

# INTERNATIONAL STANDARD

**ISO  
13850**

First edition  
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## **Safety of machinery — Emergency stop — Principles for design**

*Sécurité des machines — Arrêt d'urgence — Principes de conception*

Withdrawn



Reference number  
ISO 13850:1996(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 13850, based on the European standard EN 418:1992, was prepared jointly by Technical Committees ISO/TC 199, *Safety of machinery* and IEC/TC 44, *Safety of machinery — Electrotechnical aspects*, and adopted in parallel by the member bodies of ISO and the national committees of IEC.

Annex A of this International Standard is for information only.

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## Introduction

This International Standard has the status of a horizontal standard and may be used, e.g. as a reference standard by technical committees in ISO and IEC preparing product family and/or dedicated product standards for machines. The requirements of this International Standard can also be applied by suppliers of machines for which no product family or dedicated product standard exists. Where a product family or a dedicated product standard exists, its requirements may take precedence.

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# Safety of machinery — Emergency stop — Principles for design

## 1 Scope

This International Standard specifies functional requirements and design principles for the emergency stop of machinery, independent of the type of energy used to control the function.

The requirements of this International Standard apply to all machinery except

- machines in which the provision of emergency stop would not lessen the risk;
- hand-held portable machines and hand-guided machines.

This International Standard does not deal with functions such as reversal or limitation of motion, deflection, shielding, braking, or disconnecting, which may be part of the emergency stop function.

IEC 204-1:1992, *Electrical equipment of industrial machines — Part 1: General requirements.*

IEC 947-5-1:1990, *Low-voltage switchgear and controlgear — Part 5: Control circuit devices and switching elements — Section 1: Electromechanical control circuit devices.*

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/TR 12100-1:1992, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology.*

ISO/TR 12100-2:1992, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles and specifications.*