
Graphical symbols — Safety colours and safety signs — Safety signs used in workplaces and public areas

*Symboles graphiques — Couleurs de sécurité et signaux de sécurité —
Signaux de sécurité utilisés sur les lieux de travail et dans les lieux
publics*

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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 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 7010 was prepared by Technical Committee ISO/TC 145, *Graphical symbols*, Subcommittee SC 2, *Safety identification, signs, shapes, symbols and colours*.

This first edition of ISO 7010, together with ISO 3864-1, cancels and replaces ISO 3864:1984, which has been technically revised.

Introduction

There is a need to standardize a system of giving safety information that relies as little as possible on the use of words to achieve understanding.

Continued growth in international trade, travel and mobility of labour requires a common method of communicating safety information.

Lack of standardization may lead to confusion and perhaps accidents.

The use of standardized safety signs does not replace proper work methods, instructions and accident prevention training and/or measures. Education is an essential part of any system that provides safety information.

ISO 7010 is intended to be used by all Technical Committees within ISO charged with developing specific safety signing for their industry, to ensure that there is only one safety sign for each safety meaning. It is also intended that this International Standard be revised regularly to include safety signs as they are standardized by ISO, and which conform to the principles given in ISO 3864-1.

The safety signs in this International Standard have been validated by ISO/TC 145/SC 2 according to procedures of standardization current at the time of publication. Future standardization of safety signs may be facilitated with suitable evaluation techniques such as the testing outlined in ISO 9186. Acceptance criteria for safety sign qualification ought to be such that there is confidence that a suitable proportion of the intended audience will understand them. Further design criteria will be added as appropriate and will be approved by ISO/TC 145/SC 2.

Safety signs given in this International Standard are considered to have achieved a satisfactory degree of comprehension as established by independent testing or as a result of their use and application at an international level.

NOTE Some countries' statutory regulations may differ in some respect from those given in this International Standard.

Graphical symbols — Safety colours and safety signs — Safety signs used in workplaces and public areas

IMPORTANT — The colours represented in the electronic file of this International Standard can be neither viewed on screen nor printed as true representations. Although the copies of this International Standard printed by ISO have been produced to correspond (with an acceptable tolerance as judged by the naked eye) to the requirements of ISO 3864-1, it is not intended that these printed copies be used for colour matching. Instead consult ISO 3864-1 which provides colorimetric and photometric properties together with, as a guideline, references from colour order systems.

1 Scope

This International Standard prescribes safety signs for the purposes of accident prevention, fire protection, health hazard information and emergency evacuation.

The shape and colour required to be used for each sign, as prescribed by ISO 3864-1, is given together with the graphical symbols contained within each sign.

This International Standard is generally applicable to safety signs in workplaces and all locations and all sectors where safety-related questions may be posed. However, it is not applicable to the signalling used for guiding rail, road, river, maritime and air traffic and, in general, to those sectors subject to a regulation which may differ with regard to certain points of this International Standard and of ISO 3864-1.

This International Standard specifies the safety sign originals that may be scaled for reproduction and application purposes.

Supplementary text signs may be used in conjunction with these safety signs to improve comprehension.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3864-1, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs in workplaces and public areas*

ISO 17724, *Graphical symbols — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 17724 and the following apply.

3.1

field of application

context or sphere of activity in which a graphical symbol or safety sign is to be used

3.2

format of application

type of object on which the symbol or sign is intended to be used

3.3

image content

written description of the elements of a graphical symbol or safety sign and their relative disposition

3.4

referent

idea or object that a graphical symbol is intended to represent

3.5

safety colour

colour with special properties to which a safety meaning is attributed

3.6

safety shape

geometric shape to which a safety meaning is attributed

3.7

safety sign

sign giving a general safety message, obtained by a combination of a colour and geometric shape and which, by the addition of a graphical symbol, gives a particular safety message

3.8

safety sign original

safety sign with which a referent, a graphical representation and a description of the application are associated

3.9

safety symbol

graphical symbol used together with a safety colour and safety shape to form a safety sign

3.10

supplementary sign

sign that is supportive of another sign and the main purpose of which is to provide additional clarification

4 Referents and categorization of safety signs

4.1 General

The summaries in 4.2 and 4.3 are provided to facilitate the search for standardized safety signs.

This International Standard will be maintained electronically through the use of a database. The indexes of this database will be used in these summaries as search engines with each standardized safety sign having a unique reference number.

4.2 Referent (safety meaning)

Table 1 gives the list of referents in alphabetical order and provides the safety sign functional reference number.

Table 1 — Summary of referents by alphabetical order

Referent (safety meaning)	Functional reference number
Biological hazard, warning	W009
Direction, 45° arrow (90° increments), safe condition	E006
Direction, arrow (90° increments), safe condition	E005
Drop (fall), warning	W008
Emergency exit (left hand)	E001
Emergency exit (right hand)	E002
Emergency telephone	E004
Explosive material, warning	W002
Fire alarm call point	F005
Fire emergency telephone	F006
Fire extinguisher	F001
Fire fighting equipment, collection of	F004
Fire hose reel	F002
Fire ladder	F003
First aid	E003
General mandatory action sign	M001
General prohibition sign	P001
General warning sign	W001
Laser beam, warning	W004
Low temperature/freezing conditions, warning	W010
Magnetic field, warning	W006
No access for fork lift trucks and other industrial vehicles	P006
No access for persons with pacemakers	P007
No metallic articles or watches	P008
No open flame; Fire, open ignition source and smoking prohibited	P003
No smoking	P002
No thoroughfare	P004
Non-ionizing radiation, warning	W005
Not drinking water	P005
Obstacles, warning	W007
Radioactive material or ionizing radiation, warning	W003
Slippery surface, warning	W011

4.3 Categorization of safety signs

Safety signs are categorized according to their function as follows:

- E is the category for means of escape and emergency equipment signs (safe condition signs);
- F is the category for fire safety signs;
- M is the category for mandatory action signs;
- P is the category for prohibition signs;
- W is the category for warning signs.

Table 2 summarizes the standardized safety signs used in workplaces and public areas in terms of function category, graphical symbol as well geometric shape and colour in accordance with ISO 3864-1.

5 Standardized safety signs

Tables 3 to 7 give safety sign originals in a uniform 70 mm size with corner marks to enable accurate enlargement and reduction scaling. The sign illustrations are shown without borders in order to allow for consistent reproduction scaling, though the use of borders is encouraged as defined by ISO 3864-1. The safety signs should be reproduced exactly as shown in Tables 3 to 7. However some degree of graphical modification is permitted when cultural differences or special application formats need to be considered, provided the original meaning is retained and comprehension of the safety sign is maintained. Consistent reproduction and use of these safety signs will lead to a progressively improved degree of comprehension at the international level.

In cases where the orientation of the symbol is not essential to its meaning, the orientation may be changed.

A graphical symbol may be depicted in outline or filled-in form.

Tables 3 to 7 present the safety sign originals according to their category as follows:

- | | | |
|-----|--|-------------|
| — E | Means of escape and emergency equipment signs (safe condition signs) | see Table 3 |
| — F | Fire safety signs | see Table 4 |
| — M | Mandatory action signs | see Table 5 |
| — P | Prohibition signs | see Table 6 |
| — W | Warning signs | see Table 7 |

Tables 3 to 7 also give a description of the application of each safety sign.

Table 2 — Summary of all safety signs

Safety sign, reference number and referent	Category				
	E	F	M	P	W
	Means of escape and emergency equipment signs (safe condition signs)	Fire safety signs	Mandatory action signs	Prohibition signs	Warning signs
Safety sign Reference number Referent	 E001 Emergency exit (left hand)	 F001 Fire extinguisher	 M001 General mandatory action sign	 P001 General prohibition sign	 W001 General warning sign
Safety sign Reference number Referent	 E002 Emergency exit (right hand)	 F002 Fire hose reel	—	 P002 No smoking	 W002 Warning; Explosive material
Safety sign Reference number Referent	 E003 First aid	 F003 Fire ladder	—	 P003 No open flame; Fire, open ignition source and smoking prohibited	 W003 Warning; Radioactive material or ionizing radiation
Safety sign Reference number Referent	 E004 Emergency telephone	 F004 Collection of fire fighting equipment	—	 P004 No thoroughfare	 W004 Warning; Laser beam

Table 2 (continued)

Safety sign, reference number and referent	Category				
	E	F	M	P	W
	Means of escape and emergency equipment signs (safe condition signs)	Fire safety signs	Mandatory action signs	Prohibition signs	Warning signs
Safety sign			—		
Reference number	E005	F005	—	P005	W005
Referent	Direction, arrow (90° increments), safe condition	Fire alarm call point	—	Not drinking water	Warning; Non-ionizing radiation
Safety sign			—		
Reference number	E006	F006	—	P006	W006
Referent	Direction, 45° arrow (90° increments), safe condition	Fire emergency telephone	—	No access for fork lift trucks and other industrial vehicles	Warning; Magnetic field
Safety sign	—	—	—		
Reference number	—	—	—	P007	W007
Referent	—	—	—	No access for persons with pacemakers	Warning; Obstacles
Safety sign	—	—	—		
Reference number	—	—	—	P008	W008
Referent	—	—	—	No metallic articles or watches	Warning; Drop (fall)

Table 2 (continued)

Safety sign, reference number and referent	Category				
	E	F	M	P	W
	Means of escape and emergency equipment signs (safe condition signs)	Fire safety signs	Mandatory action signs	Prohibition signs	Warning signs
Safety sign	—	—	—	—	
Reference number	—	—	—	—	W009
Referent	—	—	—	—	Warning; Biological hazard
Safety sign	—	—	—	—	
Reference number	—	—	—	—	W010
Referent	—	—	—	—	Warning; Low temperature/ freezing conditions
Safety sign	—	—	—	—	
Reference number	—	—	—	—	W011
Referent	—	—	—	—	Warning; Slippery surface

Table 3 — Description and application of referent for means of escape and emergency equipment signs (safe condition signs) (category E)

Reference No. Referent	Safety sign	Description/application	
E001 Emergency exit (left hand)		Function	To signify an escape route to an area of safe condition
		Image content	Full view of man moving (to left) through doorway
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Supplementary arrow sign is used to give directional information (E005, E006) Safety manuals and notices To improve conspicuity, use with a supplementary sign
		Additional information	See ISO 3864-1 for examples of use
E002 Emergency exit (right hand)		Function	To signify an escape route to an area of safe condition
		Image content	Full view of man moving (to right) through doorway
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Supplementary arrow sign is used to give directional information (E005, E006) Safety manuals and notices To improve conspicuity, use with a supplementary sign
		Additional information	See ISO 3864-1 for examples of use

Table 3 (continued)

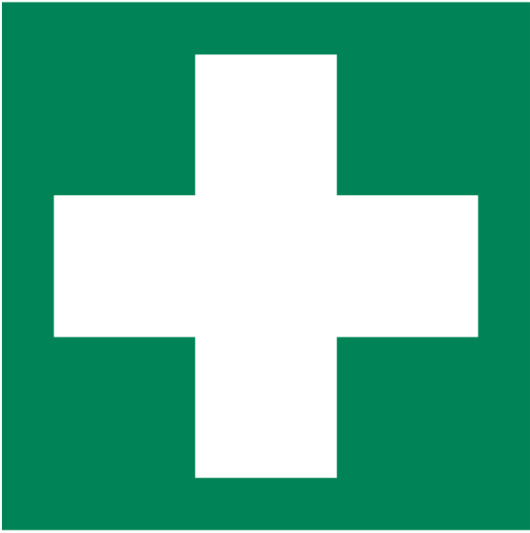
Reference No. Referent	Safety sign	Description/application	
E003 First aid		Function	To signify the location of first aid equipment or facilities
		Image content	A white cross on a green background or an alternative appropriate recognized ethnic element
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension
E004 Emergency telephone		Function	For summoning first aid or rescue
		Image content	Telephone receiver in profile, with determinative cross or with another appropriate element evocative for the targeted cultural group
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension

Table 3 (continued)

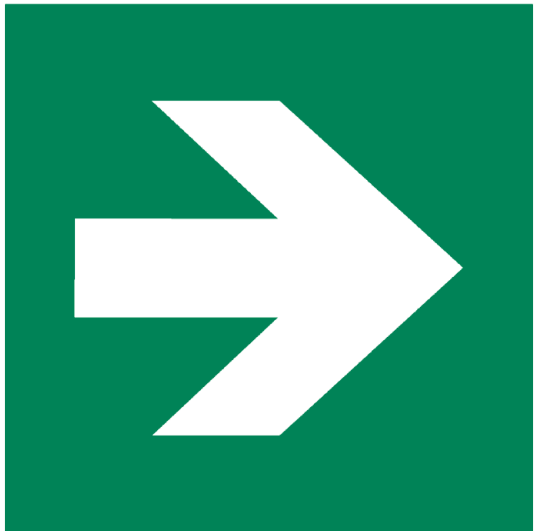
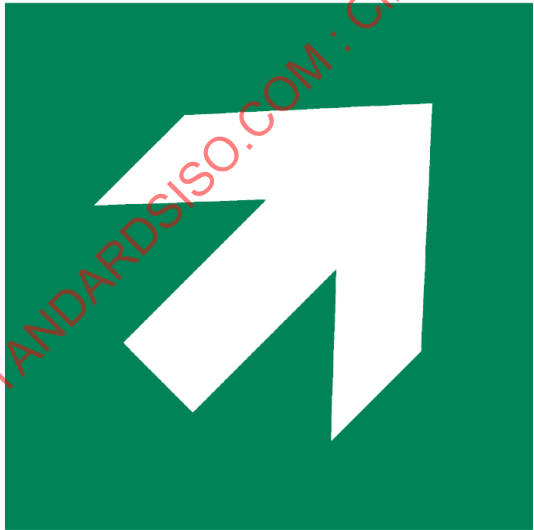
Reference No. Referent	Safety sign	Description/application	
E005 Direction, arrow (90° increments), safe condition		Function	To indicate direction (the arrow may be rotated in increments of 90° from the vertical)
		Image content	Arrow with Belgian head, with angle at apex ranging between 84° and 86°
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing as supplementary sign Safety manuals and notices
		Additional information	See ISO 3864-1 supplementary sign
E006 Direction, 45° arrow (90° increments), safe condition		Function	To indicate direction (the arrow may be rotated in increments of 90° from 45°)
		Image content	Arrow with Belgian head, with angle at apex ranging between 84° and 86°
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing as supplementary sign Safety manuals and notices
		Additional information	See ISO 3864-1 supplementary sign

Table 4 — Description and application of referent for fire safety signs (category F)

Reference No. Referent	Safety sign	Description/application	
F001 Fire extinguisher		Function	To signify a fire extinguisher
		Image content	Front view of fire extinguisher with determinative flames
		Field of application	For everyday use in workplaces and public areas
		Format of application	Fire safety signing Fire safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension
F002 Fire hose reel		Function	To indicate fire hose reel
		Image content	Fire hose reel in profile with determinative flames
		Field of application	For everyday use in workplaces and public areas
		Format of application	Fire safety signing Fire safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension

Table 4 (continued)

Reference No. Referent	Safety sign	Description/application	
F003 Fire ladder		Function	To signify a fire ladder
		Image content	Front view of vertical ladder with determinative flames
		Field of application	For everyday use in workplaces and public areas
		Format of application	Fire safety signing Fire safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension
F004 Collection of fire fighting equipment		Function	To signify a collection of fire fighting equipment
		Image content	Fire helmet with determinative flames
		Field of application	For everyday use in workplaces and public areas
		Format of application	Fire safety signing Fire safety manuals and notices
		Additional information	The shape of the helmet may be changed to better represent a country's style of fire helmet Supplementary text sign may be used to increase comprehension

Table 4 (continued)

Reference No. Referent	Safety sign	Description/application	
F005 Fire alarm call point		Function	To signify a fire alarm call point
		Image content	Hand with projecting finger on push button of call point with determinative flames
		Field of application	For everyday use in workplaces and public areas
		Format of application	Fire safety signing Fire safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension
F006 Fire emergency telephone		Function	To signify fire emergency telephone
		Image content	Telephone receiver shown in profile with determinative flames
		Field of application	For everyday use in workplaces and public areas
		Format of application	Fire safety signing Fire safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension

Table 5 — Description and application of referent for mandatory action signs (category M)

Reference No. Referent	Safety sign	Description/application	
M001 General mandatory action sign		Function	To signify a mandatory action
		Image content	Exclamation mark
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Requires supplementary sign to give further information

Table 6 — Description and application of referent for prohibition signs (category P)

Reference No. Referent	Safety sign	Description/application	
P001 General prohibition sign		Function	To signify a prohibited action
		Image content	None, prohibition shape and colour only
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Requires supplementary sign to give further information

Table 6 (continued)

Reference No. Referent	Safety sign	Description/application	
P002 No smoking		Function	To prohibit smoking
		Image content	Cigarette shown in profile with smoke
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension
P003 No open flame; Fire, open ignition source and smoking prohibited		Function	To prohibit smoking and all forms of open flame
		Image content	Match shown in profile with flame
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension

Table 6 (continued)

Reference No. Referent	Safety sign	Description/application	
P004 No thoroughfare		Function	To prohibit a person from using a designated thoroughfare
		Image content	Stylized man walking (left hand)
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension
P005 Not drinking water		Function	To prohibit the drinking of unsuitable water
		Image content	Tap above glass containing water indicated by wavy lines
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension

Table 6 (continued)

Reference No. Referent	Safety sign	Description/application	
P006 No access for fork lift trucks and other industrial vehicles		Function	To prohibit the use of fork lift trucks and other industrial vehicles in hazardous areas
		Image content	Truck shown in profile with stylized driver
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension
P007 No access for persons with pace-makers		Function	To prohibit a person from passing through a device that might harm a pacemaker
		Image content	Stylized heart shape with cable
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension

Table 6 (continued)

Reference No. Referent	Safety sign	Description/application	
P008 No metallic articles or watches		Function	To prohibit metallic articles and watches in a designated area
		Image content	Stylized face of an analog wristwatch and the flat side of a key
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension

Table 7 — Description and application of referent for warning signs (category W)

Reference No. Referent	Safety sign	Description/application	
W001 General warning sign		Function	To signify a general warning
		Image content	Exclamation mark
		Field of application	For everyday use in workplaces and public area
		Format of application	Safety signing Safety manuals and notices
		Additional information	Requires supplementary sign to give further information

Table 7 (continued)

Reference No. Referent	Safety sign	Description/application	
W002 Warning; Explosive material		Function	To warn of a hazard from explosive materials
		Image content	Stylized exploding bomb
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension
W003 Warning; Radio-active material or ionizing radiation		Function	To warn of a hazard from radioactive materials or ionizing radiation
		Image content	As abstract image shown opposite
		Field of application	For everyday use in workplaces and public areas
		Format of application	Safety signing Safety manuals and notices
		Additional information	Supplementary text sign may be used to increase comprehension