



EESTI STANDARDI EESSÕNA NATIONAL FOREWORD

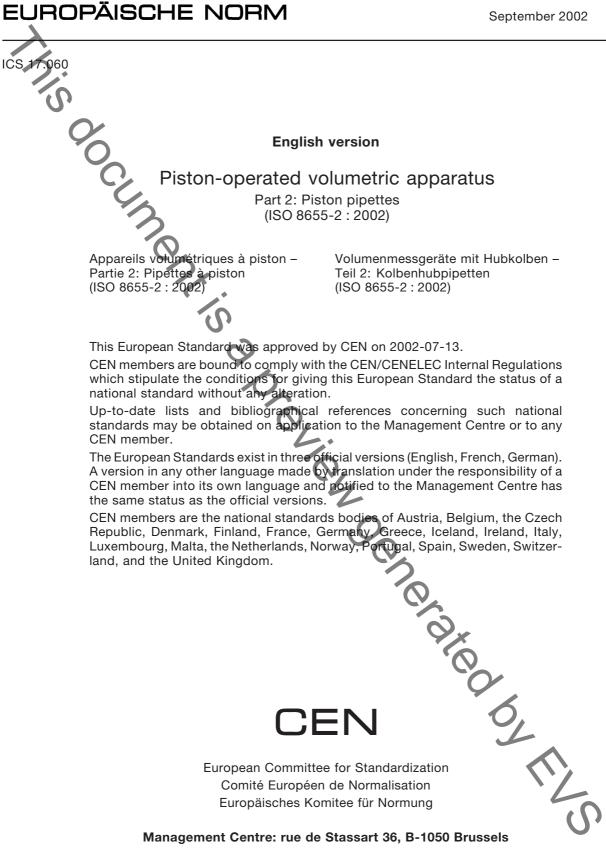
Käesolev Eesti standard EVS-EN ISO 8655-2:2003 sisaldab Euroopa standardi EN ISO 8655-2:2002 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 8655-2:2003 consists of the English text of the European standard EN ISO 8655-2:2002.
Käesolev dokument on jõustatud 18.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 18.02.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.
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Käsitlusala: This partof ISO 8655 specifies - metrological requirements, - maximum permissible errors, - requirements for marking and - information to be provided for users, for air-displacement and positive-displament single-channel and multi-channel piston pipettes	Scope: This partof ISO 8655 specifies - metrological requirements, - maximum permissible errors, - requirements for marking and - information to be provided for users, for air-displacement and positive-displament single-channel and multi-channel piston pipettes
ICS 17.060, 71.040.20 Võtmesõnad: definitions, error limits, lifting instruments, operation, piston meters, pisto (approval), specifications, testing, volumetr	on operated pipettes, pistons, specification

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EUROPEAN STANDARD

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European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

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Foreword

International Standard

ISO 8655-2:2002 Piston-operated volumetric apparatus – Part 2: Piston pipettes,

which was prepared by ISO/TC 48 'Laboratory glassware and related apparatus' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 332 'Laboratory equipment', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by March 2003, at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 8655-2 : 2002 was approved by CEN as a European Standard without any modification.

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NOTE: Normative references to international publications are listed in Annex ZA (normative.)

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Introduction

ISO 8655 addresses the needs of:

- suppliers, as a basis for quality control including, where appropriate, the issuance of supplier's declarations;
- test houses and other bodies, as a basis for independent certification;
- users of the equipment, to enable routine checking of accuracy. _____

The tests specified should be carried out by trained personnel.

1 Scope

This part of ISO 8655 specifies

- metrological requirements,
- maximum permissible errors,
- requirements for marking and
- information to be provided for users,

for air-displacement (type A) and positive-displacement (type D) single-channel and multi-channel piston pipettes, complete with their selected tip(s) and any other essential, consumable parts, designed to deliver their specified nominal volume (Ex).

NOTE General requirements and definitions of terms of piston-operated volumetric apparatus are given in ISO 8655-1. Conformity testing (type evaluation) of piston-operated volumetric apparatus is given in ISO 8655-6. Alternative test methods such as photometric and titrimetric methods will be the subject of a future Part 7 to ISO 8655. For all other tests (e.g. quality assurance by the supplier, analytical and measuring equipment quality assurance by the user) see ISO 8655-6 or alternative test methods. For safety requirements of electrically powered piston pipettes, see IEC 61010-1.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 8655. 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 8655 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 3696, Water for analytical laboratory use - Specification and test methods

ISO 8655-1:2002, Piston-operated volumetric apparatus - Part 1: Terminology, general requirements and user recommendations

ISO 8655-6:2002, Piston-operated volumetric apparatus - Part 6: Gravimetric methods for the determination of measurement error