

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.

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European foreword

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Contents

Page

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

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

For the purposes of this document, the following term and definition, symbols and abbreviated terms apply.

2.1

surface-conduction electron-emitter display

SED

emissive visual display for direct view

NOTE See Reference [1].

2.2 Symbols and abbreviated terms

A_{scan}	amplitude of scan signal
A_{sig}	amplitude of pulse width modulation signal
$D_{\text{design,view}}$	design viewing distance
d	distance between rear and face plates
W_{view}	horizontal display size (width of active display area)
H_{view}	vertical display size (height of active display area)
I_{e}	emission current
V_{a}	anode voltage
V_{f}	driving voltage
AR	anti-reflective
BM	black matrix
CRT	cathode ray tube
LCD	liquid crystal display
PDP	plasma display panel
RD	residual dispersion
SCE	surface-conduction electron-emitter