

	<b>Ergonómia. Interakcia človek-systém. Časť 308: SED displeje (ISO/TR 9241-308: 2008).</b>	<b>TNI CEN ISO/TR 9241-308</b>  83 3580
--	---	---

Ergonomics of human-system interaction - Part 308: Surface-conduction electron-emitter displays (SED) (ISO/TR 9241-308:2008)

Táto technická normalizačná informácia obsahuje anglickú verziu CEN ISO/TR 9241-308:2015, ISO/TR 9241-308:2008.

This Technical standard information includes the English version of CEN ISO/TR 9241-308:2015, ISO/TR 9241-308:2008.

Táto technická normalizačná informácia bola oznámená vo Vestníku ÚNMS SR č. 04/16

**122738**



Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2016  
Tento dokument a ani jeho časti sa nesmú rozmnožovať a rozširovať v akejkoľvek podobe  
a akýmkoľvek prostriedkami bez písomného povolenia ÚNMS SR.

TECHNICAL REPORT

**CEN ISO/TR 9241-308**

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

December 2015

---

ICS 35.180; 13.180

English Version

**Ergonomics of human-system interaction - Part 308:  
Surface-conduction electron-emitter displays (SED)  
(ISO/TR 9241-308:2008)**

Ergonomie de l'interaction homme-système - Partie  
308: Écrans à émission d'électrons par conduction de  
surface (SED) (ISO/TR 9241-308:2008)

This Technical Report was approved by CEN on 19 October 2015. It has been drawn up by the Technical Committee CEN/TC 122.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## **European foreword**

This document (CEN ISO/TR 9241-308:2015) 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.

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

### **Endorsement notice**

The text of ISO/TR 9241-308:2008 has been approved by CEN as CEN ISO/TR 9241-308:2015 without any modification.

---

---

**Ergonomics of human-system  
interaction —**

Part 308:  
**Surface-conduction electron-emitter  
displays (SED)**

*Ergonomie de l'interaction homme-système —*

*Partie 308: Écrans à émission d'électrons par conduction de surface  
(SED)*



**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2008

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

## Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>vi</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Terms, definitions, symbols and abbreviated terms</b> .....	<b>1</b>
<b>3 SED technology</b> .....	<b>2</b>
<b>4 SED product information</b> .....	<b>6</b>
<b>5 Intended context of use</b> .....	<b>6</b>
<b>6 Guidelines for assessment</b> .....	<b>7</b>
<b>7 Conclusion</b> .....	<b>8</b>
<b>Annex A (informative) Overview of the ISO 9241 series</b> .....	<b>9</b>
<b>Bibliography</b> .....	<b>13</b>

## 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.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

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/TR 9241-308 was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 4, *Ergonomics of human-system interaction*.

ISO 9241 consists of the following parts, under the general title *Ergonomic requirements for office work with visual display terminals (VDTs)*:

- *Part 1: General introduction*
- *Part 2: Guidance on task requirements*
- *Part 4: Keyboard requirements*
- *Part 5: Workstation layout and postural requirements*
- *Part 6: Guidance on the work environment*
- *Part 9: Requirements for non-keyboard input devices*
- *Part 11: Guidance on usability*
- *Part 12: Presentation of information*
- *Part 13: User guidance*
- *Part 14: Menu dialogues*
- *Part 15: Command dialogues*
- *Part 16: Direct manipulation dialogues*
- *Part 17: Form filling dialogues*



ISO 9241 also consists of the following parts, under the general title *Ergonomics of human-system interaction*:

- *Part 20: Accessibility guidelines for information/communication technology (ICT) equipment and services*
- *Part 110: Dialogue principles*
- *Part 151: Guidance on World Wide Web user interfaces*
- *Part 171: Guidance on software accessibility*
- *Part 300: Introduction to electronic visual display requirements*
- *Part 302: Terminology for electronic visual displays*
- *Part 303: Requirements for electronic visual displays*
- *Part 304: User performance test methods for electronic visual displays*
- *Part 305: Optical laboratory test methods for electronic visual displays*
- *Part 306: Field assessment methods for electronic visual displays*
- *Part 307: Analysis and compliance test methods for electronic visual displays*
- *Part 308: Surface-conduction electron-emitter displays (SED) [Technical Report]*
- *Part 309: Organic light-emitting diode (OLED) displays [Technical Report]*
- *Part 400: Principles and requirements for physical input devices*
- *Part 410: Design criteria for physical input devices*
- *Part 920: Guidance on tactile and haptic interactions*

For the other parts under preparation, see Annex A.

## Introduction

This part of ISO 9241 introduces surface-conduction electron-emitter display (SED) technology into the ISO 9241 series and international ergonomics standardization (it is not yet addressed in ISO 9241-307, for instance, or in other ergonomics standards), and has been developed as a set of initial guidelines for the assessment of the ergonomic properties of SED-based products.

Compared with other display technologies, the ergonomic advantages of SED are

- isotropic behaviour of emission of light like that of CRT (cathode ray tube) technology,
- no curvature, unlike CRT technology,
- fast response time, like CRT technology, and
- a uniform and sharp focus on the entire screen as with LCD (liquid crystal display) and PDP (plasma display panel) technologies.

The currently known disadvantages of SED are

- limited display size, from 36 inch upwards (with the potential in the future for smaller display size), and
- fixed resolution compared with CRT technology.

In relation to the ergonomic requirements given in ISO 9241-303 and compared with (for example) CRT, no other specific health aspects or disadvantages of SED technology had been identified at the time of publication of this part of ISO 9241.

# Ergonomics of human-system interaction —

Part 308:

## Surface-conduction electron-emitter displays (SED)

### 1 Scope

This part of ISO 9241 gives guidelines for surface-conduction electron-emitter displays (SED).

### 2 Terms, definitions, symbols and abbreviated terms

koniec náhľadu – text ďalej pokračuje v platenej verzii STN