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Del 3: Fria passager och innerdörrar

Railway applications – Design for PRM use – Equipment and components on board rolling stock – Part 3: Clearways and internal doors

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EUROPEAN STANDARD

EN 16585-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2017

ICS 11.180.01; 45.060.20

English Version

**Railway applications - Design for PRM use - Equipment
and components on board rolling stock - Part 3: Clearways
and internal doors**

Applications ferroviaires - Conception destinée à
l'usage par les PMR - Equipements et éléments à bord
du matériel roulant - Partie 3 : Passages et portes
intérieures

Bahnanwendungen - Gestaltung für die Nutzung durch
PRM - Ausstattung und Bauteile in Schienenfahrzeugen
- Teil 3: Lichte Räume und Innentüren

This European Standard was approved by CEN on 26 September 2016.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

SS-EN 16585-3:2017 (E)

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European foreword

This document (EN 16585-3:2017) 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of an identical text or by endorsement, at the latest by July 2017, and conflicting national standards shall be withdrawn at the latest by July 2017.

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

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SS-EN 16585-3:2017 (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 European Standard describes the specific 'Design for PRM use' requirements applying to 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 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 standard are to be used for rolling stock applications;
- this standard only refers to aspects of accessibility for PRM passengers. It does not define general requirements and general definitions;
- this standard assumes that the rolling stock is in its defined operating condition;
- where minimum or maximum dimensions are quoted these are absolute NOT nominal requirements.

The 'Equipment and components' standard is written in three parts:

- Part 1 contains:
 - toilets;
- Part 2 contains:
 - handholds;
 - seats;
 - wheelchair spaces;
- this document is Part 3 and contains:
 - clearways;
 - internal doors.

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

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

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

EN 16585-1:2017, *Railway applications — Design for PRM use - Equipment and components on board rolling stock — Part 1: Toilets*

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EN 16586-2, *Railway applications — Design for PRM use - Accessibility of persons with reduced mobility to rolling stock — Part 2: Boarding aids*

EN 14752:2015, *Railway applications - Body side entrance systems for rolling stock*

3 Terms and definitions

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

3.1

automatic door

powered door which opens and closes without the need for the passenger to operate a control device

3.2

clear width

clear usable width

unobstructed width of an open door or clearway to allow a PRM to pass through

3.3

clearway

unobstructed space with defined widths and heights to allow movement within a vehicle

3.4

first step

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

Note 1 to entry: For the external access/egress steps this will normally be the step that is closest to the platform edge (it may be a fixed or a moveable step), therefore this is the first step when boarding and the last step when alighting.

Note 2 to entry: In the context of steps for internal height changes (other than the external access/egress steps) this means the first usable step when ascending and the edge of the walking floor when descending.

3.5

gangway

means for passengers to pass from one vehicle of a train to the adjacent vehicle and includes the inter-vehicle connection device and any aisle (e.g. between body end cupboards, cabinets or toilets) immediately adjacent to the device

Note 1 to entry: This definition is intentionally different to EN 16286-1.

3.6

inter-vehicle gangway

articulating device allowing transit between vehicles (provided for passenger use)

3.7

handrail

continuous element with round cross section for passengers to use to aid personal stability by gripping around

3.8

last step

final step for an ascending passenger to use to overcome a height change, forming the edge of the walking floor

3.9

manual door

unpowered door which the passenger has to physically open and/or close

3.10

palm operable

operable by the palm or any part of the hand, not requiring fingers to be unclenched

Note 1 to entry: The design need is that passengers with painful conditions, which affect their joints such as arthritis, may be unable to (and are likely to experience discomfort or pain if they do) exert any force with the tip of a single finger. Many may not be able to unclench their fingers to do this or perform any pulling action.

3.11

proximity sensor

sensor that can be used to control facilities without the control device being physically touched

3.12

semi-automatic door

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

3.13

universal toilet

toilet designed to be used by all passengers including passengers in wheelchairs

3.14

usable width

unobstructed width of an open door or passageway allowing for passengers to pass through

3.15

wheelchair

wheeled personal mobility device

Note 1 to entry: Wheelchair characteristics are defined in EN 16585-1:2017, Annex A.

3.16

wheelchair space

designated space in the passenger compartment for the wheelchair users and their wheelchairs

Note 1 to entry: Space can be designed for two wheelchairs, one beside the other (dual).

4 Symbols and abbreviations

For purposes of this document, the symbols and abbreviations in Table 1 and Table 2 apply.

Table 1 — Abbreviations

Abbreviation	Designation
EN	European Standard (Euronorm)
ISO	International Organization for Standardization
PRM	Persons with disabilities and persons with reduced mobility
TSI	Technical Specification for Interoperability