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**Ergonomija medsebojnega vpliva človek-sistem - 312. del: Berljivost elektroforetskih prikazovalnikov (ISO/TR 9241-312:2020)**

Ergonomics of human-system interaction - Part 312: Readability of electrophoretic displays (ISO/TR 9241-312:2020)

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Ergonomie de l'interaction homme-système - Partie 312: Lisibilité des écrans électrophorétiques (ISO/TR 9241-312:2020)

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**ICS:**

13.180	Ergonomija	Ergonomics
35.180	Terminalska in druga periferna oprema IT	IT Terminal and other peripheral equipment

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CEN ISO/TR 9241-312

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## Ergonomics of human-system interaction - Part 312: Readability of electrophoretic displays (ISO/TR 9241- 312:2020)

Ergonomie de l'interaction homme-système - Partie  
312: Lisibilité des écrans électrophorétiques (ISO/TR  
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## **Ergonomics of human-system interaction —**

### **Part 312: Readability of electrophoretic displays**

*Ergonomie de l'interaction homme-système —*

*Partie 312: Lisibilité des écrans électrophorétiques*

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## Foreword

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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 documents 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](http://www.iso.org/directives)).

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A list of all parts in the ISO 9241-300 series can be found on the ISO website.

## ISO/TR 9241-312:2020(E)

## Introduction

Electrophoretic technology has led to the development of reflective e-paper displays (EPD) that have fundamentally different optical characteristics compared to emissive display devices, such as backlit liquid crystal displays (LCD) or organic light emitting diode displays (OLED). EPD are used in reading devices, also known as e-readers. See [Annex A](#) for more information on the standardization of electronic displays.

The ISO 9241-300 series provides requirements from the viewpoint of human beings' visual properties and are organized by subjects.

Electrophoretic EPD were selected for the experiments reported in this document because of their widespread use as electronic reading devices.

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# Ergonomics of human-system interaction —

## Part 312:

## Readability of electrophoretic displays

### 1 Scope

This document provides an overview of recent research on readability of electrophoretic displays. It also provides information for evaluating readability of electrophoretic displays and defining the context of their use.

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org/>

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#### 3.1

#### **visual analogue scale**

psychometric response measurement scale

#### 3.2

#### **legibility**

ability for unambiguous identification of single characters or symbols that may be presented in a non-contextual format

[SOURCE: ISO 9241-302: 2008, 3.3.35]

#### 3.3

#### **readability**

characteristics of a text presentation on a display that affect performance when groups of characters are to be easily discriminated, recognized and interpreted

[SOURCE: ISO 9241-302: 2008, 3.3.38]

#### 3.4

#### **electronic paper display**

#### **EPD**

electronic display that shows information by diffuse reflection and holds the image with low power consumption

#### 3.5

#### **electrophoretic display**

*electronic paper display* (3.4) which forms an image by rearranging charged pigment particles using an applied electric field