

# ExpertLine

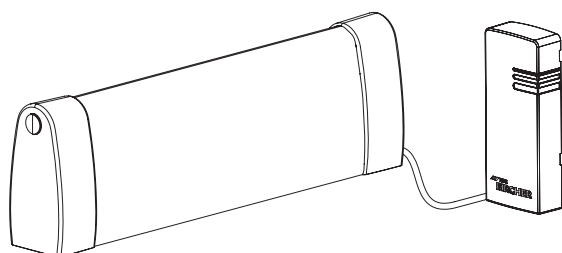
EL45x99A1x / EL45x74A1x / EL45x49A1x

## Assembly and mounting instructions

### General

#### Safety edge

#### Control unit



- Pressure-sensitive edges are pressure-sensitive protection systems. They are specified in accordance with and meet the requirements of standard EN ISO 13856-2 (see the declarations of conformity).
- Pressure-sensitive edges consist of a **safety edge (sensor)** and a **control unit**. Safety edges are active switching profiles. They are made from flexible rubber and mounted on metal mounting profiles.
- These installation instructions describe the assembly and mounting of safety edges in the ExpertLine series.

## 1 Safety instructions



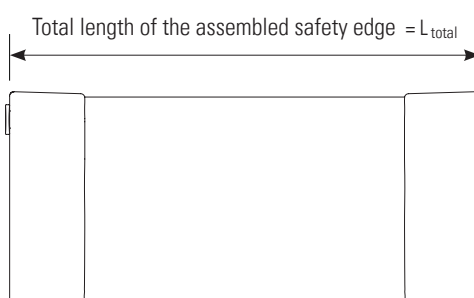
- These assembly and mounting instructions must be read completely before starting work and must be kept for future reference.
- The assembly, mounting, modification or retrofitting of safety edges and the commissioning of pressure-sensitive edges may only be undertaken by persons who have completed relevant professional training and have been authorised to carry out such work.
- To ensure effective operation of the protection system, the persons

undertaking these tasks will also need to have knowledge of the product-specific guidelines and standards that apply on the site where the pressure-sensitive edges are being used. An example of an applicable standard would be EN 12978 – Safety devices for power-operated doors and gates.

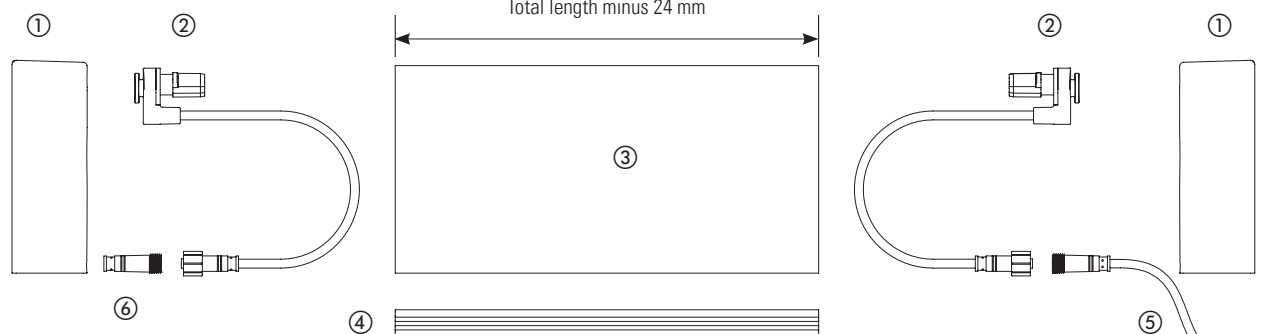
- Failure to comply with these safety instructions may result in severe or fatal injury and serious damage to property.

## 2 Component overview

- ① End cap
- ② Contact end piece
- ③ Contact profile
- ④ Mounting profile
- ⑤ Connection cable (available in different designs and lengths)
- ⑥ Resistor plug 8.2 kOhm



Length of the contact profile and mounting profile:  
Total length minus 24 mm



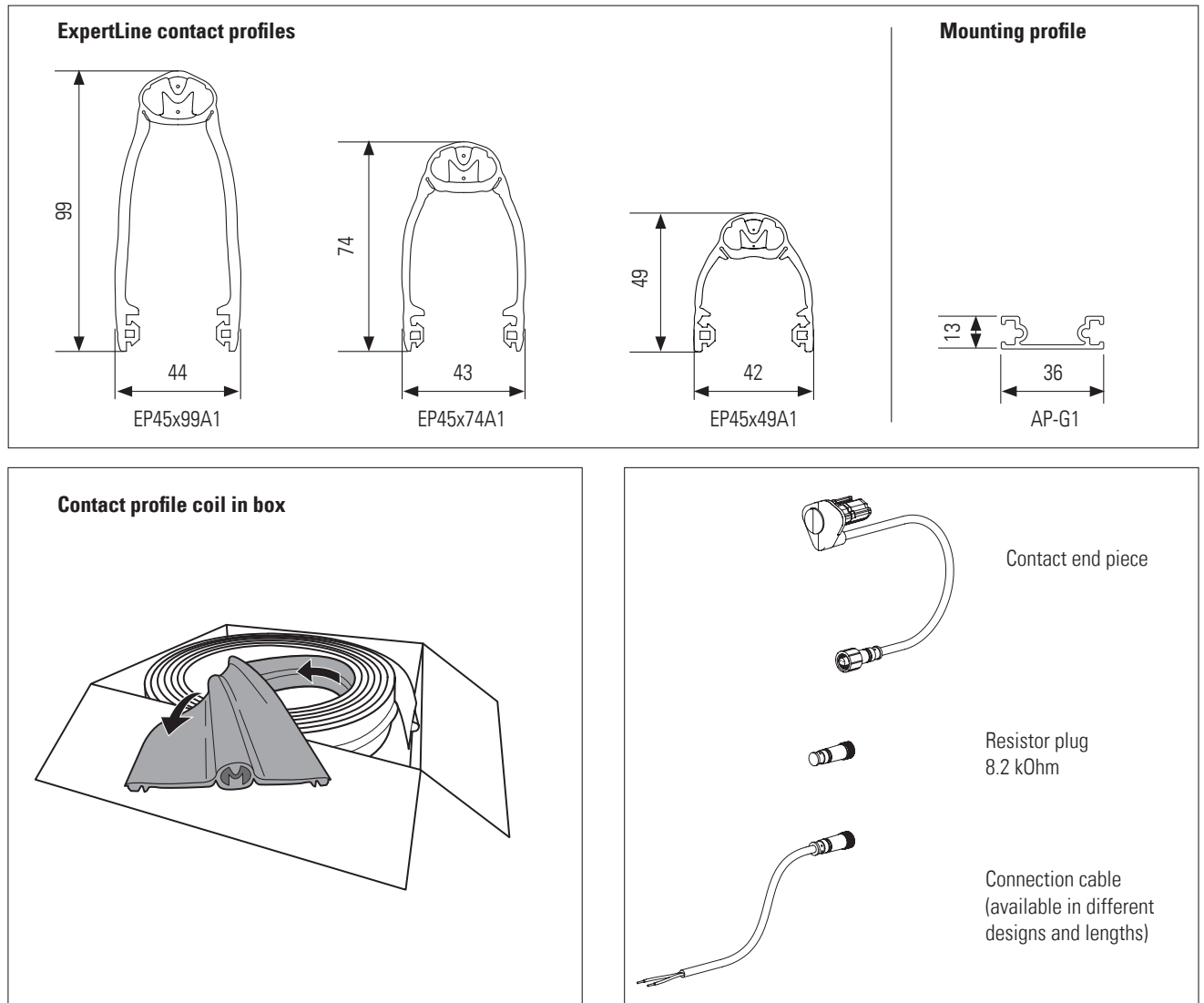
ExpertLine sensors can be delivered in a variety of formats.

1. As a set with contact profile and mounting profile cut exactly to the required length – equally suitable for both customer-specific applications and the series production of industrial doors.
2. As a set in various standard lengths to be cut by the customer and for self-assembly of a sensor – ideal for repairing doors quickly when carrying out service and maintenance in the field.

3. As individual components in larger packaging units – suitable for self-assembly of ExpertLine sensors in industrial door manufacture. The **assembly** of sensors is described in Chapter 3 below; their **installation** is described in Chapter 4.

### 3 Assembly of ExpertLine contact profiles

#### 3.1 Overview of the individual components



#### 3.2 Delivery format and storage of contact profile components

ExpertLine contact profiles are delivered in coils inside sturdy cardboard boxes on pallets. If they are to be put into long-term storage, the contact profiles must remain inside the boxes and the boxes stored laid flat. Contact end pieces, connection cables and resistor plugs are packaged separately and must remain inside their original packaging until used.

The components must be stored in a dry location. Storage temperatures should be between 0°C and 40°C.

However, the components can be stored at temperatures from - 30 °C to + 60 °C for short periods of time, e.g. during transport.

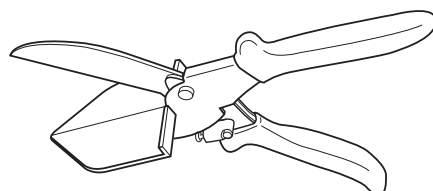
#### 3.3 Tools and accessories

##### Rubber profile cutters "XL-Cut "



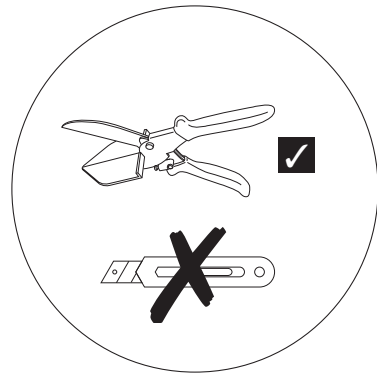
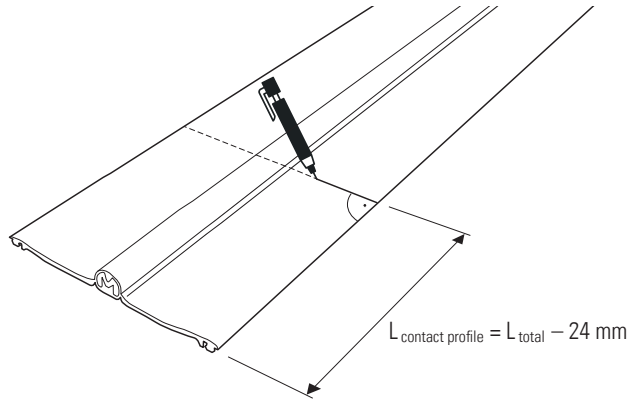
##### Risk of injury!

Follow the safety instructions for the cutting device.

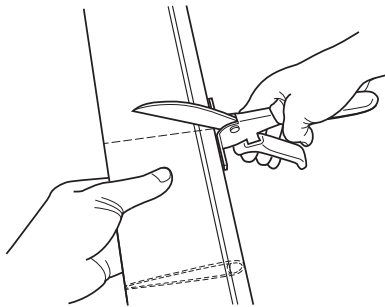


#### 1. Cutting the ExpertLine contact profile to length

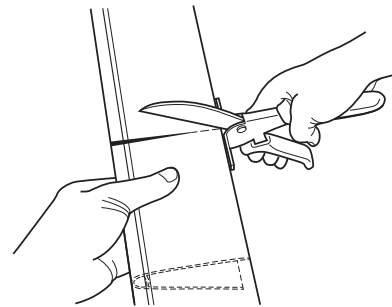
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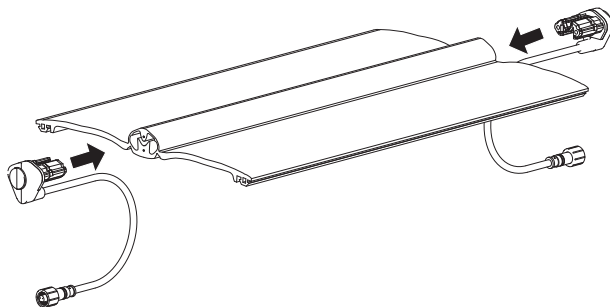
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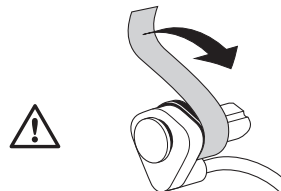
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#### 2. Mounting contact end pieces

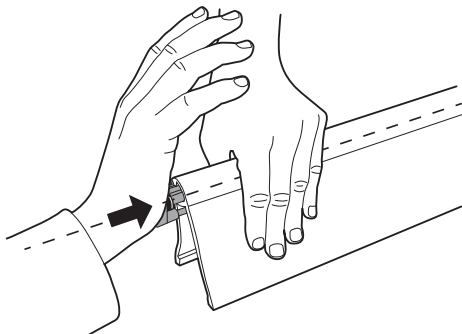


1



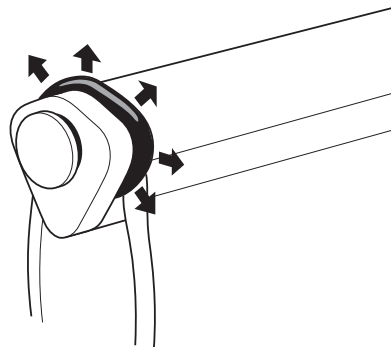
The sealant is highly adhesive; dust and dirt particles will stick to it immediately on contact. Therefore, once you have unpacked a contact end piece and removed the protective cover, you should proceed with particular care and ensure that the working environment is kept clean and tidy until it is pressed into place.

2



Hold the profile shank at an acute angle and check for axial alignment when pressing the contact end piece in.

3



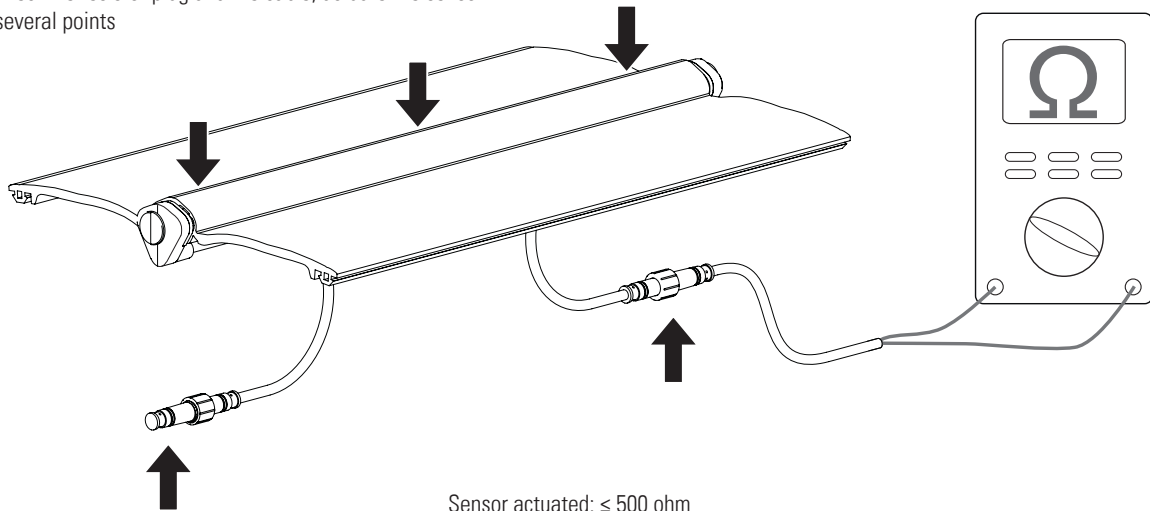
The sealant should overflow all the way round the sealing edge.



Contact end pieces can only be mounted and used once. Reliable contacting and sealing are not guaranteed during disassembly and re-assembly!

### 3. Intermediate check / Resistance measurement

Connect the resistor plug and the cable, actuate the sensor at several points



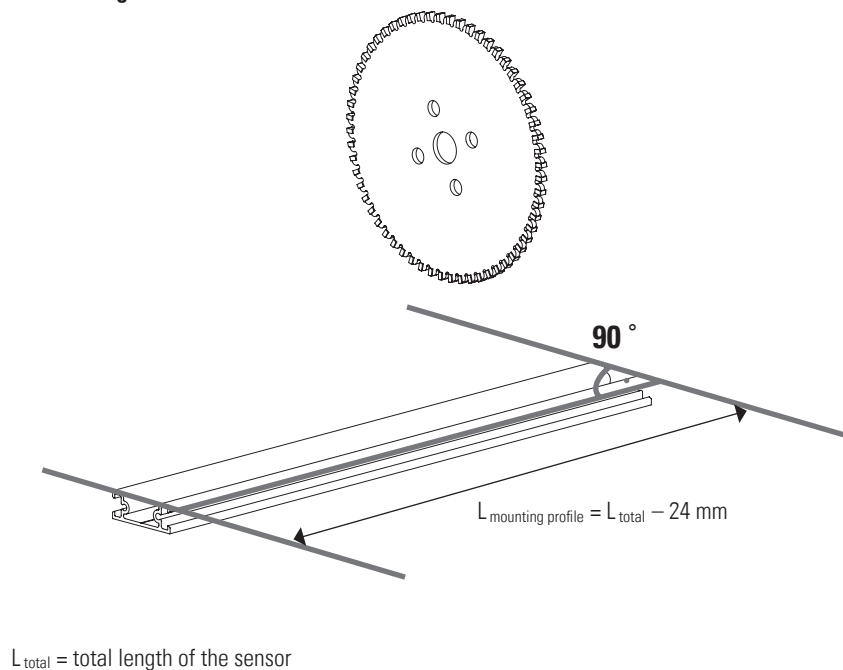
Sensor actuated:  $\leq 500 \text{ ohm}$

Sensor not actuated with XL-RP8 resistor plug: resistance between 8.0 and 9.0 kOhm

Sensor not actuated with XL-RPI resistor plug:  $\infty \text{ ohm}$

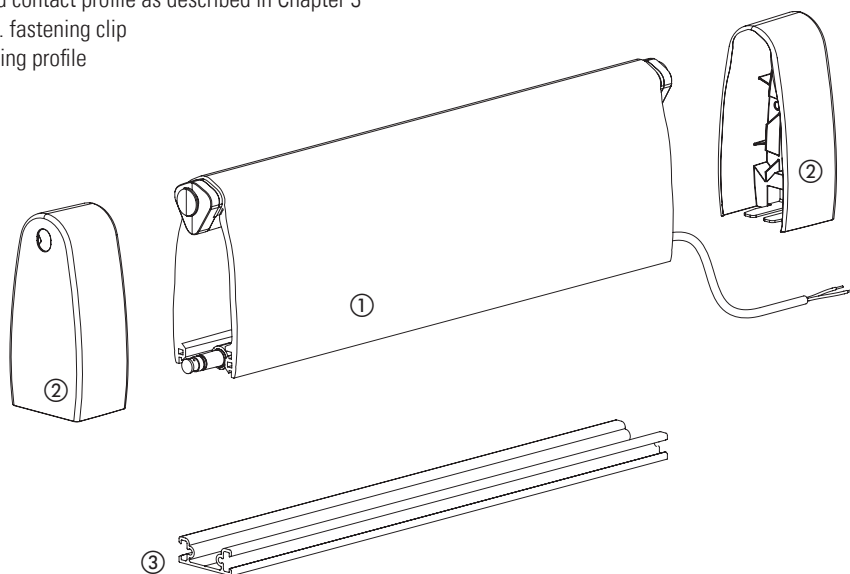
### 3.5 Preparing the AP-G1 mounting profile

#### Cutting the mounting profile to length



### 4.1 Overview

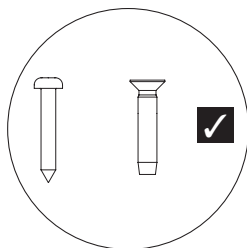
- ① Preassembled contact profile as described in Chapter 3
- ② End caps incl. fastening clip
- ③ AP-G1 mounting profile



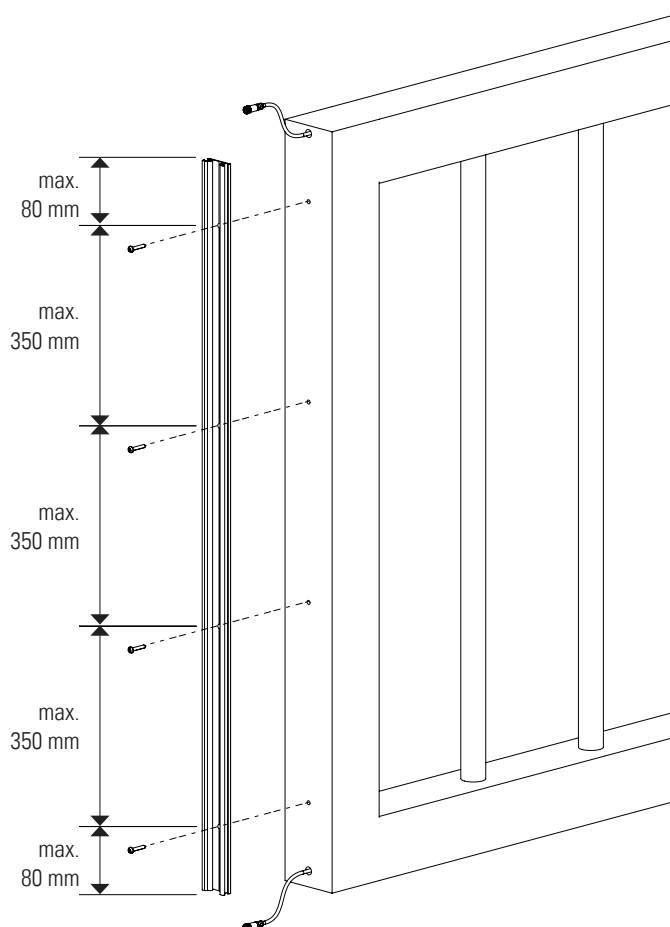
### 4.2 Mounting the AP-G1 mounting profile

- 1 The mounting profile must be mounted on a flat surface.

2

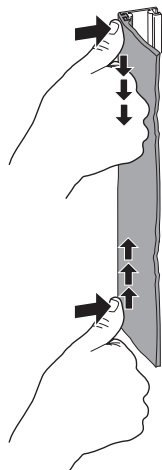


- 3 If necessary: hole for cable



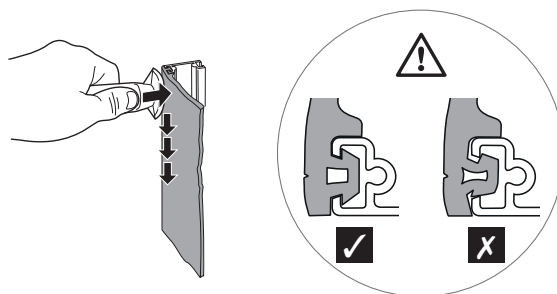
### 4.3 Mounting the contact profile onto the mounting profile

- 1** Fit the first side of the contact profile flush at both ends of the mounting profile and apply uniform pressure to press it into the mounting profile, working from the ends towards the centre.



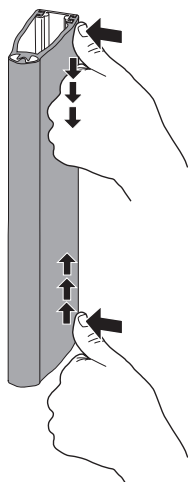
- 2** The rubber retainers must engage fully in the mounting profile.

**Tip:** Use a tool to help you to push the retainers in

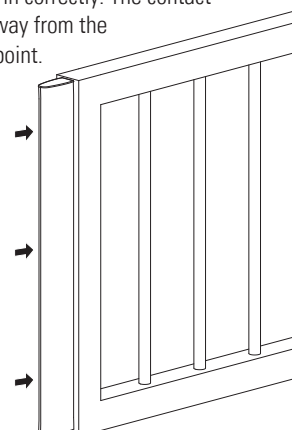
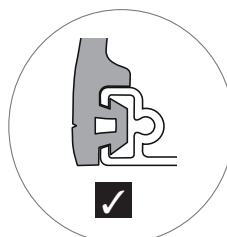


**Tip:** In case of limited accessibility, the first side of the contact profile can be fitted into the mounting profile prior to fixing the mounting profile. This can be helpful for example at folding or swing gates, when safety edges are mounted near the ground.

**3**

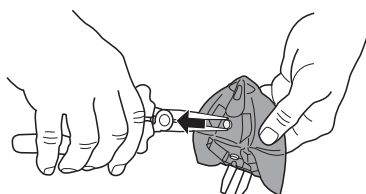


- 4** Push on the profile hard from the front to check that it has been pressed in correctly. The contact profile must not come away from the mounting profile at any point.

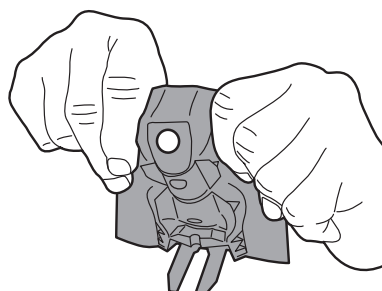


### 4.4 Mounting end caps

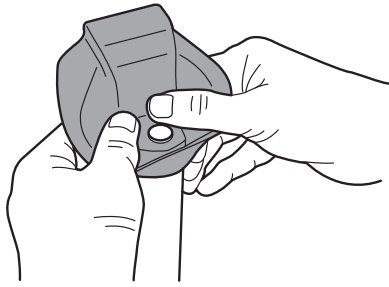
- 1** Prepare the lower end cap: remove the drainage stud



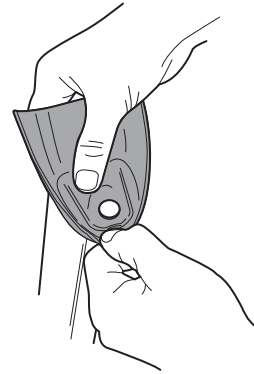
- 2** Turn out the end cap at the top



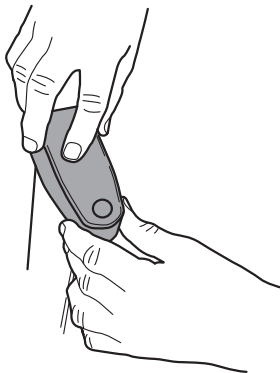
- 3** Pull the hole over the retainer on the contact end piece



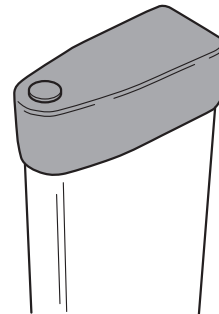
- 4** Check for a tight fit from the outside



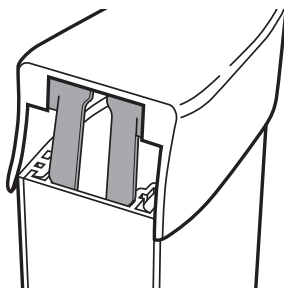
- 5** Turn out the end cap



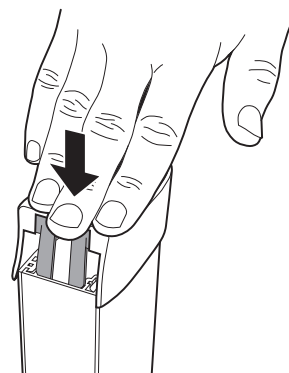
- 6** Position the end cap correctly



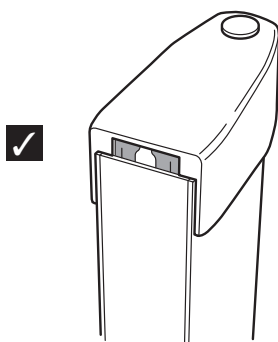
- 7** Position the fastening clip



- 8** Push the fastening clip in as far as the stop



- 9** Correct end position



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#### 4.5 Checking the sensor installation

Once mounting work has been completed, the sensor must be tested to ensure it is functioning correctly. Measure the resistances by actuating the sensor at several points:

Sensor actuated:  $\leq 500 \text{ ohm}$

Sensor not actuated with XL-RP8 resistor plug: resistance between 8.0 and 9.0 kOhm

Sensor not actuated with XL-RPI resistor plug:  $\infty \text{ ohm}$

### 5 Commissioning

Once the sensor has been installed, it must be connected to the control unit.



The operating instructions for the corresponding control unit must be followed when making the connection as well as when carrying out subsequent installation and commissioning work.

### 6 Contact

**BBC Bircher Smart Access**, BBC Bircher AG, Wiesengasse 20, CH-8222 Beringen, [www.bircher.com](http://www.bircher.com)