



BSI Standards Publication

Railway applications — External visible and audible warning devices

Part 1: Head, marker and tail lamps for heavy rail

National foreword

This British Standard is the UK implementation of EN 15153-1:2020. It supersedes BS EN 15153-1:2013+A1:2016, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee RAE/4/-/7, Railway Applications - Lighting.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Bahnanwendungen - Äußere optische und akustische Warneinrichtungen - Teil 1: Leuchten für Fernlichter, Spitzen- und Schlussignale für Vollbahnen

This European Standard was approved by CEN on 6 October 2019.

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European foreword

This document (EN 15153-1:2020) 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of an identical text or by endorsement, at the latest by July 2020, and conflicting national standards shall be withdrawn at the latest by July 2020.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.

This document supersedes EN 15153-1:2013+A1:2016.

The main changes with respect to the previous edition are:

- clarification of scope,
- revised alignment of head lamps according to the ‘alternative method’,
- clarification of the criteria for assessing the lit area of lamps,
- new Annex A, containing a summary of items for agreement between contractors, and
- re-working of the summary of testing requirements (now Annex B) to permit inspection of drawings / design documents, and to mandate the testing of interoperability constituents.

This series of documents *Railway applications — External visible and audible warning devices* consists of the following parts:

- Part 1: *Head, marker and tail lamps for heavy rail* (this document);
- Part 2: *Warning horns for heavy rail*;
- Part 3: *Visible warning devices for urban rail*;
- Part 4: *Audible warning devices for urban rail*.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2016/797/EC.

For relationship with EU Directive 2016/797/EC, see informative Annex ZA which is an integral part of this document.

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.

Introduction

This document was produced following the creation of EN 15153-3 for urban rail.

This document was re-named to make a clear distinction between heavy rail and urban rail.

Additionally, Annex ZA was updated for the current status of TSIs.

1 Scope

This document defines the functional and technical requirements for head, marker and tail lamps for heavy rail units, excluding road, metro and self-contained systems.

This document also defines the requirements for testing and conformity assessment.

Lamps designed for special purposes, for example illumination of third rail, are excluded from the scope of this document.

Portable lamps are excluded from the scope of this document.

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

EN ISO/CIE 11664-1:2019, *Colorimetry — Part 1: CIE standard colorimetric observers*

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 <https://www.iso.org/obp>

NOTE For general railway terms and definitions, refer to EN 17343¹.

3.1

heavy rail systems

see EN 17343¹

3.2

head lamp

device fitted to the front of the train that emits white light, intended to provide visual warning of an approaching train, and/or to illuminate the line and lineside

3.3

marker lamp

device fitted to the front of the train that emits white light, intended to indicate the presence of a train, to provide visual warning of an approaching train and/or to illuminate retro-reflective lineside signs

Note 1 to entry: The front end signal light (detectability) as set out in TSI OPE comprises three marker lamps.

¹ Under preparation. Stage at the time of publication: prEN 17343.