

SLOVENSKI STANDARD oSIST prEN ISO 5367:2012

01-junij-2012

Anestezijska in dihalna oprema - Dihalni seti in priključki (ISO/DIS 5367:2012)

Anaesthetic and respiratory equipment - Breathing sets and connectors (ISO/DIS 5367:2012)

Anästhesie- und Beatmungsgeräte - Atemsets und Verbindungsstücke (ISO/DIS 5367:2012)

iTeh Standards

Matériel d'anesthésie et de réanimation respiratoire - Circuits respiratoires et de connecteurs (ISO/DIS 5367:2012)

Document Preview

Ta slovenski standard je istoveten z: prEN ISO 5367

SIST EN ISO 5367:201

https://standards.iteh.ai/catalog/standards/sist/e39a30e2-917b-444f-aca1-d92402a126ee/sist-en-iso-5367-2015

<u>ICS:</u>

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

oSIST prEN ISO 5367:2012

en,fr,de

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 5367:2015

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

DRAFT prEN ISO 5367

February 2012

ICS 11.040.10

English Version

Anaesthetic and respiratory equipment - Breathing sets and connectors (ISO/DIS 5367:2012)

Matériel d'anesthésie et de réanimation respiratoire -Circuits respiratoires et de connecteurs (ISO/DIS 5367:2012) Anästhesie- und Beatmungsgeräte - Atemsets und Verbindungsstücke (ISO/DIS 5367:2012)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 215.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, 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, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

https://s Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

prEN ISO 5367:2012 (E)

Contents

Page

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 5367:2015

Foreword

This document (prEN ISO 5367:2012) has been prepared by Technical Committee ISO/TC 121 "Anaesthetic and respiratory equipment" in collaboration with Technical Committee CEN/TC 215 "Respiratory and anaesthetic equipment" the secretariat of which is held by BSI.

This document is currently submitted to the parallel Enquiry.

Endorsement notice

The text of ISO/DIS 5367:2012 has been approved by CEN as a prEN ISO 5367:2012 without any modification.

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 5367:2015

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 5367:2015



DRAFT INTERNATIONAL STANDARD ISO/DIS 5367

ISO/TC 121/SC 2

Secretariat: ANSI

Voting begins on 2012-02-23

Voting terminates on 2012-07-23

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • MEXCHAPODHAR OPPAHU3ALUN FIO CTAHDAPTU3ALUN • ORGANISATION INTERNATIONALE DE NORMALISATION

Anaesthetic and respiratory equipment — Breathing sets and connectors

Matériel d'anesthésie et de réanimation respiratoire — Circuits respiratoires et de connecteurs

[Revision of fourth edition (ISO 5367:2000)]

ICS 11.040.10

iTeh Standards

This draft has been developed within the International Organization for Standardi	
processed under the ISO-lead mode of collaboration as defined in the Vienna Agree	• •
This draft is hereby submitted to the ISO member bodies and to the CEN mem	odies for a parallel
Should this draft be accepted, a final draft, established on the basis of comments submitted to a parallel two-month approval vote in ISO and formal vote in CEN.	s received, will be
In accordance with the provisions of Council Resolution 15/1993 this documer	nt is circulated in
the English language only.	
Conformément aux dispositions de la Résolution du Conseil 15/1993, ce distribué en version anglaise seulement.	e document est

Pour accélérer la distribution, le présent document est distribué tel qu'il est parvenu du secrétariat du comité. Le travail de rédaction et de composition de texte sera effectué au Secrétariat central de l'ISO au stade de publication.

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENT AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

ISO/DIS 5367

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 5367:2015

https://standards.iteh.ai/catalog/standards/sist/e39a30e2-917b-444f-aca1-d92402a126ee/sist-en-iso-5367-2015

Copyright notice

This ISO document is a Draft International Standard and is copyright-protected by ISO. Except as permitted under the applicable laws of the user's country, neither this ISO draft nor any extract from it may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, photocopying, recording or otherwise, without prior written permission being secured.

Requests for permission to reproduce should be addressed to 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.org Web www.iso.org

Reproduction may be subject to royalty payments or a licensing agreement.

Violators may be prosecuted.

Con	tents	Page
	ord	
Introd	uction	v
1	Scope	1
2	Normative references	1
3	Terms and definitions	
4 4.1 4.2 4.3	General requirements Risk management Usability Clinical evaluation	
4.3 4.4 4.5 4.6	Biophysical or modelling research Test Methods Recommended service life Specific requirements Materials	
5 5.1 5.2 5.3 5.4 5.5 5.6	Length Means of connection Leakage Resistance to flow	((
6 7 7.1 7.2	Prevention of electrostatic charges and breathing tubes supplied sterile Requirements for breathing sets and breathing tubes supplied sterile Sterility assurance Packaging of breathing sets and breathing tubes supplied sterile	1(1(1)
8.1 8.2 8.3 8.4	ds.iteh.ai/catalog/stand/rds///e3/a30e2-917b-4441-aca1-d92402a126ee/sist-en-iso-5 Marking General Marking of breathing sets and breathing tubes Marking of packages Information to be supplied by the manufacturer	1(1(1(
Annex	A (informative) Rationale	1
Annex	B (informative) Hazard identification for risk assessment	20
Annex	C (normative) Test for security of attachment of plain end to conical connector	2 [.]
Annex	CD (normative) Test for security of attachment of adaptor to breathing tube	2
Annex	E (normative) Test for leakage	2
Annex	r F (normative) Measurement of resistance to flow	2
Annex	G (normative) Test for increase in flow resistance with bending	28
Annex	H (normative) Test for compliance	30
Biblio	graphy	32
Annez	ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC	33

ISO/DIS 5367

Figures

Figure 1 — Axial length of plain end of breathing tube
Figure A.1 — Example of a basic anaesthesia breathing set
Figure A.2 — Example of a basic coaxial anaesthesia breathing set (i.e. Mapleson D-Bain)
Figure A.3 — Example of a basic single tube breathing set with exhalation valve
Figure A.4 — Example of a critical care ventilator breathing set with water traps and connections to a humidifier (H) and ventilator (V)
Figure A.5 — Example of a multiple lumen coaxial breathing set with gas sampling tubing 15
Figure A.6 — VBS leakage limits by breathing system standard
Figure A.7 — VBS leakage limits evaluated at the new pressure level
Figure F.1 — Typical apparatus for measuring resistance to air flow

Tables

*Table 1 — Leakage limit by patient category.eh.	8
*Table 2 —Flow resistance limit by patient category	8
Table 3 — Compliance limit per metre by intended delivered volume	9
Table 4 — Compliance limit by intended delivered volume	9
Table 5 — Patient categories	12 5367-2015
Table F.1 — Test Flow Rates	
Table G.1 Test flow for flow resistance to bending	28
Table ZA 1 — Correspondence between this European Document and Directive 93/42/EEC	33

1

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.

8 International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 5367 was prepared by Technical Committee ISO/TC 121, Anaesthetic and respiratory equipment,
 Subcommittee SC 2, Airways and related equipment, Working Group (WG 3) which consisted of experts from
 ISO/TC 121 subcommittees SC 1, SC 2, and SC 3.

- ¹⁷ This fifth edition cancels and replaces the fourth edition (ISO 5367:2000), which has been technically revised.
- 18 The following major changes were made:
- title and scope;
- additional normative references;
- https://standards.iteh.ai/catalog/stand/rds///e3/a30e2-917b-444f-aca1-d92402a126ee/s 21 - additional terms and definitions;
 - additional general requirements, including risk management, usability, clinical and biophysical research;
 - requirements for coaxial tubing, revised leakage limits, and testing for flow resistance and compliance;
 - revised limits for prevention of electrostatic charges;
 - revised requirements for marking of packaging, including use of symbols, disclosure of intended patient
 category, flow resistance, and compliance;
 - added an annex for a rationale;
 - added annex for hazard identification for risk assessment;
 - revised test method annexes for resistance to flow, security of attachments, leakage, and compliance;
 - 30 added annex for compliance with the EU Directives.
 - 31 32

33 Introduction

This International Standard contains requirements for **breathing sets**, **breathing tubes**, and **connectors** that are intended to function as accessories to anaesthetic and respiratory equipment. **Breathing sets** and **breathing tubes** are characterized by certain design requirements such as a means of connection and leakage limits. Disclosure requirements for **compliance** and flow resistance values and labelling allow the user to make an informed choice when connecting these accessories to a **breathing system**. These design requirements are intended to allow operation within the limits of system performance of the **anaesthetic breathing systems** and **ventilator breathing systems** with which the accessories are intended to operate.

This International Standard includes requirements for both single-use and reusable **breathing sets** and **breathing tubes**. Re-usable **breathing sets and breathing tubes** are intended to comply with the requirements of this International Standard for the recommended service life.

Certain tests are performed under constant pressure to simplify the test methodology. It is recognized that this does not reflect clinical use, where pressure is intermittent and peak pressures occur for short periods. The limits in the test methods take this into account. Whilst such test methods do not address product variability, the limits required also take this into account.

- ⁴⁸ Terms defined in this document are set in **bold type**.
- ⁴⁹ Throughout this standard, text for which a rationale is provided in Annex A is indicated by an asterisk (*).
- Throughout this standard, all pressures are denoted in SI units of hPa with corresponding cmH_2O equivalent values rounded to the nearest whole cmH_2O .

52 NOTE The unit cmH₂O is not in SI notation and is not allowed in ISO documents; rounded cmH₂O values are given 53 for information only to allow comparison to medical literature and related **breathing system** standards.

⁵⁴ https://standards.iteh.ai/catalog/stand.rds/si

55