Electronic railway equipment — Train communication network (TCN)

Part 2-5: Ethernet train backbone
This British Standard is the UK implementation of EN 61375-2-5:2015. It is identical to IEC 61375-2-5:2014.

The UK participation in its preparation was entrusted by Technical Committee GEL/9, Railway Electrotechnical Applications, to Panel GEL/9/-/4, Railway applications - Train communication network and multimedia systems.

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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Published by BSI Standards Limited 2015

ISBN 978 0 580 72987 4
ICS 45.060

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 March 2015.

Amendments/corrigenda issued since publication

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<th>Text affected</th>
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This is a preview of "BS EN 61375-2-5:2015". Click here to purchase the full version from the ANSI store.
This European Standard was approved by CENELEC on 2014-09-29. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Foreword

The text of document 9/1933/FDIS, future edition 1 of IEC 61375-2-5, prepared by IEC/TC 9 "Electrical equipment and systems for railways" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61375-2-5:2015.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-08-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-09-29

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61375-2-5:2014 was approved by CENELEC as a European Standard without any modification.

IEC 61784-2 NOTE Harmonized as EN 61784-2.
IEC 61918 NOTE Harmonized as EN 61918.
### Annex ZA

**Normative references to international publications with their corresponding European publications**

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.

**NOTE 1** When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

**NOTE 2** Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

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<td>IEC 61156 series</td>
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<td>Multicore and symmetrical pair/quad cables for digital communications</td>
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<td>IEC 61156-1</td>
<td>2007</td>
<td>Multicore and symmetrical pair/quad cables for digital communications - Part 1: Generic specification</td>
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<td>IEC 61156-5</td>
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<td>Multicore and symmetrical pair/quad cables for digital communications - Part 5: Symmetrical pair/quad cables with transmission characteristics up to 1 000 MHz - Horizontal floor wiring - Sectional specification</td>
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<td>Electronic railway equipment - Train communication network (TCN) -- Part 1: General architecture</td>
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<td>ISO/IEC 7498 series</td>
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<td>Information processing systems - Open systems interconnection - Basic reference model</td>
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<td>ISO/IEC 8824 series</td>
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<td>ISO/IEC 9646 series</td>
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<td>Information technology - Open Systems Interconnection</td>
<td>EN ISO/IEC 9646</td>
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<td>ISO/IEC 11801</td>
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<td>Information technology - Generic cabling for customer premises</td>
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<td>IEEE 802.1AB</td>
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<td>IEEE Standard for Local and Metropolitan Area Networks - Station and Media Access Control Connectivity Discovery</td>
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<td>IEEE 802.1AX</td>
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<td>IEEE Standard for Local and metropolitan area networks - Link Aggregation</td>
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<td>IEEE 802.1Q</td>
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<td>IEEE Standard for local and metropolitan area networks - Media Access Control (MAC) Bridges</td>
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Annex ZZ
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Annex III of the EC Directive 2008/57/EC (also named as New Approach Directive 2008/57/EC Rail Systems: Interoperability).

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZZ.1 relating to the ‘rolling stock - locomotives and passenger rolling stock’ subsystem of the rail system in the European Union, confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZZ.1 - Correspondence between this European Standard, the RST LOC&PAS TSI (published in the Official Journal L 356 on 12 December 2014, p. 228) and Directive 2008/57/EC

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<th>Essential Requirements (ER) of Directive 2008/57/EC</th>
<th>Comments</th>
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<tr>
<td>The whole standard is applicable</td>
<td>4.2.4.9 Brake state and fault indication</td>
<td>2. Requirements specific to each sub-subsystem</td>
<td>The TSI does not impose any technical solution regarding physical interfaces between units.</td>
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<tr>
<td></td>
<td>4.2.5.2 Audible communication system</td>
<td>2.4. Rolling Stock</td>
<td>The standard offers a general multi-purpose solution for the inter-vehicle digital communication network and it is relevant to vehicle interoperability.</td>
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<tr>
<td></td>
<td>4.2.5.3 Passenger alarm</td>
<td>2.4.1. Safety</td>
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<td>4.2.5.4 Communication devices for passengers</td>
<td>2.4.2. Reliability and availability</td>
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<td>4.2.5.5 Exterior doors</td>
<td>2.4.3. Technical compatibility</td>
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<td>4.2.12.2 General documentation: - description of computerised onboard systems</td>
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**WARNING:** Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.
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