



FINAL DRAFT International Standard

ISO/FDIS 18298

Railway applications — Platform barrier systems

Applications ferroviaires — Systèmes façades de quai

ISO/TC 269

Secretariat: DIN

Voting begins on:
2025-08-08

Voting terminates on:
2025-10-03

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO/FDIS 18298

<https://standards.iteh.ai/catalog/standards/iso/3dba4713-10cd-41c8-980d-5cfd5943792/iso-fdis-18298>

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

ISO/FDIS 18298

<https://standards.itih.ai/catalog/standards/iso/3dba4713-10cd-41c8-980d-5cfd5943792/iso-fdis-18298>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	2
3 Terms and definitions	3
4 System design requirements	6
4.1 Physical and structural requirements of the platform barrier	6
4.1.1 General structural requirements	6
4.1.2 Structural design principles	7
4.1.3 Structural loading conditions	7
4.1.4 Glazing and other panelling materials in facades, including doors and gates	8
4.1.5 Fire performance — Use as a fire barrier	9
4.1.6 Fire performance — Fire resistance of materials	9
4.1.7 Requirements for emergency egress doors/gates	10
4.1.8 Requirements for driver access doors/gates	11
4.1.9 Requirements for platform extremity doors/gates	11
4.1.10 Entrapment between the platform barrier and vehicles	12
4.1.11 Environmental requirements	16
4.1.12 Acoustic and thermal properties of platform barriers	17
4.1.13 Physical requirements of doors and gates for normal operation	17
4.2 Control and electrical requirements	19
4.2.1 Control system — Conditions for opening/closing of doors/gates	19
4.2.2 Detection of door/gate locking and closure	20
4.2.3 Door/gate status indications	20
4.2.4 Synchronization of vehicle and platform doors/gates	20
4.2.5 Audible and visible alerts	21
4.2.6 Integrity of platform barrier control systems	21
4.2.7 Local control of the doors/gates in a platform barrier system	21
4.2.8 Electrical safety – earthing and bonding arrangements	22
5 Operational requirements	25
5.1 General operational requirements	25
5.1.1 Maintainability	25
5.1.2 Persons with reduced mobility	25
5.1.3 Gauging	25
5.1.4 Tripping hazard at vehicle and platform barrier doorways	26
5.2 Requirements for mechanical gap fillers operating in conjunction with platform barrier systems	27
6 Testing and verification of platform barrier systems	27
6.1 General	27
6.2 Type tests	28
6.3 Routine tests	28
6.4 Functional testing of the platform barrier system	28
6.5 Integration testing of the barriers with other railway subsystems	28
Annex A (normative) Testing plan	29
Annex B (informative) Principles for earthing and bonding strategies	31
Annex C (informative) System integration	36
Annex D (informative) Method for aerodynamic loading from trains	40
Bibliography	42

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 269, *Railway applications*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

ISO/FDIS 18298

<https://standards.iteh.ai/catalog/standards/iso/3dba4713-10cd-41c8-980d-5cfd5943792/iso-fdis-18298>

Introduction

0.1 Purpose

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 IEC 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 can 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.

0.2 National annex with relevant national standards

There are several standards required for the successful implementation of this document, relating to specific regions or countries, that are currently not suitable for inclusion within an international standard. As such, national standards bodies are encouraged to compile and document the standards, relevant to the region or country they represent, within a national annex. National annexes can also provide localized guidance and advice on how to implement this document for projects of varying complexity.

Railway applications — Platform barrier systems

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.

NOTE This document provides requirements for doors and gates on conventional panel construction from platform level to the top of the door, or gate.

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.

This document does not cover barrier systems set back from the platform edge, which are used to control access to trains or for crowd management, however, relevant sections of the document can be used as guidance.

This document applies to rail services, e.g. metro, tram systems and main line railway system 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 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 doors/gates that utilize multiple panels, bars, ropes, etc. or which operate in a vertical direction.