

**Masinaohutus. Kuvarite ja juhtseadiste konstruktsiooni  
ergonoomianõuded. Osa 4: Kuva- ja juhtseadiste  
paigutus ja järjestus**

Safety of machinery - Ergonomic requirements for the design  
of displays and control actuators - Part 4: Location and  
arrangement of displays and control actuators

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 894-4:2010 sisaldab Euroopa standardi EN 894-4:2010 ingliskeelset teksti.

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ICS 13.110, 13.180

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English Version

**Safety of machinery - Ergonomics requirements for the design of  
displays and control actuators - Part 4: Location and  
arrangement of displays and control actuators**

Sécurité des machines - Spécifications ergonomiques pour  
la conception des dispositifs de signalisation et organes de  
service - Partie 4: Agencement et arrangement des  
dispositifs de signalisation et organes de service

Sicherheit von Maschinen - Ergonomische Anforderungen  
an die Gestaltung von Anzeigen und Stellteilen - Teil 4:  
Lage und Anordnung von Anzeigen und Stellteilen

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## Foreword

This document (EN 894-4:2010) has been prepared by 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of an identical text or by endorsement, at the latest by December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

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

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## Introduction

This European Standard has been prepared to be a harmonized standard in the sense of the Machinery Directive and the associated EFTA regulations.

This document is a type B standard as stated in EN ISO 12100.

The provisions of this document can be supplemented or modified by a type C standard.

**NOTE** For machines which are covered by the scope of a type C standard and which have been designed and built according to the provisions of that standard, the provisions of that type C standard take precedence over the provisions of this type B standard.

## 1 Scope

This European Standard contains ergonomic requirements for the location and arrangement of displays and control actuators in order to avoid hazards associated with their use.

This European Standard applies to displays and control actuators for machinery and other interactive equipment (e.g. devices and installations, instrument panels, control and monitoring consoles).

This European Standard is not applicable to the location and arrangement of displays and control actuators which are manufactured before the date of its publication as EN.

## 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.

EN 614-1, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 894-1:1997+A1:2008, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 1: General principles for human interactions with displays and control actuators*

EN 894-2:1997+A1:2008, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 2: Displays*

EN 894-3, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 3: Control actuators*

EN ISO 9241-11, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 11: Guidance on usability (ISO 9241-11:1998)*

EN ISO 9241-110, *Ergonomics of the human-system interaction — Part 110: Dialogue principles (ISO 9241-110:2006)*

EN ISO 12100-1:2003 *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003 and the following apply.

### 3.1

#### **control/display ratio**

#### **C/D ratio**

ratio of the movement of a control actuator to that of an associated element, display or controlled object

### 3.2

#### **elements**

generic term for displays and control actuators on consoles and panels

### 3.3

#### **primary element**

element frequently used for direct operation and monitoring of the system which includes safety and emergency related elements