



ISO 12849-1:2023

Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design

Foreword

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This document was prepared by Technical Committee ISO/TC 199, Safety of machinery, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 114, Safety of machinery, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 12849-1:2015), which has been technically revised.

The main changes are as follows:

- the whole document was reorganized to better follow the design and development process for control systems;
- new **Clause 4** on recommendation for risk assessment;
- specification of the safety functions (updated **Clause 5**);
- combination of several sub-systems (updated **Clause 6**);
- new **Clause 7** on software safety requirements;
- new **Clause 8** on ergonomic aspects of design;
- validation (updated **Clause 9** and moved to **Clause 10**);
- new **6.2** on management of the functional safety.