Draft for Public Comment

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Responsible committee: RAE/1/-/15 Railway Applications - People with Reduced Mobility

Interested committees:

Title: Draft BS EN 16586-2 Railway applications - Design for PRM use - Accessibility of persons with reduced mobility to rolling stock. Part 2: Boarding aids.
Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard i) has any issues related to 3rd party IPR, patent or copyright ii) affects other national standard(s) iii) requires additional national guidance or information

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This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at **https://standardsdevelopment.bsigroup.com/**. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx

1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex **(e.g. 3.1)**	Paragraph/ Figure/Table/Note	**Type of comment**	**Commend (justification for change) by the MB**	**Proposed change by the MB**	**Secretariat observations on each comment submitted**
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 16586-2

May 2022

ICS 11.180.01; 45.060.20

Will supersede EN 16586-2:2017

English Version

Railway applications - Design for PRM use - Accessibility of persons with reduced mobility to rolling stock - Part 2: Boarding aids

Applications ferroviaires - Conception destinée à l'usage par les PMR - Accessibilité du matériel roulant aux personnes à mobilité réduite - Partie 2 : Dispositifs d'aide à l'embarquement et au débarquement

Bahnanwendungen - Gestaltung für die Nutzung durch PRM - Barrierefreier Zugang - Teil 2: Einstiegshilfen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 256.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (prEN 16586-2:2022) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 16586-2:2017.

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

— 5.3.1 (6) assessment methodology updated

— 5.3.1 (9) (10) ‘tapered lip’ used in place of ‘upstand’

— 5.5 updated to align with the PRM TSI

— Annex A “EC verification - Interoperability constituents” removed

— Annex B “Summary of testing requirements” removed

— Annex C “Boarding aid visual examples” is now Annex A

— Annex ZA updated.

— Bibliography updated

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

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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 onboard 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.

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1 Scope

This document describes the specific 'Design for PRM use' requirements applying to 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 which are universally valid for obstacle-free travelling including toilets, elements for sitting, standing and moving and clearways and internal doors. The definitions and requirements of this document are to be used for 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 rolling stock is in its defined operating condition.

— Where minimum or maximum dimensions are quoted these are absolute NOT nominal requirements.

— This document is not specifically intended for Urban Rail, however these standards or clauses from these standards can be adopted by Urban Rail projects should they choose to do so.

The 'Accessibility of persons with reduced mobility' standard is written in two parts:

— Part 1 contains:

  — Steps for access and egress

— This document is Part 2 and contains:

  — Boarding aids.

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 1756-2, *Tail lifts - Platform lifts for mounting on wheeled vehicles - Safety requirements - Part 2: Tail lifts for passengers*

EN 14752, *Railway applications - Body side entrance systems for rolling stock*

EN 15663, *Railway applications - Vehicle reference masses*

prEN 16584-1:2022, *Railway applications — Design for PRM use - General requirements — Part 1: Contrast*

prEN 16584-3:2022, *Railway applications — Design for PRM use - General requirements — Part 3: Optical and friction characteristics*

prEN 16585-1:2022, *Railway applications — Design for PRM use - Equipment and components onboard rolling stock — Part 1: Toilets*

prEN 16585-3:2022, *Railway applications — Design for PRM use — Equipment and components onboard rolling stock — Part 3: Clearways and internal doors*

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prEN 16587:2022, *Railway applications — Design for PRM use — Requirements on obstacle-free routes for infrastructure*

ISO 18738-1, *Measurement of ride quality – Part 1: Lifts (elevators)*

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/

3.1
boarding aid
device (fixed or portable) that bridges the gap between rolling stock and platform to allow a PRM to board or alight from a train

Note 1 to entry: These include manual, semi-automatic or automatic ramps, lifts and other devices.

3.2
bridging plate
retractable device integrated into the vehicle as close as possible to the door threshold level that enables access for wheelchair users, fully automatic and activated/controlled in conjunction with the door opening/closing sequences or semi-automatic on demand from passenger or staff

Note 1 to entry: It retains its strength without support on the station platform when extended.

3.3
clear width
clear usable width
unobstructed width of an open door or clearway to allow all passengers, including PRM, to pass through

3.4
doorway
opening in the vehicle body side that allows access to and egress from that vehicle

3.5
effective clear width
horizontal usable width of the surface of a boarding aid or entrance step

3.6
gap
distance between a platform and the closest point on the rolling stock at the passenger door where passengers traverse from one to the other (both vertical and horizontal)

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3.7
movable step
retractable device integrated into the vehicle forming a step to the door threshold that enables access for passengers other than wheelchair users, fully automatic and activated/controlled in conjunction with the door opening/closing sequences (sliding, rotating, folding, etc.) to reduce the gap in width and height (if necessary, to make the gap compliant) between vehicle and platform

Note 1 to entry: It retains its strength without support on the station platform when deployed.

3.8
onboard lift
device integrated into the doorway of a vehicle that enables access for wheelchair users to overcome the maximum height difference between the vehicle floor and the station platform, where operated

3.9
onboard ramp
manual, semi-automatic or automatic device that enables access for wheelchair users, that is positioned between the vehicle door threshold and the platform

3.10
semi-automatic door
powered door which opens and/or closes following operation of a control device by a passenger

3.11
station
any form of infrastructure where a train operates and passengers can board or alight in normal operation

3.12
wheelchair
wheeled personal mobility device

Note 1 to entry: Wheelchair characteristics are defined in prEN 16585-1:2022, Annex A.

3.13
wheelchair accessible doorway (or door)
closest doorway to the wheelchair space (and wheelchair accessible sleeping accommodation, where fitted)

3.14
working order
state in which a vehicle equipped with all the consumables and occupied by all the staff which it requires in order to fulfil its function but empty of any payload (i.e. dead mass + consumables + staff)

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