for alternative designs of the yoke-type valve connections;
- dimensions and positions for the holes and pins for the outlet connections.

It also specifies the dimensions and positions for the holes and pins for the outlet connections for gases and gas mixtures.

## 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 32, *Gas cylinders for medical use — Marking for identification of content*

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