

# Marking of Escape Direction



German Electrical and Electronic Manufacturers' Association



### Imprint

Marking of Escape Direction Publisher: ZVEI - Zentralverband Elektrotechnikund Elektronikindustrie e. V. Fachverband Licht ZVEI - German Electrical and Electronic Manufacturers' Association Lighting Division

Lyoner Strasse 9 60528 Frankfurt am Main, Germany

Contact: Wolfram Pajek

Phone: +49 69 6302-349 E-mail: pajek@zvei.org www.zvei.org

#### February 2016

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Fig. 1: Directive 92/58/EEC of the Council of 24 June 1992 Fig. 2: Finke Fig. 3: Inotec

## **Marking of Escape Direction**

The marking of escape routes (and the intended direction of escape) is represented by the safety mark of a person running through a door with an arrow showing the direction of escape. In many countries, including Germany, this combination of symbol and arrow has the following meaning with regard to the direction of escape:

- a) Arrow down: Identification of the emergency exit as well as the doors as part of the escape and rescue routes; direction of escape straight ahead and/or down;
- b) 45° arrow pointing downwards: go down;
- c) Arrow up: Direction of escape straight ahead and/or up;
- d) 45° arrow pointing upwards: go up;
- e) Arrow left: go left.;
- f) Arrow right: go right.

Nearly all escape and rescue routes in buildings are currently marked using these clear arrow directions on safety signs. At present there are no nationally or internationally binding specifications regarding the significance of the arrow direction in escape and rescue routes for emergency and safety lighting or within the legal fields of occupational health and safety or building law.

Nor is there any stipulation in European Directive 92/58/EEC (valid since 1992) of minimum standards for health and safety signs in the workplace regarding the use of the arrow. In the examples listed in the Directive of how escape routes and emergency exits should be marked, there is no mention of "arrow up".

The previously unregulated area of escape direction signs is currently being discussed in international bodies. The basis of the assignment of arrow direction to escape direction is the international standard ISO 16069:2003 "Safety way guidance systems" which is not binding in Germany (see extract in middle column of Table 1).

# Fig. 1: Excerpt from Directive 92/58/EEC for the marking of escape routes and emergency exits



(Pictograms: As of 1992, as stipulated in 92/58/EEC)

	Sign	Significance as per ISO 16069	Current practice
1	i e	Go down to the right (indicates floor change)	Go down to the (bottom) right (e.g. floor change in staircase)
2	i i	<ul><li>a) Go up to the right (indicates floor change)</li><li>b) Cross an open space diagonally to the right</li></ul>	<ul> <li>a) Go up to the (upper) right (e.g. floor change in staircase below ground level)</li> <li>b) Currently not used in this form</li> </ul>
3	公元	Go down to the left (indicates floor change)	Go down to the (bottom) left (e.g. floor change in staircase)
4	n je	<ul><li>a) Go up to the left (indicates floor change)</li><li>b) Cross an open space diagonally to the left</li></ul>	<ul> <li>a) Go up to the (upper) left (e.g. floor change in staircase below ground level)</li> <li>b) Currently not used in this form</li> </ul>
5		<ul> <li>a) Go straight ahead (indicates direction of movement)</li> <li>b) Go straight ahead and through a door, if the sign is attached above a door (indicates direction of movement)</li> <li>c) Go up (indicates floor change)</li> </ul>	<ul> <li>a) Currently seldom used in this form</li> <li>b) Currently not used in this form</li> <li>c) Go up (e.g. via stairs within a storey or staircases if the escape direction is upwards)</li> </ul>
6		Go right (indicates direction of movement)	Go right (indicates direction of movement)
7	くえ	Go left (indicates direction of movement)	Go left (indicates direction of movement)
8		Go down (indicates floor change)	<ul> <li>a) Go straight ahead (indicates direction of movement)</li> <li>b) Go straight ahead and through a door, if the sign is attached above a door (indicates direction of movement)</li> <li>c) Go down (e.g., via stairs within a storey or staircases if the escape direction is downwards)</li> </ul>

## Tab. 1: Significance of direction arrows according to ISO 16069 and current practice

Pictograms reproduced with permission of DIN German Institute for Standardization. Decisive for application of the DIN standard is use of the latest version available from Beuth Verlag GmbH, Burggrafenstraße 6, 10787 Berlin.

There have also been calls for the ISO to apply the escape direction assignment of the arrow direction as stipulated in ISO 16069 to emergency and safety lighting. The background is for the assignment in ISO 16069 to be adopted worldwide in order to achieve uniformity in the marking of escape routes and emergency exits with that of direction signage in public places. This is covered in Germany by the DIN SPEC 4844-4 information paper, which is also non-binding. The "arrow up" is generally used to signify "go straight ahead" in public spaces (e.g. directions for bus, train, taxi, restaurant, toilet...). By contrast, the safety sign arrow indicating the same direction for an escape route always points downwards without this leading to any confusion (see Fig. 2).

# Fig. 2: Typical marking of escape routes and emergency exits



The stipulations in ISO 16069 have the following consequences for the current situation: the direction significations for public areas as stated in ISO 16069 cannot be transferred to the typical circumstances of a building. In a six-storey office building, the corridors and hallways also constitute the marked escape route.

The doors to the stairwell at the end of these corridors and hallways must be marked with an escape sign if they are designated as escape routes. In five of the storeys this means that the ISO 16069 safety signs with the additional "Arrow up" sign would have to be used, despite the fact that the escape route leads down to the ground floor (see Fig. 3). Only the underground floors can unambiguously feature these safety markings without a sign having to be attached right behind the door showing an arrow pointing in the opposite direction. (In case of doubt, changes of direction must be clearly marked in accordance with DIN EN 1838)

## Fig. 3: Use of "Arrow up" to show escape direction into the first floor stairwell



The recognition distances of the usual "overhead" escape route safety signs are typically between five and 30 m. Anyone escaping from a building therefore always knows that the escape route is in the direction indicated by the green sign. It is irrelevant whether "Arrow up" or "Arrow down" is used.

"Arrow up" or "Arrow down" always indicates that the direction of escape is straight ahead towards the sign from the perspective of the viewer. There is therefore no need to change the previous system and specify the meaning of the direction arrow. The current practice has proven to be effective over decades. Any possible advantage arising from a unified definition of the arrow direction would be disproportionate to the potential uncertainty created among the public, or the expected costs.

It should be noted that the meaning of "Arrow up" or "Arrow down" as specified in ISO 16069 is not a binding standard in Germany. "Arrow down" has always also been used to mark escape route doors, to identify emergency exits (see Fig. 1), but also successfully to indicate the escape direction of straight ahead and down.

### Summary

There is currently no obligation to change the existing marking - i.e. to use the "Arrow up" sign above doors.

With regard to the international harmonisation of the meaning of the direction arrows in public spaces, and to prevent any conflict with the marking of escape routes and emergency exits, it is proposed that the ISO 16069 / DIN SPEC 4844-4 system be supplemented. Two points should be added, as an option, to the meaning of "Arrow down" (Tab. 1, line 8, middle column): b) ,go straight ahead' and c) "go straight ahead and through a door if the sign is attached above a door". This supplement allows both the "Arrow down" and "Arrow up" signs to be used in this context. It also allows the provisions of the nonbinding ISO 16069 and DIN SPEC 4844-4 to be implemented without conflicting with previous practice and without existing signs having to be amended in an unreasonable and costly process.



ZVEI - German Electrical and Electronic Manufacturers' Association Lyoner Strasse 9 60528 Frankfurt am Main, Germany Phone: +49 69 6302-0 Fax: +49 69 6302-317 E-mail: zvei@zvei.org