

STN	Ihlové injekčné systémy na zdravotnícke účely Požiadavky a skúšobné metódy Časť 5: Automatické funkcie (ISO 11608-5: 2022)	STN EN ISO 11608-5 85 5930
------------	---	--

Needle-based injection systems for medical use - Requirements and test methods - Part 5: Automated functions (ISO 11608-5:2022)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/23

Obsahuje: EN ISO 11608-5:2023, ISO 11608-5:2022

Oznámením tejto normy sa ruší
STN EN ISO 11608-5 (85 5930) z júna 2013

136859

EUROPEAN STANDARD

EN ISO 11608-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2023

ICS 11.040.25

Supersedes EN ISO 11608-5:2012

English Version

Needle-based injection systems for medical use - Requirements and test methods - Part 5: Automated functions (ISO 11608-5:2022)

Systèmes d'injection à aiguille pour usage médical -
Exigences et méthodes d'essai - Partie 5: Fonctions
automatisées (ISO 11608-5:2022)

Kanülenbasierte Injektionssysteme zur medizinischen
Verwendung - Anforderungen und Prüfverfahren - Teil
5: Automatisierte Funktionen (ISO 11608-5:2022)

This European Standard was approved by CEN on 10 March 2023.

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-CENELEC 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-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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 11608-5:2023 (E)

Contents	Page
European foreword.....	3

European foreword

The text of ISO 11608-5:2022 has been prepared by Technical Committee ISO/TC 84 "Devices for administration of medicinal products and catheters" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11608-5:2023 by Technical Committee CEN/TC 205 "Non-active medical devices" 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 September 2023, and conflicting national standards shall be withdrawn at the latest by September 2023.

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

This document supersedes EN ISO 11608-5:2012.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 11608-5:2022 has been approved by CEN as EN ISO 11608-5:2023 without any modification.

INTERNATIONAL STANDARD

ISO 11608-5

Second edition
2022-04

Needle-based injection systems for medical use — Requirements and test methods —

Part 5: Automated functions

*Systèmes d'injection à aiguille pour usage médical — Exigences et
méthodes d'essai —*

Partie 5: Fonctions automatisées



Reference number
ISO 11608-5:2022(E)

© ISO 2022

ISO 11608-5:2022(E)**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2022

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Requirements	4
4.1 General requirements.....	4
4.2 Medicinal product preparation.....	5
4.3 Needle preparation.....	6
4.4 Needle hiding.....	6
4.5 Priming.....	6
4.6 Dose setting.....	6
4.7 Needle insertion.....	6
4.8 Injection depth control.....	6
4.9 Dose delivery.....	7
4.10 Recording of device functions.....	7
4.11 Needle retraction.....	7
4.11.1 Completion of dose delivery.....	7
4.11.2 Needle retraction distance.....	7
4.11.3 Communication of completion.....	7
4.12 Disabling the NIS-AUTO.....	7
4.13 Needle shielding.....	8
4.13.1 General.....	8
4.13.2 Needle shielding before injection.....	8
4.13.3 Needle shielding after injection.....	8
4.14 Needle removal from the NIS-AUTO.....	8
5 Test methods	8
5.1 General.....	8
5.2 Test conditions.....	9
5.3 Actuation.....	9
5.4 Medicinal product preparation.....	9
5.5 Needle inspection.....	9
5.6 Needle hiding.....	9
5.7 Priming.....	10
5.8 Needle extension.....	10
5.9 Injection time.....	10
5.10 Dose accuracy.....	11
5.11 Retracted position.....	11
5.12 Disabling the NIS-AUTO.....	11
5.13 Needle shielding.....	11
5.13.1 Needle shielding before and after injection.....	11
5.13.2 Needle shielding after free fall.....	11
6 Information supplied with the NIS-AUTO	11
Annex A (informative) Rationale for requirements	12
Annex B (informative) Example of a test method for dose accuracy at intended injection depth	14
Annex C (informative) Needle extension and intended injection depth	16
Bibliography	22

ISO 11608-5:2022(E)

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 84, *Devices for administration of medicinal products and catheters*.

This second edition cancels and replaces the first edition (ISO 11608-5:2012), which has been technically revised.

The main changes are as follows:

- this document has been clarified to explain that an automated function is one which does not require user interaction after the action which initiates the function, including designating injection depth control as automated when the user does not have control over the depth to which the needle is inserted, even where needle insertion is performed manually.

A list of all parts in the ISO 11608 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is applicable to needle-based injection systems (NIS) with automated functions (NIS-AUTO) primarily intended to administer medicinal products to humans. In order to support device innovation and design, this document has been written in a format that describes the output of the design effort rather than prescribing the exact form of construction of the NIS-AUTO. This document should be used in conjunction with ISO 11608-1.

Needle-based injection systems for medical use — Requirements and test methods —

Part 5: Automated functions

1 Scope

This document specifies requirements and test methods for automated functions in needle-based injection systems with automated functions (NIS-AUTO).

General requirements are provided for all automated functions. In addition, specific requirements are provided for the following automated functions:

- a) medicinal product preparation (e.g. reconstitution);
- b) needle preparation;
- c) needle hiding;
- d) priming;
- e) dose setting;
- f) needle insertion;
- g) injection depth control;
- h) injection of the medicinal product;
- i) recording of device functions;

NOTE This document does not cover remote communication from the NIS-AUTO (pertains to wired and wireless communication transfer from the NIS auto).

- j) disabling the NIS-AUTO;
- k) needle retraction;
- l) needle shielding;
- m) needle removal.

All references to "function" in this document are by definition construed as automated functions (see [3.2](#)). This document does not apply to functions that are performed manually by the user.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 11608-1:2022, *Needle-based injection systems for medical use — Requirements and test methods — Part 1: Needle-based injection systems*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN