



SLOVENSKI STANDARD SIST EN ISO 10651-4:2009

01-julij-2009

BUXca Yý U

SIST EN ISO 10651-4:2002

SIST EN ISO 10651-4:2002/AC:2006

D`1 b]j Ybh] Urcf]!("XY. DcgYVbYnU H]j YnU bUdfUj YnUcy]j `UbYž_]`j i dfUj`U
cdYfUHyf fIGC`%\$*)%(.&\$ \$&L

Lung ventilators - Part 4: Particular requirements for operator-powered resuscitators (ISO 10651-4:2002)

iTeh STANDARD PREVIEW

Lungenbeatmungsgeräte - Teil 4: Anforderungen an anwenderbetriebene Wiederbelebungsgeräte (Handbeatmungsgeräte) (ISO 10651-4:2002)

[SIST EN ISO 10651-4:2009](https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03efbd9a4/sist-en-iso-10651-4-2009)

Ventilateurs pulmonaires - Partie 4: Exigences relatives aux ressuscitateurs à puissance motrice manuelle (ISO 10651-4:2002)

Ta slovenski standard je istoveten z: EN ISO 10651-4:2009

ICS:

11.040.10	Anestezijska, respiratorna in reanimacijska oprema	Anaesthetic, respiratory and reanimation equipment
-----------	--	--

SIST EN ISO 10651-4:2009

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 10651-4:2009

<https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 10651-4

April 2009

ICS 11.040.10

Supersedes EN ISO 10651-4:2002

English Version

Lung ventilators - Part 4: Particular requirements for operator-powered resuscitators (ISO 10651-4:2002)

Ventilateurs pulmonaires - Partie 4: Exigences relatives aux resuscitateurs à puissance motrice manuelle (ISO 10651-4:2002)

Lungenbeatmungsgeräte - Teil 4: Anforderungen an anwenderbetriebene Wiederbelebungsgeräte (Handbeatmungsgeräte) (ISO 10651-4:2002)

This European Standard was approved by CEN on 21 March 2009.

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 CEN 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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN ISO 10651-4:2009](https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009)

<https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009>



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Annex ZA (Informative) Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC.....	4

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 10651-4:2009](https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009)

<https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009>

Foreword

The text of ISO 10651-4:2002 has been prepared by Technical Committee ISO/TC 121 "Anaesthetic and respiratory equipment" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 10651-4:2009 by Technical Committee CEN/TC 215 "Respiratory and anaesthetic equipment" 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 October 2009, and conflicting national standards shall be withdrawn at the latest by March 2010.

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.

This document supersedes EN ISO 10651-4:2002.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive.

For relationship with EC Directive, see informative Annex ZA, which is an integral part of this document.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

<https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009>

Endorsement notice

The text of ISO 10651-4:2002 has been approved by CEN as a EN ISO 10651-4:2009 without any modification.

Annex ZA (Informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 93/42/EEC on medical devices.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 – Correspondence between this European Standard and EU Directives

Clause(s)/sub-clause(s) of this EN	Essential Requirements (ERs) of Directive 93/42/EEC	Qualifying remarks/Notes
All	1 (1st paragraph), 2	
4.1	3, 9.1	
4.2	3, 9.1	
4.3	3, 9.1	
4.4	9.1	
4.5	3, 9.1	
4.6	3, 7.1, 7.6, 9.1	
4.7	3, 7.3, 9.1	
4, 5, 9, 10	1 (2nd paragraph, 1st dash)	This relevant Essential Requirement is not fully addressed in this European Standard
4, 5, 9, 10	1 (2nd paragraph, 2nd dash)	This relevant Essential Requirement is not fully addressed in this European Standard
-	6a)	This relevant Essential Requirement is not addressed in this European Standard
5.1	4, 9.2	
5.2	3, 4, 9.2	
5.3	3, 4, 7.6	
5.4	3, 4, 5	
5.5	4, 5	
5.7	7.5 (1st paragraph)	This relevant Essential Requirement is not fully addressed in this European Standard

Clause(s)/sub-clause(s) of this EN	Essential Requirements (ERs) of Directive 93/42/EEC	Qualifying remarks/Notes
5.7	7.5 (2nd paragraph)	This relevant Essential Requirement is not fully addressed in this European Standard
-	7.5 (3rd paragraph)	This relevant Essential Requirement is not addressed in this European Standard
6.1	3, 9.1	
6.2	3, 9.2	
6.3	3, 9.2	
6.4	3, 9.1,	
6.5	3, 7.5, 9.2	
6.6	3, 9.2	
6.7.1	3	
6.7.2	3, 9.2, 12.8.2	
7.1	3, 5, 9.2	
7.2	3, 9.2	
8.1	8.1, 8.3, 8.4, 8.5	
8.2	8.1, 8.3, 8.4, 8.5	
9	13.3 (a)	This relevant Essential Requirement is not fully addressed in this European Standard
9.1	2, 6, 13.1, 13.2	
9.2	5, 9.2, 13.1, 13.2	
9.3	13.3, 13.4	
9, 10	13.3 (f)	This relevant Essential Requirement is not fully addressed in this European Standard
9, 10	13.6 (h)(2nd paragraph)	This relevant Essential Requirement is not fully addressed in this European Standard
10	9.3, 13.1, 13.2, 13.3, 13.4, 13.6	
10	13.6 (q)	This relevant Essential Requirement is not addressed in this European Standard
	All other requirements are not applicable to this standard	

WARNING: Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 10651-4:2009

<https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009>

INTERNATIONAL STANDARD

ISO 10651-4

First edition
2002-03-01

Lung ventilators —

Part 4:

Particular requirements for operator- powered resuscitators

*Ventilateurs pulmonaires —
Partie 4 : Exigences relatives aux ressuscitateurs à puissance motrice
manuelle*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 10651-4:2009](https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009)

<https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009>



Reference number
ISO 10651-4:2002(E)

© ISO 2002

ISO 10651-4:2002(E)**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 10651-4:2009](https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009)

<https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009>

© ISO 2002

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

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 3.

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.

Attention is drawn to the possibility that some of the elements of this part of ISO 10651 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10651-4 was prepared by the European Committee for Standardization (CEN) in collaboration with Technical Committee ISO/TC 121, *Anaesthetic and respiratory equipment*, Subcommittee SC 3, *Lung ventilators and related equipment*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this document, read "...this European Standard..." to mean "...this International Standard...".

ISO 10651 consists of the following parts, under the general title *Lung ventilators*:

- *Part 1: Requirements*
- *Part 2: Particular requirements for home care ventilators*
- *Part 3: Particular requirements for emergency and transport ventilators*
- *Part 4: Particular requirements for operator-powered resuscitators*

Annex A forms a normative part of this part of ISO 10651. Annex B is for information only.

For the purposes of this part of ISO 10651, the CEN annex regarding fulfilment of European Council Directives has been removed.

Contents

	Page
Foreword.....	v
1 Scope	1
2 Normative references	1
3 Terms and definitions.....	1
4 Connectors	3
5 Operational requirements	3
6 Ventilatory requirements.....	4
7 Storage and operating conditions.....	6
8 Requirements for resuscitator, or parts, supplied sterile	6
9 Marking	6
10 Information to be provided by the manufacturer in operating and maintenance instructions	7
Annex A (normative) Test methods.....	9
Annex B (informative) Rationale.....	19
Bibliography	22

ITeH STANDARD PREVIEW
 (standards.iteh.ai)
[SIST EN ISO 10651-4:2009](https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009)
<https://standards.iteh.ai/catalog/standards/sist/02004627-c33a-4c1b-a178-27cc03c0d9a4/sist-en-iso-10651-4-2009>