

RAUDTEEALASED RAKENDUSED. VÄLISED NÄHTAVAD
JA KUULDAVAD HOIATUSSEADMED. OSA 1:
RAUDTEEVEEREMI PROŽEKTOR, ESIMESED JA
TAGUMISED SIGNAALTULED

Railway applications - External visible and audible
warning devices - Part 1: Head, marker and tail lamps
for heavy rail

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15153-1:2020 sisaldab Euroopa standardi EN 15153-1:2020 ingliskeelset teksti.	This Estonian standard EVS-EN 15153-1:2020 consists of the English text of the European standard EN 15153-1:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 15.01.2020.	Date of Availability of the European standard is 15.01.2020.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 45.060.10

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

**Railway applications - External visible and audible
warning devices - Part 1: Head, marker and tail lamps for
heavy rail**

Applications ferroviaires - Dispositifs externes
d'avertissement optiques et acoustiques - Partie 1 :
Feux avant, feux de position et feux arrière pour
systèmes ferroviaires lourds

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

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

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

Contents

Page

European foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Symbols and abbreviations	6
5 Requirements	7
5.1 General	7
5.2 Provision of lamps	7
5.3 Head lamps	7
5.4 Marker lamps	10
5.5 Tail lamps	13
5.6 Control of lamps	14
5.7 Operational check	15
6 Test requirements	15
6.1 General	15
6.2 General test requirements	15
6.3 Specific requirements for the colorimetric tests	17
6.4 Specific requirements for the photometric tests	17
Annex A (normative) Contractual statements - Information and requirements to be agreed and documented	19
Annex B (informative) Summary of testing requirements	20
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2016/797/EC aimed to be covered	21
Bibliography	24

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.

This document is a preview generated by EVS

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.