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Respiratory protective devices - Gas cylinder valves -  
Part 2: Outlet connections

## EESTI STANDARDI EESSÕNA

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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EUROPEAN STANDARD

**EN 144-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2018

ICS 13.340.30

Supersedes EN 144-2:1998

English Version

## Respiratory protective devices - Gas cylinder valves - Part 2: Outlet connections

Appareils de protection respiratoire - Robinets de  
bouteille à gaz - Partie 2: Raccordements de sortie

Atemschutzgeräte - Gasflaschenventile - Teil 2:  
Ausgangsanschlüsse

This European Standard was approved by CEN on 19 February 2018.

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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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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 144-2:2018) has been prepared by Technical Committee CEN/TC 79 “Respiratory protective devices”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2018, and conflicting national standards shall be withdrawn at the latest by October 2018.

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

This document supersedes EN 144-2:1998.

The following main technical changes have been made compared to EN 144-2:1998:

- a) Terms and definition added;
- b) new classification scheme added in 4.2;
- c) outlet connections for breathable air changed to be in accordance with EN ISO 12209, including a new type for working pressure of breathable air above 300 bar up to 400 bar;
- d) Clause 4 “Marking” completely changed and adapted to Part 1;
- e) A-deviation deleted.

This document is one part of a three-part standard concerning connections for gas cylinder valves for respiratory protective devices:

- Part 1: Inlet connections
- Part 2: Outlet connections
- Part 3: Outlet connections for diving gases Nitrox and oxygen.

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.

## 1 Scope

This European Standard specifies the dimensions, tolerances and marking requirements of outlet connections for connecting regulators and cylinder valves for respiratory protective devices except those for diving applications.

## 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.

EN 144-1, *Respiratory protective devices — Gas cylinder valves — Part 1: Inlet connections*

EN ISO 12209, *Gas cylinders — Outlet connections for gas cylinder valves for compressed breathable air (ISO 12209)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 144-1 apply.

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

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

## 4 Dimensional and tolerance requirements

### 4.1 General

The outlet connections specified in this European Standard refer to the cylinder valve outlet and a mating connection. Use of the specified filling connector is essential to ensure the safe use of each connection at its intended working pressure.

### 4.2 Classification

For the purpose of this European Standard the outlet connections are classified as following:

- a) Type A1: working pressure of breathable air up to 232 bar;
- b) Type A2: working pressure of breathable air above 232 bar up to 300 bar;
- c) Type A3: working pressure of breathable air above 300 bar up to 400 bar;
- d) Type O1: working pressure of oxygen up to 232 bar;
- e) Type O2: working pressure of oxygen above 232 bar up to 300 bar;
- f) Type M1: working pressure of oxygen/nitrogen mixtures up to 232 bar;
- g) Type M2: working pressure of oxygen/nitrogen mixtures above 232 bar up to 300 bar.

The cylinder valve and gas cylinder shall be tested against the maximum working pressure of the pressure range of the connection (i.e. 232 bar, 300 bar or 400 bar).