INTERNATIONAL STANDARD

ISO 7010

Second edition 2011-06-01

Graphical symbols — Safety colours and safety signs — Registered safety signs

Symboles graphiques — Couleurs de sécurité et signaux de sécurité — Signaux de sécurité enregistrés



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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 second edition cancels and replaces the first edition (ISO 7010:2003), as well as ISO 6309:1987. It also incorporates the Amendments

ISO 7010:2003/Amd. 1:2006,

ISO 7010:2003/Amd. 2:2007,

ISO 7010:2003/Amd. 3:2007,

ISO 7010:2003/Amd. 4:2009,

ISO 7010:2003/Amd. 5:2010,

ISO 7010:2003/Amd. 6:2010,

ISO 7010:2003/Amd. 7:2010, and

ISO 7010:2003/Amd. 8:2011.

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 the risk of accidents.

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

The safety signs are intended for use only where there is a risk to people. They may appear in safety signage in workplaces and public areas, safety manuals and notices, product labelling and escape and evacuation plans, as appropriate.

This International Standard 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 design principles given in ISO 3864.

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.

NOTE 1 Some countries' statutory regulations may differ in some respects from those given in this International Standard.

NOTE 2 Information on procedures, criteria of acceptability, safety sign templates and application of safety signs are given on the website: <u>http://www.iso.org/tc145/sc2</u>.

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Graphical symbols — Safety colours and safety signs — Registered safety signs

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 3864-4, it is not intended that these printed copies be used for colour matching. Instead consult ISO 3864-4 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 of each safety sign are according to ISO 3864-1 and the design of the graphical symbols is according to ISO 3864-3.

This International Standard is applicable to all locations where safety issues related to people need to be addressed. 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 the ISO 3864 series.

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

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 and safety markings

ISO 3864-3, Graphical symbols — Safety colours and safety signs — Part 3: Design principles for graphical symbols for use in safety signs

ISO 3864-4, Graphical symbols — Safety colours and safety signs — Part 4: Colorimetric and photometric properties of safety sign materials

ISO 17724, Graphical symbols — Vocabulary

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3 Terms and definitions

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

3.1

image content

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

3.2

referent

idea or object that a graphical symbol is intended to represent

3.3

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

3.4

safety sign original

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

3.5

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 registered 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 registered safety sign having a unique reference number¹).

¹⁾ The registered safety signs can be found at http://cdb.iso.org.

4.2 Referent (safety meaning)

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

Referent (safety meaning)	Functional reference number
Automated external heart defibrillator	E010
Automatic start-up, warning	W018
Battery charging, warning	W026
Biological hazard, warning	W009
Break to obtain access	E008
Connect an earth terminal to the ground	M005
Corrosive substance, warning	W023
Counterrotating rollers, warning	W025
Crushing, warning	W019
Crushing of hands, warning	W024
Disconnect before carrying out maintenance or repair	M021
Disconnect mains plug from electrical outlet	M006
Doctor	E009
Do not alter the state of the switch	P031
Do not extinguish with water	P011
Do not obstruct	P023
Do not tie knots in rope	P030
Do not touch	P010
Do not use for face grinding	P032
Do not use for wet grinding	P033
Do not use lift in the event of fire	P020
Do not use this device in a bathtub, shower or water-filled reservoir	P026
Do not use this incomplete scaffold	P025
Do not use this lift for people	P027
Do not use with hand-held grinding machine	P034
Do not walk or stand here	P024
Do not wear gloves	P028
Drop (fall), warning	W008
Electricity, warning	W012
Emergency exit (left hand)	E001
Emergency exit (right hand)	E002
Emergency telephone	E004
Emergency window with escape ladder	E016

	Table 1 — Summar	y of referents in alphabetical order
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Referent (safety meaning)	Functional reference number
Evacuation assembly point	E007
Explosive material, warning	W002
Eyewash station	E011
Fire alarm call point	F005
Fire emergency telephone	F006
Fire extinguisher	F001
Firefighting equipment, collection of	F004
Fire hose reel	F002
Fire ladder	F003
First aid	E003
Flammable material, warning	W021
Floor-level obstacle, warning	W007
Forklift trucks and other industrial vehicles, warning	W014
General mandatory action sign	M001
General prohibition sign	P001
General warning sign	W001
Guard dog, warning	W013
Hot surface, warning	W017
Laser beam, warning	W004
Low temperature/freezing conditions, warning	W010
Magnetic field, warning	W006
No access for forklift trucks and other industrial vehicles	P006
No access for people with active implanted cardiac devices	P007
No access for people with metallic implants	P014
No activated mobile phones	P013
No dogs	P021
No eating or drinking	P022
No heavy load	P012
No metallic articles or watches	P008
No open flame; Fire, open ignition source and smoking prohibited	P003
No photography	P029
No pushing	P017
No reaching in	P015
No sitting	P018
No smoking	P002
No stepping on surface	P019
No thoroughfare	P004

Referent (safety meaning)	Functional reference number
Non-ionizing radiation, warning	W005
Not drinking water	P005
Opaque eye protection must be worn	M007
Optical radiation, warning	W027
Overhead load, warning	W015
Overhead obstacle, warning	W020
Oxidizing substance, warning	W028
Pressurized cylinder, warning	W029
Protect infants' eyes with opaque eye protection	M025
Radioactive material or ionizing radiation, warning	W003
Refer to instruction manual/booklet	M002
Rescue window	E017
Safety shower	E012
Sharp element, warning	
Slippery surface, warning	W011
Stretcher	E013
Toxic material, warning	
Turn anticlockwise to open	E018
Turn clockwise to open	E018
Use barrier cream	M022
Use footbridge	M023
Use handrail	M012
Use protective apron	M026
Use this walkway	M024
Wash your hands	M011
Wear ear protection Wear eye protection	M003 M004
Wear a face shield	M004 M013
Wear head protection	M013
Wear high-visibility clothing	M015
Wear a mask	M016
Wear protective clothing	M010
Wear protective gloves	M009
Wear respiratory protection	M017
Wear safety belts	M020
Wear safety footwear	M008
Wear a safety harness	M018
Wear a welding mask	M019

Table 1 (continued)

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4.3 Categorization of safety signs

Safety signs are categorized according to their function as follows:

- E is the category for signs indicating an evacuation route, the location of safety equipment or a safety facility, or a safety action (safe condition signs);
- F is the category for fire equipment 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 registered safety signs in terms of safety sign category in accordance with ISO 3864-1.

5 Registered 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 a border can be useful to achieve a luminance contrast between the safety sign and its background when mounted or displayed. 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 graphical symbol is not essential to the meaning of the safety sign, the graphical symbol may be reproduced in a mirrored form. For prohibition signs, it is essential that the prohibition bar does not obscure significant details of the graphical symbol.

NOTE The graphical symbol is the complete image containing all the graphical symbol elements as shown in the registered safety sign.

Where a registered safety sign is not available to indicate a particular desired meaning, the meaning shall be obtained either by developing a new safety sign following the design principles of ISO 3864-1 and ISO 3864-3 or by using the appropriate general sign (ISO 7010-M001, -P001, -W001), together with supplementary safety information.

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

 E	Signs indicating an evacuation route, the location of safety equipment or a safety facility, or a safety action (safe condition signs)	see Table 3
 F	Fire equipment signs	see Table 4
 М	Mandatory action signs	see Table 5
 Ρ	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.

			Category		
	E	F	M	Р	w
Safety sign, reference number and referent	Evacuation route, location of safety equipment or safety facility, safety action (safe condition signs)	Fire equipment signs	Mandatory action signs	Prohibition signs	Warning signs
Safety sign	. <u>بر</u>			\bigcirc	
Reference number	E001	F001	M001	P001	W001
Referent	Emergency exit (left hand)	Fire extinguisher	General mandatory action sign	General prohibition sign	General warning sign
Safety sign	Ż				
Reference number	E002	F002	M002	P002	W002
Referent	Emergency exit (right hand)	Fire hose reel	Refer to instruction manual/booklet	No smoking	Warning; Explosive material
Safety sign		一世			
Reference number	E003	F003	M003	P003	W003
Referent	First aid	Fire ladder	Wear ear protection	No open flame; Fire, open ignition source and smoking prohibited	Warning; Radioactive material or ionizing radiation
Safety sign	+				
Reference number	E004	F004	M004	P004	W004
Referent	Emergency telephone	Collection of firefighting equipment	Wear eye protection	No thoroughfare	Warning; Laser beam
Safety sign	withdrawn				(((,,)))
Reference number	E005	F005	M005	P005	W005
Referent	Direction, arrow (90° increments), safe condition	Fire alarm call point	Connect an earth terminal to the ground	Not drinking water	Warning; Non-ionizing radiation

Table 2 — Summary of all safety signs

Table 2 (continued)

			Category		
	Е	F	M	Р	w
Safety sign, reference number and referent	Evacuation route, location of safety equipment or safety facility, safety action (safe condition signs)	Fire equipment signs	Mandatory action signs	Prohibition signs	Warning signs
Safety sign	withdrawn	e e	NB		
Reference number	E006	F006	M006	P006	W006
Referent	Direction, 45° arrow (90° increments), safe condition	Fire emergency telephone	Disconnect mains plug from electrical outlet	No access for forklift trucks and other industrial vehicles	Warning; Magnetic field
Safety sign	שע קיייג א	_			A.
Reference number	E007	—	M007	P007	W007
Referent	Evacuation assembly point	_	Opaque eye protection must be worn	No access for people with active implanted cardiac devices	Warning; Floor-level obstacle
Safety sign		_			
Reference number	E008	_	M008	P008	W008
Referent	Break to obtain access	_	Wear safety footwear	No metallic articles or watches	Warning; Drop (fall)
Safety sign		_	and the second s	in the process	
Reference number	E009	—	M009	—	W009
Referent	Doctor	_	Wear protective gloves	_	Warning; Biological hazard
Safety sign		_			*
Reference number	E010	—	M010	P010	W010
Referent	Automated external heart defibrillator	_	Wear protective clothing	Do not touch	Warning; Low temperature/ freezing conditions

			Category		
	E	F	М	Р	w
Safety sign, reference number and referent	Evacuation route, location of safety equipment or safety facility, safety action (safe condition signs)	Fire equipment signs	Mandatory action signs	Prohibition signs	Warning signs
Safety sign		_			
Reference number	E011	_	M011	P011	W011
Referent	Eyewash station	_	Wash your hands	Do not extinguish with water	Warning; Slippery surface
Safety sign		_	-1-		4
Reference number	E012	_	M012	P012	W012
Referent	Safety shower	_	Use handrail	No heavy load	Warning; Electricity
Safety sign	+ -==-	_			
Reference number	E013	_	M013	P013	W013
Referent	Stretcher	_	Wear a face shield	No activated mobile phones	Warning; Guard dog
Safety sign	in the process	_		R	
Reference number	—	—	M014	P014	W014
Referent	_	_	Wear head protection	No access for people with metallic implants	Warning; Forklift trucks and other industrial vehicles
Safety sign	in the process	_			
Reference number	—	—	M015	P015	W015
Referent	_	_	Wear high-visibility clothing	No reaching in	Warning; Overhead load

Table 2 (continued)

Table 2 (continued)

			Category		
	E	F	м	Р	w
Safety sign, reference number and referent	Evacuation route, location of safety equipment or safety facility, safety action (safe condition signs)	Fire equipment signs	Mandatory action signs	Prohibition signs	Warning signs
Safety sign		_		in the process	
Reference number	E016	—	M016	—	W016
Referent	Emergency window with escape ladder	_	Wear a mask	_	Warning; Toxic material
Safety sign		_	B		<u>sss</u>
Reference number	E017	_	M017	P017	W017
Referent	Rescue window	—	Wear respiratory protection	No pushing	Warning; Hot surface
Safety sign		_			
Reference number	E018	_	M018	P018	W018
Referent	Turn anticlockwise to open	_	Wear a safety harness	No sitting	Warning; Automatic start-up
Safety sign		_			
Reference number	E019	_	M019	P019	W019
Referent	Turn clockwise to open	—	Wear a welding mask	No stepping on surface	Warning; Crushing
Safety sign	_	_			
Reference number	—	—	M020	P020	W020
Referent	—	—	Wear safety belts	Do not use lift in the event of fire	Warning; Overhead obstacle

Table 2 (continued)	
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	Category					
	E	F	М	Р	w	
Safety sign, reference number and referent	Evacuation route, location of safety equipment or safety facility, safety action (safe condition signs)	Fire equipment signs	Mandatory action signs	Prohibition signs	Warning signs	
Safety sign	_	_				
Reference number	_	_	M021	P021	W021	
Referent	—	—	Disconnect before carrying out main- tenance or repair	No dogs	Warning; Flammable material	
Safety sign	_	_				
Reference number	_	_	M022	P022	W022	
Referent	—	—	Use barrier cream	No eating or drinking	Warning; Sharp element	
Safety sign	_	_				
Reference number	—	—	M023	P023	W023	
Referent	—	—	Use footbridge	Do not obstruct	Warning; Corrosive substance	
Safety sign	_	_	Ŕ			
Reference number	_	_	M024	P024	W024	
Referent	—	—	Use this walkway	Do not walk or stand here	Warning; Crushing of hands	
Safety sign	_	_				
Reference number	—	—	M025	P025	W025	
Referent	-	_	Protect infants' eyes with opaque eye protection	Do not use this incomplete scaffold	Warning; Counterrotating rollers	

 Table 2 (continued)

E F M P Safety sign, reference number and referent Evacuation route, location of safety equipment or Fire equipment Mandatory action Prohibition signs We	w
reference number location of safety	
and referent equipment or safety facility, safety action (safe condition signs) Fire equipment signs Mandatory action signs Prohibition signs Water	arning signs
Safety sign — — —	
Reference number — — M026 P026	W026
Referent — — Use protective apron Do not use this device in a bathtub, shower, or water-filled reservoir Bat	Warning; ttery charging
Safety sign — — — —	*
Reference number — — — P027	W027
Referent — — Do not use this lift for people Opt	Warning; tical radiation
Safety sign - - - - Reference number - - - P028	W028
	Warning;
Safety sign - - - Image: Constraint of the second se	wo29 Warning; surized cylinder
Safety sign — — — —	_
Reference number — — — P030	—
Referent — — Do not tie knots in rope	—

	Category					
	E	F	М	Р	w	
Safety sign, reference number and referent	Evacuation route, location of safety equipment or safety facility, safety action (safe condition signs)	Fire equipment signs	Mandatory action signs	Prohibition signs	Warning signs	
Safety sign	_	_	_		_	
Reference number	_	_	_	P031	_	
Referent	_	_	_	Do not alter the state of the switch	_	
Safety sign	_	_	_		_	
Reference number	_	_	_	P032	_	
Referent	—	—	—	Do not use for face grinding	—	
Safety sign	_	Η	_		_	
Reference number	_	—	_	P033	_	
Referent	_	—	_	Do not use for wet grinding	—	
Safety sign	_	_	_		_	
Reference number	—	—	—	P034	—	
Referent	—	—	_	Do not use with hand-held grinding machine	—	

Table 2 (continued)