

**Päästesüsteemid. Inkubaatorite transportimine. Osa 1:
Nõuded liidesele**

Rescue systems - Transportation of incubators - Part 1:
Interface conditions

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13976-1:2011 sisaldab Euroopa standardi EN 13976-1:2011 ingliskeelset teksti.

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English Version

Rescue systems - Transportation of incubators - Part 1: Interface conditions

Systèmes de sauvetage - Transport d'incubateurs - Partie
1: Conditions d'interface

Rettungssysteme - Inkubatortransport - Teil 1:
Anforderungen an Schnittstellen

This European Standard was approved by CEN on 14 April 2011.

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Foreword

This document (EN 13976-1:2011) has been prepared by Technical Committee CEN/TC 239 “Rescue systems”, 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of an identical text or by endorsement, at the latest by November 2011, and conflicting national standards shall be withdrawn at the latest by November 2011.

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 13976-1:2003.

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 EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

EN 13976-1:2003 has been technically revised. The following points represent the most important changes in the revision:

- 1) clarified ambiguous and unclear issues between the two parts (requirements for the transport incubator system interface conditions and system requirements, respectively);
- 2) proposed items in order to improve fixation, interchangeability and interoperability of the transport incubator system when transported in hospitals and between hospitals using different ambulances and air crafts;
- 3) adapted the standard to developments in neonatal intensive care;
- 4) excluded proposals on standards for stretchers, vehicles or medical devices.

EN 13976 consists of the following parts, under the general title: *Rescue systems — Transportation of incubators*:

— *Part 1: Interface conditions*

— *Part 2: System requirements.*

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, 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.

Introduction

This European Standard gives the requirements for the interfaces required in the transport of a transport incubator system. The standard include interfaces between the incubator and the ambulance as well as those between the various items of equipment used to make up the transport incubator system. They are essential in order to ensure interchangeability and a safe and effective function in different vehicles, allowing the uninterrupted care of patients. Requirements for interface conditions are given in this part 1 (EN 13976-1). Requirements for the system are given in part 2 (EN 13976-2).

Fixation, monitoring, supply of gas and electricity are maintained through the use of the same standard interfaces as defined in this document.

1 Scope

This European Standard specifies the requirements for the interface between the ambulance and the incubator and the associated equipment, needed for care and treatment of infants, used in emergency or planned transports to ensure interchangeability and interoperability and to provide uninterrupted care of patients.

This European Standard does not give requirements for the vehicles, crafts, devices or incubators as such; these requirements are found in other standards. However, transport incubators are normally combined with other equipment to form a "transport incubator system".

2 Normative references

The following referenced documents are indispensable for the application 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.

ENV 737-6, *Medical gas pipeline systems — Part 6: Dimensions and allocation of probes for terminal units for compressed medical gases and vacuum*

EN 1789, *Medical vehicles and their equipment — Road ambulances*

EN 13718-1, *Medical vehicles and their equipment — Air Ambulances — Part 1: Requirements for medical devices used in air ambulances*

EN 13718-2, *Medical vehicles and their equipment — Air Ambulances — Part 2: Operational and technical requirements of air ambulances*

EN 60309-1, *Plugs, socket-outlets and couplers for industrial purposes — Part 1: General requirements (IEC 60309-1:1999)*

EN 60309-2, *Plugs, socket-outlets and couplers for industrial purposes — Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories (IEC 60309-2:1999)*

EN 60601-2-20, *Medical electrical equipment — Part 2-20: Particular requirements for basic safety and essential performance of infant transport incubators (IEC 60601-2-20:2009)*

EN ISO 407, *Small medical gas cylinders — Pin-index yoke-type valve connections (ISO 407:2004)*

EN ISO 7396-1:2007, *Medical gas pipeline systems — Part 1: Pipeline systems for compressed medical gases and vacuum (ISO 7396-1:2007)*

EN ISO 7396-2:2007, *Medical gas pipeline systems — Part 2: Anaesthetic gas scavenging disposal systems (ISO 7396-2:2007)*

EN ISO 9170-1, *Terminal units for medical gas pipeline systems — Part 1: Terminal units for use with compressed medical gases and vacuum (ISO 9170-1:2008)*

MS 33601, *Track and Stud Fitting for Cargo Transport Aircraft, Standard Dimensions for FSC 1560*