

STN	Ergonómia Interakcia človek-systém Časť 5: Požiadavky na usporiadanie pracovného miesta a na pracovnú polohu (ISO 9241-5: 2024)	STN EN ISO 9241-5 83 3580
------------	--	---

Ergonomics of human-system interaction - Part 5: Workstation layout and postural requirements (ISO 9241-5:2024)

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. 10/24

Obsahuje: EN ISO 9241-5:2024, ISO 9241-5:2024

Oznámením tejto normy sa ruší
STN EN ISO 9241-5 (83 2091) z októbra 2001

139439

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii
v znení neskorších predpisov.

EUROPEAN STANDARD

EN ISO 9241-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2024

ICS 13.180; 35.180

Supersedes EN ISO 9241-5:1999

English Version

Ergonomics of human-system interaction - Part 5: Workstation layout and postural requirements (ISO 9241- 5:2024)

Ergonomie de l'interaction homme-système - Partie 5:
Aménagement du poste de travail et exigences
relatives aux postures (ISO 9241-5:2024)

Ergonomie der Mensch-System-Interaktion - Teil 5:
Anforderungen an Arbeitsplatzgestaltung und
Körperhaltung (ISO 9241-5:2024)

This European Standard was approved by CEN on 26 August 2024.

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 9241-5:2024 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 9241-5:2024) has been prepared by Technical Committee ISO/TC 159 "Ergonomics" in collaboration with Technical Committee CEN/TC 122 "Ergonomics" 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 March 2025, and conflicting national standards shall be withdrawn at the latest by March 2025.

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 9241-5:1999.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. 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 9241-5:2024 has been approved by CEN as EN ISO 9241-5:2024 without any modification.



International Standard

ISO 9241-5

Ergonomics of human-system interaction —

Part 5: Workstation layout and postural requirements

Ergonomie de l'interaction homme-système —

*Partie 5: Aménagement du poste de travail et exigences relatives
aux postures*

**Second edition
2024-08**

ISO 9241-5:2024(en)**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2024

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

ISO 9241-5:2024(en)**Contents**

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Guiding principles	4
4.1 General considerations.....	4
4.2 Versatility and flexibility.....	4
4.3 Fit.....	5
4.4 Postural change.....	5
4.5 User information.....	5
4.6 Maintainability-adaptability.....	5
5 Design requirements and recommendations	6
5.1 General.....	6
5.2 Postures.....	6
5.2.1 Design reference posture(s).....	6
5.2.2 Sitting postures.....	7
5.2.3 Standing and sit and stand postures.....	7
5.2.4 Intermediate postures between sitting and standing — Semi-standing.....	7
5.3 Ease of adjustment.....	9
5.4 Support surfaces.....	10
5.4.1 General recommendations.....	10
5.4.2 Clearances under worksurfaces.....	10
5.4.3 Viewing distances and angles of view.....	11
5.4.4 Finish of the worksurface.....	12
5.4.5 Safety and stability aspects of workstations.....	13
5.4.6 Energy loss to contact surfaces.....	13
5.5 Work chair.....	13
5.5.1 General considerations.....	13
5.5.2 Parameters related to fit.....	13
5.5.3 Dynamic aspects of seating.....	14
5.5.4 Back support.....	15
5.5.5 Arm support.....	15
5.6 Additional support elements.....	16
5.6.1 Document holders.....	16
5.6.2 Footrest.....	16
5.6.3 Support for the hands, wrists and forearms.....	17
5.6.4 Workstations with monitor arm.....	17
5.7 Layout of workstations within the workspace.....	18
5.7.1 General considerations.....	18
5.7.2 Cable management.....	18
6 Conformity	18
7 Measurement	19
7.1 Support surfaces.....	19
7.2 Safety and stability aspects of workstations.....	19
7.3 Seat height.....	19
7.4 Castors.....	19
7.5 Layout of workstations within the workspace.....	19
Annex A (informative) Anthropometric data needed for workstation design and selection	20
Bibliography	27

ISO 9241-5:2024(en)

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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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 159, *Ergonomics*, Subcommittee SC 4, *Ergonomics of human-system interaction*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 122, *Ergonomics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 9241-5:1998), which has been technically revised.

The main changes are as follows:

- Expansion and correction of [Clause 3](#).
- Additional information added to [Clause 4](#).
- Additional requirements and recommendations given in [Clause 5](#).
- Revision of [Annex A](#).

A list of all parts in the ISO 9241 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.

ISO 9241-5:2024(en)**Introduction**

The purpose of this document is to promote and enhance performance and comfort while minimizing risks to users' safety and health. Users of interactive systems typically adopt a range of postures, such as seated with leaning, upright or reclining torso, standing or a combination of both. Workplaces which accommodate such usage can encourage movement, promote comfort and reduce physical, mental and visual problems.

This document is intended for use by product and workstation designers and implementers.

Ergonomics of human-system interaction —

Part 5:

Workstation layout and postural requirements

1 Scope

This document specifies ergonomic guiding principles which apply to the user requirements, design and procurement of workstation equipment for using interactive systems with visual displays.

In particular, the general principles and requirements specified in this document apply to the standards specifying technical design of furniture and equipment constituting the workplace. They are intended for use by product and workstation designers and implementers.

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 9241-11:2018, *Ergonomics of human-system interaction — Part 11: Usability: Definitions and concepts*

ISO 9241-302:2008, *Ergonomics of human-system interaction — Part 302: Terminology for electronic visual displays*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN