STN

**Dráhové aplikácie
Komunikačné a signalizačné systémy a systémy
na spracovanie údajov
Softvér pre železničné riadiace a ochranné systémy
Zmena A2**

**STN
EN 50128/A2**

34 2680

Railway applications.Communications, signalling and processing systems Software for railway control and protection systems

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/20

STN EN 50128 z novembra 2012 sa bez tejto zmeny A2 môže používať do 22. 6. 2023.

Obsahuje: EN 50128:2011/A2:2020

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50128:2011/A2

July 2020

ICS 35.240.60; 45.020; 93.100

English Version

Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems

Applications ferroviaires - Systèmes de signalisation, de télécommunication et de traitement - Logiciels pour systèmes de commande et de protection ferroviaire

Bahnanwendungen - Telekommunikationstechnik, Signaltechnik und Datenverarbeitungssysteme - Software für Eisenbahnsteuerungs- und Überwachungssysteme

This amendment A2 modifies the European Standard EN 50128:2011; it was approved by CENELEC on 2020-06-22. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Ref. No. EN 50128:2011/A2:2020 E

Content

European foreword

This document (EN 50128:2011/A2:2020) has been prepared by SC 9XA, "Communication, signalling and processing systems", of Technical Committee CENELEC TC 9X, "Electrical and electronic applications for railways".

The following dates are fixed:

•	latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2021-06-22
•	latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2023-06-22

The EN 50128:2011 standard was amended to align with EN 50126-1:2017, EN 50126-2:2017 and EN 50129:2018. In addition, some technical mistakes were corrected and some clarifications were added.

This European Standard should be read in conjunction with EN 50126-1:2017 "*Railway applications – The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS) – Part 1: Generic RAMS Process*", EN 50126-2:2017 "*Railway applications – The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS) – Part 2: Systems Approach to Safety*" and EN 50129:2018 "*Railway applications – Communication, signalling and processing systems – Safety related electronic systems for signalling*".

EN 50128:2011/A2:2020 (E)

1 General Changes

All occurrences of SIL 0 within EN 50128:2011 are replaced with Basic Integrity (EN 50126-1:2017, 3.7).

All occurrences of safety function(s) are replaced with safety-related function(s).

Use of the term "EN 50126-1" is replaced by "EN 50126-1 and EN 50126-2".

The term "assessment" in the standard means "independent safety assessment" as per definition of EN 50126-1:2017, 3.33.

All statements qualified by the words "software safety integrity level" are applicable also to Basic Integrity.

2 Modification to the Introduction

The following paragraph is added at the end of the Introduction:

This European Standard does not specify the requirements for the development, implementation, maintenance and/or operation of security policies or security services needed to meet security requirements that may be needed by the safety-related system. IT security can affect not only the operation but also the functional safety of a system. For IT security, appropriate IT security standards should be applied.

NOTE   IEC/ISO standards that address IT security in depth are ISO 27000 series, ISO/IEC TR 19791 and the IEC 62443 series.

3 Modification to the Scope

The following subclause 1.10 is added:

1.10   For the development of User Programmable Integrated Circuits (e.g. FPGA and CPLD) guidance is provided in EN 50129:2018, Annex F.

4 Modification to Clause 2, Normative references

Replace the list of normative references by the following:

EN 50126-1:2017, Railway applications – The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS) – Part 1: Generic RAMS Process

EN 50126-2:2017, Railway applications – The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS) – Part 2: Systems Approach to Safety

EN 50129:2018, Railway applications – Communication, signalling and processing systems – Safety related electronic systems for signalling

EN ISO 9000:2015, Quality management systems – Fundamentals and vocabulary

EN ISO 9001:2015, Quality management systems – Requirements

ISO/IEC 90003:2014, Software engineering – Guidelines for the application of ISO 9001 to computer software

ISO/IEC 25000 series, Systems and software engineering – Systems and software Quality Requirements and Evaluation

koniec náhľadu – text ďalej pokračuje v platenej verzii STN