

STN	Železnice Konštrukčné riešenie pre PRM Všeobecné požiadavky Časť 1: Kontrast	STN EN 16584-1 28 0411
------------	---	--

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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/25

Obsahuje: EN 16584-1:2025

Oznámením tejto normy sa ruší
STN EN 16584-1 (28 0411) z júla 2017

141537



EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 16584-1

October 2025

ICS 45.020; 11.180.01

Supersedes EN 16584-1:2017

English Version

**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 30 June 2025.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN 16584-1:2025 (E)

Contents	Page
European foreword	4
Introduction	6
1 Scope.....	7
2 Normative references.....	8
3 Terms and definitions	8
4 Symbols and abbreviations	13
5 Requirements and assessment	14
5.1 General.....	14
5.2 Infrastructure.....	14
5.2.1 Obstacle-free routes.....	14
5.2.2 Doors and entrances.....	14
5.2.3 Transparent obstacles	16
5.2.4 Furniture and free-standing devices	16
5.2.5 Handrails.....	16
5.2.6 Platform danger area and edge of platform.....	16
5.2.7 End of platform.....	17
5.3 Rolling stock	17
5.3.1 Seats.....	17
5.3.2 Doors	19
5.3.3 Exterior doors	20
5.3.4 Interior doors.....	23
5.3.5 Toilets (standard and universal)	24
5.3.6 Customer Information.....	26
5.3.7 Height changes.....	29
5.3.8 Handrails.....	30
5.3.9 Access/egress steps	30
5.3.10 Call for aid devices.....	31
5.3.11 Boarding aids	31
6 Methodologies for assessing contrast	32
6.1 General.....	32
6.2 Establishing LRVs.....	33
6.2.1 General.....	33
6.2.2 Method of establishing LRV	33
6.2.3 Specific assessment criteria for stainless steel.....	38
6.3 Method of assessing contrast with LRVs established (as in 6.2).....	39
6.3.1 General requirements for contrast	39
6.3.2 Specific requirements for contrast on signage	39
6.3.3 Durability of contrast	39
6.3.4 Specific requirements for electronic display.....	40
Annex A (normative) Contrast Charts.....	41
A.1 General.....	41

A.2	Worked examples for contrast	43
A.3	Self-contrasting bands	45
Annex B (normative) Contrast for doors and transparent obstacles.....		46
B.1	General	46
B.2	Exterior doors	46
B.3	Case 1: If the window is less than or equal to 40 % of the visible door leaf.....	46
B.4	Case 2: If the window is greater than 40 % of the visible door leaf.....	48
B.5	Case 3: Alternative if the door leaf is not coloured to contrast with the bodyside	49
B.6	Markings for interior doors or transparent obstacles.....	49
Annex C (normative) Effective contrast calculation for displays		52
C.1	Illuminated displays.....	52
C.2	Back lit and/or self-lit displays	52
Annex D (informative) Supporting information from published documents.....		54
D.1	General	54
D.2	CIE Publication 196:2011 CIE Guide to Increasing Accessibility in Light and Lighting	54
D.3	ADA (Americans with Disabilities Act) Accessibility Guidelines for Buildings and Facilities.....	54
D.4	BS 8300-2 2018 Design of an Accessible and Inclusive Built Environment Part 2 Buildings - Code of practice.....	54
Annex ZA (informative) Relationship between this European Standard and the Essential requirements of EU Directive (EU) 2016/797 aimed to be covered.....		56
Bibliography		59

EN 16584-1:2025 (E)**European foreword**

This document (EN 16584-1:2025) 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 April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.

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

This document supersedes EN 16584-1:2017.

In comparison with the previous edition, the following technical modifications have been made:

- the document template has been updated;
- the document has been revised generally for document references and editorial issues with grammar;
- scope modified;
- normative references updated;
- terms and definitions revised;
- 5.1 removed references to annexes covering EC verification and testing requirements;
- 5.2.6 Platform danger area and edge of platform – Note 1 changed to be a bullet point, Note 2 moved from 7) to 5);
- 5.2.7 End of Platform – addition of ‘contrast requirement for the barrier shall be assessed according to free-standing device’;
- 5.3.4 Interior doors – text modified;
- 5.3.6.2 - text amended and additional Figures added;
- 5.3.11 Boarding aids – text changed from ‘up-stand’ to ‘tapered lip’;
- Annex D “EC verification - Interoperability constituents” removed;
- Annex E “Summary of testing requirements” removed;
- Subsequent Annexes renumbered;
- Annex ZA updated;
- Bibliography updated.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

EN 16584-1:2025 (E)**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 document 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 document:

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 document defines elements that are universally valid for board-free travelling relating to visual contrast. The definitions and requirements of this document cover the infrastructure and rolling stock applications.

This document only refers to aspects of accessibility for PRM passengers; it does not define non-PRM related requirements and definitions.

This document 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;
- audible signals.

Part 3 contains:

- lighting;
- low reflective properties;
- transparent obstacles;
- slip resistance.

EN 16584-1:2025 (E)**2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 10088-2:2024, *Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resistant steels for general purposes*

EN 13272-1:2019, *Railway applications - Electrical lighting for rolling stock in public transport systems - Part 1: Heavy rail*

EN 16584-2:2025, *Railway applications — Design for PRM use — General requirements — Part 2: Information (Basel)*

EN 16584-3:2025, *Railway applications — Design for PRM use — General requirements — Part 3: Optical and friction characteristics*

EN 16586-1:2025, *Railway applications — Design for PRM use — Accessibility of persons with reduced mobility to rolling stock — Part 1: Steps for access and egress*

EN 16587:2025, *Railway applications — Design for PRM use — Requirements for obstacle-free routes for infrastructure*

ISO 17398:2004, *Safety colours and safety signs — Classification, performance and durability of safety signs*

ISO 21542:2021, *Building construction — Accessibility and usability of the built environment*

ISO 3864-1:2011, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN