

## SLOVENSKI STANDARD oSIST prEN ISO 11064-4:2011

01-december-2011

Ergonomsko načrtovanje krmilnih centrov - 4. del: Ureditev in mere delovnih mest (ISO/DIS 11064-4:2011)

Ergonomic design of control centres - Part 4: Layout and dimensions of workstations (ISO/DIS 11064-4:2011)

Ergonomische Gestaltung von Leitzentralen - Teil 4: Auslegung und Maße von Arbeitsplätzen (ISO/DIS 11064-4:2011)

Conception ergonomique des centres de commande - Partie 4: Agencement et dimensionnement du poste de travail (ISO/DIS 11064-4:2011)

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25.040.10 Večoperacijski stroji Machining centres

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## DRAFT prEN ISO 11064-4

September 2011

ICS 13.180

Will supersede EN ISO 11064-4:2004

#### **English Version**

## Ergonomic design of control centres - Part 4: Layout and dimensions of workstations (ISO/DIS 11064-4:2011)

Conception ergonomique des centres de commande -Partie 4: Agencement et dimensionnement du poste de travail (ISO/DIS 11064-4:2011) Ergonomische Gestaltung von Leitzentralen - Teil 4: Auslegung und Maße von Arbeitsplätzen (ISO/DIS 11064-4:2011)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 122.

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.

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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.  $\frac{1303464892495311661130644420114}{1303464892495311661130644420114}$ 

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

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### prEN ISO 11064-4:2011 (E)

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prEN ISO 11064-4:2011 (E)

### **Foreword**

This document (prEN ISO 11064-4:2011) 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 document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 11064-4:2004.

#### **Endorsement notice**

The text of ISO/DIS 11064-4:2011 has been approved by CEN as a prEN ISO 11064-4:2011 without any modification.

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### **DRAFT INTERNATIONAL STANDARD ISO/DIS 11064-4**

ISO/TC **159**/SC **4** Secretariat: **BSI** 

Voting begins on Voting terminates on

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## Ergonomic design of control centres —

### Part 4:

## Layout and dimensions of workstations

Conception ergonomique des centres de commande —

Partie 4: Agencement et dimensionnement du poste de travail

[Revision of first edition (ISO 11064-4:2004)]

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## **ISO/CEN PARALLEL PROCESSING**

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

In accordance with the provisions of Council Resolution 15/1993 this document is circulated in the English language only.

Conformément aux dispositions de la Résolution du Conseil 15/1993, ce document est distribué en version anglaise seulement.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

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.

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### **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.

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 11064-4 was prepared by Technical Committee ISO/TC 159, , Subcommittee SC 4, *Ergonomics of Human-System Interaction*.

This second/third/... edition cancels and replaces the first/second/... edition (), [clause(s) / subclause(s) / table(s) / figure(s) / annex(es)] of which [has / have] been technically revised.

ISO 11064 consists of the following parts, under the general title Ergonomic design of control centres:

- Part 1: Principles for the design of control centres
- Part 2: Principles of control suite arrangement
- Part 3: Control room layout
- Part 4: Layout and dimensions of workstations
- Part 5: Displays and controls
- Part 6: Environmental requirements for control rooms
- Part 7: Principles for the evaluation of control centres

### Introduction

This part of ISO 11064 establishes ergonomic requirements, recommendations and guidelines for the design of workplaces in control centres.

All types of control centres are covered, including those for the process industry, transport and dispatching systems or emergency services. Although this part of ISO 11064 is primarily intended for non-mobile control centres, many of the principles are relevant to mobile centres such as those found on ships, locomotives and aircraft

User requirements are a central theme of this part of ISO 11064 and the processes described are designed to take into account the needs of users at all stages. The overall strategy for dealing with the user requirements is presented in ISO 11064-1. ISO 11064-2 provides guidance on the design and planning of the control room in relation to its supporting areas. Requirements for the layout of the control room are covered by ISO 11064-3. Displays and controls, human computer interaction and the physical working environment are presented in ISO 11064-5 and ISO 11064-6. Evaluation principles are dealt with in ISO 11064-7.

The users of this standard are assumed to have some understanding of anthropometry, its use and limitations, and its application in the context of control rooms. Where this understanding is in doubt it is recommended that the advice of an expert is sought.

The ultimate beneficiaries of this part of ISO 11064 will be the operator within the control room and other users. It is the needs of these users that provide the ergonomic requirements that are addressed by the International Standards developers. Although it is unlikely that the end user will read this International Standard, or even know of its existence, its application should provide the user with interfaces that are more usable, and a working environment which is more consistent with operational demands and result in a solution which will improve system performance and will minimize error and enhance productivity.

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## Ergonomic design of control centres — Part 4: Layout and dimensions of workstations

### 1 Scope

This part of ISO 11064 specifies ergonomic principles, recommendations and requirements for the design of workstations found in control centres. It covers workstation design with particular emphasis on layout and dimensions. This standard covers primarily seated, visual-display-based workstations although control workstations at which operators stand are also addressed. These different types of workstation are to be found in applications such as transportation control, process control and security installations. Most of these workstations now incorporate flat displays screens for the presentation of information.

#### 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.

ISO 9241-3:1992, Ergonomic requirements for office work with visual display terminals (VDTs) — Part 3: Visual display requirements

ISO 9241-410:2008, Ergonomics of human-system interaction -- Part 410: Design criteria for physical input devices

ISO 9241-5:1999, Ergonomic requirements for office work with visual display terminals (VDTs) — Part 5: Workstation layout and postural requirements

ISO 9355-2:1999, Ergonomic requirements for the design of displays and control actuators — Part 2: Displays

ISO 11064-2:2001, Ergonomic design of control centres – Part 2: Principles of control suite arrangement

ISO 11064-3:1999, Ergonomic design of control centres — Part 3: Control room layout

ISO 11064-6:2005, Ergonomic design of control centres – Part 6: Environmental requirements for control rooms

ISO 11428:1996, Ergonomics — Visual danger signals — General requirements, design and testing

ISO 7250-1:2008, Basic Human Body Measurements for Technological Design – Part 1: Body Measurement Definitions and Landmarks