# S-1 / S-2 / S-3

MAGNETIC CONTACT

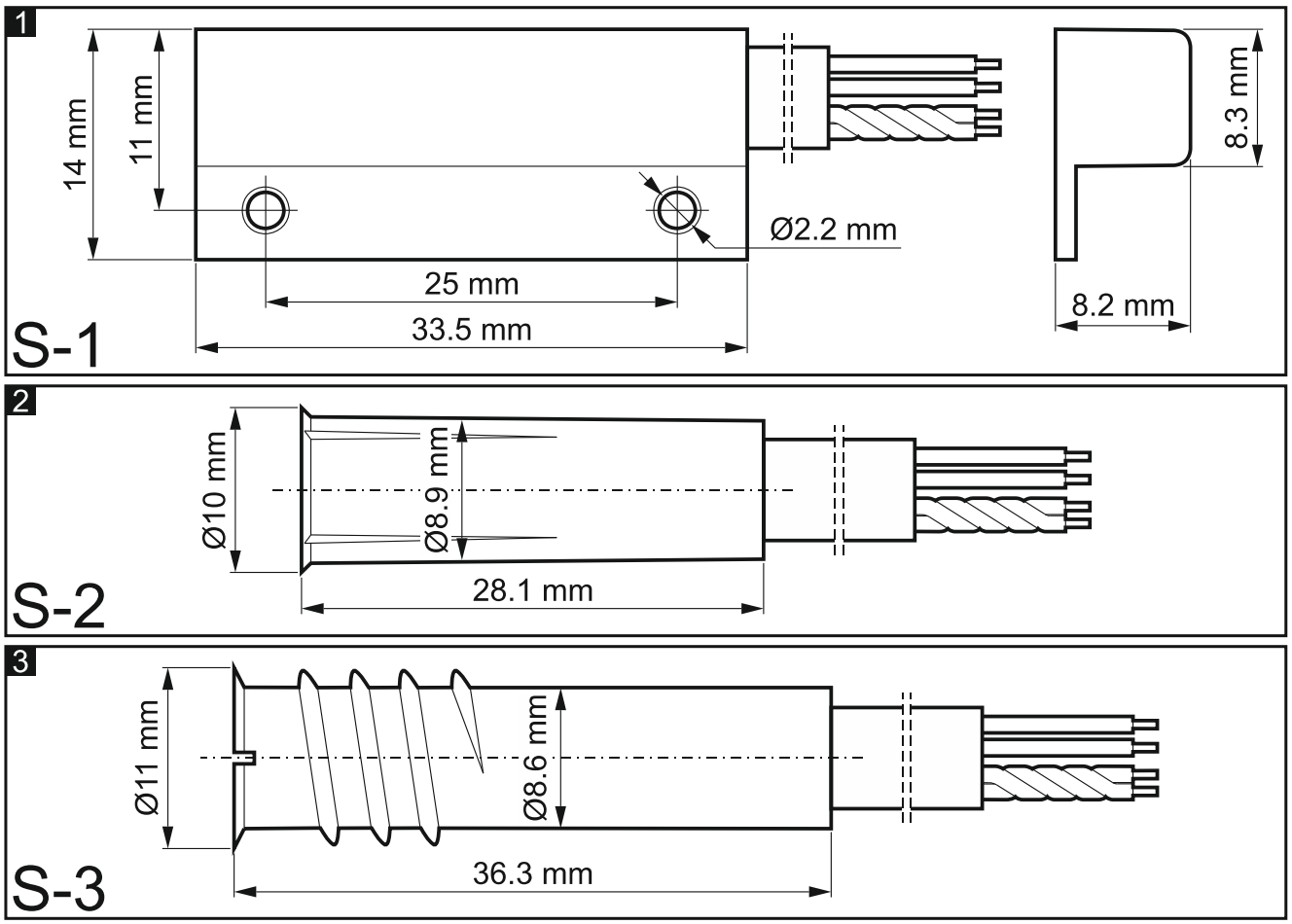
s123_en 08/19

The S-1 / S-2 / S-3 magnetic contact can detect opening of a door, window, etc. Additionally, it is provided with a tamper loop. The S-1 magnetic contact is designed for surface mounting, and the S-2 and S-3 magnetic contacts – for flush mounting.

## 1. Description

The device consists of a contact (reed switch) and a magnet. Moving the magnet away from the contact (opening the door or window) opens the reed switch contacts (thus triggering alarm).

Both magnetic contact elements are placed in identical waterproof enclosures. The S-1 and S-2 enclosures are made of plastic, while the S-3 enclosure is made of metal. The contact has 4 wires. The two twisted wires are a tamper loop. The contacts are shown in the figures below.




## 2. Installation

The contact should be mounted on a fixed surface (e.g. window or door frame), and the magnet on a movable surface (e.g. window or door). Do not install the magnetic contact on ferromagnetic surfaces and near to strong magnetic and electrical fields, because it can result in malfunctioning of the device. When mounting the magnetic contact, you must take into account the make distance.

The S-1 magnetic contact is designed for surface mounting. Place the contact and magnet in parallel next to each other (Fig. 4). The magnetic contact elements can be attached with screws, double-sided tape or glue.

The S-2 and S-3 magnetic contacts are designed for flush mounting in wood or plastic. Place the contact and magnet facing each other (Fig. 5 – as shown by the example of S-3). To make holes for

the magnetic contact elements, use a ø9 mm drill. Press the S-2 magnetic contact elements or screw the S-3 magnetic contact elements into the holes made.

***Notes:***

- *Do not use a hammer to drive the contact into the hole (it may damage the reed switch).*
- *When screwing the S-3 contact into the hole, the wires become twisted. To prevent them from damage, twist the wires against the direction of screwing before installation.*

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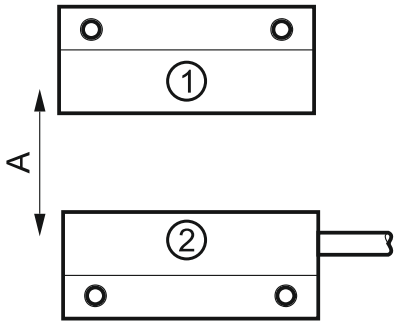


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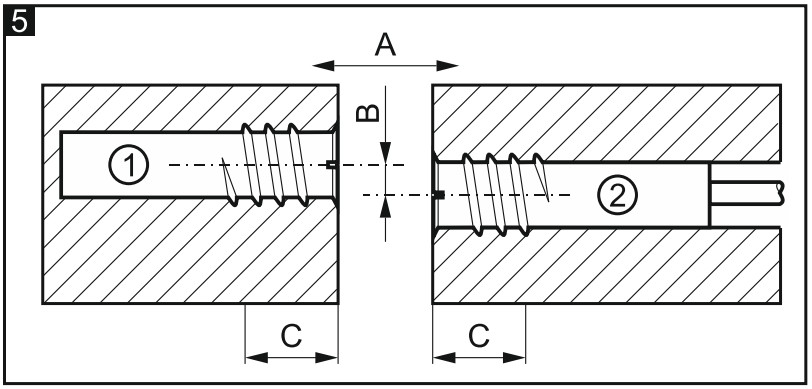


(1) magnet.

(2) contact.

A – make distance.

B – permissible offset between contact and magnet axes: S-2 = 10 mm, S-3 = 12 mm.

C – minimum thickness of the wall in which magnetic contact elements can be mounted: 10 mm.

## 3. Specifications

| | | |
|---|---|---|
| Magnetic contact type | | NC |
| Maximum switching voltage | | 20 V |
| Maximum switching current | | 20 mA |
| Contact resistance | | 150 mΩ |
| Minimum life expectancy (20 V, 20 mA) | | 360 000 |
| Contact material | | Ru (ruthenium) |
| Make distance | S-1 | 18 mm |
| | S-2 | 28 mm |
| | S-3 | 15 mm |
| Break distance | S-1 | 28 mm |
| | S-2 | 40 mm |
| | S-3 | 24 mm |
| Environmental class according to EN50130-5 | | II |
| Operating temperature range | | -10°C...+55°C |
| Maximum humidity | | 93±3% |
| Weight | S-1 | 29 g |
| | S-2 | 28 g |
| | S-3 | 43 g |

**The declaration of conformity may be consulted at www.satel.eu/ce**