

Book of signalling standards on mountaineering trails



CROATIAN MOUNTAINEERING ASSOCIATION

August 2020

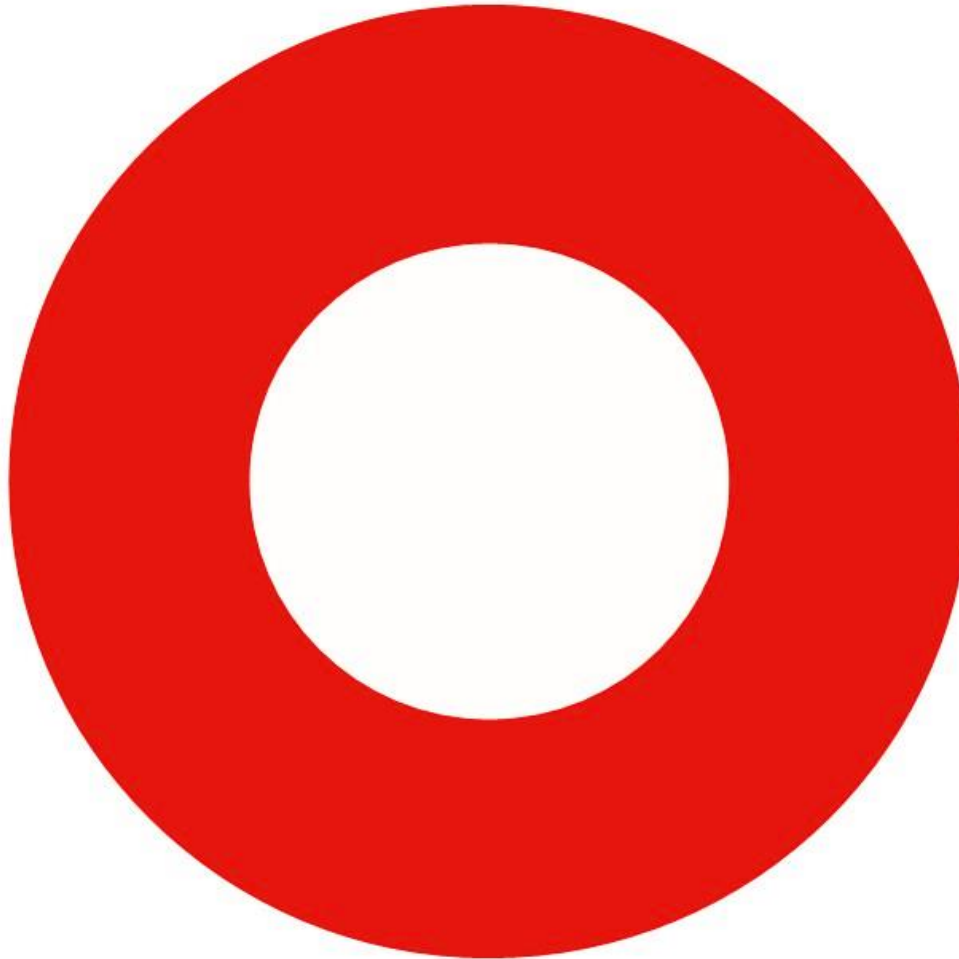
Introduction

The Book of Signalling Standards on Hiking Trails is a document containing a set of visual markers, rules and standard guidelines for marking and denotation mountaineering trails in the field.

Mountaineering marks and signboards are used to direct, inform, and guide hikers and other users of mountaineering trails.

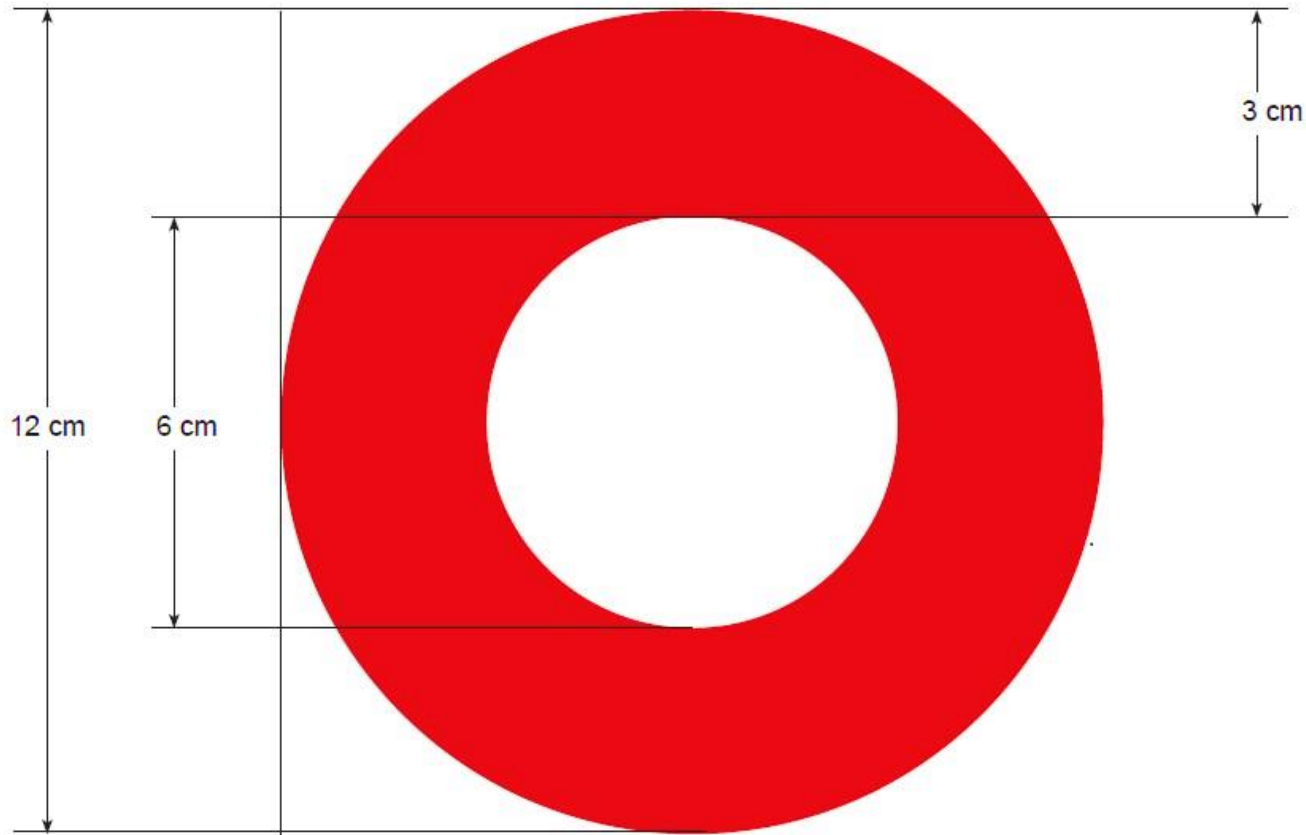
Mountaineering marks

Basemark



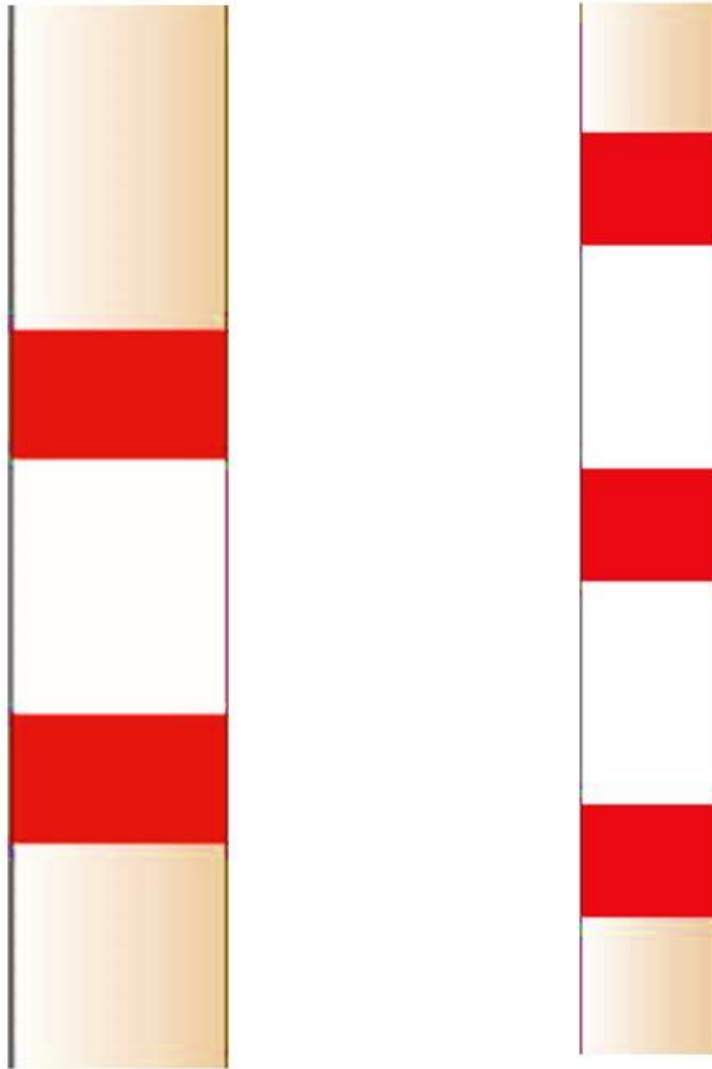
The basic mountaineering mark (round mark) consists of a ring of red color and a circle of white color, drawn inside the ring.

Basemark – standard size



Deviation from the standard size is allowed exceptionally, on very distant objects, when the distance from the last mark is more than 100 m (entrance from the meadow to the forest, distant rock and the like) the diameter can be up to 24 cm.

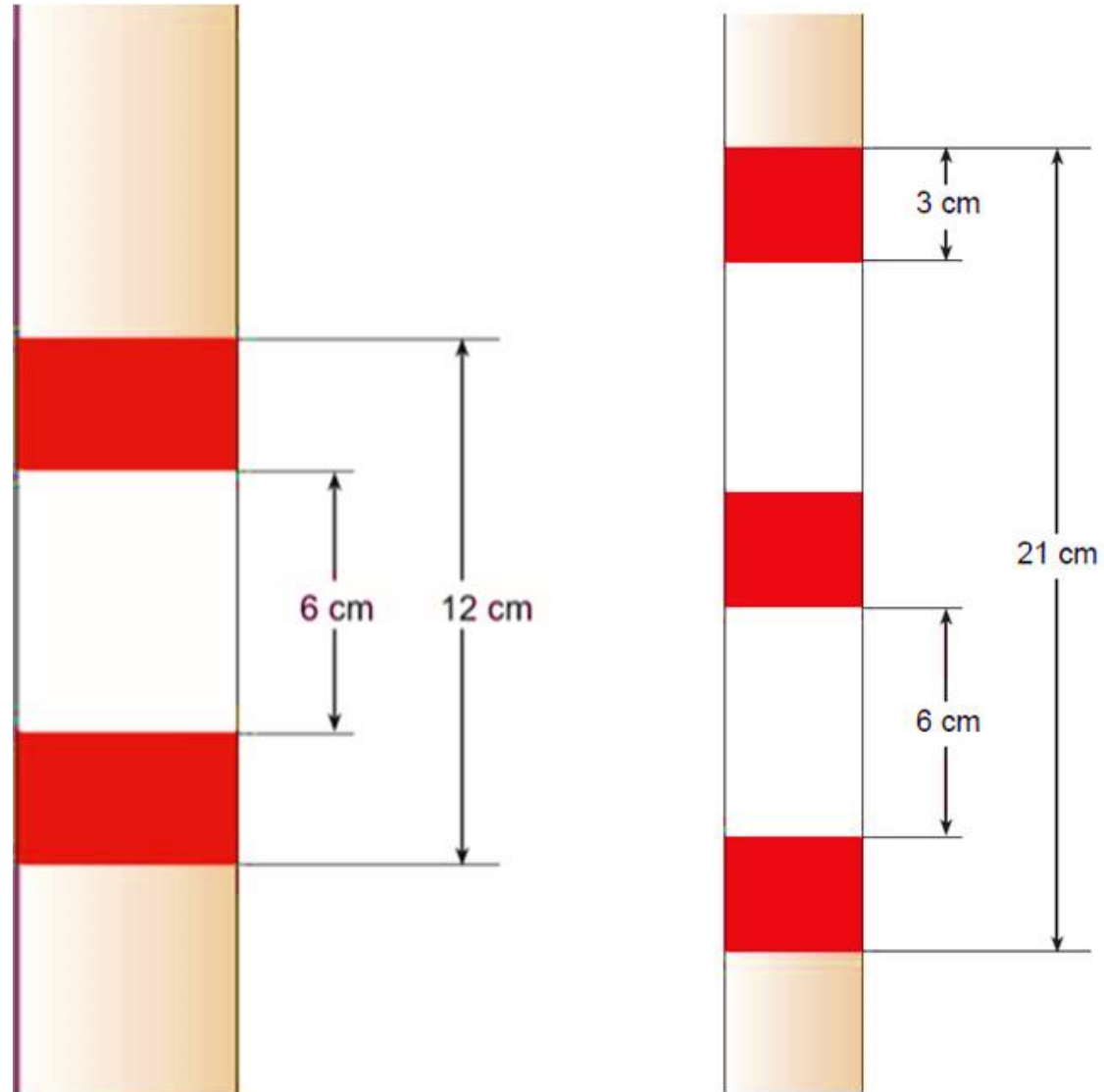
Auxiliary belt markings on thin pillars



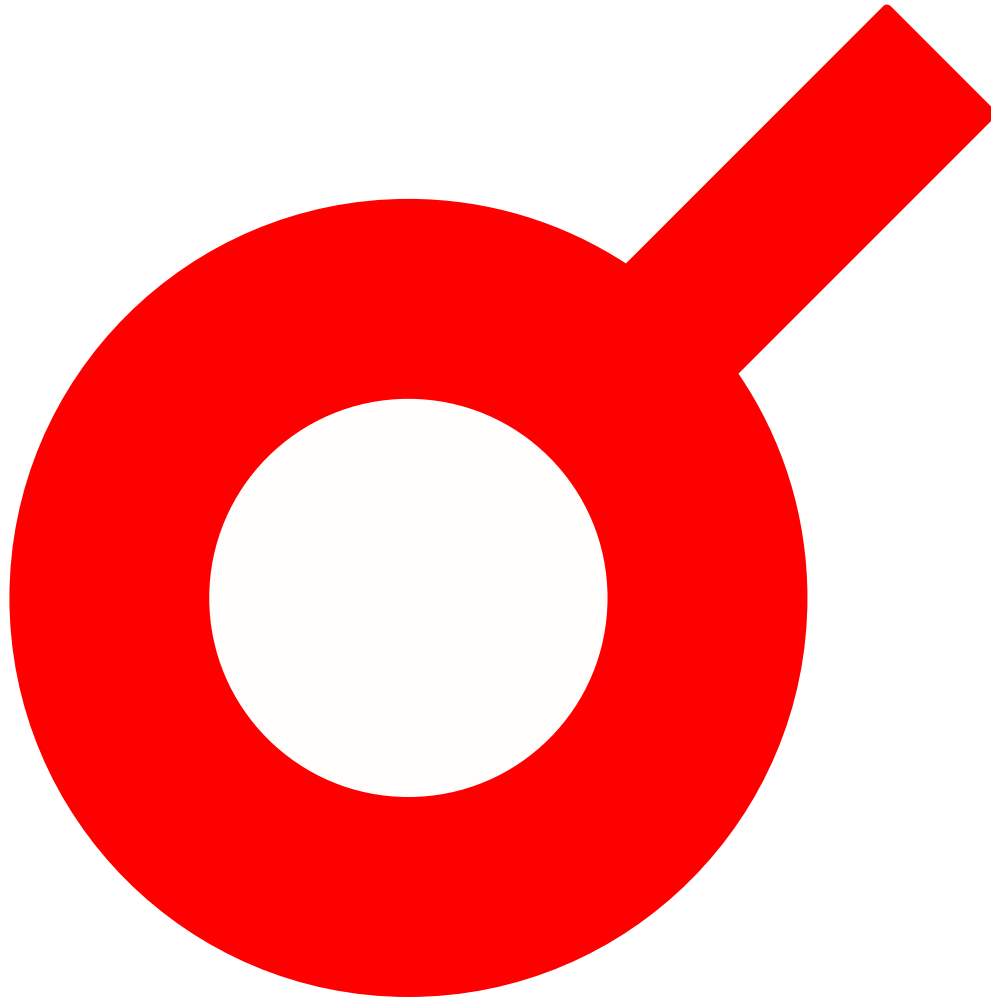
Belt markings are applied to thin columns and trees. The belt mark consists of three rings, two in red and one in white.

On very thin trees and columns, if we have no other choice, a **double belt mark** is applied with five rings, three of which are in red and two in white.

Auxiliary belt markings on thin columns and trees - sizes

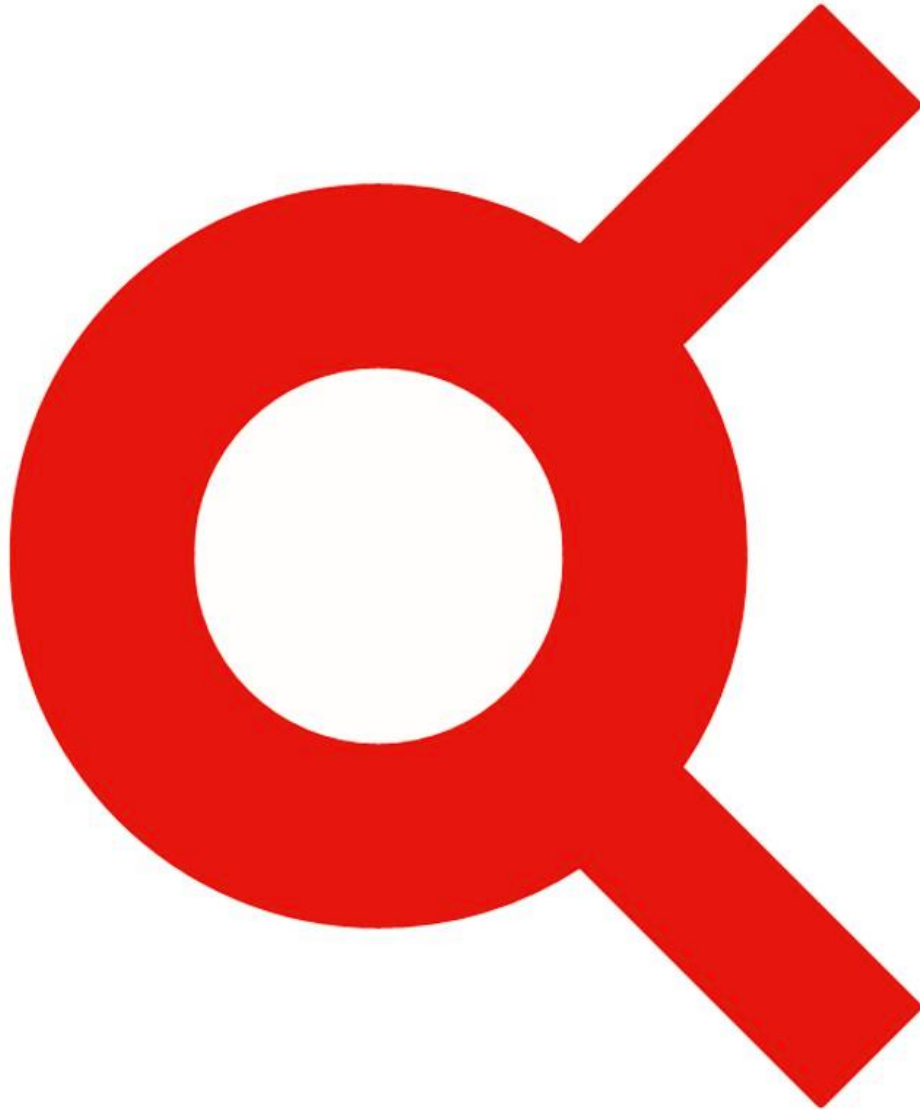


Auxiliary markings on the ground



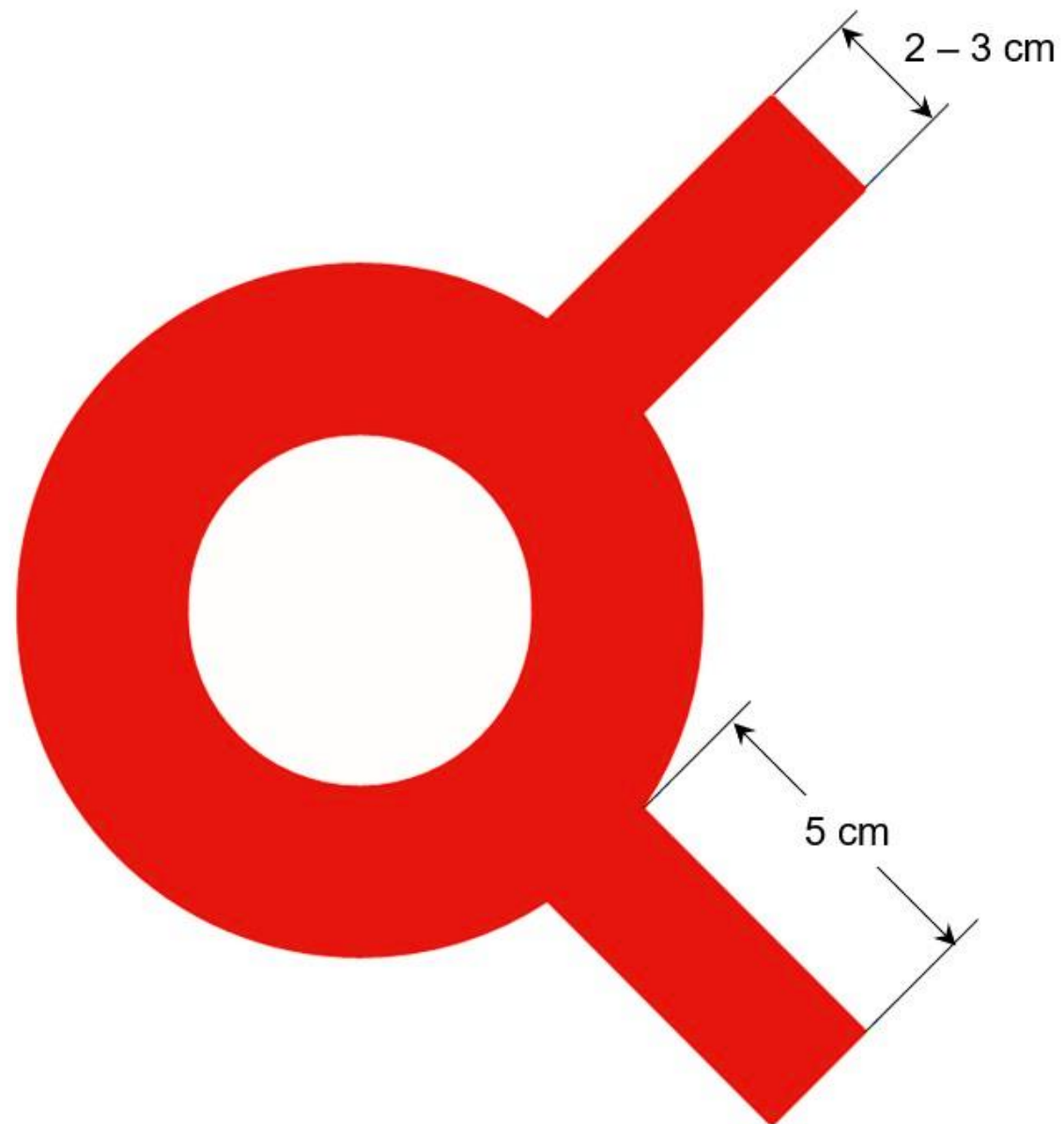
Round mark with an additional line (ponytail) used to indicate a change in the direction of movement of the mountaineering trail. It is placed most often on stones on the ground, and an additional line is directed to the nearest following markings.

Auxiliary markings on the ground

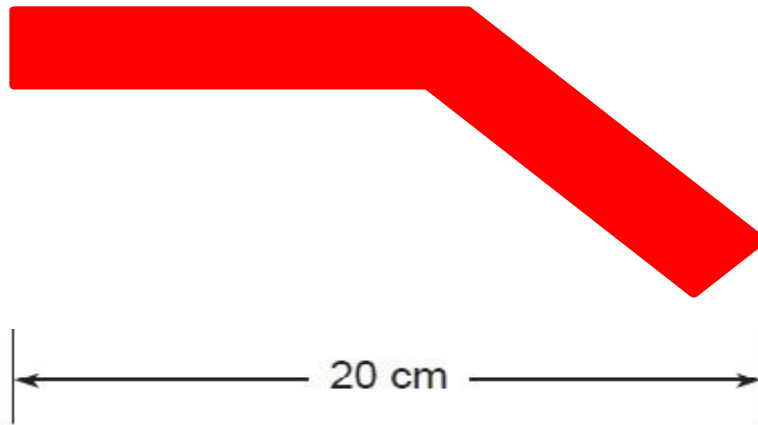


Round marking with two additional lines is used exclusively on sharp turns, most often on serpentine.

Auxiliary markings on the ground - sizes



Auxiliary markings on the ground



A monochrome (most often a red) line is used to indicate the direction of movement on the ground where necessary so that it is visible from both directions. In the terrain where there is a dark base, white color is used to make the mark more noticeable.

When turning the path, the mark breaks at an angle in the direction of the adjacent markings.

Additional marks, junction sign, arrow

are made exclusively under the basic round marking.

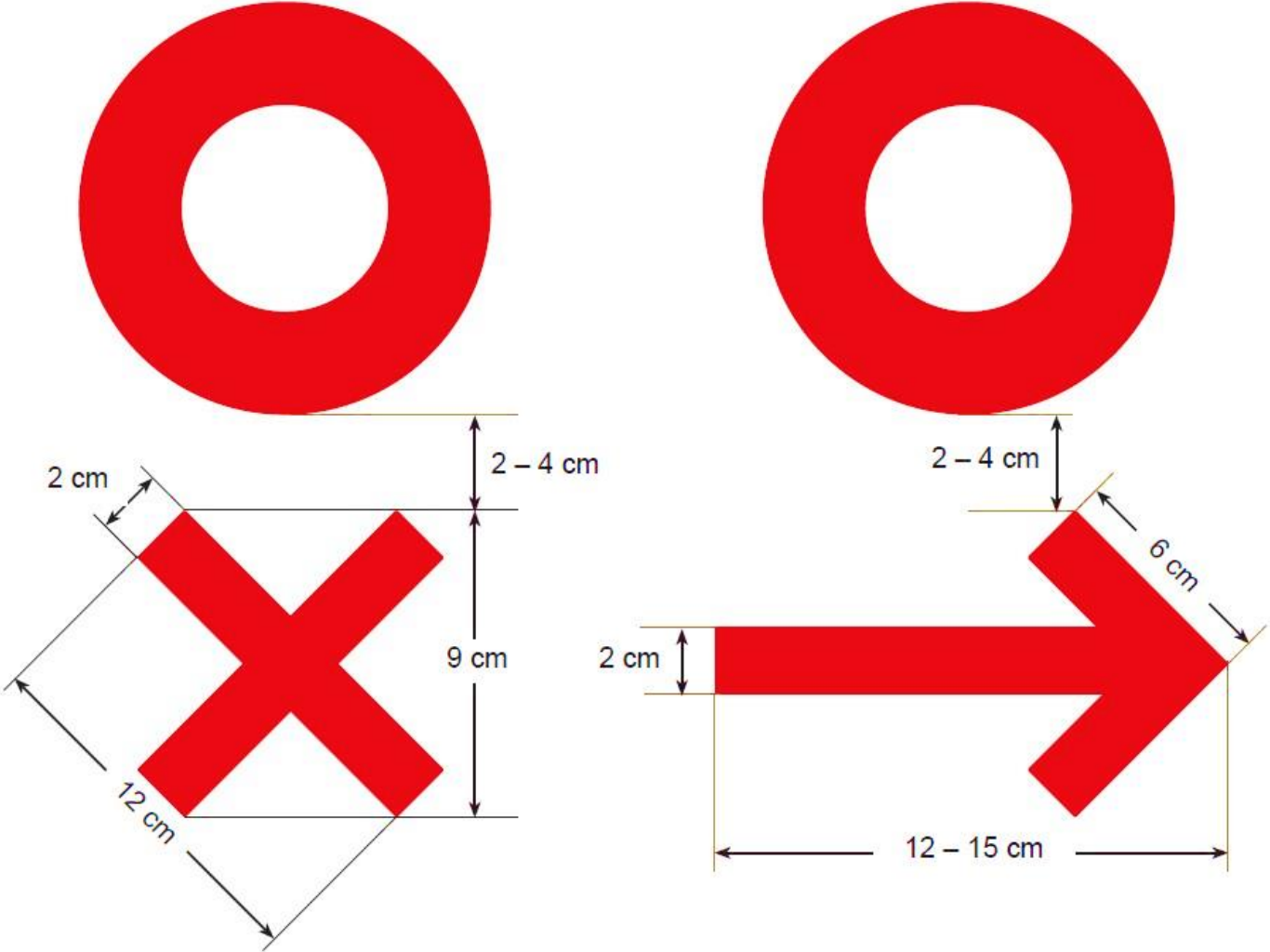


Junction announcement
of mountaineering trails



Sudden turn of
mountaineering trail

Additional marks - sizes



Additional marks, numbers and letters

they are made exclusively under the basic round mark every 15 -20 minutes walk and after trails crossing.



18

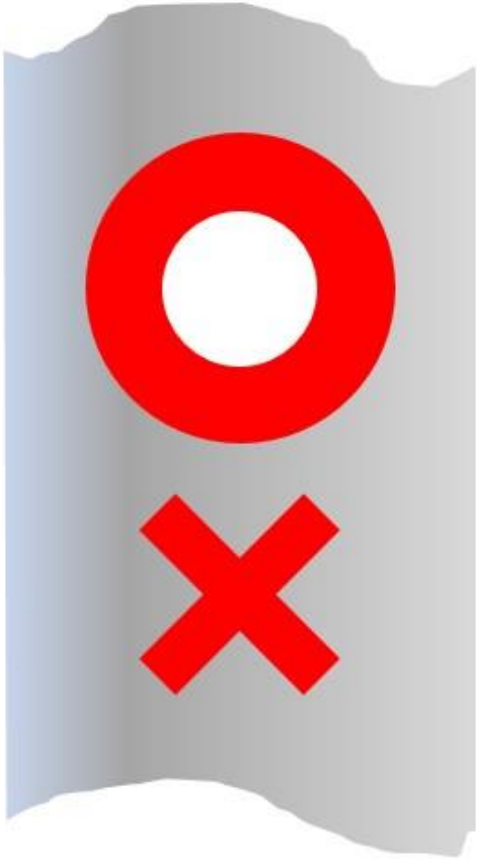
Number code of
mountaineering trail



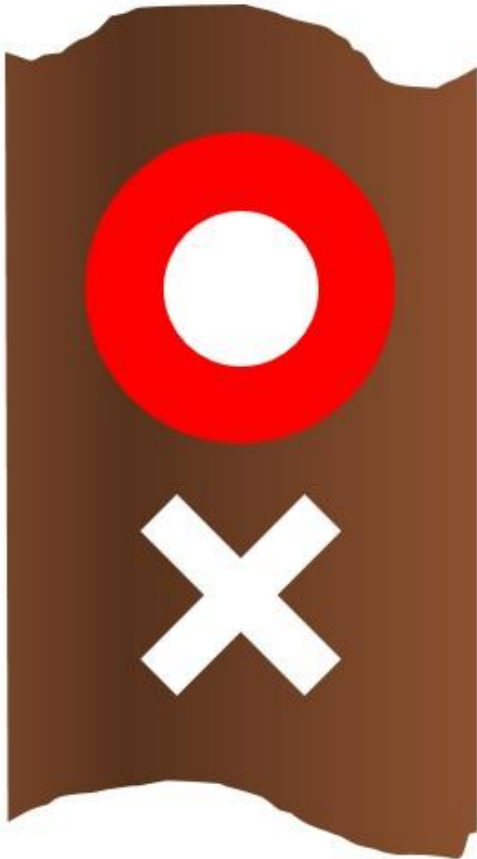
M

Letter mark of
mountaineering transversal

Additional marks - background



On a lighter background



On a darker background

Basic rules for setting mountaineering marks

When placing mountaineering marks, it is important to adhere to the basic rules in order to maintain a unified approach:

- mountaineering mark is placed, wherever possible, at eye level;
- basic round mark is used on all occasions where there are no spatial or technical restrictions that condition the application of belt mark;
- as a rule, the mark is placed on the right in relation to the direction of movement
- the density of the markings depends on the situation in the field, taking into account that at all times of the year, from one mark is seen the following;
- for monochrome markings (lines and additional marks), the choice of red or white depends on the shade of the base, making sure that the mark is as visible as possible;
- only one additional mark may be added to each basic mark;
- the mountaineering trail should be equally well marked in both directions of movement;
- the beginning of the mountaineering trail and all crossings of mountaineering trails should be marked especially carefully;
- mountaineering markings on abolished mountaineering trails should be cancelled in both directions.

Mountaineering signboard

1. The mandatory elements of the mountaineering signboard are:
 - a. basic, round mountaineering mark,
 - b. number of mountaineering trails from the Register of mountaineering trails, transversals, and marks makers in Croatia with accompanying contents,
 - c. destination,
 - d. time taken to reach the destination, with the hours separated from the minutes by a colon (e.g. 1:30 a.m. or 8 p.m.),
 - e. orientation arrow.
2. The basic round mark is located on the white field in the upper left corner of the signboard, dimensions adapted to the size of the signboard, and below the marking is printed a number of trail.
3. The number of printed trail is always the number of the trail on which the signboard is placed, regardless of the final destination.
4. The inscriptions on the signboard are written in capital Latin letters.
5. The name of the destination is taken from the Register of mountaineering trails, transversals, and marks makers in Croatia with accompanying contents.
6. If there are multiple destinations on the trail, the name of the farthest one is printed first.

7. The time needed to reach the destination is taken from the Register of mountaineering trails, transversals, and marks makers in Croatia with accompanying contents.
8. A destination whose name is printed on a signboard cannot be in another country until both countries will be in free movement area (Schengen area).
9. On a smaller signboard, the names of up to two destinations in the same direction are printed.
10. A larger signboard prints the names of up to three destinations in different directions or four destinations in the same direction.
11. The signboard is placed at the beginning of the mountaineering trail and at the intersections of hiking trails, in a noticeable place, as a rule, on the right side of the trail.
12. As a rule, the signboard is mounted on metal pillars with a diameter of 60 mm, 2-2.5 m long, with a plastic cover to protect against precipitation on top.
13. It is recommended to replace the existing signboards, which do not meet the prescribed standards, when regularly maintaining and restoring signalling on mountaineering trails.

Signboard - Smaller (1-2 destinations)

Specification

Prefabricated steel plate of road sign of the following specifications:

- rectangular plate, length × height = 35 × 15 cm,
- reinforced and rounded edges,
- anti-corrosion protection and final dark gray color,
- at the back of the horizontal guide for 2 screws M8 with square head,
- front inscriptions and markings of self-adhesive foil, colors: white RAL 9003 and red RAL 2002,
- self-adhesive foil resistant to UV rays and other atmospheric influences, warranty period 7 years,
- path marker font Arial Bold, for 1 -3 figures h = 36 mm, for 4 figures h = 28 mm,
- destination name font (addresses) and time Arial Narrow Bold, up to 17 characters h = 20 mm, up to 24 characters h = 15 mm,
- font of the names of the mountaineering club of maintainers (optional) Arial Narrow Bold h = 10 mm,
- destination names are capitalized; if the names of the two destinations are on the signboard, both are written in a font of the same size,
- Destination name order: The top of the signpost prints the name of the more distant destination, and the lower part (as if on signposts on public roads).

Clamps and screw accessories of the following specifications:

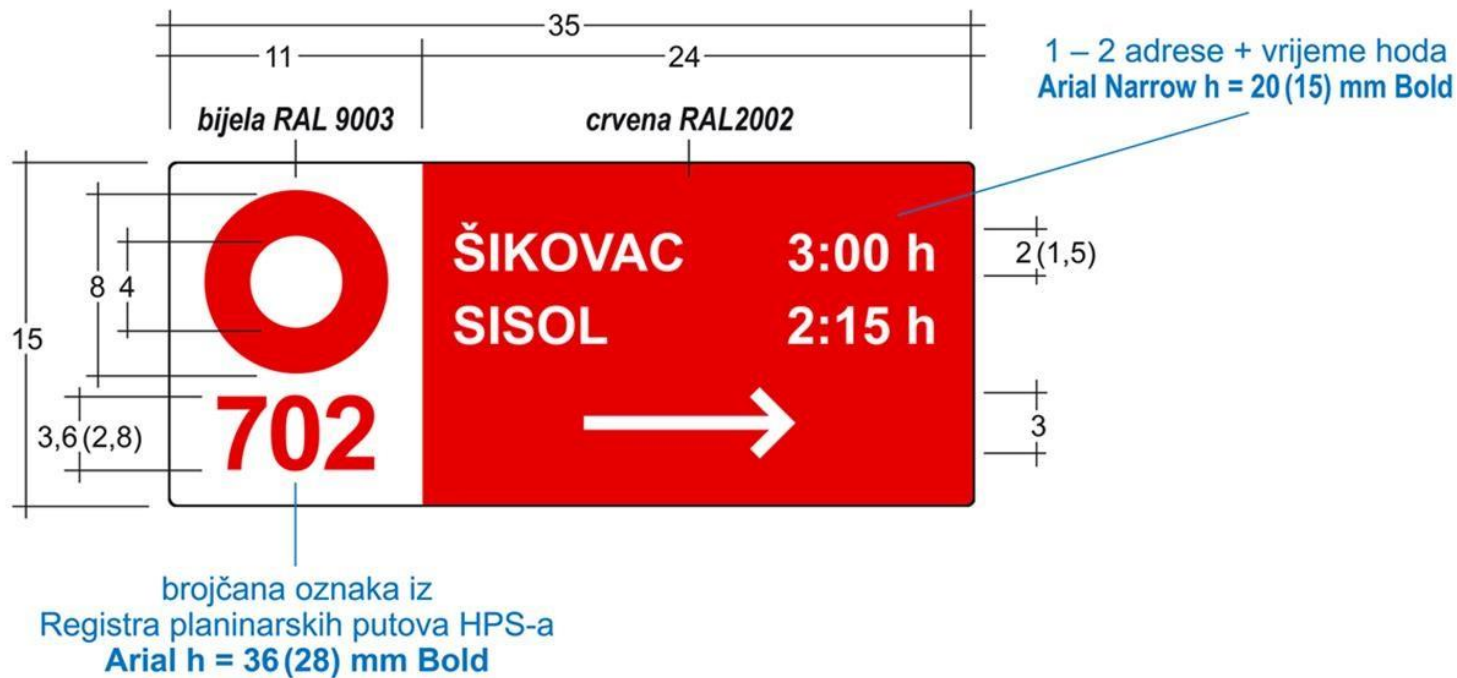
- material: stainless steel,
- prefabricated clamp ϕ 60,
- 2 screws M8×35 with square head,
- 2 nuts M8,
- 2 elastic pads.

All created according to the workshop sketch and font view below.

From the back of the manufacturer's labels with the date (month and year) of manufacture.

Workshop sketch of the signboard - smaller

Prefabricated road sign steel plate with clamp d. 60 mm, with anti-corrosion protection and UV resistant inscriptions and markings. Measures in cm



Fonts for smaller signboard - examples

Path mark for 1 – 3 figures: Arial h = 36 mm Bold, for 4 figures: Arial h = 28 mm Bold

103 1036

Destination and time up to 17 characters and spaces: Arial Narrow h = 20 mm Bold

SVETO BRDO 4:30 h

Destination and time up to 24 characters and spaces: Arial Narrow h = 15 mm Bold (if the text is longer, use abbreviations to fit in 24 characters and spaces)

STANDAR, TEŽI PUT 45 min

In the lower right corner, it is recommended to print the name of the mountaineering club that maintains the path; Arial Narrow h font = 10 mm Bold

PD Opatija

Signboard - Larger (3-4 Destinations)

Specification

Prefabricated steel plate of road sign of the following specifications:

- rectangular plate, length × height = 40 × 20 cm,
- reinforced and rounded edges,
- anti-corrosion protection and final dark gray color,
- at the back of the horizontal guide for 2 screws M8 with square head,
- front inscriptions and markings of self-adhesive foil, colors: white RAL 9003 and red RAL 2002,
- self-adhesive foil resistant to UV rays and other atmospheric influences, warranty period 7 years,
- path marker font Arial Bold, for 1 -3 figures h = 36 mm, for 4 figures h = 28 mm,
- destination name font (addresses) and time Arial Narrow Bold, up to 17 characters h = 20 mm, up to 24 characters h = 15 mm,
- font of the names of the mountaineering club of maintainers (optional) Arial Narrow Bold h = 10 mm,
- destination names are capitalized; if the names of the two destinations are on the signboard, both are written in a font of the same size,
- Destination name order: The top of the signpost prints the name of the more distant destination, and the lower part (as if on signposts on public roads).

Clamps and screw accessories of the following specifications:

- material: stainless steel,
- prefabricated clamp ϕ 60,
- 2 screws M8×35 with square head,
- 2 nuts M8,
- 2 elastic pads.

All created according to the workshop sketch and font view below.

From the back of the manufacturer's labels with the date (month and year) of manufacture.

Workshop sketch of the signboard - larger

Prefabricated road sign steel plate with clamp d. 60 mm, with anti-corrosion protection and UV resistant inscriptions and markings. Measures in cm



Fonts for larger signboard - examples

Path mark for 1 – 3 figures: Arial h = 36 mm Bold, for 4 figures: Arial h = 28 mm Bold

103 1036

Destination and time up to 23 characters and spaces: Arial Narrow h = 20 mm Bold

ST. JURE (KOZIK) 4:30 h

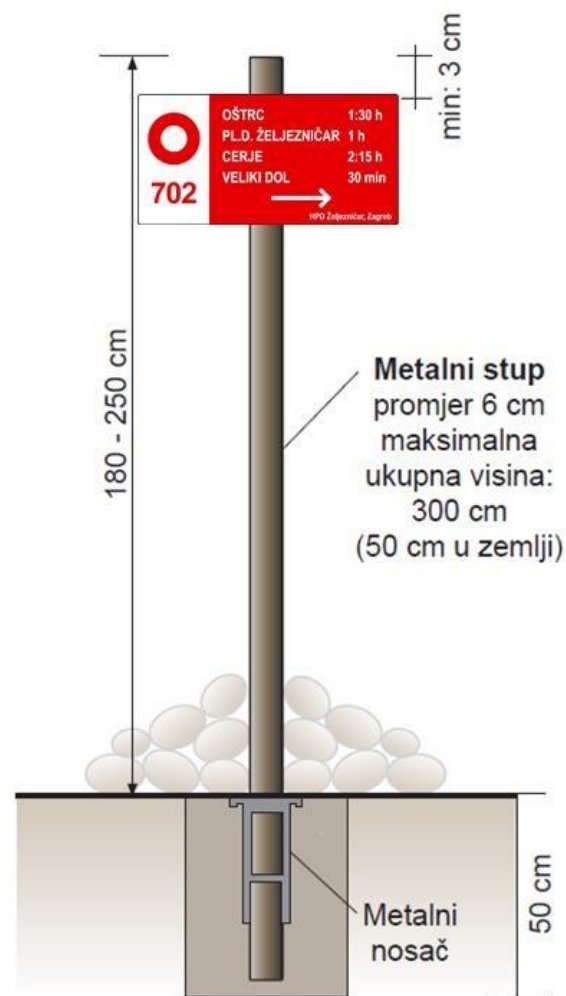
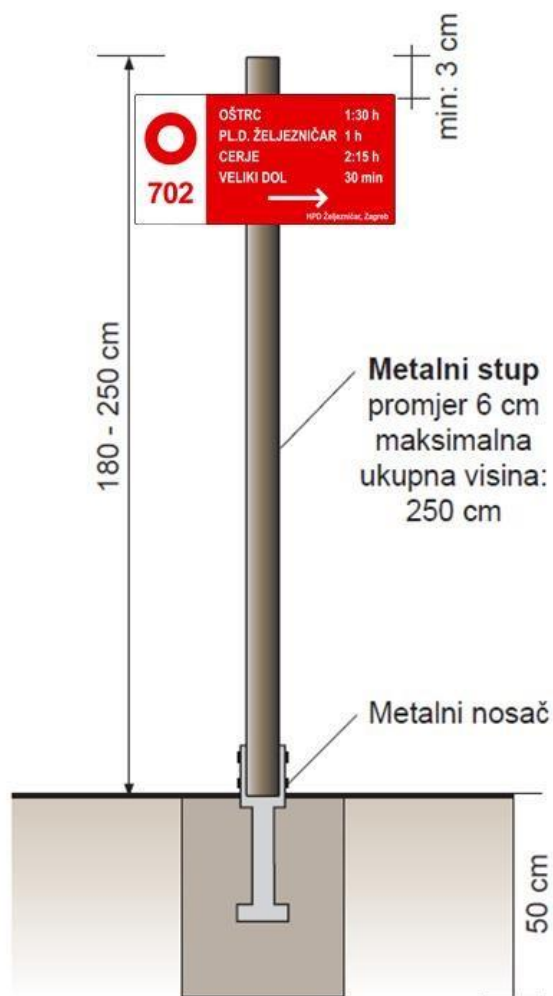
Destination and time up to 27 characters and spaces: Arial Narrow h = 15 mm Bold (if the text is longer, use abbreviations to fit in 27 characters and spaces)

OŠTRC (HOFMANOV PUT) 2:30 h

In the lower right corner, it is recommended to print the name of the mountaineering club that maintains the path; Arial Narrow h font = 10 mm Bold

PD Željezničar, Zagreb

Set up signboards



Additional data at the signboard

Data not specified on the signboard such as location, altitude, trail maintainer name, and others is recommended to be exported with a QR code.

Marking the number of mountaineering trail in the field

The number of mountaineering trail is painted on the field as an additional mark to the basic mountaineering mark and on the signboards.

The number of mountaineering trail is painted at all intersections of mountaineering trails and under the marks every 15 - 20 minutes walk, that is, every 600 to 800 m of the trail.

The number of mountaineering trails that is printed on the signboard and marked in the field is in the Register of mountaineering trails, transversals, and marks makers in Croatia with accompanying contents, under Overview (hrv. Pregled) of mountaineering trails, column "Trail number" (Oznaka).

Electronic mountaineering trail

On the electronic mountaineering trail (e-trail) instead of mountain markings on the terrain, for orientation when moving, previously recorded trails of mountaineering trails (tracks) in electronic form are used in electronic form available in the [Register of mountaineering trails, transversals, and marks makers in Croatia with accompanying contents](#) and [Interactive mountaineering map of Croatia](#).

The electronic trail (e-trail) has a maintainer who takes care of the cleaning and walkability of the trail.

Colors of mountaineering markings

The markings on the mountaineering trails contain two colors – red and white.

red color

C 15 M 100 Y 100 K 0



white color

C 0 M 0 Y 0 K 0



Useful links (in Croatian)

<http://info.hps.hr/putovi/> <https://www.hps.hr/specijalisticke-djelatnosti/planinarski-putovi/markacije/>

<https://www.hps.hr/specijalisticke-djelatnosti/planinarski-putovi/oznacavanje-broja-puta-na-terenu/>

https://www.hps.hr/files/data/3/Jedinstveni_Planinarski%20putokaz_II_2018_s_prilogom.pdf

<https://www.hps.hr/files/data/3/Uredjivanje%20planinarskih%20putova.pdf>

