

SLOVENSKI STANDARD oSIST prEN 50742:2026

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Varnost strojev - Zaščita pred korupcijo

Safety of machinery - Protection against corruption

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English Version

Safety of machinery - Protection against corruption

To be completed To be completed

This draft European Standard is submitted to CENELEC members for enquiry. Deadline for CENELEC: 2026-02-27.

It has been drawn up by CLC/TC 44X.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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44 European foreword

- This document (prEN 50742:2025) has been prepared by CLC/TC 44X "Safety of machinery: electrotechnical
- 46 aspects".
- 47 This document is currently submitted to the Enquiry.
- 48 The following dates are proposed:
 - latest date by which the existence of this (doa) dav + 6 months document has to be announced at national level
 - latest date by which this document has to be (dop) dav + 12 months implemented at national level by publication of an identical national standard or by endorsement
 - latest date by which the national standards (dow) dav + 36 months conflicting with this document have to be withdrawn
 dow) dav + 36 months (to be confirmed or modified when voting)
- 49 This document has been prepared under a standardization request addressed to CENELEC by the European
- 50 Commission. The Standing Committee of the EFTA States subsequently approves these requests for its

leh Standards

- 51 Member States.
- For the relationship with EU Legislation, see informative Annex ZZ, which is an integral part of this document.

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Introduction

- Machinery must be safe in order to prevent injuries and loss of life.
- 55 The communication with the machine must not lead to hazardous situations.
- 56 The manufacturer performs a risk assessment according to EN ISO 12100 to identify all potential hazards.
- 57 Vulnerabilities can lead to a corruption of the control system of the machine and hazards can lead to dangerous
- 58 situations.

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- 59 By exploitation of vulnerabilities via communication with the machine, the machine could be operated outside
- safe parameters or degrade safety functions.
- Vulnerabilities cannot create new hazards.
- The probability that someone will use a vulnerability for a malicious attempt cannot be predicted.
- The risk can only be assessed in terms of its impact on functional safety.
- Vulnerabilities are divided into several types.
- This document provides two approaches:
- 66 Approach A (Clause 5 and 7) has been developed to facilitate compliance for machinery developed without references to EN IEC 62443 series of standards.
- Approach B (Clauses 6 and 8) has been provided to facilitate compliance for machinery developed in the context of the EN IEC 62443-3-3:2019, EN IEC 62443-4-1:2018, EN IEC 62443-4-2:2019.
- 70 NOTE 1 The EN IEC 62443 series provides information and a methodology to approach cybersecurity.
- 71 This document is intended for use by machinery designers, control system manufacturers and integrators, and
- 72 others involved in the specification, design and validation of an SCS.
- NOTE 2 See EN IEC 62443-4-1:2018; the manufacturer can be a product supplier or system integrator.
- 74 This document does not address the role of the user.rEN 50742:2026
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1 Scope

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- 76 This document provides requirements and recommendations for protection against corruption for machinery,
- 77 related products and partly completed machinery referred to in this document as 'machinery'.
- 78 This document provides requirements and recommendations to prevent accidental and intentional (including
- 79 malicious) corruption of machines resulting in hazardous situations.
- 80 This document applies to:
- 81 hardware components, including interfaces to remote devices and control systems, that can transmit
- 82 signals or data;
- 83 software and data;
- if they could influence the safety of the machinery.
- 85 NOTE 1 Topics can overlap with the domain of cybersecurity but are not necessarily identical in their coverage.
- 86 NOTE 2 This document does not describe functional safety requirements of control systems in machinery.
- 87 This document specifies requirements to related risks in all lifecycle steps.
- 88 Machinery interfaces to external systems and services are in the scope of this document. External systems and
- 89 services are out of the scope of this document.
- This document does not apply to machinery installed before the date of its publication.
- 91 This document specifies requirements related to protection against corruption related risks in all lifecycle steps
- 92 such as:
- 93 development; (https://standards.iteh.ai)
- 95 commissioning;

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- ht: 96.//standaoperation; i/catalog/standards/sist/07a63742-502d-4d13-bdb9-17a86e07b9f8/osist-pren-50742-2026
 - 97 maintenance;

99

98 — decommissioning.

2 Normative references

- 100 The following documents are referred to in the text in such a way that some or all of their content constitutes
- 101 requirements of this document. For dated references, only the edition cited applies. For undated references, the
- 102 latest edition of the referenced document (including any amendments) applies.
- 103 EN ISO 12100:2010, Safety of machinery General principles for design Risk assessment and risk reduction
- 104 (ISO 12100:2010)
- 105 EN IEC 62443-3-3:2019, 1 Industrial communication networks Network and system security Part 3-3: System
- 106 security requirements and security levels
- 107 EN IEC 62443-4-1:2018, Security for industrial automation and control systems Part 4-1: Secure product
- 108 development lifecycle requirements

¹ As impacted by EN IEC 62443-3-3:2019/AC:2019.