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LIIKUMISVÕIMEGA ISIKUTE KASUTATAVAD  
RAKENDUSED. ÜLDNÕUDED. OSA 1: KONTRASTSUS

Railway applications - Design for PRM Use - General  
requirements - Part 1: Contrast

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 16584-1:2017 sisaldab Euroopa standardi EN 16584-1:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 16584-1:2017 consists of the English text of the European standard EN 16584-1:2017.
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## Railway applications - Design for PRM use - General requirements - Part 1: Contrast

Applications ferroviaires - Conception destinée à l'usage par les PMR - Exigences générales - Partie 1: Contraste

Bahnanwendungen - Gestaltung für die Nutzung durch PRM - Allgemeine Anforderungen - Teil 1: Kontrast

This European Standard was approved by CEN on 10 September 2016.

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## European foreword

This document (EN 16584-1:2017) has been prepared by Technical Committee CEN/TC 256 "Railway applications", 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of an identical text or by endorsement, at the latest by July 2017, and conflicting national standards shall be withdrawn at the latest by July 2017.

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.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2008/57/EC.

For relationship with EU Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

This document is part of a suite of four 'Design for PRM use' standards that have in total nine parts:

- EN 16584 is a standard that covers both infrastructure and rolling stock — Railway applications — Design for PRM use — General requirements:
  - Part 1: Contrast (EN 16584-1)
  - Part 2: Information (EN 16584-2)
  - Part 3: Optical and friction characteristics (EN 16584-3)
- EN 16585 is a standard that covers rolling stock — Railway applications — Design for PRM use — Equipment and components on board rolling stock:
  - Part 1: Toilets (EN 16585-1)
  - Part 2: Elements for sitting, standing and moving (EN 16585-2)
  - Part 3: Clearways and internal doors (EN 16585-3)
- EN 16586 is a standard that covers rolling stock — Railway applications — Design for PRM use — Accessibility of persons with reduced mobility to rolling stock:
  - Part 1: Steps for access and egress (EN 16586-1)
  - Part 2: Boarding aids (EN 16586-2)
- EN 16587 is a standard that covers infrastructure — Railway applications — Design for PRM use — Requirements for obstacle free routes for infrastructure.

These standards aim to clarify the requirements (with clear and consistent terms and definitions) and to define the associated criteria and, where appropriate, methodologies to allow a clear pass/fail assessment.

## 1 Scope

This European Standard describes the specific 'Design for PRM use' requirements applying to both infrastructure and rolling stock and the assessment of those requirements. The following applies to this standard:

- The definitions and requirements describe specific aspects of 'Design for PRM use' required by persons with disabilities and persons with reduced mobility as defined in the PRM TSI.
- This standard defines elements that are universally valid for obstacle free travelling including lighting, contrast, tactile feedback, transmission of visual and acoustic information. The definitions and requirements of this standard cover the infrastructure and rolling stock applications.
- This standard only refers to aspects of accessibility for PRM passengers it does not define non PRM related requirements and definitions.
- This standard assumes that the infrastructure or rolling stock is in its defined operating condition.
- Where minimum or maximum dimensions are quoted these are absolute NOT nominal requirements.

The 'General requirements' standard is written in three parts:

- This document is Part 1 and contains
  - contrast;
- Part 2 contains
  - spoken information;
  - written information;
  - tactile information;
  - pictograms;
- Part 3 contains
  - lighting;
  - low reflective properties;
  - transparent obstacles;
  - slip resistance.



## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10088-2:2014, *Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes*

EN 13272, *Railway applications - Electrical lighting for rolling stock in public transport systems*

EN 16584-2:2017, *Railway applications — Design for PRM use — General requirements — Part 2: Information*

EN 16584-3, *Railway applications — Design for PRM use — General requirements — Part 3: Optical and friction characteristics*

prEN 16586-1:2013, *Railway applications — Design for PRM use — Accessibility of persons with reduced mobility to rolling stock — Part 1: Steps for access and egress*

prEN 16587:2013, *Railway applications — Design for PRM use — Requirements for obstacle free routes for infrastructure*

ISO 17398, *Safety colours and safety signs — Classification, performance and durability of safety signs*

ISO 21542:2011, *Building construction — Accessibility and usability of the built environment*

## 3 Terms and definitions

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

### 3.1

#### **bezel**

raised area that surrounds a pressel as part of a pushbutton

### 3.2

#### **character height**

vertical size of uppercase letters or numbers

### 3.3

#### **contrast**

perception of a difference visually between one surface or element of a building/rail vehicle and another by reference to their light reflectance values (LRV) or luminance values

Note 1 to entry: See BS 8300:2009+A1:2010 for further information

### 3.4

#### **customer information**

visual and spoken information other than information intended only for staff

### 3.5

#### **first step**

step that is the first step for a passenger to use, to overcome a height change