

BS EN 14752:2015



BSI Standards Publication

# Railway applications — Body side entrance systems for rolling stock

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## National foreword

This British Standard is the UK implementation of EN 14752:2015. It supersedes BS EN 14752:2005 which is withdrawn.

The UK Committee advises, following the recommendations set out in the RAIB accident investigation report (report 19/2014, dated September 2014), that the door obstacle detection methods set out in this standard need to be combined with appropriate operational dispatch procedures to mitigate the risk of trap and drag incidents. The report can be accessed via the RAIB homepage at <http://www.raib.gov.uk>.

**Normative:** Requirements conveying criteria to be fulfilled if compliance with the document is to be claimed and from which no deviation is permitted.

**Informative:** Information intended to assist the understanding or use of the document. Informative annexes do not contain requirements, except as optional requirements, and are not mandatory. For example, a test method may contain requirements, but there is no need to comply with these requirements to claim compliance with the standard.

When rounded values require unit conversion for use in the UK, users are advised to use equivalent values rounded to the nearest whole number. The use of absolute values for converted units should be avoided in these cases. For the values used in this standard:  
3 km/h has an equivalent value of 1 mph  
10 km/h has an equivalent value of 5 mph

The UK participation in its preparation was entrusted by Technical Committee RAE/4, Railway Applications - Rolling stock systems, to Subcommittee RAE/4/-/6, Bodyside Entrances.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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## Amendments/corrigenda issued since publication

Date	Text affected
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English Version

## Railway applications - Body side entrance systems for rolling stock

Applications ferroviaires - Systèmes d'accès latéraux pour matériel roulant

Bahnanwendungen - Seiteneinstiegssysteme für Schienenfahrzeuge

This European Standard was approved by CEN on 23 November 2014.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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## Foreword

This document (EN 14752:2015) 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 September 2015, and conflicting national standards shall be withdrawn at the latest by September 2015.

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 supersedes EN 14752:2005.

EN 14752:2015 includes the following significant technical changes with respect to EN 14752:2005:

<b>Clause/Paragraph/ Table/Figure</b>	<b>Change</b>
3.2 bridging plate	added
3.4 contrast	added
3.11 entrance system	added
3.12 first step	added
3.17 manual ramp	added
3.18 moveable step	added
3.19 palm operated	added
3.24 semi-automatic ramp	added
3.25 slip resistant	added
3.26 tactile	added
4.1.2.1 Entrance area – General	a maximum of 4 steps added
4.1.2.2.1 Internal steps for external access	number of steps and height updated
4.1.2.2.2 External steps	door sill and verification updated
4.1.2.3 Step surface	contrasting band; added
4.1.3 Track level access	EN 16116-1; added
4.1.6 Door windows	dimension 1 000 mm added , other details more precise
4.3.1.4 Passenger door button location	dimensions changed
4.3.1.7 Visual indications of door buttons	added
4.3.2.1 Quantity and location of emergency of emergency egress device	“900” mm; dimension changed
4.8 Reliability, availability, maintainability, safety (RAMS)	FTA top events and some rules added
4.11 Manual and semi-automatic ramps, Bridging plates	added
5.1.2 Release doors and steps	updated



5.1.5.2 Manual doors	Palm operated; added
5.1.6.2 Step out-of-service	added
5.2.1.3 Closing and opening warning	rewritten
5.2.1.4.2.2 Closing force	force over whole door travel defined
5.2.1.4.2.3 Kinetic energy	added
5.2.1.4.2.4 Non-contact obstacle detection	added
5.2.1.5 Anti drag	added
5.4 Moveable step obstacle detection	rewritten
A.2 Design of door buttons	updated
D.1 General	new issue
Annex I	added
Annex J	added
Annex K	added
Annex ZA	updated
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 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(s), 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

This European Standard specifies the minimum requirements for construction and operation of railway passenger access systems to ensure:

- 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.

## 1 Scope

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

This European Standard also specifies the requirements for testing of entrance systems.

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

This European Standard 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.

## 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.

DIN 5032-7, *Photometry; classification of illuminance meters and luminance meters*

DIN 6164-1, *DIN colour chart; system based on the 2° standard colorimetric observer*

DIN 6164-2, *DIN colour chart; specification of colour samples*

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 (all parts), *Light and lighting — Measurement and presentation of photometric data of lamps and luminaires*

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

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

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

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 50125-1, *Railway applications — Environmental conditions for equipment — Part 1: Rolling stock and on-board equipment*