

<b>STN</b>	<b>Železnice</b> <b>Varovný systém cestujúcich</b> <b>Požiadavky na systém pre železničné dráhy</b>	<b>STN</b> <b>EN 16334-1+A1</b>  28 4007
------------	---	---

Railway applications - Passenger Alarm System - Part 1: System requirements for mainline rail

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/22

Obsahuje: EN 16334-1:2014+A1:2022

Oznámením tejto normy sa ruší  
STN EN 16334 (28 4007) z decembra 2014

**135406**



EUROPEAN STANDARD

**EN 16334-1:2014+A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2022

ICS 13.320; 45.060.20

Supersedes EN 16334:2014

English Version

## Railway applications - Passenger Alarm System - Part 1: System requirements for mainline rail

Applications ferroviaires - Système d'alarme passager -  
Partie 1: Prescriptions relatives au systèmeBahnanwendungen - Fahrgastalarmsystem - Teil 1:  
Systemanforderungen für Vollbahnen

This European Standard was approved by CEN on 22 May 2014 and includes Amendment 1 approved by CEN on 20 March 2022.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## EN 16334:2014+A1:2022 (E)

<b>Contents</b>	<b>Page</b>
European foreword.....	4
<b>1 Scope.....</b>	<b>5</b>
<b>2 Normative references.....</b>	<b>5</b>
<b>3 Terms and definitions .....</b>	<b>6</b>
<b>4 Symbols and abbreviated terms .....</b>	<b>7</b>
<b>5 System overview, architecture and interfaces .....</b>	<b>7</b>
<b>6 Functional requirements.....</b>	<b>7</b>
<b>6.1 General.....</b>	<b>7</b>
<b>6.2 Advise the driver (and optionally on board staff members or control centre) of a potential danger .....</b>	<b>8</b>
<b>6.3 Advise the passenger .....</b>	<b>9</b>
<b>6.4 Manage PAS communication .....</b>	<b>10</b>
<b>6.5 Determine if the train is stopped at a platform or departing from a platform.....</b>	<b>10</b>
<b>6.6 Recognize the action of the driver .....</b>	<b>11</b>
<b>6.7 Request brake action .....</b>	<b>11</b>
<b>6.8 PAS actions after PAD activation .....</b>	<b>11</b>
<b>6.9 PAS power up in the active cab or train reconfiguration.....</b>	<b>12</b>
<b>6.10 Driver acknowledgement.....</b>	<b>12</b>
<b>6.11 Overriding PAS brake request.....</b>	<b>12</b>
<b>6.12 Reset the PAS .....</b>	<b>13</b>
<b>7 Event sequence .....</b>	<b>13</b>
<b>8 Degraded modes.....</b>	<b>13</b>
<b>8.1 PAS degraded mode: isolated or not functioning .....</b>	<b>13</b>
<b>8.2 Advising the driver .....</b>	<b>13</b>
<b>9 Minimum safety requirements.....</b>	<b>14</b>
<b>10 Requirements for PAD.....</b>	<b>14</b>
<b>10.1 Installation requirements.....</b>	<b>14</b>
<b>10.2 Passenger interface .....</b>	<b>15</b>
<b>10.2.1 PAD .....</b>	<b>15</b>
<b>10.2.2 Information labels .....</b>	<b>16</b>
<b>Annex A (normative) PAS information management.....</b>	<b>18</b>
<b>Annex B (normative) PAS brake request management.....</b>	<b>20</b>
<b>Annex C (normative) Sign indicating the reset equipment for the local PAD.....</b>	<b>21</b>
<b>Annex D (informative) Square key to restore the passenger emergency brake PAD in the initial position (mandatory for international service trains).....</b>	<b>23</b>
<b>Annex E (informative) System overview.....</b>	<b>24</b>
<b>E.1 General.....</b>	<b>24</b>

<b>E.2</b>	<b>System architecture</b> .....	<b>25</b>
	<b>Annex F (normative) Overall dimension of the PAD handle interface</b> .....	<b>26</b>
	<b>Annex G (informative) Inscription indicating the PAD</b> .....	<b>27</b>
	<b>Annex H (informative) Label for PAD</b> .....	<b>28</b>
	<b>Annex I (informative) Degraded mode</b> .....	<b>30</b>
	<b>Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2016/797/EU aimed to be covered</b> .....	<b>33</b>
	<b>Bibliography</b> .....	<b>35</b>

**EN 16334:2014+A1:2022 (E)****European foreword**

This document (EN 16334:2014+A1:2022) 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 November 2022 and conflicting national standards shall be withdrawn at the latest by November 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1 approved by CEN on 13 March 2022.

This document supersedes A1 EN 16334:2014 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), 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, Turkey and the United Kingdom.

## 1 Scope

Ⓐ This document specifies the characteristics and the performance requirements of the Passenger Alarm System (PAS). The aim of the PAS is to:

- allow passengers, in case of emergency situations, to inform the driver;
- allow the driver to keep the train moving or to stop the train at a safe location;
- stop the train automatically:
  - a) at a platform,
  - b) if there is no acknowledgement by the driver.

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

- the functional requirements for an alarm triggered in the driving cab (Clause 6);
- the communication channel between the driver and passengers or on-board staff (6.4)
- the dynamic analysis of the PAS (Clause 7);
- the requirements for the degraded modes management (Clause 8);
- the safety related requirements (Clause 9);
- requirements for the Passenger Alarm Device (PAD) and PAD area (Clause 10).

This document applies to heavy rail rolling stock, which is in the field of the EU Directive 2016/797/EU. This document does not apply to metros, trams and light rail, as defined by the CEN/CENELEC Guide 26.

Existing passenger alarm systems may require modification to work in conjunction with vehicles that comply with this document.

NOTE Most of the requirements of UIC 541-6 are compliant with this document.

Other communication systems such as “communication device for passengers”, “call for aid”, “emergency call” or “call for assistance” are covered by the EN 16683 series. Ⓐ

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Ⓐ EN 13272-1:2019, *Railway applications - Electrical lighting for rolling stock in public transport systems - Part 1: heavy rail* Ⓐ

EN 14478:2005, *Railway applications — Braking — Generic vocabulary*

Ⓐ EN 16186-2:2017, *Railway applications - Driver's cab - Part 2: Integration of displays, controls and indicators*

EN 16186-3:2018, *Railway applications - Driver's cab - Part 3: design of displays*

**EN 16334:2014+A1:2022 (E)**

EN 50126-1:2017, *Railway Applications - The Specification and demonstration of reliability, availability, maintainability and safety (RAMS) - Part 1: generic RAMS process*

EN 50126-2:2017, *Railway Applications - The specification and demonstration of reliability, availability, maintainability and safety (RAMS) - Part 2: systems approach to safety* <sup>[A1]</sup>

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

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

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**

<sup>[A1]</sup> Note 1 to entry: For units designed for operation with staff on-board (other than driver), it is permitted to have no microphone and loudspeaker. In that case, the communication link is established between the driver's cab and the staff on-board. <sup>[A1]</sup>