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Järnvägstillämpningar – Provning av rullande materiel avseende elektromagnetisk kompatibilitet med axelräknare

*Railway applications –
Testing of rolling stock for electromagnetic compatibility with axle counters*

Som svensk standard gäller europastandarden EN 50592:2016. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50592:2016.

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English Version

Railway applications - Testing of rolling stock for electromagnetic compatibility with axle counters

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Bahnanwendungen - Prüfung von Fahrzeugen auf elektromagnetische Verträglichkeit mit Achszählern

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Contents

Page

European foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms, definitions and abbreviations	6
3.1 Terms and definitions	6
3.2 Abbreviations	8
4 Measurement specification for vehicle emissions	9
4.1 Rolling stock emission limits	9
4.2 Methodology for the demonstration of vehicle compatibility	9
4.2.1 General approach	9
4.2.2 Measurement antenna	10
4.2.3 Vehicle test conditions	12
4.2.4 Infrastructure conditions	15
4.2.5 Uncertainty and calibration	15
5 Measurement and evaluation methods	15
5.1 Method based on the frequency management of the TSI CCS interface document	15
5.1.1 Principle	15
5.1.2 Procedure	16
5.1.3 Evaluation of short duration interference	18
5.2 Method for RST compatibility with individual axle counter detectors	18
5.2.1 General	18
5.2.2 Principle	18
5.2.3 Procedure	19
5.2.4 Evaluation of short duration interference	20
Annex A (informative) Design guide for rolling stock measurement antennas — Measurement antennas characteristics	21
Annex ZZ (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC	22
Bibliography	24
 Figures	
Figure 1 — Orientation of the coordinates	7
Figure 2 — Examples of IUs	8
Figure 3 — Measurement antenna	10

Figure 4 — Centre point coordinates	11
Figure 5 — Mounting measurement antenna between two sleepers	12
Figure 6 — Speed ranges, tractive effort (force) (Z) – speed (v), speed power point (Vpp), diagram (examples).....	14
Figure 7 — Test method based on TSI requirements	16
Figure 8 — One series of band-pass filters	17
Figure 9 — Test method for compatibility with individual axle counter detectors.....	19
Figure 10 — Broadband evaluation on the tolerance range of centre frequency.....	20
Figure A.1 — Top and side view (Y and Z coils, dimensions 50 mm by 150 mm, X coil dimension 50 mm by 50 mm)	21

Tables

Table 1 — Y1 and Z1 coordinates of the measurement antennas centre point	11
Table ZZ.1 — Correspondence between this European Standard, the CCS TSI (DECISION 2012/88/EU of 25 January 2012, DECISION 2012/696/EU of 6 November 2012 amending Decision 2012/88/EU, DECISION 2015/14/EU of 5 January 2015 amending Decision 2012/88/EU) and Directive 2008/57/EC	22
Table ZZ.2 — Correspondence between this European Standard, the TSI “Locomotives and Passenger Rolling Stock” (REGULATION (EU) No 1302/2014 of 18 November 2014) and Directive 2008/57/EC	23

European foreword

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- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-07-22
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For relationship with EU Directive 2008/57/EC amended by Commission Directive 2011/18/EU, see informative Annex ZZ, which is an integral part of this document.

Introduction

This European Standard is being developed to permit compliance with the Railway Interoperability Directives. The vehicle test methodology presented in this European Standard is also applicable to the demonstration of compatibility with all types of axle counters which have established compatibility limits according to EN 50617-2.

Compliance with the limits for rolling stock is necessary for a reliable and safe operation of the railway system.

1 Scope

This European Standard defines, for the purpose of ensuring compatibility between rolling stock and axle counter systems, the measurement and evaluation methods of rolling stock emissions to demonstrate compatibility. The established limits for compatibility are defined as magnetic field strength that can disturb the axle counter detectors, as part of the axle counter system.

In the relevant frequency range of the axle counter detectors the magnetic field is dominant and only this type of field is considered. Experience has shown that the effects of electric fields are insignificant and therefore not considered.

NOTE 1 For axle counters systems whose limits are not defined in terms of magnetic fields at a detector level, National Rules apply where they exist (for more details, see also 4.1).

NOTE 2 The influence from metal parts or inductively coupled resonant circuits on the vehicle, eddy current brakes or magnetic brakes is out of the scope of this EN. Compatibility is established through individual testing according to the EN 50238 series or National Notified Technical 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 50238-1, *Railway applications — Compatibility between rolling stock and train detection systems — Part 1: General*

CLC/TS 50238-2, *Railway applications — Compatibility between rolling stock and train detection systems — Part 2: Compatibility with track circuits*

CLC/TS 50238-3, *Railway applications — Compatibility between rolling stock and train detection systems — Part 3: Compatibility with axle counters*

EN 50617-2, *Railway Applications — Technical parameters of train detection systems for the interoperability of the trans-European railway system - Part 2: Axle counters*

CISPR 16-4-2, *Specification for radio disturbance and immunity measuring apparatus and methods — Part 4-2: Uncertainties, statistics and limit modelling — Measurement instrumentation uncertainty*

ERA/ERTMS/033281, *Interfaces between Control-Command and Signalling Trackside and Other Subsystems*