

Nederlandse norm

# NEN-EN 16494

(en)

Railtoepassingen - Eisen voor langs het spoor  
geïnstalleerde ERTMS borden

Railway applications - Requirements for ERTMS  
Trackside Boards

Vervangt NEN-EN 16494:2012 Ontw.

ICS 03.220.30; 33.070.50

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## Nederlands voorwoord

Voor de in deze norm vermelde normatieve verwijzingen bestaan in Nederland de volgende equivalenten:

<u>vermelde norm</u>	<u>Nederlandse norm</u>	<u>titel</u>
EN 12899-1:2007	NEN-EN 12899-1:2007	Vast opgestelde, verticale verkeerstekens - Deel 1: Verkeersborden
EN 15273-1	NEN-EN 15273-1	Railtoepassingen - Omgrenzingsprofiel - Deel 1: Algemeen - Gemeenschappelijk regels voor infrastructuur en rollende materieel

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ICS 03.220.30; 33.070.50

English Version

**Railway applications - Requirements for ERTMS Trackside Boards**

Applications ferroviaires - Exigences relatives aux pancartes ERTMS

Bahnanwendungen - Anforderungen an ERTMS-Strecken- und Signaltafeln

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## Foreword

This document (EN 16494:2015) 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of an identical text or by endorsement, at the latest by October 2015 and conflicting national standards shall be withdrawn at the latest by October 2015.

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For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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## Introduction

This European Standard was produced for the specification and harmonization of a specific set of ERTMS trackside boards to support ETCS and GSM-R operations.

The existing DMI symbols within the scope of this European Standard were considered for the trackside board designs but were found to be unreadable due to complexity of the designs. For this reason the abstract designs shown in Table 1 were developed.

This European Standard contains colour images for indicational purposes only. The colours are not representative of the specification. The drawings shown in Table 1 and Table 2 are not to scale.

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## 1 Scope

This European Standard defines the requirements for the provision, visibility, readability, maintenance and testing of a specific set of ERTMS trackside boards associated with the following DMI and ETCS track conditions:

- ETCS stop marker;
- ETCS location marker, the trackside ETCS signal to identify a specific location on the line;
- level transition, corresponding to transitions between ETCS levels;
- lower pantograph;
- pantograph lowered;
- raise pantograph;
- neutral section announcement;
- neutral section;
- end of neutral section;
- GSM-R network border marker.

This European Standard includes the arrangement of the boards and their interface with existing systems (track, cab design including cab sight lines, visibility by the driver and train head lamps).

NOTE 1 The ETCS and GSM-R signs are needed when the information normally associated with the DMI symbols is provided at the trackside.

NOTE 2 The application of ERTMS trackside boards is not within the scope of this standard.

Sighting requirements are not included within the scope of this standard. Sighting requirements for the boards may be different according to their level of authority: marker boards 'End of Authority' need to be treated with the same level of authority as a signal and may have enhanced sighting requirements; the remaining boards may be sighted as generic signage sighting rules. The sighting process needs to be implemented in accordance with national safety rules.

## 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 12899-1:2007, *Fixed, vertical road traffic signs — Part 1: Fixed signs*

EN 15273-1, *Railway applications — Gauges — Part 1: General — Common rules for infrastructure and rolling stock*

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