

Railway Group Standard**GKRT0028****Issue:** Three**Date:** September 2016

Infrastructure Based Train Detection Interface Requirements

Synopsis

This document specifies the infrastructure based train detection system parameters that are necessary to support technical compatibility with GB legacy rail vehicles.

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Issue Record

Issue	Date	Comments
One	April 2010	Original document.
Two	December 2014	This document has been amended under project 12/034 to support industry in design of clearance points to be compliant with the CCS TSI and the harmonised parameters specified in ERA/ERTMS/033281 'Interfaces Between Control-Command and Signalling Trackside and Other Subsystems'.
Three	September 2016	This document has been amended under project 15/002 to ensure that the requirements are within the scope of NTRs and that the standard is correctly aligned with the CCS TSI.

This document will be updated when necessary by distribution of a complete replacement.

Revisions have not been marked by a vertical black line in this issue because the document has been revised throughout.

Superseded Documents

The following Railway Group documents are superseded, either in whole or in part as indicated:

Superseded documents	Sections superseded	Date when sections are superseded
GKRT0028 issue two Infrastructure Based Train Detection Interface Requirements	All	03/12/2016
GKGN0628 issue two Guidance on Infrastructure Based Train Detection Interface Requirements	All	03/12/2016

Supply

The authoritative version of this document is available at www.rssb.co.uk/railway-group-standards. Enquiries on this document can be forwarded to enquirydesk@rssb.co.uk.

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Part 1 Purpose and Introduction

1.1 Purpose

1.1.1 This document sets out the interface requirements between rail vehicles and infrastructure based train detection systems, including the track section parameters needed for their compatibility.

1.2 Introduction

Application of Train Detection Systems

1.2.1 Train Detection Systems are provided where:

- a) The safe operation of the signalling system is dependent on accurate and up-to-date information on the position and movement of trains.
- b) Information on the position and movements of trains is required for the control of level crossings, staff warning systems or other systems associated with the safety of train operations.
- c) It is necessary for the signaller or other operator to know the position of trains for the safe operation of the railway.

1.2.2 There are three standards that contain requirements relevant to infrastructure based train detection systems:

- a) ERA/ERTMS/033281 (CCS TSI Index 77) which sets out the harmonised requirements related to compatibility of train detection systems with other subsystems.
- b) This document, which sets out the National Technical Rules (NTRs) for the Great Britain (GB) mainline railway.
- c) RIS-0728-CCS, which sets out further requirements and guidance including those for calculating the fouling point and clearance point.

Principles

1.2.3 This document sets out NTRs for the mainline railway in GB. Compliance with NTRs is required under the Railways Interoperability Regulations 2011 (as amended).

1.2.4 The NTRs in this document set out requirements to maintain compatibility between existing subsystems and/or vehicles that do not conform to the requirements in TSIs and new, upgraded or renewed subsystems and/or vehicles conforming to TSIs.

Structure of this document

1.2.5 This document sets out a series of requirements that are sequentially numbered.

1.2.6 This document also sets out the rationale for the requirement. The rationale explains why the requirement is needed and its purpose. Where relevant, guidance supporting the requirement is also set out in this document by a series of sequentially numbered clauses and is identified by the letter 'G'.

1.2.7 The national rules relating to relevant TSI parameters have been identified together with the relevant clause from the TSI.

Related requirements in other documents

1.2.8 The following Railway Group Standards contain requirements that are relevant to the scope of this document:

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