
**Ergonomic requirements for the design of
displays and control actuators —**

Part 1:

**Human interactions with displays and control
actuators**

*Spécifications ergonomiques pour la conception des dispositifs
de signalisation et des organes de service —*

*Partie 1: Interactions entre l'homme et les dispositifs de signalisation
et organes de service*



Contents

1 Scope	1
2 Normative references	1
3 Definitions	1
4 Design principles for operator-task relationships.....	2
4.1 Suitability for the task.....	2
4.1.1 Principle of function allocation	2
4.1.2 Principle of complexity.....	3
4.1.3 Principle of grouping.....	3
4.1.4 Principle of identification.....	3
4.1.5 Principle of operational relationship.....	4
4.2 Self-descriptiveness	4
4.2.1 Principle of information availability	4
4.3 Controllability.....	4
4.3.1 Principle of redundancy	4
4.3.2 Principle of accessibility	4
4.3.3 Principle of movement space	5
4.4 Conformity with user expectations.....	5
4.4.1 Principle of compatibility with learning.....	5
4.4.2 Principle of compatibility with practice	5
4.4.3 Principle of consistency.....	5
4.5 Error tolerance	6
4.5.1 Principle of error correction	6
4.5.2 Principle of error handling time	6
4.6 Suitability for individualization and learning	6
4.6.1 Principle of flexibility.....	6
Annex A (informative) Human information processing.....	7

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 9355-1 was prepared by the European Committee for Standardization (as European Standard EN 894-1:1997) and was adopted, under a special "fast-track procedure" by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 4, *Ergonomics of human-system interaction*, in parallel with its approval by the ISO member bodies.

ISO 9355 consists of the following parts, under the general title *Ergonomic requirements for the design of displays and control actuators*:

- *Part 1: Human interactions with displays and control actuators*
- *Part 2: Displays*
- *Part 3: Control actuators*
- *Part 4: Location and arrangement of displays and control actuators*

Annex A of this part of ISO 9355 is for information only.

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Ergonomic requirements for the design of displays and control actuators

Part 1:

Human interactions with displays and control actuators

1 Scope

This part of ISO 9355 applies to the design of displays and control actuators on machinery. It specifies general principles for human interaction with displays and control actuators, to minimize operator errors and to ensure an efficient interaction between the operator and the equipment. It is particularly important to observe these principles when an operator error may lead to injury or damage to health.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 9355. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 9355 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

EN 418, *Safety of machinery — Emergency stop equipment, functional aspects — Principles for design*

EN 614-1, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

ISO 9355-2, *Ergonomic requirements for the design of displays and control actuators — Part 2: Displays*

ISO 9355-3, *Ergonomic requirements for the design of displays and control actuators — Part 3: Control actuators*

ISO 9241-10, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 10: Dialogue principles*

3 Definitions

For the purposes of this part of ISO 9355, the following definitions apply:

3.1

control actuator

The part of the control actuating system that is directly actuated by the operator, e.g. by applying pressure.