



BSI Standards Publication

Railway applications — Design for PRM use — General requirements

Part 2: Information

National foreword

This British Standard is the UK implementation of EN 16584-2:2025. It supersedes BS EN 16584-2:2017, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee RAE/1/-/15, Railway Applications - People with Reduced Mobility.

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

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Informations

Bahnwendungen - Gestaltung für die Nutzung durch
PRM - Allgemeine Anforderungen - Teil 2:
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European foreword

This document (EN 16584-2:2025) 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of an identical text or by endorsement, at the latest by April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.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 16584-2:2017.

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;
- 5.1 removed references to annexes covering EC verification and testing requirements;
- 5.2.2.2 (2) Route identification – text updated;
- 5.2.5 (4) Visual Information – text updated;
- 5.2.8 (3) additional requirement;
- 5.3.1 (1) Priority Seats – text updated, and assessment added;
- 5.3.3.2 Exterior Doors - text amended and additional requirements;
- 5.3.5.3 (5) Dynamic Visual Information – text updated;
- 5.3.7 (3 ii) Call for Aid – text changed to align with the TSI;
- 6.2 Methodologies – Internal Displays – text updated;
- Annex A “EC verification – Interoperability constituents” removed;
- Annex B “Summary of testing requirements” removed;
- Subsequent annexes renumbered;
- Clause A.2 updated;

- Clause A.5 Call for Aid text updated;
- Annex G updated in line with Appendix G of the TSI;
- Clause H.5 updated;
- Clause I.5 replacement figure;
- Clause L.2 updated;
- Annex N text updated;
- 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.

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 obstacle-free travelling relating to tactile feedback, transmission of visual and acoustic information. 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:

- Part 1 contains:
 - contrast.
- This document is Part 2 and contains:
 - spoken information;
 - written information;
 - tactile information;
 - pictograms;
 - audible signals.
- Part 3 contains:
 - lighting;
 - low reflective properties;
 - transparent obstacles;
 - slip resistance.

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 81-70:2021+A1:2022, *Safety rules for the construction and installation of lifts - Particular applications for passenger and goods passenger lift - Part 70: Accessibility to lifts for persons including persons with disability*

EN 16584-1:2025, *Railway applications — Design for PRM use — General requirements — Part 1: Contrast*

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

EN 16585-1:2025, *Railway applications — Design for PRM use — Equipment and components on board rolling stock — Part 1: Toilets*

EN 16585-2:2025, *Railway applications — Design for PRM use — Equipment and components on board rolling stock — Part 2: Elements for sitting, standing and moving*

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

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

EN IEC 60268-16:2020, *Sound system equipment - Part 16: Objective rating of speech intelligibility by speech transmission index*

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

ISO 7000:2019, *Graphical symbols for use on equipment — Registered symbols*

ISO 7001:2023, *Graphical symbols — Registered public information symbols*

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

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

ascender

part of any of the characters b, d, f, h, i, j, k, l or t which protrudes above the x-height of the character

Note 1 to entry: For examples see Annex F.

3.2**bezel**

raised area that surrounds a pressel as part of a pushbutton

3.3**character height**

vertical size of uppercase letters or numbers

Note 1 to entry: For examples see Annex F.

3.4**compressed ‘ascender’**

ascender that has been compressed or squashed or misaligned and does not use a consistent x-height and/or ascender height

Note 1 to entry: For examples see Annex F.

3.5**compressed ‘descender’**

descender that has been compressed or squashed or misaligned and does not use a consistent x-height and/or descender height

Note 1 to entry: For examples see Annex F.

3.6**contrast**

perception of a difference visually between one surface or element of a building/rail vehicle and another by reference to their light reflectance values (LRV) or luminance values

Note 1 to entry: See BS 8300-1 and BS 8300-2 for further information.

3.7**customer information**

visual and spoken information other than information intended only for staff

3.8**descender**

part of any of the characters g, j, p, q or y which protrudes below the level of the baseline

Note 1 to entry: For examples see Annex F.

3.9**essential information**

subset of customer information delivered within the confines of the infrastructure comprising information concerning the departure of train services and safety instructions

Note 1 to entry: Platform number, train routeing information, departure times and any updates/changes to previously available information and actions required in reaction to a threat to personal safety (e.g. evacuate station FIRE!, stand back from platform edge train approaching).

3.10

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 (fixed or 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.

3.11

halo

illuminated ring surrounding a pressel, not necessarily continuous

3.12

innovative solution

technological progression that results in a solution that does not comply with the specification set out in Clause 5 of this standard or for which there are no assessment methods

Note 1 to entry: An innovative solution (Article 6 Commission Regulation (EU) N° 2023/1694 of 10 August 2023) may only be used following a positive opinion from the European Commission.

3.13

last step

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

3.14

low reflective properties

characteristics that reduce reflection of light from a surface

3.15

mixed case

text using a combination of upper and lower case characters

Note 1 to entry: For examples see Annex F.

3.16

pictogram

graphical symbol, diagram or figure with a particular meaning which directly represents or conveys its meaning independently of language through a pictorial representation of a physical object, action or character

Note 1 to entry: Refer to ISO 7001:2023, ISO 22727:2007 and ISO 9186 (all parts) for rules regarding graphical symbols and frames.

3.17

pressel

surface of the pushbutton which is pressed in order to activate the pushbutton

3.18**routeing information**

information, used by passengers to guide them on their journey, a guide as to which route to take to get to a required destination or facility and changes along that journey

Note 1 to entry: This can be temporary information to an event e.g. exhibition or sporting event but NOT any form of commercial advertising.

3.19**sans serif font**

character set from a sans serif typeface

Note 1 to entry: For examples see Annex F.

3.20**sans serif**

without serifs

Note 1 to entry: For examples see Annex F.

3.21**serif**

additional stroke or line attached to the main strokes of a character or number

Note 1 to entry: For examples see Annex F.

3.22**slip resistant**

surface finish that is sufficiently rough or otherwise specially formulated so that friction between the surface and a person's footwear or mobility aid is maintained at an acceptable level in both wet and dry conditions

Note 1 to entry: Snow and ice are outside this definition and this standard, therefore other special measures (e.g. operational) should be taken for steps and platforms etc that are exposed to these weather conditions.

3.23**spoken information**

information audibly communicated in words

Note 1 to entry: This can be direct, pre-recorded or synthesized information.

3.24**station**

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

3.25**tactile**

information that is relayed through the physical sense of touch

Note 1 to entry: Tactile signs, controls, symbols, pictograms, guide path and Braille or raised characters are a physical means by which tactile information is provided.

3.26**typeface**

character set (letters and numbers) of a particular design that is categorised as either 'serif' or 'sans serif' where this is a collective definition of all the characters in that typeface and not the individual characters

Note 1 to entry: Examples of the characters in a 'serif and sans serif' typeface are shown in Annex F and example typefaces in Annex N.

3.27**universal toilet**

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

3.28**visual acuity**

threshold of the capacity of the eye to perceive fine details of a visual object (a sign), the recognizability of which depends on the visual angle

3.29**visual information**

written information, pictograms and markings

3.30**wheelchair space**

designated space in the passenger compartment for a wheelchair user and their wheelchair

3.31**written information**

information visually communicated in words, letters and numerals, excluding pictograms and markings

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
ISO	the International Organization for Standardization
NCS	Natural Colour System
PRM	Persons with disabilities and persons with reduced mobility
RAL	German colour matching system issued by RAL gGmbH.
STI-PA	Speech Transmission Index Passenger Address
TSI	Technical Specification for Interoperability

Table 2 — Symbols

Symbol	Designation	Unit
%ile	percentile	
dB	unit of noise level	decibel
L_{Aeq}	average noise levels	decibel
Hz	unit of frequency	Hertz
L	unit of luminance in candela per square metre	cd/m ²
m	unit of length	metre
mm	unit of length	millimetre
s	unit of time	second

5 Requirements and assessment

5.1 General

All dimensions in the figures are in millimetres (mm) unless otherwise stated.

5.2 Infrastructure

5.2.1 Parking facilities for persons with disabilities and persons with reduced mobility

Where a station specific parking area exists, there shall be sufficient and adapted parking spaces reserved for persons with disabilities and persons with reduced mobility eligible to utilize them at the nearest practicable position, within the parking area, to an accessible entrance.

- International or National Standards or Guidance shall apply to parking spaces (this includes but is not limited to the number of spaces, access, location, dimensions, materials, colours, signing and lighting).

5.2.2 Obstacle-free routes

5.2.2.1 Vertical circulation

Staircases on the obstacle-free routes shall as a minimum have tactile warning surface indicators according to EN 16587:2025 installed before the first descending step of flights of stairs of three steps or more.

- International or National Standards or Guidance shall apply to tactile warning surface indicators.

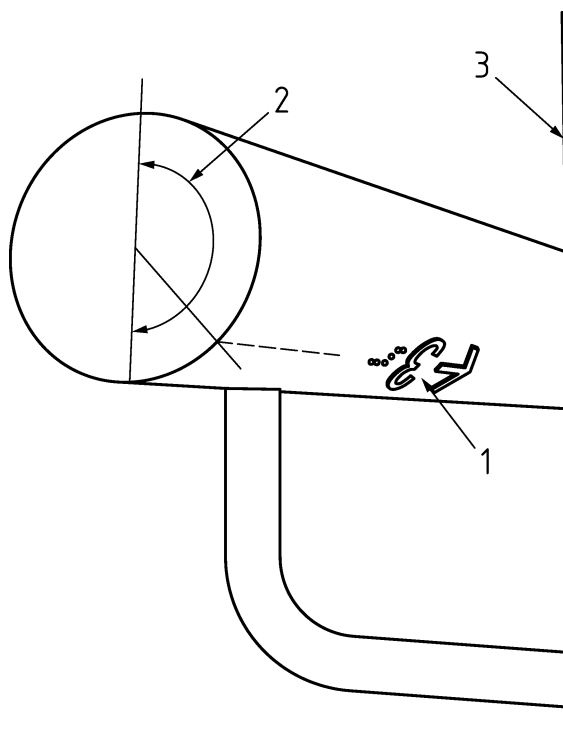
5.2.2.2 Route identification

- 1) Obstacle-free routes shall be clearly identified by visual information as detailed in 5.2.5.
- 2) Information on the obstacle-free route shall be provided to visually impaired people by tactile and contrasting walking surface indicators as a minimum:
 - International or National Standards or Guidance shall apply to tactile walking surface indicators.

- If a tactile path is installed it shall comply with National Standards or Guidance and shall be provided along the full length of the obstacle-free route(s).
- Contrast shall be assessed according to EN 16584-1:2025
- This requirement does not apply to obstacle-free routes to and from car parks.
- If more than one facility of a certain type of public area are provided, the route to at least one of them shall be indicated by tactile and contrasting walking surface indicators.
- Tactile walking surface indicators can be omitted when the route is indicated unambiguously by built or natural elements, such as edges and surfaces that can be followed tactually and visually.
- Technical solutions using remotely controlled audible devices or telephone applications are permitted to be used in addition or as an alternative:
 - When used as an addition to the tactile walking surface indicators, international or National Standards or Guidance, if available shall apply.
 - When they are intended to be used as an alternative, they shall be treated as innovative solutions.

NOTE 'Innovative solution' in this context refers to the defined process in article 6 of the PRM TSI.

- 3) If there are handrails or walls within reach along the obstacle-free route to the platform, they shall have brief information (for example platform-number or direction-information). The information shall be in braille or prismatic letters or numbers (recommendation is to have both braille and prismatic letters or numbers). The information shall be located on the handrail, or on the wall at a height between 1 450 mm and 1 650 mm.
- Arrows are permissible, in addition to braille or prismatic letters and numbers.
 - For the purpose of this standard prismatic means raised or tactile character and shall be assessed according to Annex B.
 - Braille shall be assessed according to Annex E.
 - When placed on the handrail, this information shall be positioned on the rear of the handrail. The centreline of the tactile information shall be within the 180° arc as shown in Figure 1.
 - When placed on the wall, this information shall be positioned as shown in Figure 2.
 - This information shall be on both the left and right hand side handrails or walls along the obstacle-free route.

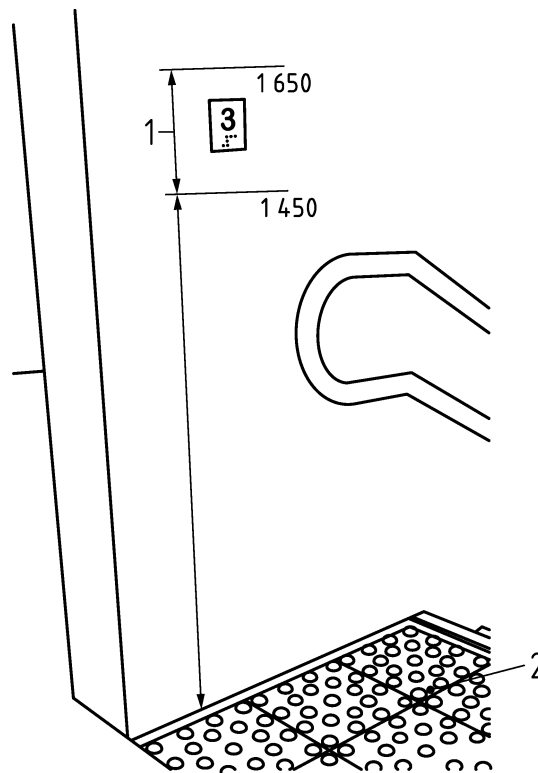


Key

- 1 tactile information in braille and prismatic characters on handrails at height 850 mm to 1 000 mm
- 2 0° to 180° angle from top of handrail to centreline of tactile information at rear of handrail
- 3 wall, surface or structure on which handrail is mounted (rear side of the handrail)

NOTE The example in Figure 1 shows the tactile information at approximately 140° from the top.

Figure 1 — Positioning of tactile information on the handrail

**Key**

- 1 height range within which tactile information in braille or prismatic characters shall be positioned as measured vertically from the walking floor
- 2 walking floor
- 3 sign or label containing tactile information

Figure 2 — Vertical positioning of tactile information on the wall or surface

5.2.3 Doors and entrances

Door operating devices shall be identifiable by touch, for example tactile markings see Annex B, and shall indicate the functionality.

— Where fitted assessment shall be according to appropriate international or national standards.

5.2.4 Ticketing, information desks and customer assistance points

- 1) Where manual ticket sales counters, information desks and customer assistance points are provided along the obstacle-free route:
 - i. A minimum of one desk shall be accessible to a wheelchair user and to people of small stature.
 - Assessment shall be according to ISO 21542:2021 or appropriate national or regional standards.
 - ii. A minimum of one desk shall be fitted with an induction loop system for hearing assistance.
- 2) If there is a glass barrier between the passenger and salesperson at the ticket counter:

- i. This shall be removable
- ii. If the glass barrier is not removable, an intercom system shall be fitted

NOTE 1 'Glass' in the context of this standard is to be understood as any transparent material, see EN 16584-3:2025 for the requirements of glass barriers.

- 3) If electronic devices are fitted that display pricing information to the salesperson, such devices shall also be fitted that display the price to the person purchasing the ticket.
 - Assessment shall be according to Annex K
 - i. All information on the display shall be between 1 200 and 1 600 mm above the walking floor measured vertically from that floor.
 - ii. The information shall be viewed from the eye points of the agreed design range, for example: 5 %ile female to 95 %ile male.
 - Assessment shall be according to Annex C and relevant anthropometric data.
 - Assessment for the wheelchair accessible ticket desk shall assume that the PRM is seated in a wheelchair for the assessment to be made with eye points as defined in Annex C.
 - Assessment for the non-wheelchair accessible ticket desk shall assume that the PRM is standing for the assessment to be made with eye points as defined in Annex C.
 - iii. The height of uppercase letters and numbers on electronic displays shall be a minimum of 14 mm. The reading distance shall be a minimum of 500 mm from the display.
 - Assessment of contrast and brightness shall be according to EN 16584-1:2025.
 - For minimum reading distances greater than 500 mm then a proportionately larger character height shall be used. See Annex D for a permitted method of determining the height.
- 4) Where ticket vending machines are provided on an obstacle-free route at a station a minimum of one of these machines:
 - i. Shall have a tactile contact area, to include the keyboard, the payment and ticket vending areas, at a height according to ISO 21452:2021 or appropriate national or regional standards
 - Tactile feedback from the ticket machine or verbal communication of the process to a partially sighted person is recommended
 - ii. Shall have a display and keyboard which shall be visible by someone sitting in a wheelchair.
 - Assessment of contrast for characters on the keyboard shall be according to EN 16584-1:2025 and lighting conditions shall be according to EN 16584-3:2025.
 - iii. The information shall be viewed from the eye points of the agreed design range for example, 5 %ile female to 95 %ile male.
 - Assessment shall be according to Annex I and relevant anthropometric data.

- Assessment for the wheelchair accessible ticket vending machine shall assume that the PRM is seated in a wheelchair for the assessment to be made with eye points as defined in Annex C.
- iv. The height of uppercase letters and numbers on ticket vending machine displays shall be a minimum of 7 mm. The reading distance shall be a minimum of 500 mm from the display.
 - Assessment of contrast and brightness shall be according to EN 16584-1:2025.
 - For minimum reading distances greater than 500 mm then a proportionately larger character height shall be used. See Annex D for a permitted method of determining the height.
- v. If the display is the method of entering information, then it shall comply with the requirements of 5.2.4 (4) (i).

5.2.5 Visual information: signposting, pictograms, printed or dynamic information

- 1) The following information shall be provided:
 - safety information and safety instructions;
 - warning, prohibition and mandatory actions signs;
 - information concerning the departure of trains;
 - identification of station facilities, where provided, and access routes to those facilities.
- 2) The fonts, symbols and pictograms used for visual information shall contrast with their background.
 - Contrast shall be assessed according to EN 16584-1:2025.
- 3) Signage (signposting) containing appropriate information shall be provided:
 - i. At all points where passengers need to make a route taking decision:
 - A route taking decision is when a choice between continuing along an existing route or choosing another is made see Annex K for examples.
 - The appropriate level of information required to make the decision shall be provided. For example, “To the platforms” may be appropriate at the first decision making point when entering the station, rather than specific signs for individual platforms.
 - All information to be used in a station shall be collated and shall be assessed at the design review phase (see Annex I) to show the appropriate nature of information used.
 - ii. At intervals on the route:
 - Intervals shall be no greater than 100 m apart,
 - A plan/map of station shall be assessed at the design review phase, see Annex I showing locations of station routing information and then demonstrated when built.

- iii. Signage, symbols and pictograms shall be applied consistently over the whole route.
 - All signage, symbols and pictograms to be used in a station shall be collated and shall be assessed at the design review phase, see Annex I, to show the consistency of signage, symbols and pictograms used.
- 4) The information concerning the departure of trains (including destination, intermediate stops, platform number and time) shall be available suitable for reading from a height of 1 600 mm in at least one location in the station.
 - At a minimum of one location the information on signage or on a display shall be at a height no greater than 1 600 mm. The minimum height for that information shall be 700 mm above the floor.
 - Where typical departure signage is an A0 printed timetable, an alternative format should be used in the location defined as readable by a PRM to allow the PRM to get close to the information to help them read it.
- 5) The typeface used for visual information shall be easily readable.
 - Assessment shall be according to Annex F.
 - All safety, warning, mandatory action and prohibition signs shall include pictograms and shall be designed according to ISO 3864-1:2011.
- 6) Tactile information signage shall be fitted in:
 - Toilets, for functional information and call for aid if appropriate.
 - Assessment shall be according to Annex B and see Annex J for examples. If braille is used it shall be according to Annex E and see Annex J for good practice information.
 - Lifts according to EN 81-70:2021+A1:2022, 5.4.2 Table 4 and Table 5.
- 7) Time information presented in digits shall be in the 24 h system.
- 8) The following specific graphic symbols and pictograms shall be fitted with the wheelchair symbol according to Annex A:
 - directional information for wheelchair specific routes;
 - indication of the wheelchair accessible toilets and other amenities if provided;
 - assessment shall be according to Annex A and see Annex I for examples;
 - if there is train configuration information on the platform, indication of the wheelchair boarding location;
 - the symbols are permitted to be combined with other symbols see Annex I for examples.
- 9) Where induction loops are fitted these shall be indicated by a sign as described in Annex A.
- 10) In wheelchair accessible toilets, where hinged handrails are provided, a graphic symbol showing the rail in both the stowed and deployed position shall be provided. See Annex I for examples.

— Assessment shall ensure compliance with the characteristics in Annex A.

- 11) There shall be no more than five pictograms, together with a directional arrow, indicating a single direction placed adjacent to each other at a single location. See Annex I for examples.
- 12) Displays shall be compliant with the requirements of 5.2.11. In this point, the term “display” shall be understood as any support of dynamic information.

5.2.6 Spoken information

The spoken information, where provided, shall have a minimum STI-PA level of 0,45.

- Assessment shall be according to EN IEC 60268-16:2020.
- Where provided, spoken information should be consistent with essential visual information that is being displayed.
- Where spoken information is not provided automatically, an audible communication system should be provided to allow users to acquire the same information, for example a staffed or automated telephone information service.

5.2.7 Platform danger area and edges of platforms

- 1) The boundary of the danger area, furthest from the rail side edge of the platform shall be marked with a visual warning line that shall be:
 - i. Colour contrasting
 - Assessment shall be according to EN 16584-1:2025.
 - ii. Slip resistant
 - Assessment shall be according to EN 16584-3:2025.
 - iii. A minimum width of 100 mm.
- 2) The boundary of the danger area, furthest from the rail side edge of the platform shall be marked with tactile walking surface indicators which can be one of two types:
 - i. An attention pattern indicating a hazard at the boundary of the danger area
 - ii. A guiding pattern indicating a path of travel at the safe side of the platform.
 - Assessment for tactile warning surface indicators shall be according to ISO 21542:2021 or national Standards or Guidance.
- 3) The positioning of the visual and tactile warnings shall be according to international or national Standards or Guidance.

5.2.8 End of platforms

Where the end of the platform is not fitted with a barrier that prevents public access it shall be marked with:

- 1) A visual warning line that shall be:

- i. Colour contrasting
 - Assessment shall be according to EN 16584-1:2025.
 - ii. Slip resistant
 - Assessment shall be according to EN 16584-3:2025.
 - iii. A minimum width of 100 mm.
- 2) Tactile walking surface indicators with an attention pattern indicating a hazard.
- Assessment for tactile warning surface indicators shall be according to ISO 21542:2021 or national Standards or Guidance.
- 3) If a barrier is fitted it shall be contrast with its background.
- Assessment shall be according to EN 16584-1:2025.

5.2.9 Platform – wheelchair boarding aid operational zone

If the wheelchair boarding position is predefined, the platform position(s) of the wheelchair accessible doorway(s) may be marked with the international symbol for the ‘provision for disabled persons’.

- Where used, the signs shall be assessed according to Annex A.

The position on the platform where the facility is likely to be used should take into account the train composition variations.

5.2.10 Level track crossings

If level track crossings are used as part of obstacle-free routes, or are the unique solution for all passengers, the beginning and the end of the crossing surface shall have:

- 1) A visual warning line that shall be:
- i. Colour contrasting
 - Assessment shall be according to EN 16584-1:2025.
 - ii. Slip resistant
 - Assessment shall be according to EN 16584-3:2025.
 - iii. A minimum width of 100 mm.
- 2) Tactile walking surface indicators.
- Assessment for tactile warning surface indicators shall be according to ISO 21542:2021 or national Standards or Guidance.

5.2.11 Displays

- 1) Displays shall be sized to show individual station names or words of messages. Each station name, or words of messages, shall be displayed for a minimum of 2 s.

- Assessment shall be according to Clause 6.

If multiple words are displayed simultaneously, additional reading time is to be provided.

- 2) If a scrolling display is used (either horizontal or vertical):

- i. Each complete word shall be displayed for a minimum of 2 s and

- Assessment shall be according to Clause 6.

- ii. The horizontal scrolling speed shall not exceed an average of 6 characters per s.

- Assessment shall be according to Clause 6.

- 3) Minimum character height on displays shall be designed and assessed for an area of use defined by the maximum viewing distance according to the following formula:

- Reading distance in mm divided by 250 = character height, for example:
 $10\,000\text{ mm}/250 = 40\text{ mm}.$

5.3 Rolling stock

5.3.1 Seats – Priority seats

- 1) The priority seats shall be identified by signs. This identification is not required for units intended to be operated exclusively with a seat reservation system where it is a mandatory requirement to have a seat reservation. Where a Unit has partial or optional seat reservations then the priority seats shall be identified by a sign.

- Assessment of signs shall be according to Annex A. See Figure 3 for an example, EN 16585-2:2025 for other applicable information and for an example location

- Assessment of priority seat provision on Units proposed to be exclusively operated with a seat reservation system shall still meet all other relevant Priority Seat requirements

- 2) It shall be stated that other passengers shall make such seats available to those who are eligible to use them when required this can be combined with the priority seat sign above or provided as a supplementary sign.

NOTE Example of a combined sign is shown in Figure 3.



Key

- 1 priority seat sign
- 2 example of required text on the sign

Figure 3 — A priority seat sign with example wording for interior use

- 3) The vehicles containing priority seats shall be identified by a sign. This identification is not required for units intended to be operated exclusively with a seat reservation system where it is a mandatory requirement to have a seat reservation. Where a Unit has partial or optional seat reservations then the priority seats shall be identified by a sign.
 - Assessment of signs shall be according to Annex A.
 - See EN 16585-2:2025, 5.2.2 for details, applicable information and for example locations.

5.3.2 Wheelchair spaces

- 1) The wheelchair space shall be fitted with a call for aid device that shall:
 - i. Be according to 5.3.7
 - Assessment for the location shall be according to EN 16585-2:2025.
 - ii. Enable a wheelchair user to inform a person who can take appropriate action in the event of danger.
- 2) A sign conforming to Annex A shall be placed immediately next to, or in the wheelchair space so as to identify the space as the wheelchair space.
 - Assessment shall be according to Annex A.

NOTE See EN 16585-2:2025, 5.3 (15) for other applicable information.

5.3.3 Doors

5.3.3.1 Interface of the door control device

- 1) A door control device shall have visual indication, on or around it when enabled.
 - Assessment for visual indication means the continuous illumination or flashing of a light emitter at a frequency of between 1 Hz and 2 Hz.
 - This requirement does not apply to door handles.
- 2) It shall be identifiable by touch (for example: tactile markings) this identification shall indicate the functionality, (see Annex N for relevant information and examples).
 - Assessment shall ensure compliance with the characteristics in Annex B.

5.3.3.2 Exterior Doors

- 1) The designated wheelchair exterior accessible doorways shall be the closest doorways to the designated wheelchair spaces, those entrances shall be clearly labelled with a sign.
 - Assessment shall ensure compliance with the characteristics in Annex A.
 - See EN 16585-2:2025 for other applicable information and for example locations.
- 2) When a door is released for opening a door opening signal shall be given:
 - i. That is clearly audible to persons inside the train
 - Assessment shall be according to Annex G.
 - ii. That is clearly audible to persons outside the train
 - Assessment shall be according to Annex G.
 - iii. That is clearly visible to persons inside and outside the train
 - Assessment for visual indication means the continuous illumination of a light emitter for the period that the door is released for opening.
 - iv. The audible signal shall last for a minimum of 5 s unless the door is operated, in which case it may cease after 3 s.
 - When assessing this requirement refer to Annex G.
- 3) When a door is automatically or remotely opened by the driver or other member of the train crew a door opening signal shall be given:
 - i. That is clearly audible to persons inside the train
 - Assessment shall be according to Annex G.
 - ii. That is clearly audible to persons outside the train
 - Assessment shall be according to Annex G.

- iii. That is clearly visible to persons inside and outside the train
 - Assessment for visual indication means the continuous illumination of a light emitter.
 - iv. This signal shall last for a minimum of 3 s from the moment that the door starts to open.
 - When assessing this requirement refer to Annex G.
- 4) When a door that is automatically or remotely closed, is about to operate, a door closing signal shall be given:
- i. That is clearly audible to persons inside the train
 - Assessment shall be according to Annex G.
 - ii. That is clearly audible to persons outside the train
 - Assessment shall be according to Annex G.
 - iii. That is clearly visible to persons inside and outside the train
 - Assessment for visual indication means the flashing of a light emitter at a frequency of between 1 Hz and 2 Hz.
 - iv. This alert signal shall last for a minimum of 2 s before the door starts to close and shall continue while the door is closing
 - When assessing this requirement refer to Annex G.
 - If the doors remain released for opening apply 5.3.3.2 (2) (iii).
- 5) When a door is closed locally (by a passenger or crew), a door closing signal shall be given:
- i. That is clearly audible to persons inside the train
 - Assessment shall be according to Annex G.
 - ii. That is clearly audible to persons outside the train
 - Assessment shall be according to Annex G.
 - iii. That is clearly visible to persons inside and outside the train
 - Assessment for visible signal means the flashing of a light emitter at a frequency of between 1 Hz and 2 Hz.
 - iv. This door closing signal shall commence following operation of the door control device. The signal shall continue while the door is closing.
 - The audible and visible signals shall continue until the doors are closed
 - If the doors remain released for opening apply 5.3.3.2 (2) (iii).