Railway applications - Passenger alarm system - Part 2: System requirements for urban rail



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# **EUROPEAN STANDARD**

# NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

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# **English Version**

# Railway applications - Passenger alarm system - Part 2: System requirements for urban rail

Applications ferroviaires - Système d'alarme passager -Partie 2 : Prescriptions relatives au système pour le rail urbain

Bahnanwendungen - Fahrgastalarmsystem - Teil 2: Systemanforderungen für städtische Schienenbahnen

This European Standard was approved by CEN on 13 October 2019.

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# **European foreword**

This document (EN 16334-2:2020) 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of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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.

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# 1 Scope

This document specifies the characteristics of the Passenger Alarm System (PAS) for Urban Rail.

This document covers the PAS fitted to the passenger carrying Urban Rail rolling stock and specifies:

- the safety related requirements;
- the functional requirements of PAS triggered by passengers;
- the requirements for the communication channel between passengers and the driver or Operations Control Centre (OCC);
- the requirements for the functional behaviour of the PAS;
- the requirements for the degraded modes management;
- the requirements for the Passenger Alarm Device (PAD) and PAD area.

This document is applicable to the categories I to III of Urban Rail rolling stock defined in CEN/CLC Guide 26:

- (I) metros;
- (II) trams;
- (III) light rail.

NOTE 1 CEN/CLC Guide 26 defines Metro, Tram and Light Rail as public transport systems permanently guided at least by one rail, intended for the operation of local, urban and suburban passenger services with self-propelled vehicles and operated either segregated or not from general road and pedestrian traffic.

NOTE 2 The PAS function on existing vehicles could require modification to work in conjunction with vehicles that comply with this document.

NOTE 3 This document covers urban rail rolling stock, both with or without a driver.

NOTE 4 For rolling stock devoted to suburban passenger services, this document applies when the TSIs do not apply.

# 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 13272-2, Railway applications — Electrical lighting for rolling stock in public transport systems — Part 2: Urban rail

EN 13452-1, Railway applications — Braking — Mass transit brake systems — Part 1: Performance requirements

EN 14478:2017, Railway applications — Braking — Generic vocabulary

EN 62267:2009, Railway applications — Automated urban guided transport (AUGT) — Safety requirements (IEC 62267:2009)

EN 62290 (all parts), Railway applications — Urban guided transport management and command/control systems (IEC 62290, all parts)

ISO 3864-4:2011, Graphical symbols — Safety colours and safety signs — Part 4: Colorimetric and photometric properties of safety sign materials

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14478 and EN 13452-1 and the following apply.

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

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

#### 3.1

# automated urban guided transport

#### **AUGT**

system featuring driverless or unattended train operation with self-propelled, guided vehicles, operating on an exclusive guideway

[SOURCE: IEC 60050-821:2017, 821-09-08]

#### 3.2

#### passenger alarm system

#### PAS

alarm system for passengers that is intended to initiate appropriate measures in case of an emergency situation

## 3.3

#### closed circuit television system

#### **CCTV**

system consisting of camera equipment, storage, monitoring and associated equipment for transmission and controlling purposes

[SOURCE: EN 50132-1:2010, 3.1.27, modified — The term originally defined was "CCTV system".]

## 3.4

# passenger alarm device

#### PAD

interface to the PAS through which the requirement for a defined Passenger Alarm System demand is indicated or initiated by passengers or on-board operational staff

Note 1 to entry: The PAD is sometimes called emergency handle or alarm handle. These short-terms should only be used where misunderstanding is not possible or in descriptions prepared for passengers.

[SOURCE: EN 16334:2014, 3.4, modified — The end of the definition was altered and the Note 1 to entry was shortened.]