

First edition
2020-08

Corrected version
2020-10

Graphical symbols — Safety colours and safety signs — Guidance for the development and use of a safety signing system

*Symboles graphiques — Couleurs de sécurité et signaux de sécurité —
Lignes directrices pour le développement et l'usage d'un système de
signaux de sécurité*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/TS 20559:2020](https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-aebb-4a67b0e23f87/iso-ts-20559-2020)

<https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-aebb-4a67b0e23f87/iso-ts-20559-2020>



Reference number
ISO/TS 20559:2020(E)

© ISO 2020

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO/TS 20559:2020

<https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-aebb-4a67b0e23f87/iso-ts-20559-2020>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General	1
5 Safety signing system components	2
5.1 General.....	2
5.2 Signage on evacuation routes.....	2
5.3 Fire equipment signs.....	3
5.4 Signs indicating the location of safety equipment or a safety facility or a safety action (safe condition signs).....	4
5.5 Safety signs for accident prevention (warning signs, prohibition signs and mandatory action signs).....	5
5.6 Escape and evacuation plan signs.....	6
5.7 Pipe and tank markings.....	7
5.8 Safety markings.....	7
5.8.1 General.....	7
5.8.2 Yellow/black.....	7
5.8.3 Red/white.....	7
5.8.4 Green/white.....	7
5.8.5 Blue/white.....	7
5.9 Product safety labels.....	7
6 System component selection plan	8
6.1 General.....	8
6.2 Use of risk assessments and the hierarchy of controls.....	8
6.3 Selection of the type of signing system component and its content.....	8
6.4 Consistency.....	9
6.5 Comprehension training.....	9
6.6 Use of combination signs and multiple signs.....	9
6.6.1 General.....	9
6.6.2 Use of supplementary signs in combination signs and multiple signs.....	10
6.7 Selecting sign materials.....	10
6.7.1 General.....	10
6.7.2 Luminous materials.....	11
6.8 Elimination of outdated existing safety signs and markings.....	11
7 Installation plan	11
7.1 General.....	11
7.2 Display.....	11
7.3 Orientation.....	12
7.4 Mounting height.....	14
7.5 Size.....	14
8 Performance evaluation	15
8.1 General.....	15
8.2 Inspection and maintenance.....	15
9 Documentation	15
Bibliography	16

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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

This corrected version of ISO/TS 20559:2020 incorporates the following corrections:

- space has been added between the two examples in Figure 2.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The primary objective of safety signing systems is to support the provisions of a safe and healthy workplace or public area.

For those responsible for the health and safety of people in an organization or for the safety of people in a public area, implementing an effective safety signing system is a strategic and operational decision. The success of these systems of visual safety communication depends on leadership, commitment and participation from all levels and functions of the organization.

The information contained in this document gives safety professionals a “systems” approach to safety signage that works in tandem with an organization’s occupational health and safety management system (see ISO 45001).

Several ISO documents have been written for the design of the components of safety signing systems. This document provides a framework for systematically using these safety sign components to reduce risk by accurately communicating:

- the nature of potential hazards in facilities and related to equipment, and how to avoid these potential hazards;
- the location of essential safety equipment and fire equipment;
- the accurate identification of materials and related safety precautions;
- evacuation paths that lead persons to a place of safety.

ITEH STANDARD PREVIEW
(standards.iteh.ai)

[ISO/TS 20559:2020](https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-aebb-4a67b0e23f87/iso-ts-20559-2020)

<https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-aebb-4a67b0e23f87/iso-ts-20559-2020>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/TS 20559:2020](#)

<https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-aebb-4a67b0e23f87/iso-ts-20559-2020>

Graphical symbols — Safety colours and safety signs — Guidance for the development and use of a safety signing system

IMPORTANT — The colours represented in the electronic file of this document can be neither viewed on screen nor printed as true representations. For the purposes of colour matching see ISO 3864-4, which provides colorimetric and photometric properties together with, as a guideline, references from colour order systems.

1 Scope

This document serves to complement the basic standards for safety signs: the ISO 3864 series, ISO 7010, ISO 16069, ISO 23601 and ISO 17398, as well as ISO 45001. This document contains recommendations and explanations on the practical application of safety signs to form a system of communication intended to reduce risk.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 3864-1:2011, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings* [ISO/TS 20559:2020](https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-acbb-41c025946220/iso-3864-1-2011)

ISO 7010, *Graphical symbols — Safety colours and safety signs — Registered safety signs*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3864-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 General

In many ways, safety signs, labels and markings function as systems of visual information that provide permanent evidence to support an organization's safety training and safety policies. In fulfilling this function, these systems of signage assist an organization to fulfil its legal requirements and demonstrate its commitment to placing the highest priority on the health and safety of its employees and the public. Safety signs function as "systems" in the following ways:

- Each sign or marking component is made up of a system of standardized elements meant to convey a specific meaning within the context of its installed location (e.g. safety colour coding, graphical symbols, shape and layout, supplementary information).
- Each of the components of a safety signing system as defined in [Clause 5](#) is meant to function as a system of signs to convey a certain type of standardized safety communication (e.g. egress routes, the location of fire and safety equipment, hazard identification and avoidance).

- Within a specific facility, safety sign system components function as a unique system of signage that can easily be distinguished from other types of installed signs and markings.
- When an organization chooses to adopt and use the ISO standards related to safety signage, that organization joins a global system of safety communication that uses a common visual language to reduce risk.

Standardization and consistency play key roles in helping people to recognize and understand safety signs. This document is written so organizations can best utilize the ISO standards related to this field of communication in their efforts to minimize risk and protect people from harm (see Bibliography).

5 Safety signing system components

5.1 General

Where hazards cannot be adequately reduced by techniques for collective protection or by measures, methods or procedures used in the organization of work or in the function of the facility, a consistent and standardized system of safety signs should be used to communicate essential safety information.

Safety signing system components include:

- signage on evacuation routes;
- fire equipment signs;
- signs indicating the location of safety equipment or a safety facility, or a safety action (safe condition signs);
- signs for accident prevention (e.g. warning signs, prohibition signs and mandatory action signs);
- escape and evacuation plan signs;
- pipe and tank identification/safety markings;
- safety markings;
- product safety labels.

5.2 Signage on evacuation routes

In case of an emergency situation, this component of the safety signing system provides a permanent means to visually communicate the location of evacuation routes, providing people with a clearly marked path to the outside or to a place of safe refuge to wait for evacuation by intervention forces. This category of safety signage includes, but is not limited to:

- emergency exit signs (low, intermediate and high located) that use graphical symbols and colours, conforming to ISO 7010 with supplementary arrow sign (type D of ISO 3864-3) in white on green for directional information (see [Figures 1](#) and [2](#));

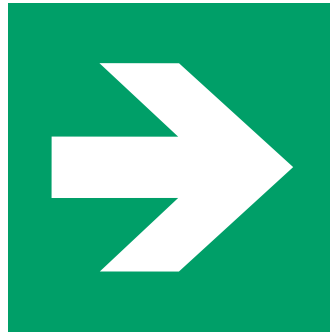


Figure 1 — Supplementary arrow sign, type D of ISO 3864-3



a) Supplementary arrow sign in combination with ISO 7010-E001 “Emergency exit (left hand)”
 b) Supplementary arrow sign in combination with ISO 7010-E002 “Emergency exit (right hand)”

Figure 2 — Examples of the supplementary arrow sign

[https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-aebb-](https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-aebb-4a67b0e23f87/iso-ts-20559-2020)

[4a67b0e23f87/iso-ts-20559-2020](https://standards.iteh.ai/catalog/standards/sist/1ba74368-60bf-44a3-aebb-4a67b0e23f87/iso-ts-20559-2020)

- guidance line markings to delineate escape routes, stairs, obstacles, exit door frames and push-bar mechanisms, conforming to ISO 16069;
- signs that indicate changes in floor level, roof access and stairway identification, conforming to ISO 16069;
- signs that indicate safe refuge areas and indoor/outdoor assembly points, conforming to ISO 7010;
- safety signs that indicate the location of evacuation chairs, emergency windows with ladders, rescue windows, door opening instructions, emergency hammers, emergency escape breathing devices and escape ladders, conforming to ISO 7010;
- safety signs that indicate the location of protection shelters, tsunami evacuation areas and tsunami evacuation buildings, conforming to ISO 7010;
- escape map/plan signs that depict primary and alternative escape routes, conforming to ISO 23601;
- signs that indicate escape routes for people unable to walk or with walking impairments.

5.3 Fire equipment signs

In case of a fire, this component of a safety signing system provides a permanent visual indicator of the location of fire safety equipment. These signs also function to provide an accurate visual reference for verification that each piece of fire equipment is physically present in its intended location. The organization’s health and safety management system plan defines the intended users for each type of

fire equipment (e.g. by building occupants or by firefighting intervention forces). Fire equipment signs include, but are not limited to:

- fire extinguisher signs that use graphical symbols and colours conforming to ISO 7010 to indicate the direction to fire extinguishers (when a fire extinguisher cannot be seen from a given vantage point) and, when placed on or above each actual fire extinguisher, to indicate the extinguisher's location;
- fire alarm call point signs that use graphical symbols and colours conforming to ISO 7010 to indicate the direction to fire alarm call points (when a fire alarm call point cannot be seen from a given vantage point), and, when placed on or above each actual fire alarm call point, to indicate the alarm's location;
- fire equipment signs that use graphical symbols and colours conforming to ISO 7010 to indicate the position of fire hose reels, fire emergency telephones and fire blankets.

Supplementary directional indicators may be used in combination with fire equipment safety signs to communicate the location of the equipment (see [Figures 3](#) and [4](#)). To avoid confusion with directional guidance given by the arrows used on escape and safety way guidance route signs, ISO 3864-3 Type D arrows should not be used for indicating the direction to equipment.



Figure 3 — Example of directional indicator for fire equipment

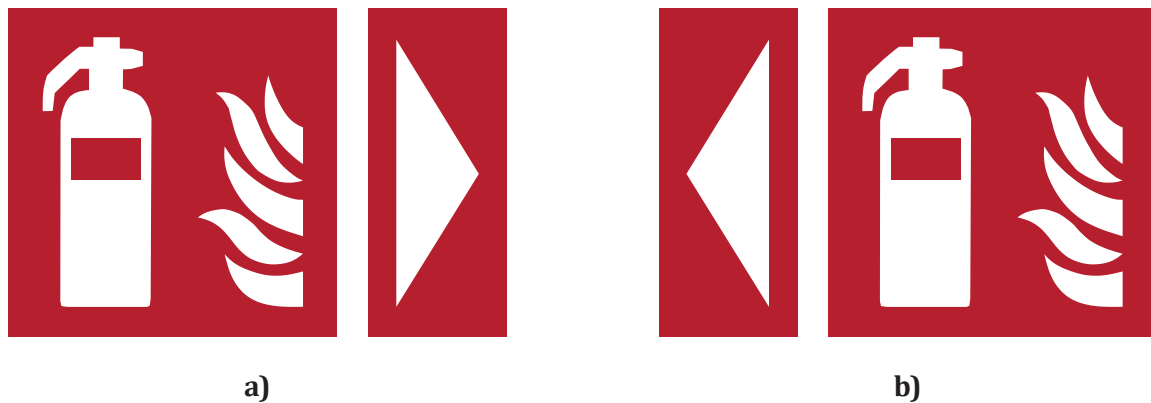


Figure 4 — Examples of directional indicator used in combination with ISO 7010-F001, Fire extinguisher

5.4 Signs indicating the location of safety equipment or a safety facility or a safety action (safe condition signs)

In case an incident occurs that results in injury to people, this component of a safety signing system provides a permanent visual indicator of the location for safety equipment or a safety facility. These signs also function to provide an accurate visual reference for verification that each piece of safety

