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Railway applications - Bodyside entrance systems for rolling stock

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This standard includes the English version of the European Standard.

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English Version

Railway applications - Bodyside entrance systems for rolling stock

Applications ferroviaires - Systèmes de porte d'accès pour matérial roulant

Bahnanwendungen - Seiteneinstiegssysteme für Schienenfahrzeuge

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European foreword

This document (EN 14752:2025) 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of an identical text or by endorsement, at the latest by December 2025, and conflicting national standards shall be withdrawn at the latest by December 2025.

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 14752:2019+A1:2021.

The main changes compared with EN 14752:2019+A1:2021 are as follows:

— References to EN 16584-1:2025 replace the previous requirements throughout the document;

— Door buttons changed to Door Control Device Local door control device changed to local door operation device throughout the document;

— Figure 1 was added in 4.1.1.1 Minimum width;

— Requirement for structural integrity was added in 4.2.1.1 *Passenger retention forces*;

— 5.2.1.3 *Closing and opening signals* was reworded for clarity and precision;

— In 5.2.1.3.2 *Audible signals*, reference to EN 17285:2020 for sound pressure level was added and figures for measurement sound pressure level were removed;

— 5.2.1.5 *Anti Drag System* subclause was updated and the definition of measurement criteria and test objects were included;

— In Annex A, Figure A1 and A2 were updated;

— Annex J was renamed “Passenger flow detection” and a definition for step sensors for external steps was added;

— Annex K, Annex L, Annex M and Annex N were added.

NOTE The technical changes referred to include the significant technical changes from the EN revised but are not an exhaustive list of all modifications from the previous edition.

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.

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.

Introduction

This document specifies the minimum requirements for construction and operation of railway passenger access systems and covers:

— Safe access and egress from passenger trains through body side doors and steps;

— Usability for persons with reduced mobility;

— A minimum risk of injury to persons as a result of door and step operation;

— That the doors and moveable steps, ramps, bridging plates remain closed when the vehicle is in motion; and

— Safe maintenance of the entrance systems.

Statutory legal obligations to minimize operational safety risks to ensure staff and passenger safety for the intended door system may require enhancement to the minimum requirement's detailed in this document. Annex G stipulates clauses that are to be clarified and possibly enhanced within a technical specification when referring to this document for the intended passenger service operation of the door system.

1 Scope

This document applies to passenger body side entrance systems of all newly designed railway vehicles such as tram, metro, suburban, main-line and high-speed trains that carry passengers. The requirements of this document also apply to existing vehicles undergoing refurbishment of the door equipment, as far as it is reasonably practicable.

This document also specifies the requirements for testing of entrance systems.

This document makes reference to manual and power operated entrance systems. For manual doors, clauses referring to power operation are not applicable.

This document does not apply to the following:

— Entrance systems for equipment access, inspection or maintenance purposes and for crew only use;

— Doors on freight wagons; and

— Doors or hatches specifically provided for escape under emergency conditions.

Where passenger bodyside entrance doors are to be used for staff access, EN 16116-1:2022, EN 16186-4:2019 and EN 16186-8:2022+A1:2024 provide the details for the staff access requirements.

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 12663-1, *Railway applications — Structural requirements of railway vehicle bodies — Part 1: Locomotives and passenger rolling stock (and alternative method for freight wagons)*

EN 13032-1:2004+A1:2012, *Light and lighting — Measurement and presentation of photometric data of lamps and luminaires — Part 1: Measurement and file format*

EN 13272 (all parts), *Railway applications — Electrical lighting for rolling stock in public transport systems*

EN 14067 (all parts), *Railway applications — Aerodynamics*

EN 16116-1:2022, *Railway applications — Design requirements for steps, handrails and associated access for staff — Part 1: Passenger vehicles, vans and locomotives*

EN 16186-4:2019, *Railway applications — Driver's cab — Part 4: Layout and access*

EN 16186-8:2022+A1:2024, *Railway applications — Driver's cab — Part 8: Tram vehicle layout and access*

EN 16584-1:—[1], *Design for PRM Use — General requirements — Part 1: Contrast*

EN 16585-1:—[2], *Design for PRM Use — Equipment and components onboard rolling stock — Part 1: Toilets*

[1] Under preparation. Stage at the time of publication: FprEN 16584-1:2025.

[2] Under preparation. Stage at the time of publication: FprEN 16585-1:2025.

EN 16586-2:—[3], *Design for PRM Use — Accessibility of persons with reduced mobility to rolling stock — Part 2: Boarding aids*

EN 17285:2020, *Railway applications — Acoustics — Measuring of door audible warnings*

EN 45545-2, *Railway applications — Fire protection on railway vehicles — Part 2: Requirements for fire behaviour of materials and components*

EN 50121-3-2, *Railway applications — Electromagnetic compatibility — Part 3-2: Rolling stock — Apparatus*

EN 50126 (all parts), *Railway applications — The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS)*

EN 50153, *Railway applications — Rolling stock — Protective provisions relating to electrical hazards*

EN 50155, *Railway applications — Rolling stock — Electronic equipment*

EN 50716, *Railway Applications — Requirements for software development*

EN 60077-1:2017, *Railway applications — Electric equipment for rolling stock — Part 1: General service conditions and general rules (IEC 60077-1:2017)*

EN 61373, *Railway applications — Rolling stock equipment — Shock and vibration tests (IEC 61373)*

EN ISO 10140-2, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 2: Measurement of airborne sound insulation (ISO 10140-2)*

EN ISO 12567-1, *Thermal performance of windows and doors — Determination of thermal transmittance by the hot-box method — Part 1: Complete windows and doors (ISO 12567-1)*

EN IEC 61133, *Railway applications — Rolling stock — Testing of rolling stock on completion of construction and before entry into service (IEC 61133)*

DIN 53362, *Determining the flexural rigidity of plastic film and woven textile fabrics with or without plastic coating by the cantilever method*

DIN 5032-7, *Photometry — Part 7: Classification of illuminance meters and luminance meters*

[3] Under preparation. Stage at the time of publication: FprEN 16586-2:2025.