

### For textile smoke and fire barriers (FSV)

For further information  
please visit our product-  
website:



[short.simon-protec.com/  
fsven](http://short.simon-protec.com/fsven)



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**These operating instructions are only valid with the supplied  
supplementary sheet „Safety instructions and Warranty conditions“!**

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## 1. General

### 1.1. Preface

This operating manual describes the **electrical connection** and the **parameterisation / end position** setting of the „PROtec RZ-24“ control unit in combination with a **fire curtain (FSV)**.

### 1.2. Safety regulation

See supplementary sheet „Safety instructions and Warranty conditions“.

### 1.3. Functional description

The PROtec RZ-24 is an approved hold-open system that enables a **textile fire curtain (FSV)** to be held open and closed

### 1.4. Versions of the PROtec RZ-24

FSV	Version
Fire PROtec E 120 (24 VDC)	<ul style="list-style-type: none"> <li>➤ PROtec RZ-24</li> <li>➤ PROtec RZ-24-SB with emergency power supply</li> <li>➤ PROtec RZ-24-SB with emergency power supply + emergency open</li> </ul>
Firescreen EW (230 VAC)	<ul style="list-style-type: none"> <li>➤ PROtec RZ-24-230</li> <li>➤ PROtec RZ-24-230-SB with emergency power supply</li> </ul>
Fire PROtec EI MARC (230 VAC)	<ul style="list-style-type: none"> <li>➤ PROtec RZ-24-230</li> <li>➤ PROtec RZ-24-230-SB with emergency power supply</li> </ul>
Fire PROtec EI MARC (400 VAC)	<ul style="list-style-type: none"> <li>➤ PROtec RZ-24-400</li> <li>➤ PROtec RZ-24-400-SB with emergency power supply</li> </ul>

### 1.5. Emergency power supply

The PROtec RZ-24-SB is equipped with an emergency power supply, which covers short power failures and ensures that the **FSV** remains in the upper holding position.

### 1.6. Emergency open function

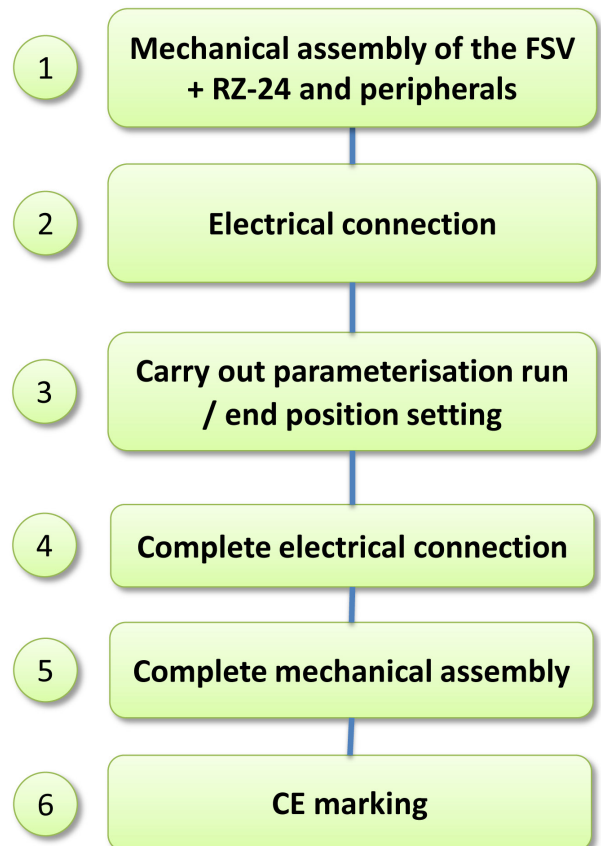
The **Emergency open function** allows an already closed **FSV** for short time (adjustable time) to reopen that people can escape from already closed rooms (e.g. lift).



#### INFORMATION

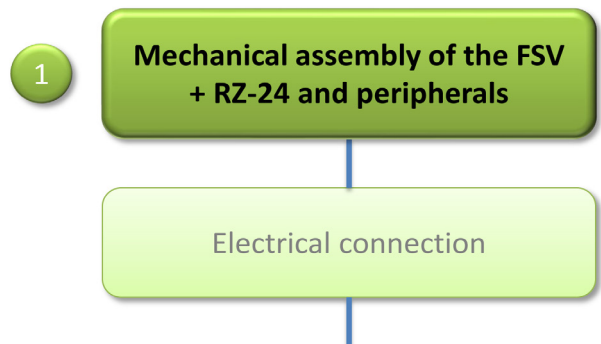
The **Emergency open function** is a **special function** and must be approved by the responsible building authority!

## 2. Mounting process



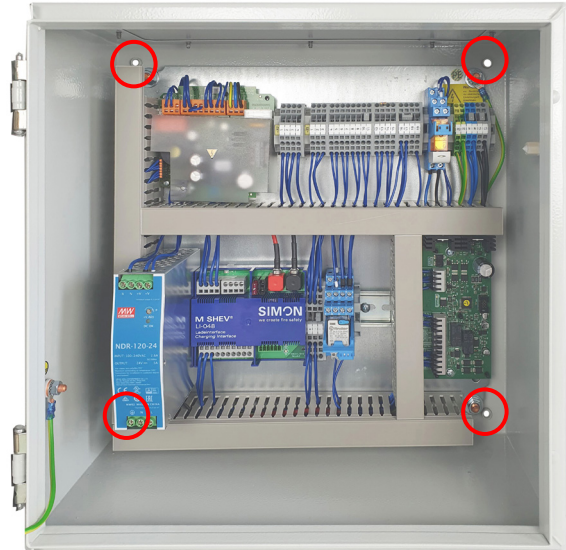
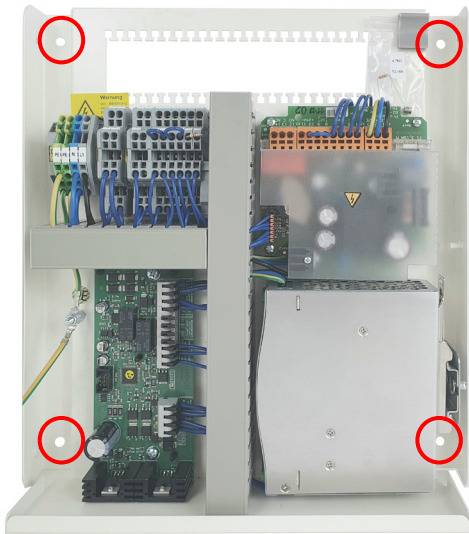
## 3. Mounting

### 3.1. Mechanical assembly



# Mounting

## 3.1.1. Mounting points

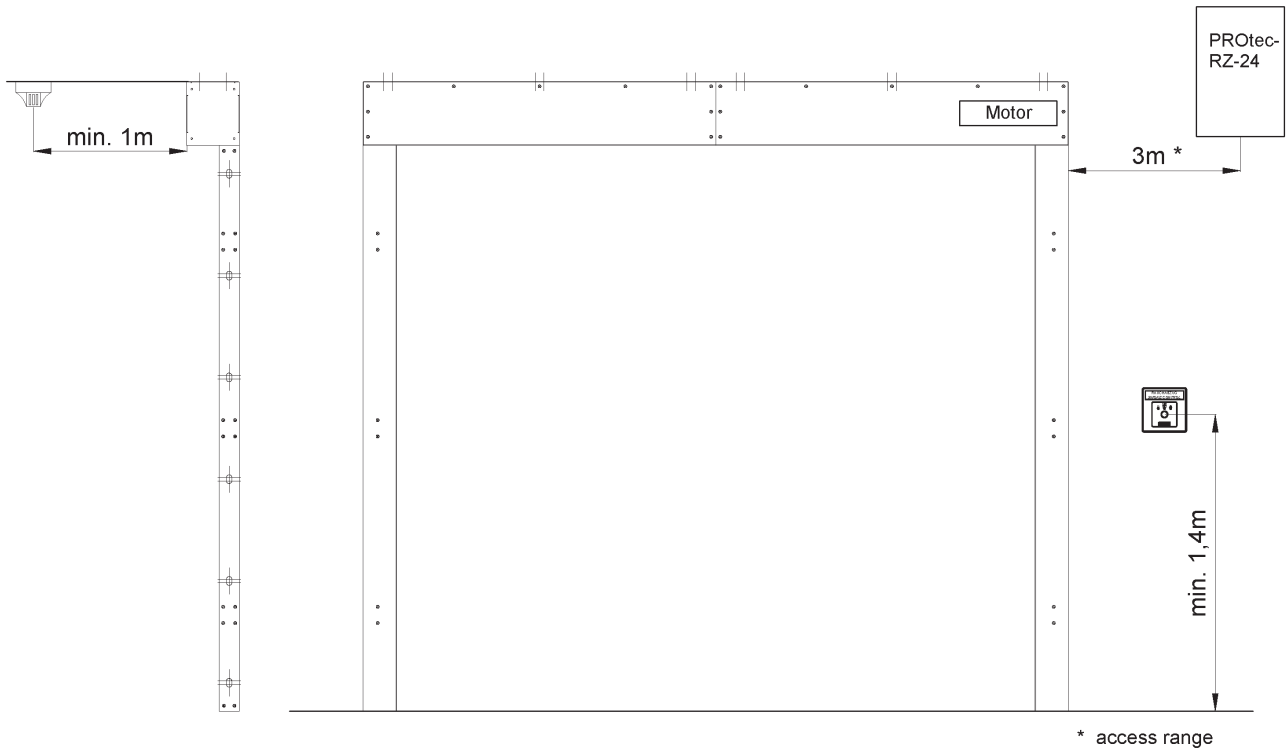


## 3.1.2. Positioning of the triggering devices



### INFORMATION

In case of concealed mounting, the inspection opening must be sufficiently dimensioned for maintenance work.

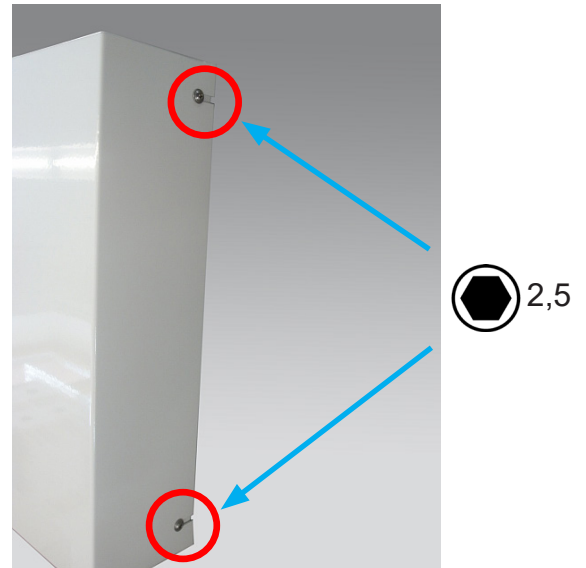
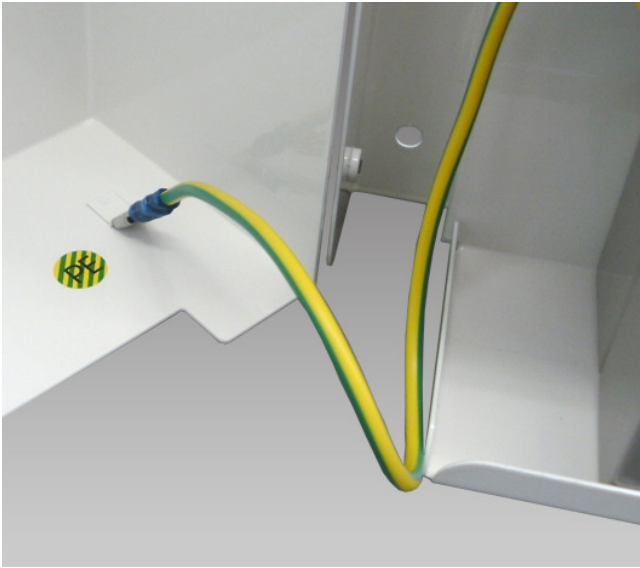


### INFORMATION

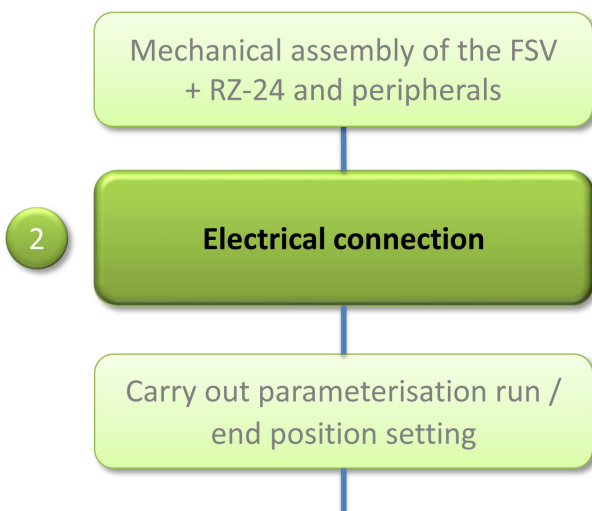
Observe the general and local guidelines for hold-open systems, for the positioning of smoke detectors or thermal detector (e.g. German DIBt).

# Mounting

## 3.1.3. PE- connection



## 3.2. Electrical connection



### ATTENTION / emergency power supply (SB)

Do not connect the battery to the control unit until commissioning has been completed and on-site power supply is permanently ensured.



### ACHTUNG

The supplied connection plan is required for further commissioning. The on-site mains supply 230 VAC / 400 VAC must be permanently ensured. Construction power does not guarantee a permanent mains supply!



### INFORMATION

A service button (Art. no. A3 2185 is required for **parameterisation run / end position setting**.



### ACHTUNG

Separate cables for manual control devices and FAS contacts at terminals X5.10/11 and X5.12/13 (see supplied connection plan) are only monitored for wire breaks, not for short circuits. These cables must be laid properly secured (protective pipe, cable duct).

### 3.2.1. Connection plan / electrical connection (24 VDC and 230 VAC)



### ATTENTION

Disconnect all poles of the connecting cable from the mains. The PROtec RZ-24 may only be connected when it is de-energised!

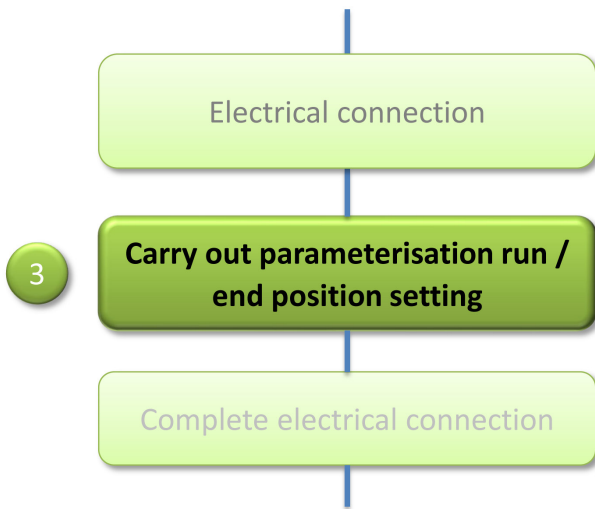


### INFORMATION

The wiring schematics is enclosed separately.



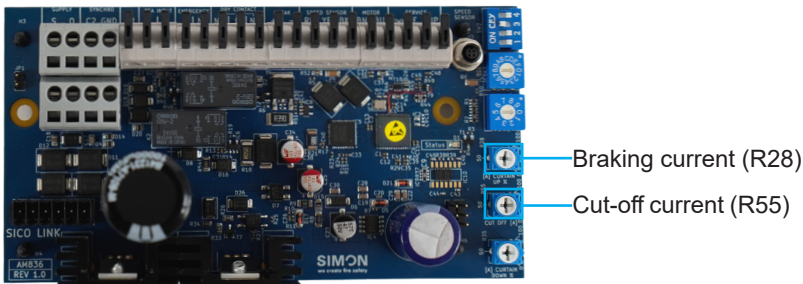
### 4. Parameterisation run / end position setting



- Parameterisation run **Fire PROtec E 120** (see chapter 4.1. page 7).
- Test run **Fire PROtec E 120** (see chapter 4.2. page 9).
- End position adjustment **Firescreen EW, Fire PROtec EI MARC** (see Chapter 4.4. page 11).
- Mounting the clamp strip **Firescreen EW Fire PROtec EI MARC** (see chapter 4.3. page 13).
- Test run **Firescreen EW, Fire PROtec EI MARC** (see Chapter 4.5. page 14).

#### 4.1. Parameterisation Fire PROtec E 120

Figure 1: AM-836



##### 4.1.1. Connection and setting of holding current

- Connect the drive unit and the SBT to the AM-836 according to the enclosed wiring diagram.
- Move the curtain UP (service switch OPEN). During movement, the end positions are set automatically.
- If the curtain stops before it reaches the upper end position, the switch-off current is too low.
- If necessary, increase the switch-off current with rotary switch R55 (CUT OFF) on the AM-836 and repeat the upwind process.
- If the bottom bar is pulled too far into the housing during unwinding (mechanical deformation), reduce the switch-off current.

##### 4.1.2. Speed Setting

- The fire protection curtain must unwind at a speed of 80–150 mm/s. Reference value: 8 s per 1 m.
- Set the braking current for unwinding with rotary switch R28 (CURTAIN UP) on the AM-836. Set the braking current so that the required speed is reached. The higher the braking current, the stronger the braking effect.

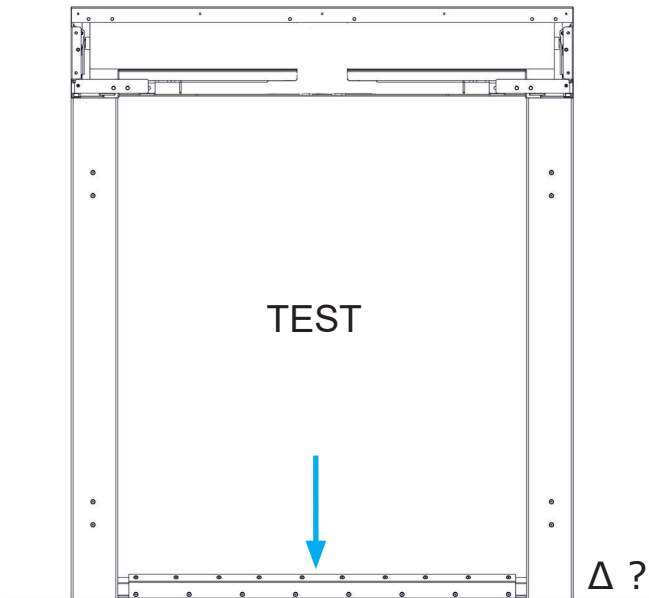
## Parameterisation run / end position setting

### 4.2. End position adjustment Firescreen EW, Fire PROtec EI MARC

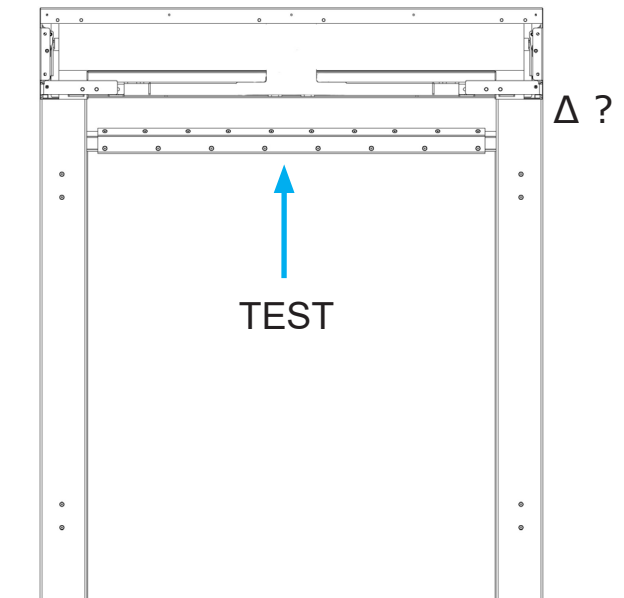
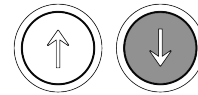
#### INFORMATION

Check the factory preset upper and lower end position by performing a test unroll / roll up. The motor stop switches can be readjusted with the supplied tool.

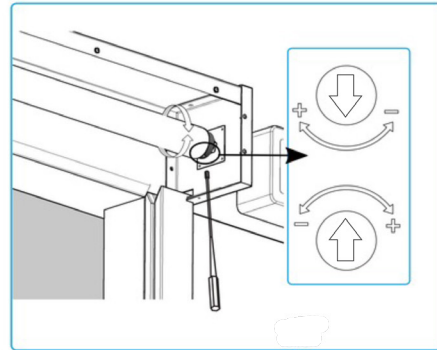
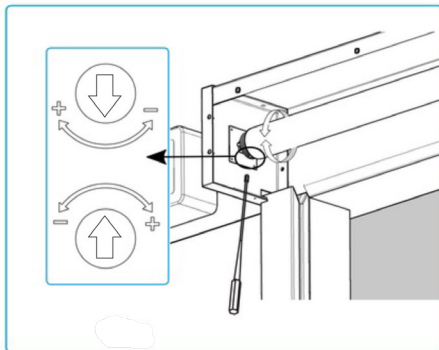
#### ① Unroll



#### ② Roll up

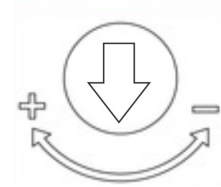
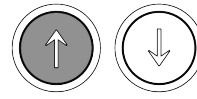
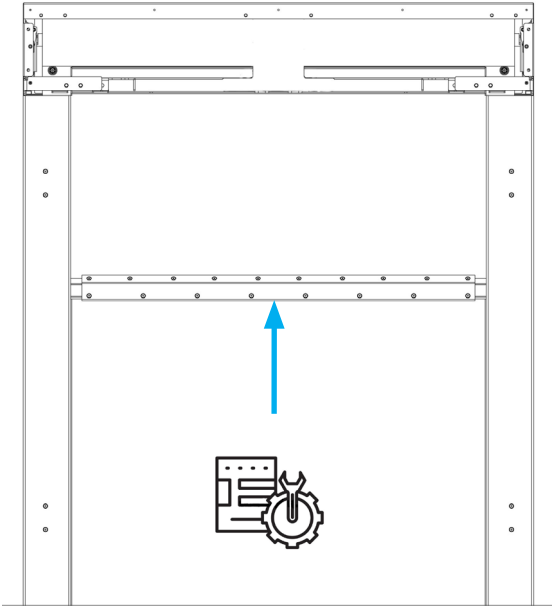


#### ③ Procedure for setting the motor stop switches



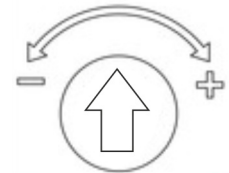
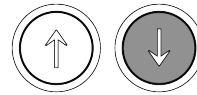
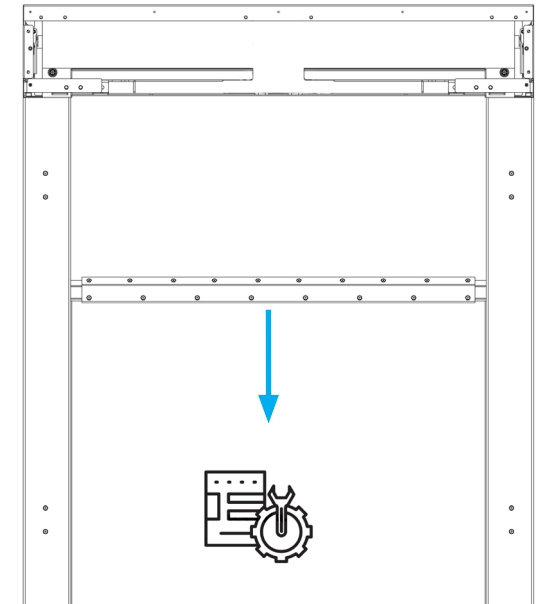
## Parameterisation run / end position setting

### ④ Set upper motor stop switch



- Setting of the upper stop switch: Press the ▲ button on the service button to move the textile to the preset upper stop position.
- Turn the adjustment screw of the stop switch towards + until the correct upper stop position reached.
- If the desired stop position has been exceeded turn the adjusting screw of the stop switch in direction - .

### ⑤ Set lower motor stop switch



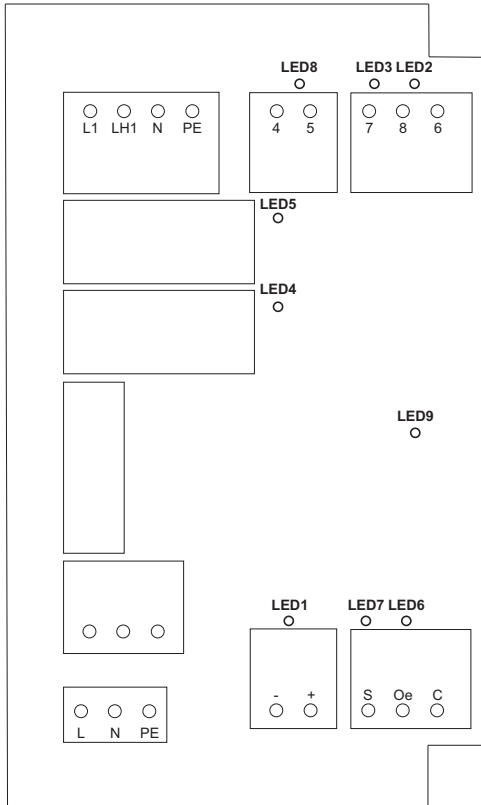
- Setting of the lower stop switch: Press the ▼ button on the service button to move the textile to the preset lower stop position.
- Turn the adjustment screw of the stop switch towards + until the correct upper stop position is set.
- If the desired end position has been exceeded turn the adjusting screw of the stop switch in direction - .
- After adjusting, carry out a test run of the FSV.

## Parameterisation run / end position setting

### 4.2.1. Parametirisation RZ-24-230(-SB)

- Make the electrical connection according to the enclosed wiring diagram.
- Set the end positions according to the enclosed instructions.

### 4.2.2. LED functions MKB-S



LED	Meaning
1	24 V supply voltage is present
2	End position (8) not reached
3	End position (7) not reached
4	Motor relay for rotation direction 2 is active
5	Motor relay for rotation direction 1 is active
6	24 V present at input OPEN (Oe)
7	24 V present at input CLOSE (S)
8	Holding magnet (4, 5) is active
9	Flashes in case of fault: 1× = undervoltage 2× = memory error 3× = OPEN and CLOSE activated at the same time 4× = End position 1 and 2 activated at the same time 5× = Foil keypad buttons OPEN and CLOSE activated at the same time

### 4.2.3. Parameterisation PROtec RZ-24-400(-SB)



#### INFORMATION

If the ELEKTROMAT motor FS 25.20 – 30.00 is delivered with an additional reversing contactor control, remove it before commissioning.

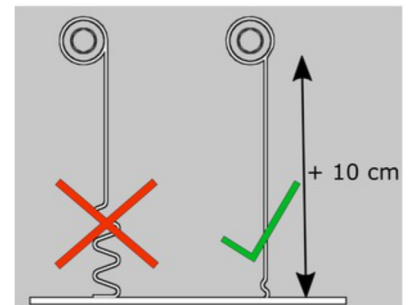
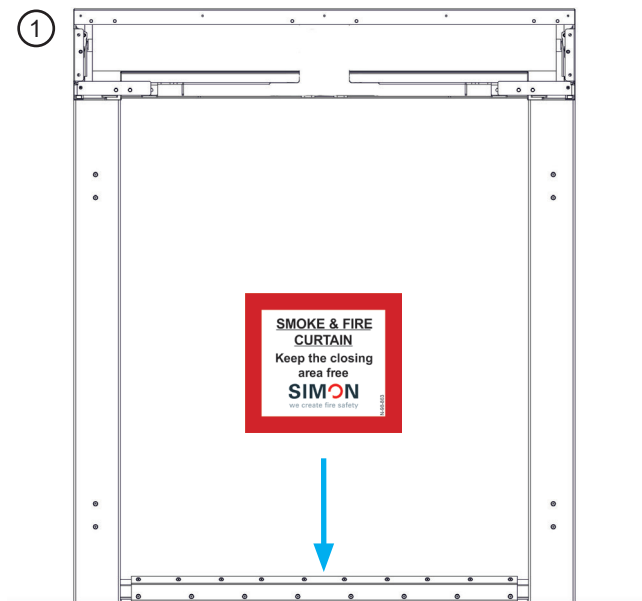
Use terminals X12, X13, and X14 of the FS 25.20 – 30.00 for the connection.

## 4.3. Mounting the clamp strip Firescreen EW, Fire PROtec EI MARC



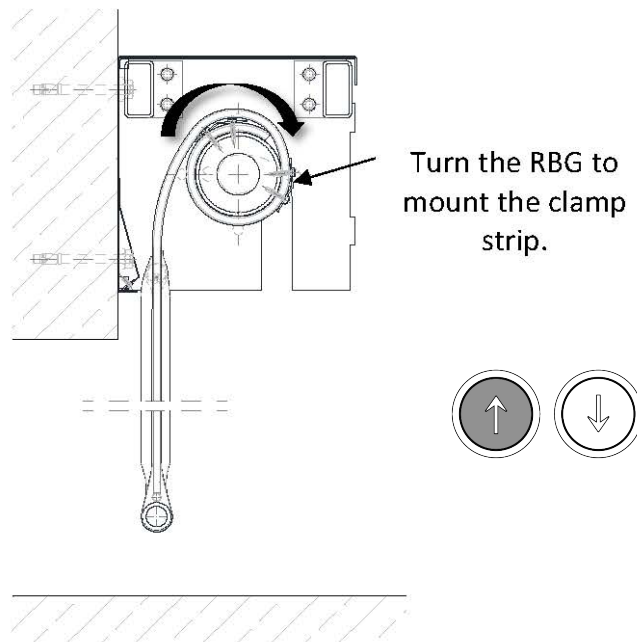
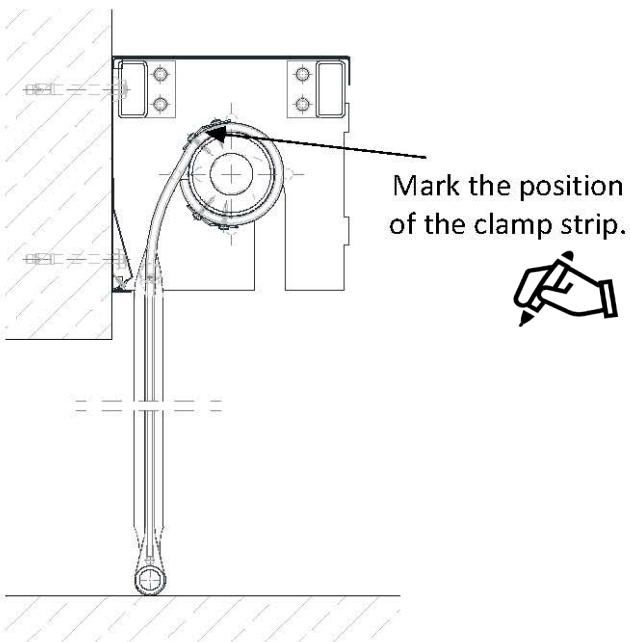
### INFORMATION

To limit the max. roll-off position, attach the supplied terminal strip to the roller assembly group (RBG) with self-tapping screws.



➤ The curtain-textile can be positioned at the correct height (+10 cm) using the service button.

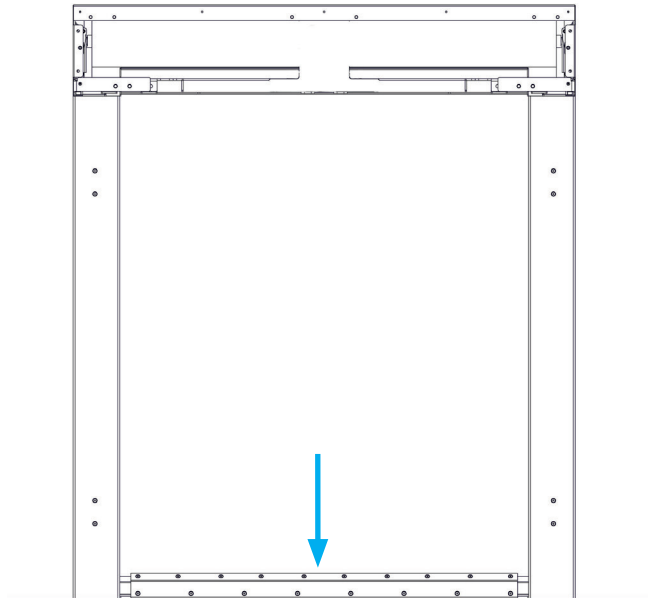
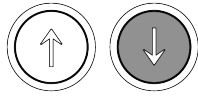
②



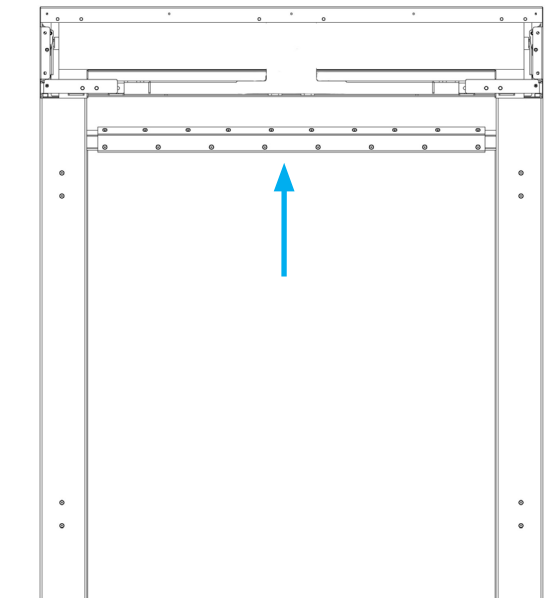
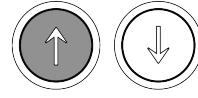
## Parameterisation run / end position setting

### 4.4. Test run Firescreen EW, Fire PROtec EI MARC

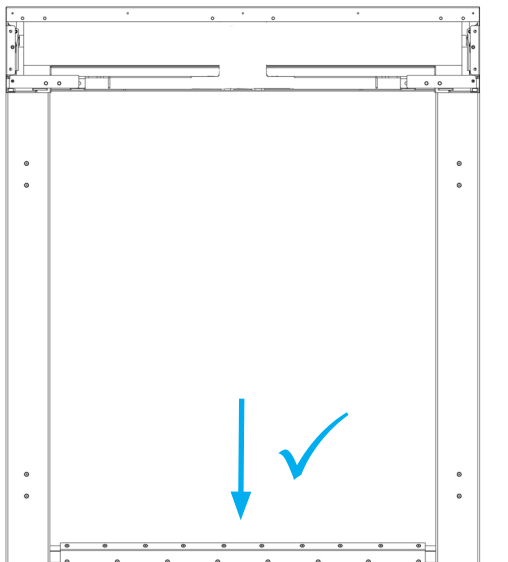
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③

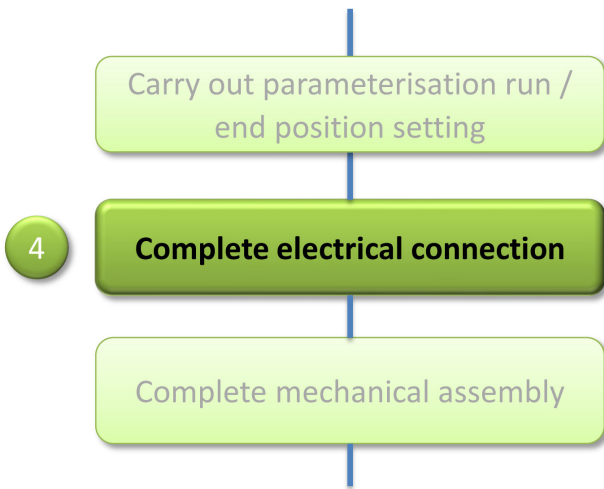


#### ATTENTION

After 5 minutes, the motor may be thermally overloaded!  
After a sufficient cooling phase, the motor is ready for operation again.

# Complete electrical connection

## 5. Complete electrical connection



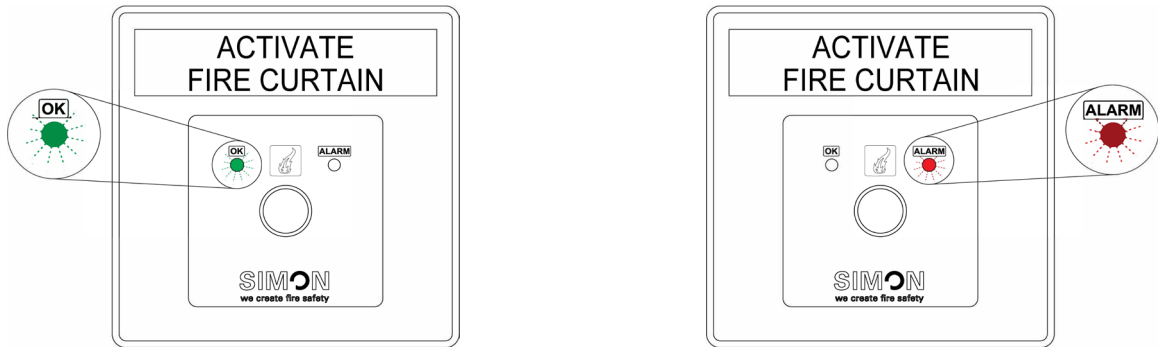
### **i** INFORMATION

The emergency power supply (SB) can now be connected. Ensure a permanent power supply line!

### **!** ATTENTION

Only connection / use of batteries approved by the manufacturer is permitted!

### 5.1. Status displays

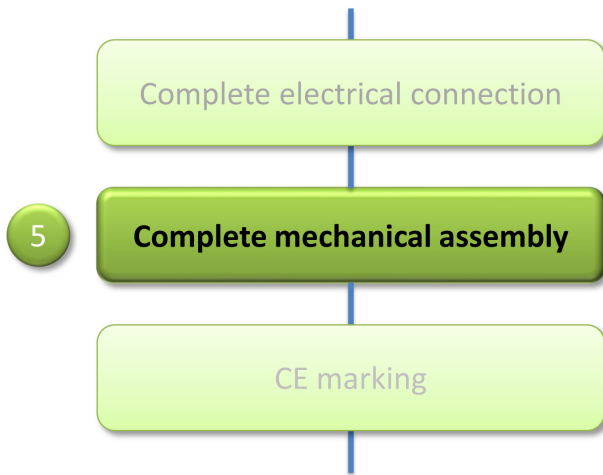


### 5.2. Troubleshooting

Malfunction	Possible causes	Fault correction
The red LED of the alarm triggering device lights up and the textile is in the unrolled state.	Missing mains voltage on the power supply	Check the fuse and the mains connection, then press the reset button
	Short-term mains failure	Check the mains connection
	Fuse defective	Check the fuses of the control unit
	Alarm operation	Check the monitoring line
Mains voltage present, no LED lights up on the alarm triggering device.	Mains fuse defective	Check fuses and replace if necessary
	Incorrect connection of the line	Check wiring of the line
The textile does not move to the lower end position or folds up	No parameterisation run / end position setting made	Carry out parameterisation run / end position setting according to section 4
	Parameterisation run / end position setting not accepted	Carry out parameterisation run / end position setting again
The motor has the wrong direction of rotation.	Connection terminals interchanged	Wiring according to connection plan
The control panel is in alarm mode after a short mains failure and the textile is closed.	Emergency power supply defective or not connected	Check emergency power supply and if necessary connect
	Control unit without emergency power supply	Correct state of the control unit without emergency power supply, press reset button

# Complete electrical connection

## 6. Complete electrical connection



### INFORMATION

Complete the mechanical assembly according to the respective assembly instructions „Fire PROtec E120“; „Firescreen EW“; „Fire PROtec EI MARC“.

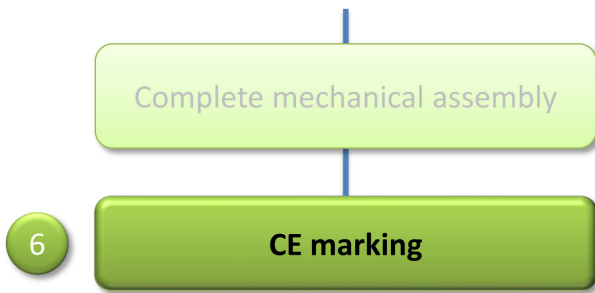


### ATTENTION

Complete the commissioning using the checklist supplied. All installation / operating documents must be kept by the operator! Observe the applying national regulations for marking the product.

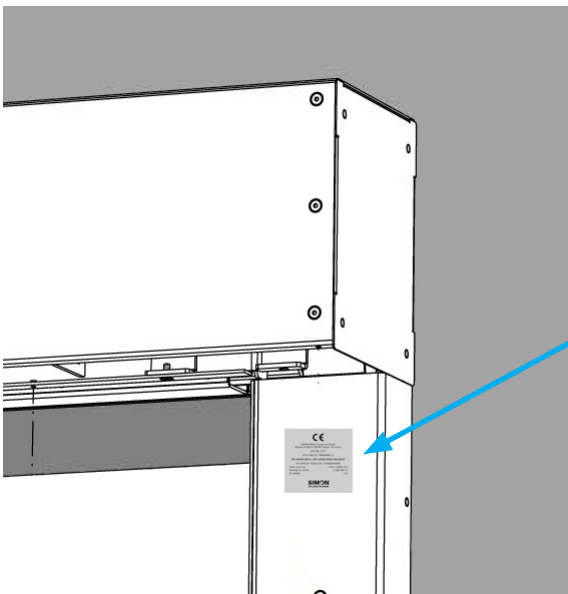
Also observe the specifications for acceptance, as well as the notes in the usability certificate.

## 7. Closure and marking



### INFORMATION

After successful commissioning and expert acceptance, the CE-marking must be visibly affixed at the end of the manufacturing process. The product-specific Declaration of Performance according to EN 16034 is enclosed.



**CE**

SIMON PROtec Systems GmbH  
Medienstraße 8, 94036 Passau, Germany  
20 | NB: 0757  
0757-CPR-277-6404498-2-1  
**EN 16034:2014 | EN 13241:2003+A2:2016**  
Fire PROtec<sup>2</sup> E120 | SN: 720020500002  
Clear opening 3700 x 2660 mm  
Resistance to fire E 120 EW 15  
Durability C 2

**SIMON**  
we create fire safety



# Closure and marking

## 7.1. Draft Declaration of Performance



### Declaration of Performance

Document No.: DoP\_FSV2-E120#123456789

1. **Unique Product Identification Code:** Fire PROtec<sup>2</sup> E - SN: 123456789
2. **Intended Use:** Self-closing, space enclosure textile fire curtain for reveal and wall-mounting
3. **Manufacturer:** SIMON PROtec Systems GmbH  
Manufacturer address: Medienstraße 8  
D-94036 Passau  
Germany
4. **System assessment:** System 1
5. **Notified body:** ift Rosenheim GmbH  
**Notified Body Number:** 0757  
**EC Certificate Number:** 0757-CPR-277-6404498-2-1  
**Harmonized Standard:** EN 16034:2014

6. **Declaration of Performance:**

Essential Characters:	Declared Performance:
Clear opening	5792 x 4917 mm
Resistance to fire	E 120 EW 15
Ability to release	released
Self-Closing	C
Durability of ability to release	Release maintained
Durability of self-closing - against degradation (cycles) - against ageing (corrosion)	2 (achieved)

The performance of the product identified in point 1 is in conformity with the declared performances in point 6. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 3.

# Technical data

## 8. Technical data

Table 1: Protronic RZ-24

Input voltage	85 VAC – 253 VAC 50/60 Hz 120 VDC – 360 VDC
Power input	ca. 30 W
Output voltage	24 V ±5%
Output current	max. 0.9 A total
Alarm at or Interruption	I > 12 mA I < 3.0 mA
Short circuit current	max. 50 mA
Closed current	ca. I = 4.5 mA

Table 2: PROtec RZ-24 + AM 836

Input voltage	85 VAC – 253 VAC 50/60 Hz 120 VDC – 360 VDC
Output voltage	24 V ±5%
Output current	max. 0.9 A total
Rated voltage	24 VDC
Rated current Motor <sup>1</sup>	max. 3.0 A
Rated current break <sup>2</sup>	max. 0.9 A
Total power input	102 W
Ripple of the output voltage	120 mVpp
Electrical roll limit	no / Fail Safe
Programming running speed	yes (Soft-Close)
Permissible ambient temperature range	5°C – 40°C
Housing	Sheet steel AP / white
Dimensions	301 x 323 x 89 mm 400 x 400 x 200 mm (-SB / -NA)
Protection class	IP20 / IP54

- (1) Input „power input SHEV / SNT“  
(2) Input „power input Protronic“

Table 3: PROtec RZ-24-230

Input voltage	230 VAC 50/60 Hz
Power input	ca. 30 W
Output voltage	230 V ±5%
Output current	max. 0.9 A total
Permissible ambient tem- perature range	-5°C...40°C
Housing	Sheet steel AP / white
Dimensions	301 x 323 x 85 mm 400 x 400 x 200 mm (-SB)
Protection class	IP20 / IP54

Table 4: PROtec RZ-24-400

Input voltage	400 VAC 50/60Hz
Power input	ca. 30 W
Output voltage	400 V ±5%
Output current	max. 0.9 A total
Permissible ambient temperature range	-5°C – 40°C
Housing	Sheet steel AP / white
Dimensions	400 x 400 x 200 mm (-SB)
Protection class	IP20 / IP54
U <sub>in</sub>	24 VDC
I <sub>in</sub>	0.1 A
P <sub>max</sub> switching power	1.5 kW



### INFORMATION

Further technical data for the PROtec RZ-24-400 are enclosed separately!

Table 5: Lead battery

Dimensions	178 x 34 x 64 mm
Weight	2 x 0.95 kg
Output voltage per battery	10.5 VDC – 14.1 VDC
Output voltage total (by series connection)	21.0 VDC – 28.2 VDC
Nominal capacity	2.3 Ah
VdS - approval	G101139

Table 6: Alarm triggering device HE-088

Supply rated voltage range	17,5 – 29 VDC
Voltage range at inputs OK / Alarm	15 – 28 VDC
max. current consumption (alarm + buzzer)	38 mA
Current consumption idle mode (OK)	8 mA
Volume buzzer	65 – 70 dB
Housing / Weight	Aluminum / 0.45 kg
Dimensions	125 x 125 x 34 mm
Protection class	IP40
Permissible ambient tem- perature range	-5°C – 75°C



### INFORMATION

For control systems with a UPS, please refer to the additional information provided!



### ATTENTION

Please observe the approved release devices of the building authority.