



SWEDISH  
STANDARDS  
INSTITUTE

## SVENSK STANDARD SS-EN ISO 12209-2

Fastställt	Utgåva	Sida
2001-02-09	1	1 (1+15)

© Copyright SIS. Reproduction in any form without permission is prohibited.

### Gas cylinders – Outlet connections for gas cylinder valves for compressed breathable air – Part 2: Threaded connections (ISO 12209-2:2000)

The European Standard EN ISO 12209-2:2000 has the status of a Swedish Standard. This document contains the official English version of EN ISO 12209-2:2000.

Swedish Standards corresponding to documents referred to in this Standard are listed in "Catalogue of Swedish Standards", issued by SIS. The Catalogue lists, with reference number and year of Swedish approval, International and European Standards approved as Swedish Standards as well as other Swedish Standards.

### Gasflaskor – Anslutningar för utloppsventil till gasflaskor för komprimerad andningsluft – Del 2: Gängade anslutningar (ISO 12209-2:2000)

Europastandarden EN ISO 12209-2:2000 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 12209-2:2000.

Motsvarigheten och aktualiteten i svensk standard till de publikationer som omnämns i denna standard framgår av "Katalog över svensk standard", som ges ut av SIS. I katalogen redovisas internationella och europeiska standarder som fastställts som svenska standarder och övriga gällande svenska standarder.

---

ICS 23.020.30; 23.060.40

Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.  
Postadress: SIS, Box 6455, 113 82 STOCKHOLM  
Telefon: 08 - 610 30 00. Telefax: 08 - 30 77 57  
E-post: [sis.sales@sis.se](mailto:sis.sales@sis.se). Internet: [www.sisforlag.se](http://www.sisforlag.se)

Upplysningar om **sakinnehållet** i standarden lämnas av SIS (TKS).  
Telefon: 08 - 653 49 68. Telefax: 08 - 653 49 95  
E-post: [tk@sis.se](mailto:tk@sis.se)

Tryckt i mars 2001



EUROPEAN STANDARD

EN ISO 12209-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2000

---

ICS 02.002.30

English version

Gas cylinders - Outlet connections for gas cylinder valves for  
compressed breathable air - Part 2: Threaded connections (ISO  
12209-2:2000)

Bouteilles à gaz - Raccords de sortie pour robinets de  
bouteilles à gaz pour air comprimé respirable - Partie 2:  
Raccords filetés (ISO 12209-2:2000)

Ortsbewegliche Gasflaschen - Ventilseitenstutzen für  
Gasflaschengewinde für verdichtete Atemluft - Teil 2:  
Gewindeanschlüsse (ISO 12209-2:2000)

This European Standard was approved by CEN on 15 November 2000.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Contents

	Page
Foreword .....	3
1 Scope .....	4
2 Normative references .....	4
3 General requirements .....	4
3.1 General .....	4
3.2 300 bar valve .....	5
3.3 300 bar off-take connection .....	6
3.4 300 bar filling connection .....	7
3.5 230 bar valve .....	9
3.6 230 bar off-take connection .....	10
3.7 230 bar filling connection .....	11
4 Marking .....	12
Annex A (normative) Outlet connection prototype qualification test procedures .....	13
Bibliography .....	14
Annex ZA (normative) Normative references to international publications with their relevant European publications .....	15

## **Foreword**

The text of the International Standard ISO 12209-2:2000 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 May 2001, and conflicting national standards shall be withdrawn at the latest by May 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## **Endorsement notice**

The text of the International Standard ISO 12209-2:2000 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

# Gas cylinders — Outlet connections for gas cylinder valves for compressed breathable air —

## Part 2: Threaded connections

### 1 Scope

This part of ISO 12209 specifies the characteristics of the threaded type outlet connections for gas cylinder valves for compressed breathable air cylinders, up to a maximum cylinder working pressure of 230 bar and 300 bar. It states the fundamental requirements for both the connection and its components and includes basic dimensions.

This part of ISO 12209 is not applicable to connections described in EN 144-2<sup>[1]</sup>.

Annex A gives the outlet connection prototype qualification test procedures.

### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 12209. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 12209 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 228-1:2000, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation.*

ISO 2768-1:1989, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications.*

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

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

### 3 General requirements

#### 3.1 General

Basic dimensions for the connections and components are shown on Figures 1, 3, 5, 6, 8 and 10 and are specified in Tables 1, 2, 3, 4, 5 and 6 respectively.

Unless otherwise specified, the general tolerances of form and position shall be in accordance with class m of ISO 2768-1:1994.

The requirements for material specifications, gas/material compatibility and valve prototype testing are covered in the relevant standards, for example ISO 10297 and ISO 11114-1.

### 3.2 300 bar valve

Figure 1 shows the valve outlet to be used for cylinders with a maximum working pressure of 300 bar and Table 1 specifies its dimensions.

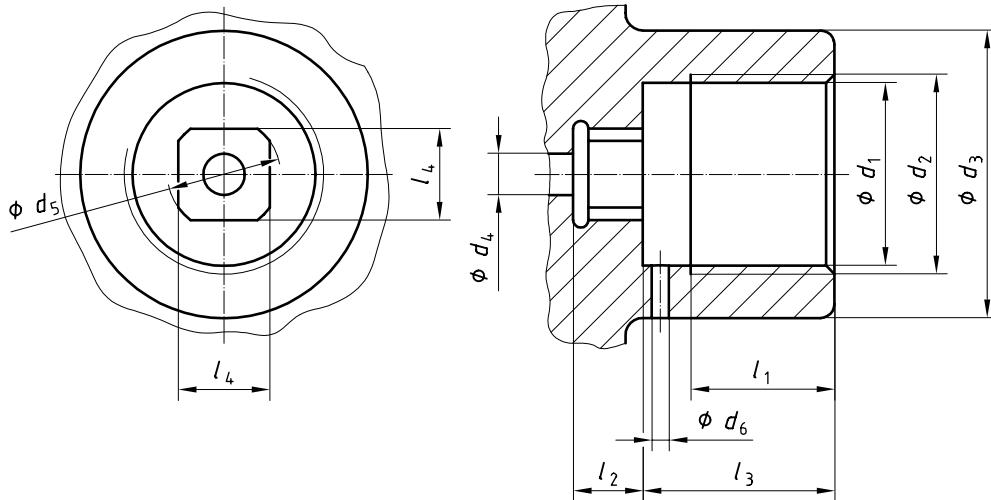


Figure 1 — Outlet for 300 bar valves

Table 1 — Dimensions of outlet for 300 bar valves

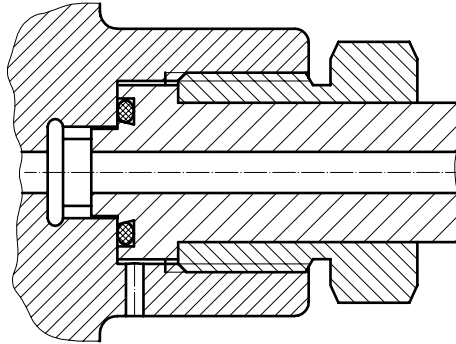
Dimensions in millimetres

Symbol	Dimension	Tolerance	Symbol	Dimension	Tolerance
$l_1$ min.	16	—	$d_2$	G 5/8 <sup>a</sup>	—
$l_2$	8	$\begin{matrix} 0 \\ -0,3 \end{matrix}$	$d_3$ min.	32	—
$l_3$	22	—	$d_4$ max.	5	—
$l_4$	10,5	$\pm 0,1$	$d_5$	13	$\begin{matrix} 0 \\ -0,2 \end{matrix}$
$d_1$	21	—	$d_6$	2	$\begin{matrix} +1 \\ 0 \end{matrix}$

<sup>a</sup> For dimensions of pipe threads, see ISO 228-1.

### 3.3 300 bar off-take connection

Figure 2 is an assembly drawing of the gas off-take connection for valves for use with cylinders with a maximum working pressure of 300 bar.



**Figure 2 — 300 bar off-take connection — Assembly drawing**

Figure 3 shows the individual parts of the off-take connection and Table 2 specifies their basic dimensions. Figure 1 shows the valve outlet.

**Table 2 — Basic dimensions of 300 bar off-take connection**

Dimensions in millimetres

Symbol	Dimension	Tolerance	Symbol	Dimension	Tolerance
$l_1$	3	—	$d_3$	17	—
$l_2$	1,9	$\begin{matrix} 0 \\ -0,1 \end{matrix}$	$d_4$	12	$\begin{matrix} +0,1 \\ 0 \end{matrix}$
$l_3$	7	—	$d_5$	10	$\begin{matrix} 0 \\ -0,1 \end{matrix}$
$l_4$ max.	18	—	$d_6$	16	d11
$\alpha$	15°	—	$d_7$	20	—
$d_1$	11,2	—	$d_8$	G 5/8 <sup>a</sup>	—
$d_2$	2,65	—	$d_9$	16	B11
NOTE Dimensions of sealing devices are in conformity with ISO 3601-1 <sup>[2]</sup> .					
<sup>a</sup> For dimensions of pipe threads, see ISO 228-1.					