



BSI Standards Publication

Railway applications — Driver's cabs

Part 5: External visibility for tram vehicles

National foreword

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The UK participation in its preparation was entrusted to Technical Committee RAE/4/-/4, Railway Applications - Driver's Cab.

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

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English Version

Railway applications - Driver's cabs - Part 5: External visibility for tram vehicles

Applications ferroviaires - Cabines de conduite - Partie
5 : Visibilité extérieure depuis la cabine de tramways

Bahnanwendungen - Führerraum - Teil 5:
Sichtbedingungen nach außen bei
Straßenbahnfahrzeugen

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European foreword

This document (EN 16186-5:2021) 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of an identical text or by endorsement, at the latest by February 2022, and conflicting national standards shall be withdrawn at the latest by February 2022.

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.

EN 16186 *Railway applications — Driver’s cab* consists of the following parts:

- *Part 1: Anthropometric data and visibility;*
- *Part 2: Integration of displays, controls and indicators;*
- *Part 3: Design of displays;*
- *Part 4: Layout and access;*
- *Part 5: External visibility for tram vehicles;*
- *Part 6: Integration of displays, controls and indicators for tram vehicles¹;*
- *Part 7: Design of displays for tram vehicles¹;*
- *Part 8: Tram vehicle layout and access¹.*

NOTE Part 1 to 4 above-mentioned standard are only applicable for heavy rail vehicles.

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¹ Under development.

1 Scope

This document specifies the external front and rear visibility conditions from cabs of tram vehicles and the associated assessment method.

This document applies to vehicles operating on tram networks.

This document does not apply to driver's auxiliary desks.

This document is not intended to be applied for tram train.

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 15152:2019, *Railway applications - Windscreens for trains*

EN 15227, *Railway applications - Crashworthiness requirements for rail vehicles*

EN 15663, *Railway applications - Vehicle reference masses*

3 Terms and definitions

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

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

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

3.1

auxiliary desk **<tram vehicle>**

additional control desk with limited functionality generally located in the passenger area

3.2

windscreen

glazing in front of a driver through which the track ahead can be observed

[SOURCE: EN 15152:2019, 3.2, modified — “or passengers” is removed.]

3.3

sagittal plane

XZ plane passing in the middle of the dummy

Note 1 to entry: The XZ directions are defined in EN 15227.

3.4

side windscreen

additional glazing positioned at the side of a windscreen that is predominately positioned transversely to the running direction

[SOURCE: EN 15152:2019, 3.2.2]