

BS 5499-10:2014+A1:2023



BSI Standards Publication

**Guidance for the selection and use of  
safety signs and fire safety notices**

**bsi.**

**Publishing and copyright information**

The BSI copyright notice displayed in this document indicates when the document was last issued.

© The British Standards Institution 2023

Published by BSI Standards Limited 2023

ISBN 978 0 78 90 2317 5

ICS 1.080.10, 13.220.01

The following BSI references relate to the work on this document:

Committee reference PH/8/1

Drafts for comment 14/30260340 DC, 22/30459134 DC

**Amendments/corrigenda issued since publication**

Date	Text affected
March 2023	A1: see Foreword

# Contents

	Page
<b>Foreword</b>	<b>III</b>
Introduction	1
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 System design	5
4.1 General	5
4.2 Decision on the need for a safety signing system	6
4.3 Assessment area	6
<i>Figure 1 — Decision process</i>	7
4.4 Analysis of the need	10
4.5 Planning	11
4.6 Categories and functions of safety signs	11
4.7 Selection of safety signs and use of supplementary text	12
<i>Figure 2 — Examples of safety signs without supplementary text</i>	12
<i>Figure 3 — Examples of combination safety signs with supplementary text</i>	13
<i>Figure 4 — Examples of multiple signs with supplementary text</i>	14
4.8 Zone of influence	14
<i>Figure 5 — Zone of influence</i>	16
<i>Figure 6 — Measurement of sign height</i>	17
<i>Table 1 — Distance factor, <math>z_v</math>, for externally illuminated safety signs based on ordinary materials or phosphorescent materials</i>	18
<i>Table 2 — Distance factor, <math>z_v</math>, for supplementary text of externally illuminated safety signs based on ordinary materials or phosphorescent materials</i>	18
<i>Table 3 — Examples of maximum viewing distances/diameter of zones for identification of safety signs and legibility of supplementary text for externally illuminated safety signs of different sign height subject to a vertical illuminance of 100 lux</i>	18
<i>Table 4 — Examples of maximum viewing distances/diameter of zones for identification of safety signs and legibility of supplementary text for externally illuminated safety signs of different sign height subject to a vertical illuminance of 5 lux</i>	19
4.9 Position of safety signs and fire safety notices	19
4.10 Safety sign and fire safety notice illumination	20
4.11 Construction, durability and suitability	21
4.12 Fixing	21
5 Documentation	21
6 Training and education	22
7 Audit	22
8 Servicing and maintenance	22
9 Monitoring and review	23
<b>Annex A</b> (normative) <b>Fire safety notices</b>	<b>24</b>
<i>Figure A.1 — Geometrical formats for fire safety notices and exclusion zones</i>	24
<i>Table A.1 — Examples of mandatory notices</i>	25
<i>Table A.2 — Examples of fire equipment notices</i>	27
<i>Table A.3 — Examples of maximum viewing distances/diameter of zones for legibility of text for externally illuminated fire safety notices of different height of lower case letters subject to a vertical illuminance of 100 lux or 5 lux</i>	29
<b>Annex B</b> (informative) <b>Examples of application of distance factor for safety signs</b>	<b>29</b>

<i>Figure B.1 — Circular boundaries of observation distances in horizontal plane</i>	30
<i>Figure B.2 — Circular boundaries of observation distances in horizontal plane</i>	31
<i>Figure B.3 — Variation of radius “r” against difference in observation height <math>\Delta H</math> for an externally illuminated safety sign under 100 lux</i>	32
<i>Figure B.4 — Circular boundaries of observation distances in horizontal plane: at eye level of sign and eye levels of <math>\pm 1</math> m above and below the height of sign</i>	33
<i>Figure B.5 — Circular boundaries of observation distances for safety sign and lower case supplementary text in horizontal plane under a vertical illumination condition of 100 lux</i>	33
<i>Figure B.6 — Circular boundaries of observation distances for safety sign and lower case supplementary text in horizontal plane when within 3 m distance from the sign under a vertical illumination condition of 100 lux</i>	34
<i>Figure B.7 — Circular boundaries of observation distances for safety sign and lower case supplementary text in horizontal plane under a vertical illumination condition of 5 lux</i>	35
<i>Figure B.8 — Circular boundaries of observation distances for safety sign and lower case supplementary text in horizontal plane when within 3 m distance from the sign under a vertical illumination condition of 5 lux</i>	36
<i>Figure B.9 — Approaching a safety sign side-on: Circular boundaries of observation distances in horizontal plane: at eye level of sign and eye levels of <math>\pm 1</math> m above and below the height of sign</i>	37
<b>Annex C (informative) Examples of the use of safety signs to indicate the location and identification of safety equipment, fire equipment and safe drinking water, and of the hierarchy of safety signs</b>	<b>38</b>
<i>Figure C.1 — Illustration of the use of a safety sign to identify a particular switch as being a first aid call point</i>	38
<i>Figure C.2 — Illustration of the use of a safety sign to identify a particular telephone as being one for emergency use</i>	39
<i>Figure C.3 — Illustration of the use of a safety sign to indicate the position of an emergency shower so that it can be located</i>	40
<i>Figure C.4 — Illustration of the use of a safety sign to indicate that water from a particular tap is safe for drinking</i>	41
<i>Figure C.5 — Illustration of the use of a safety sign to indicate the location of a first aid station</i>	41
<i>Figure C.6 — Illustration of the use of a safety sign to indicate that a particular locker houses a stretcher</i>	42
<i>Figure C.7 — Illustration of the use of a safety sign to identify the unit as being a fire alarm call point</i>	42
<i>Figure C.8 — Illustration of the use of a multiple safety sign to identify the risk(s) and prohibited action(s) upon entering an oil/gas tank enclosure</i>	43
<i>Figure C.9 — Illustration of the use of a safety sign to indicate the position of a fire extinguisher so that it can be located from a distance in a situation where other objects (in this case chairs) might distract the viewer</i>	44
<i>Figure C.10 — Illustration of the use of a hierarchy of safety signs</i>	44
<b>Bibliography</b>	<b>45</b>

### Summary of pages

This document comprises a front cover, an inside front cover, pages I to IV, pages 1 to 45, an inside back cover and a back cover.

# Foreword

## Publishing information

This part of [BS 5499](#) is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 August 2014. It was prepared by Subcommittee PH/8/1, *Safety signs*, under the authority of Technical Committee PH/8, *Graphical symbols*. A list of organizations represented on this committee can be obtained on request to the committee manager.

## Supersession

BS 5499-10:2014+A1:2023 supersedes [BS 5499-10:2014](#) which is withdrawn.

## Relationship with other publications

This part of [BS 5499](#) is part of a series that contains the following current part:

- Part 4: *Code of practice for escape route signing*.

The original suite of standards on safety signs in [BS 5499](#) included [BS 5499-1](#), [BS 5499-5](#), [BS 5499-6](#) and [BS 5499-11](#). They were all crosslinked. All have been superseded as follows:

- BS ISO 3864-1 supersedes [BS 5499-1](#);
- BS ISO 3864-4 is new and covers material replacing that in the previous edition of [ISO 3864-1](#), specifically the colour of safety signs;
- BS ISO 3864-3 supersedes [BS 5499-6](#); and
- BS EN ISO 7010 supersedes [BS 5499-5](#) <sup>A1</sup> and [BS 5499-11](#) <sup>A1</sup>.
- <sup>A1</sup> Text deleted. <sup>A1</sup>

## Information about this document

Text introduced or altered by Amendment No. 1 is indicated in the text by tags <sup>A1</sup> <sup>A1</sup>. Minor editorial corrections are not tagged.

The purpose of this part of [BS 5499](#) is to improve public safety by providing guidance on the use of safety signs and fire safety notices, excluding escape route signing, fire action notices and water safety signs.

The provisions of this standard are intended to be applied in situations in which a formal risk assessment has established the need for safety signs and fire safety notices.

This was a full revision of the standard and the principal changes are a consequence of the adoption of [ISO 3864-1](#), [ISO 3864-3](#) and [ISO 3864-4](#) as British Standards and the graphical images of the registered safety signs in BS EN ISO 7010 with regard to colour specification and presentation. Fire safety notices are now included. Additional guidance is provided on viewing distances and viewing zones for safety signs and associated supplementary text, including the effects of viewing angle.

<sup>A1</sup> Amendment A1 introduces changes regarding guidance on materials used for safety signs. <sup>A1</sup>

## Use of this document

The colours represented in the electronic file of this British Standard can be neither viewed on screen nor printed as true representations. Although the copies of this British Standard have been produced to correspond (with an acceptable tolerance as judged by the naked eye) to the colour requirements, it is not intended that these printed copies be used for colour matching. Instead, colorimetric and

photometric properties together with, as a guideline, references from colour order systems are provided in BS ISO 3864-4.

This part of [BS 5499](#) takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this part of [BS 5499](#) is expected to be able to justify any course of action that deviates from its recommendations.

It has been assumed in the preparation of this part of [BS 5499](#) that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

### **Presentational conventions**

The provisions of this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is “should”.

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

The word “should” is used to express recommendations of this standard. The word “may” is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the clause. The word “can” is used to express possibility, e.g. a consequence of an action or an event.

Notes and commentaries are provided throughout the text of this standard. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

### **Contractual and legal considerations**

This publication has been prepared in good faith. However no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient’s own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**

## Introduction

Safety signs and fire safety notices can make a major contribution to good communication and the development of good safety culture.

This standard is intended to assist the facilities manager of the premises and others responsible for selecting and installing safety signs and fire safety notices. This code of practice reflects best practice and shows how to use safety signs and fire safety notices in a standardized manner to ensure consistent application throughout a particular environment or an entire organization.

Safety signs using graphical symbols provide important benefits in the field of communication. Properly used they can:

- a) provide information in a compact form;
- b) provide information in a form that is independent of language;
- c) have visual impact; and
- d) guide the viewer to a desired outcome or appropriate decision.

However, these benefits are not always achieved in practice. If safety signs are used in a consistent manner they will become familiar to the viewers and thus be widely understood and effective. There might, however, be instances when optimum results can only be achieved by the provision of supplementary text. The use of the appropriate combination of safety signs with suitable supplementary text assists the process of education on the meaning of safety signs and the action(s) to be taken to control risk.

It is important that safety signs clearly convey the intended message to the viewers. In particular, safety signs need to clearly differentiate between information that relates to safety requirements (including those associated with unsafe use or misuse of products and equipment) and those that relate to public information.

A fire safety notice is a notice that consists of a specific geometrical format and colour with text to convey a specific action or identify specific types of fire equipment.

## 1 Scope

This part of [BS 5499](#) provides guidance on how to select, install, position and maintain safety signs conforming to BS ISO 3864-1 and BS EN ISO 7010, excluding escape route signs, to present specific safety information. Fire safety notices are also covered in [Annex A](#).

This part of [BS 5499](#) satisfies the requirements of the Health and Safety (Safety Signs and Signals) Regulations 1996 [1] and the Regulatory Reform (Fire Safety) Order 2005 [2].

This part of [BS 5499](#) is applicable to all premises, with the exception of private domestic premises. However, it is applicable to the common access areas within multi-occupied dwellings.

This part of [BS 5499](#) is intended for use by building owners, facility managers of premises, safety managers and others responsible for selecting, installing and/or inspecting safety signs.

This part of [BS 5499](#) is not applicable to:

- a) road traffic signs;
- b) public information symbols;
- c) actions to be taken in the event of a fire;
- d) International Maritime Organization symbols;

- e) labels provided under the Carriage of Dangerous Goods by Road Regulations 1996; and
- f) labels provided under the International Maritime Dangerous Goods Code.

This part of [BS 5499](#) does not give guidance on the use of escape route signs or water safety signs.

*NOTE 1* A code of practice for the use of escape route signing is given in [BS 5499-4](#).

*NOTE 2* Specification of water safety signs and guidance for use are covered by [A1](#) BS ISO 7010 and BS ISO 20712-3 respectively. [A1](#)

*NOTE 3* The illustrations in this standard are as accurate as possible within the limitations of the printing process

## 2 Normative references

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

[A1](#) [BS 5266-1](#), *Emergency lighting – Part 1: Code of practice for the emergency lighting of premises* [A1](#)

BS EN ISO 7010, *Graphical symbols – Safety colours and safety signs – Registered safety signs (ISO 7010)*

[A1](#) BS EN IEC 60598-1:2021+A11:2022, *Luminaires – Part 1: General requirements and tests* [A1](#)

[A1](#) BS EN IEC 60598-2-22:2022, *Luminaires - Particular requirements. Luminaires for emergency lighting* [A1](#)

BS ISO 3864-1:2011, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings*

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

BS ISO 3864-4:2011, *Graphical symbols – Safety colours and safety signs – Part 4: Colorimetric and photometric properties of safety sign materials*

BS ISO 17398:2004, *Safety colours and safety signs – Classification, performance and durability of safety signs*

## 3 Terms and definitions

For the purposes of this part of [BS 5499](#), the following terms and definitions apply.

### 3.1 assessment area

premises or a specific part of the premises, under consideration for safety signing

### 3.2 audit

systematic and independent process for obtaining evidence and evaluating it objectively to determine the extent to which specified criteria are fulfilled

*NOTE* Independent does not necessarily mean external to the organization.

### 3.3 combination sign

sign that combines a safety sign and one or more associated supplementary signs on the same rectangular carrier

[SOURCE: BS ISO 3864-1:2011, 3.1]