

INTERNATIONAL STANDARD

**ISO
11428**

First edition
1996-12-15

Ergonomics — Visual danger signals — General requirements, design and testing

*Ergonomie — Signaux visuels de danger — Exigences générales,
conception et essais*



Reference number
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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 11428 was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 5, *Ergonomics of the physical environment*.

The technical content of ISO 11428 and European Standard EN 842, *Safety of machinery — Visual danger signals — General requirements, design and testing* is identical. However, the limits of applicability of the standards to other technical fields are different, thus direct transformation of the International Standard into a European standard is not possible. EN 842 was prepared in order to fulfil the Council Directive on essential health and safety requirements relating to the design and construction of machinery and therefore the applicability of the European standard is restricted to this Directive.

Ergonomics — Visual danger signals — General requirements, design and testing

1 Scope

This International Standard describes criteria for the perception of visual danger signals in the area in which people are intended to perceive and to react to such a signal. It specifies the safety and ergonomic requirements and the corresponding physical measurements and subjective visual check. It also provides guidance for the design of the signals so that they can be clearly perceived and differentiated as described in ISO/TR 12100-2:1992, 5.3.

This International Standard does not apply to danger indicators:

- presented in either written or pictorial form;
- transmitted by data display units.

This International Standard does not apply to special regulations such as those for public disaster and public transport.

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 3864:1994, *Safety colours and safety signs*.

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

IEC 73:1991, *Coding of indicating devices and actuators by colours and supplementary means*.

IEC 1310-1:1995, *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, auditory and tactile signals*.