



BSI Standards Publication

Railway applications — Platform barrier systems

National foreword

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

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

This standard specifies the minimum requirements for the construction and operation of platform barrier systems. The UK committee advises that if enhancements to the minimum requirements are needed to achieve overall system safety and operational requirements for users, then the details should be defined in the procurement specification.

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Railway applications - Platform barrier systems

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European foreword

This document (EN 17168:2021) 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of an identical text or by endorsement, at the latest by January 2022, and conflicting national standards shall be withdrawn at the latest by January 2022.

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Introduction

Platform barrier systems provide a movable barrier between trains and other guided transit vehicles, and passengers waiting at stations and boarding points.

Platform barrier systems are used increasingly on metro and other rail networks to ensure the safety of passengers on the station platform who are waiting to board vehicles. Such systems are also used on “people-mover” guided systems for short-distance transits, for example at airports. Their use is recommended by EN 62267 for any fully automated transit system.

In particular platform barrier systems can be used to control the risk of:

- incursion by passengers or other persons on the railway track (deliberate or accidental); and
- contact between passengers and moving vehicles.

These risks can be especially significant where there is the possibility of overcrowding on station platforms at busy locations. Barriers may increase the safely useable space in the station for passengers waiting and circulating on the platforms.

Platform barrier systems integrate the operation of the platform barrier doors and gates with opening and closing of train doors and also assist in the management of station operations, to safely permit higher speeds for trains entering and exiting the stations.

Barrier installations can also be part of a continuous partition between the running tracks and the station areas for the purposes of:

- fire safety (including smoke management);
- tunnel and station ventilation (including reduction of the piston effect);
- trackside noise reduction; and
- passenger comfort at climate-controlled stations.

Additionally, the terminology used in connection with platform barrier systems, in particular to improve the specification and understanding of safety requirements, should be standardized.

1 Scope

This document specifies requirements for the design, construction and operation of platform barrier systems positioned at the edge of a station platform immediately adjacent to the rail or other guided vehicles in stations and boarding points for passenger services. This document includes:

- requirements for the fixed structure and fixed parts along the platform;
- physical requirements for the movable doors and gates normally used by passengers;
- requirements for emergency doors;
- requirements for driver access doors;
- requirements for platform extremity doors; and
- requirements for the management of safety risks that are particular to barrier systems.

This document also gives requirements for the integration of barriers within the overall rail system, including:

- synchronization of vehicle and platform barrier doors/gates;
- audible and visible alerts;
- integrity of control systems;
- testing of the barrier installation;
- operational performance; and
- requirements relating to other interfacing sub-systems, notably signalling and vehicles.

For barrier systems set back from the platform edge, which are used to control access to trains or for crowd management, relevant sections of the document can be used as guidance.

This document applies to all persons involved in the implementation and system integration of a platform barrier system, including infrastructure owners, designers, installers and operators.

This document does not cover barrier systems using bars, ropes, etc. or which operate in a vertical direction.

This document applies to rail services, e.g. metro, tram systems and heavy rail services as requested by a project specification. It applies to small systems, working in conjunction with a single vehicle, or with larger systems working with a complete train.

This document applies to platform barrier systems used at sub-surface stations, enclosed surface stations (e.g. those enclosed for the purposes of providing an air-conditioned environment for waiting passengers), and those fully in the open-air.

This document does not cover normative requirements relating to fire performance or fire requirements arising from use of platform barrier systems as fire barriers.