

STN	Železnice Kol'aj Kvalita geometrie kol'aje Časť 4: Meracie systémy Ručné a ľahké zariadenia	STN EN 13848-4 73 6315
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Railway applications - Track - Track geometry quality - Part 4: Measuring systems - Manual and lightweight devices

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

**Railway applications - Track - Track geometry quality -
Part 4: Measuring systems - Manual and lightweight
devices**

Applications ferroviaires - Voie - Qualité géométrique
de la voie - Partie 4: Systèmes de mesure - Dispositifs
manuels et de faible poids

Bahnanwendungen - Oberbau - Qualität der
Gleisgeometrie - Teil 4: Messsysteme - Handgeführte
und leichte Vorrichtungen

This European Standard was approved by CEN on 14 April 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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EN 13848-4:2025 (E)

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EN 13848-4:2025 (E)**European foreword**

This document (EN 13848-4:2025) 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of an identical text or by endorsement, at the latest by December 2025, and conflicting national standards shall be withdrawn at the latest by December 2025.

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 13848-4:2011.

The main changes compared to the previous edition are listed below:

- change of labels and definitions for lightweight devices;
- update of content of Annexes A and B;
- modification of certain limit values in Annex C (validation criteria);
- integration of Annex D (uncertainty measurement);
- simplification of the main text structure.

In this document, the Annexes A and C are normative and the Annexes B and D are informative.

This document is one in the EN 13848 series *Railway applications – Track – Track geometry quality*, the parts of which are listed below:

- *Part 1: Characterization of track geometry*
- *Part 2: Measuring systems – Track recording vehicles*
- *Part 3: Measuring systems – Track construction and maintenance machines*
- *Part 4: Measuring systems – Manual and lightweight devices*
- *Part 5: Geometric quality levels – Plain line, switches and crossings*
- *Part 6: Characterization of track geometry quality*

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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, Türkiye and the United Kingdom.

1 Scope

This document specifies the minimum requirements to be met for track geometry measurements by lightweight devices including track geometry recorders working up to walking speed and track geometry instruments to enable the assessment of track geometry quality using one or more of the parameters described in EN 13848-1.

In the case of lightweight devices working at a speed higher than walking speed, or in the case of track geometry measuring systems installed on vehicles but not measuring in loaded conditions as specified in EN 13848-1, the validation of the system can be done based on the test procedure specified in Clause 6 of EN 13848-2:2020.

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 13848-1:2019, *Railway applications - Track - Track geometry quality - Part 1: Characterization of track geometry*

EN 13848-2:2020, *Railway applications - Track - Track geometry quality - Part 2: Measuring systems - Track recording vehicles*

EN 13848-5, *Railway applications - Track - Track geometry quality - Part 5: Geometric quality levels - Plain line, switches and crossings*

EN 13848-6, *Railway applications - Track - Track geometry quality - Part 6: Characterization of track geometry quality*

EN 17343, *Railway applications - General terms and definitions*

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