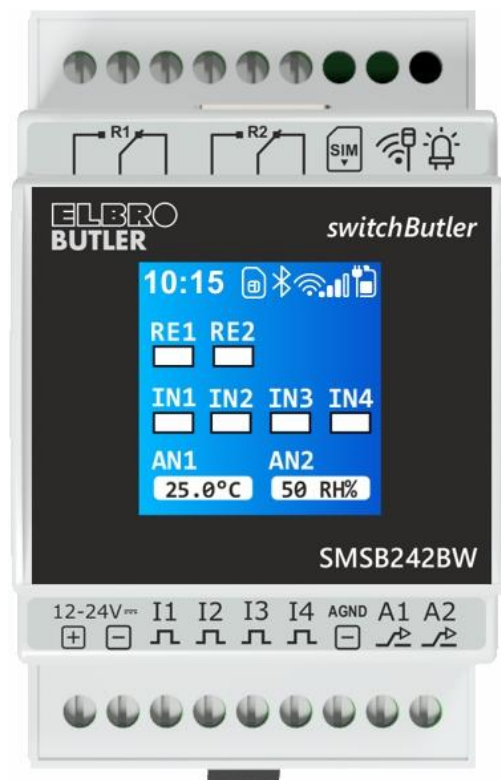


# switchButler

# SMSB242BW

*Instruction manual English V1.0*



**ELBRO BUTLER - full control from everywhere and at all times!**

- Remote switching: Switching devices on or off throughout the world
- Remote control: Monitoring of devices and systems
- Alerting: Alerting different persons simultaneously via SMS or email
- Remote access: 24/7 access to the switching state, temperature and air humidity via SMS
- Activation: Very easy, thanks to the intuitive app for Android and iOS

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## 2 Warning notice concept

This manual contains instructions which you must observe for the purpose of your personal safety as well as for the prevention of material damage. Instructions with regard to your personal safety are indicated by a hazard triangle, instructions exclusively concerning material damage are shown without a hazard triangle. Depending on the hazard level, the warning information is represented in descending order as follows.



### DANGER

Means that non-compliance with the corresponding precautionary measures may result in death or severe physical injury.



### WARNING

Means that non-compliance with the corresponding precautionary measures may result in death or severe physical injury.

If several hazard levels apply, the warning notice for the highest level is always used. If the information in a warning notice with the hazard triangle warns against personal injuries, the same warning notice may include an additional warning against material damage.

## 3 Qualified personnel

The product/system which this documentation applies to must only be handled by personnel qualified for the respective task who take the corresponding documentation for the task in question into account, in particular the safety and warning instructions included. On the basis of their professional training and experience, qualified personnel must be capable of detecting risks when handling these products/systems and of avoiding potential hazards.

## 4 Disclaimer

ELBRO AG reserves the right to alter the technical data of the products and/or discontinue their production and provide or remove new functions or new instructions for products already sold without the need for any prior notification and without any obligation. ELBRO AG can neither be held responsible for losses nor for direct or indirect damage resulting from the use of the products. The product is not suitable for the use of or in applications related to parts of life support devices/systems or in applications which, if the product is not working properly, may cause material damage and/or physical injuries or may pose a danger to life or impair the physical integrity of persons, animals and living beings. Furthermore, the product must not be used in military applications or for applications in which incorrect functioning or malfunction may cause flooding and/or fires. The device may only be operated under the climatic conditions specified in the instruction manual and maintenance book.

It is the responsibility of the customer to ensure that the product is compatible with the guidelines for its final installation. The user is aware of the fact that they shall bear the full and sole responsibility for the optional remote control operation. The product is not suitable for use for other purposes such as the activation of external devices and/or devices with fraudulent functions or that are used for unlawful purposes.

ELBRO AG assumes no liability for the incorrect functioning of the device due to potential faults, missing signals, interruption of the LTE/UMTS/GSM/GPRS network or external reasons such as improper installation or maintenance. ELBRO AG shall on no account be liable for the costs additionally charged by the mobile network operator for the repeated transmission of SMS or repeated GPRS data connection by the device. Despite diligent preparation of this manual by ELBRO AG, errors or omissions cannot be entirely ruled out. ELBRO AG reserves the right to alter sections of this manual in the event of errors or changes to the product characteristics without giving any further notice.

## 5 Email service (COMING SOON)

ELBRO AG neither guarantees the successful dispatch of emails nor interruption-free operation of the email service. ELBRO AG reserves the right to discontinue the service without prior notification. The use of LTE/GPRS/UMTS data can result in high connection costs. We therefore recommend contacting your telephone provider to find the best subscription option. ELBRO AG and its suppliers will in no event assume liability for lost sales or lost profits, or for indirect consequential or incidental damage, whether for reasons (including negligence) arising from or in connection with the use of the impossibility of use of the product, even if the possibility of such damage has been pointed out to ELBRO AG. ELBRO AG, its subsidiaries, affiliated companies or group companies, and the distributors and resellers of ELBRO AG do not guarantee that the device will reliably function in accordance with your expectations and that the corresponding firmware and software are free from defects and will work continuously.

## 6 Notes

All information included in this document can be changed without prior notification.. Users may duplicate this manual for personal purposes only, irrespective of the technique used in each case and the means employed for this purpose both electronically and materially, including photocopies or storage; duplication is prohibited in all other cases without express written approval. The utilisation, copying, modification, disassembly or transmission of the software are only permitted for the purposes expressly approved by this license and are otherwise prohibited. All other brands or products cited are the property of the owner in question.

## 7 Warranty

All ELBRO products are subject to a strict quality control. If an ELBRO Butler should nevertheless not work perfectly, we can only apologise and kindly ask you to contact your dealer.

- The warranty is two years starting from the purchase date. During this period, the warranty will be limited to defects that can be verifiably traced back to material, execution or design flaws on the part of ELBRO AG.
- The warranty will be exclusively limited to the products delivered by ELBRO. There is no further warranty or entitlement to payment of compensation.. In particular, costs relating to transport, disassembly, assembly and costs due to consequential losses shall not be borne.
- In the case of non-authorized changes or repairs, or if the assembly or operating instructions have not been complied with, the warranty claim shall be void.
- A warranty service requires that the defective product is delivered in packaged condition, with carriage paid to ELBRO AG.

---

## 8 Returns

---

For commercial returns, the requirements defined in our terms of business (AGB) shall apply. Please consult our website to view our detailed return policy. Repairs to the device must only be performed by ELBRO. Return defective devices to your dealer. Returns for repair by ELBRO will only be taken into consideration if a comprehensive report on the fault and a receipt proving the purchase of the device within the warranty period are provided to us. We reserve the right to return devices without a comprehensive report and proof of purchase without comment and to invoice the cost of the return consignment. Package the device for a return shipment, if possible using the original packaging, so that it can be transported safely.

---

## 9 Installation

---

For reasons of safety for the user and to ensure flawless operation of the SMSB242BW, the device must only be installed by qualified personnel. Furthermore, the provisions listed in the following must be complied with.

---

### 9.1 Safety instructions

---

- The SMSB242BW is provided with a low-power radio transceiver. During operation, it transmits and receives high-frequency energy. Operation near radios, TVs, telephones or electronic devices in general can cause faults. The SMSB242BW can also be exposed interference factors that impair its performance.
- Do not install the SMSB242BW near cardiac pacemakers, hearing aids or medical devices in general, since this may affect the proper operation of these devices.
- The SMSB242BW must not be installed on board of aeroplanes.
- Do not install the SMSB242BW in places where flammable gases or vapours may occur.
- The SMSB242BW works with a radio signal; no mobile operator can guarantee 100% availability of a connection. Therefore, the SMSB131BW must not be used in life support systems.

---

### 9.2 Ambient conditions

---

The SMSB242BW (the device and all cables connected to it) is to be installed in sites that meet the following conditions:

- No dust, no humidity, no high temperatures
- No direct sunlight
- No devices emitting heat
- No objects that generate a strong electromagnetic field
- No corrosive liquids or chemical substances
- The SMSB242BW has been designed for operation at an ambient temperature between of - 10C and + 70C (operating temperature without load).
- Sudden temperature and/or humidity changes are to be avoided.

### 9.3 Supply

The following provisions must be complied with:

- Do not use any cables with a length of more than 2.9 m
- The external power supply unit must be a switching power supply certified in compliance with class 2 (LPS).
- Observe the correct polarity of the power supply cables

### 9.4 Digital and analog inputs

The following provisions must be complied with:

- Only potential-free contacts may be used. If analog sensors are connected, they have to be suitable and certified for this purpose.
- Do not use any cables with a length of more than 2.9 m
- Do not connect analog inputs to voltage sources
- Do not install cables near electromagnetic fields, otherwise use shielded cables
- Observe the correct polarity for analog inputs

### 9.5 Relay output



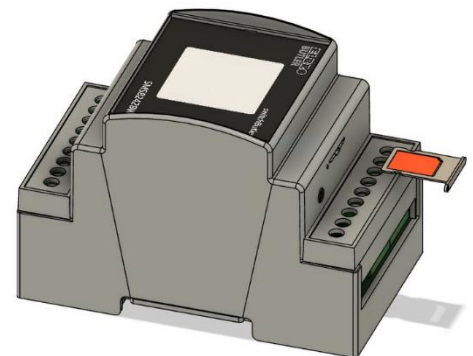
- Comply with the technical data in the corresponding chapter
- Do not use any cables with a length of more than 2.9 m
- Use the same voltage level for all relays: In the case of high voltage switching circuits, only the phase conductor may be switched via the relay contact.

## 10 SIM card

### 10.1 Activation

First obtain a Nano SIM card (4FF) from any network provider. The user must activate the caller ID of the SIM card. It is absolutely essential that you **deactivate the PIN code of the SIM card in advance**. If necessary, please contact your network provider for assistance. Keep the SIM card number and the password secret. Only share this information with the authorised users, in order to ensure security. We also recommend deactivating the answering machine and all additional features such as advertising SMS by the telephone operator. Furthermore, make sure that your SIM card is always provided with sufficient credit and check the correct activation by sending SMS test messages.

The SMSB242BW works with commercially available SIM cards allowing for the transmission and reception of SMS. If data only SIM cards are used, the Butler cannot be utilised to its full extent. In case of doubt, please contact your network provider. If you decide on using a prepaid SIM card, the SMSB242BW is provided with a credit query. We recommend activating this features, so as to ensure that you are always in control of your remaining credit.



Does not work with the following SIM cards:



- Data SIM
- Multi SIM

#### 10.1.1 Inserting the SIM card

Please use the ejector pin to remove the tray holder from the SIM slot. The tray holder is essential for inserting the SIM card. Place the SIM card in the tray holder and re-insert it into the slot. Please note that the SIM card can only be inserted in one direction as shown in the illustration.

Video tutorial:



## 11 Scope of supply

ELBRO No.	SMSB242BW
E-No.	539 110 260
EAN No.	7611664192753
Description	switchButler Wi-Fi & Bluetooth 2/4/2 channels, GSM/UMTS/LTE.
Scope of supply	<ul style="list-style-type: none"> <li>• SMSB242BW remote control unit</li> <li>• Ejector pin</li> <li>• Tray holder for nano SIM card (4FF)</li> <li>• Quick guide</li> <li>• Antenna (integrated)</li> </ul>

## 12 Product images



## 13 Application examples



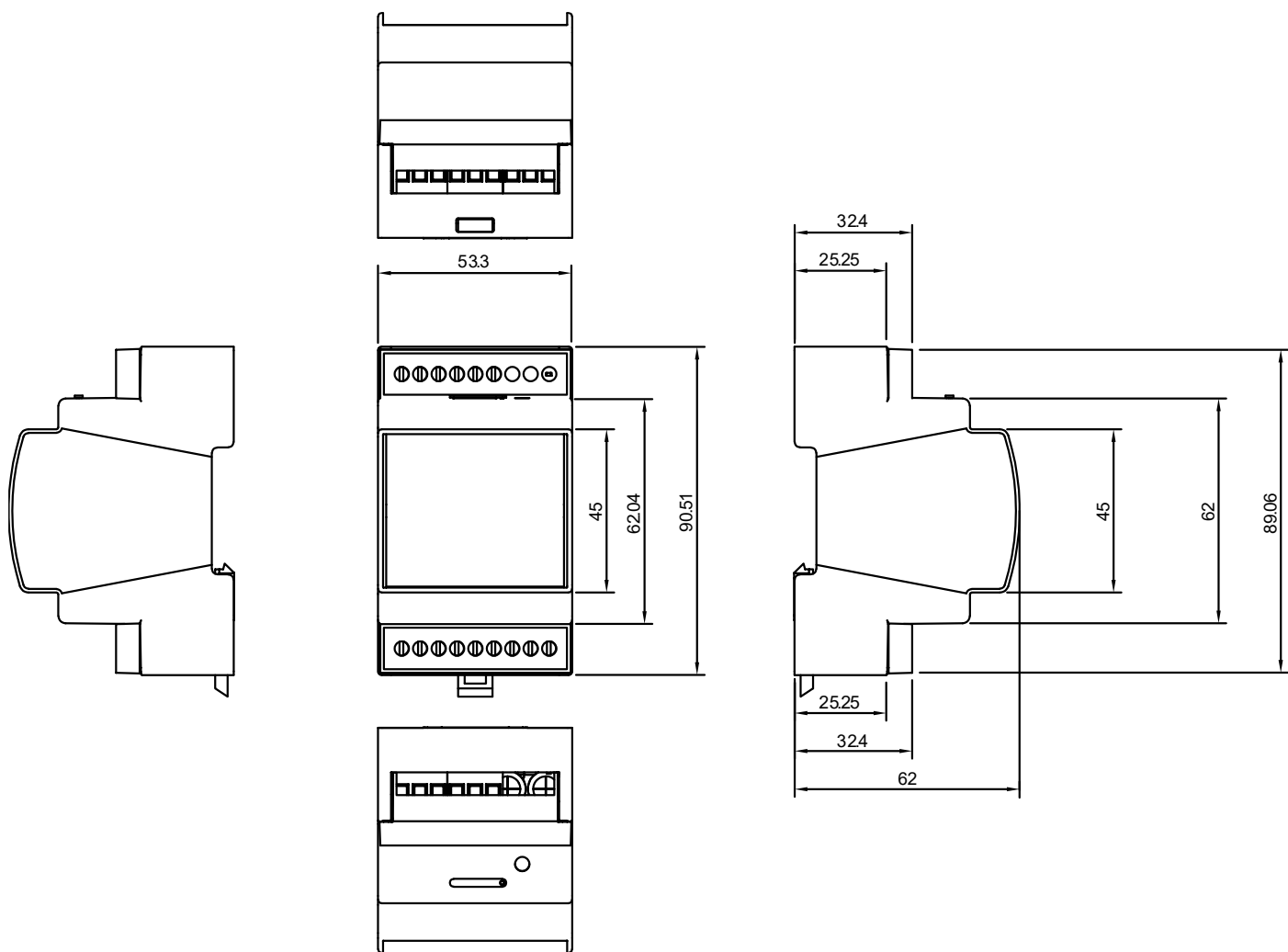
**14 Accessories**

	BTH1 E-No. 536 100 500		SMSB-PT100 E-No. 539 199 010
	SMSBV5-01 E-No. 539 190 050		SMSB-PT1000 E-No. 539 199 020
	SMSBV10-01 E-No. 539 190 100		SMSBAI-3MLTE E-No. 539 191 040
	SMSBNE12-01 E-No. 960 900 339		SMSBNL121 E-No. 960 900 139
	SMSBA1,3E E-No. 954 876 156		SMSBAI-020M E-No. 539 191 060

ELBRO No.	E-No.	Description
<b>Power supply units &amp; batteries</b>		
SMSBNE12-01	960 900 339	Power supply unit DIN rail mounting 230 VAC /12 VDC / 1 A
SMSBNL121	960 900 139	Power supply unit DIN rail mounting 230 VAC /12 VDC / 1 A connection for battery charging
SMSBA1,3E	954 876 156	Maintenance-free lead-acid battery 1.3 Ah for use with SMSBNL121
<b>Sensors</b>		
BTH1	536 100 500	Bluetooth temperature and humidity sensor
SMSB-PT100	539 199 010	Temperature sensor PT100, PVC cable, 1.5 m, grey
SMSB-PT1000	539 199 020	Temperature sensor PT1000, PVC cable, 1.5 m, grey
<b>Extensions</b>		
SMSBV5-01	539 190 050	SMA antenna extension with 5 m cable M/F
SMSBV10-01	539 190 100	SMA antenna extension with 10 m cable M/F
<b>Antennas</b>		
SMSBAI-3M-LTE	539 191 040	Multiband antenna with wall mounting bracket, 3 m cable SMA-M plug LTE, GSM, UMTS
SMSBAI-020M	539 191 060	Cable adapter MMCX-SMA 0.2 m, black

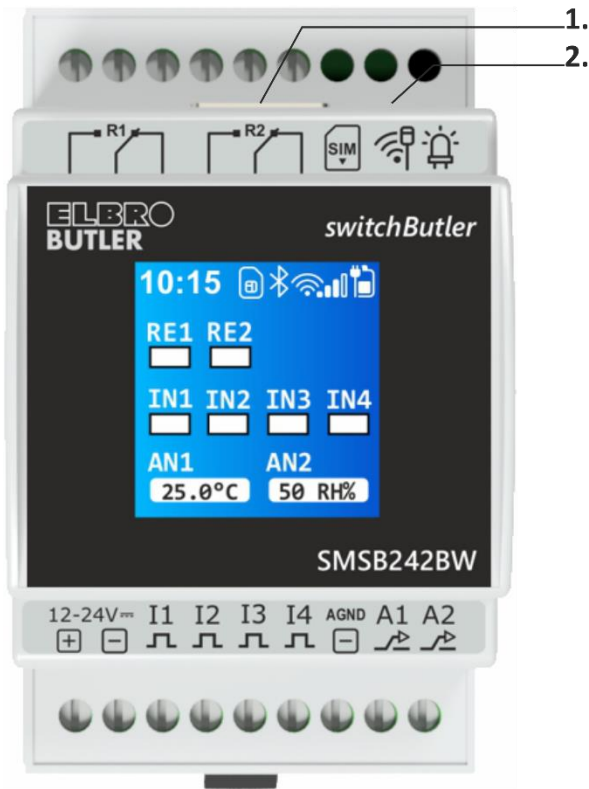


15 Dimensions





16 Interfaces



1. Screen

Symbols	Meaning
	Only appears when it is connected to another device. Disabled for other devices.
	SIM card status 1. Ok 2. SIM-card error 3. SIM-card missing 4. Enter SIM-PIN 5. Enter SIM-puck
	WLAN connection
	Outgoing messages
	Indicates the signal strength and technology.
	Indicates the battery charging level and whether or not the battery is connected to the voltage supply.
	LED green - voltage supply o.k.

2. Clamps

Symbol	Contact	LED	Status
	Relay 1		On (COM-NC)
			Off (COM-NO)
	Relay 2		On (COM-NC)
			Off (COM-NO)
	Voltage supply		
	Digital input 1		Alarm off
			Alarm on
	Digital input 2		Alarm off
			Alarm on
	Digital input 3		Alarm off
			Alarm on
	Digital input 4		Alarm off
			Alarm on
AN1	Analog input 1		Real value after application
AN2	Analog input 1		Real value after application

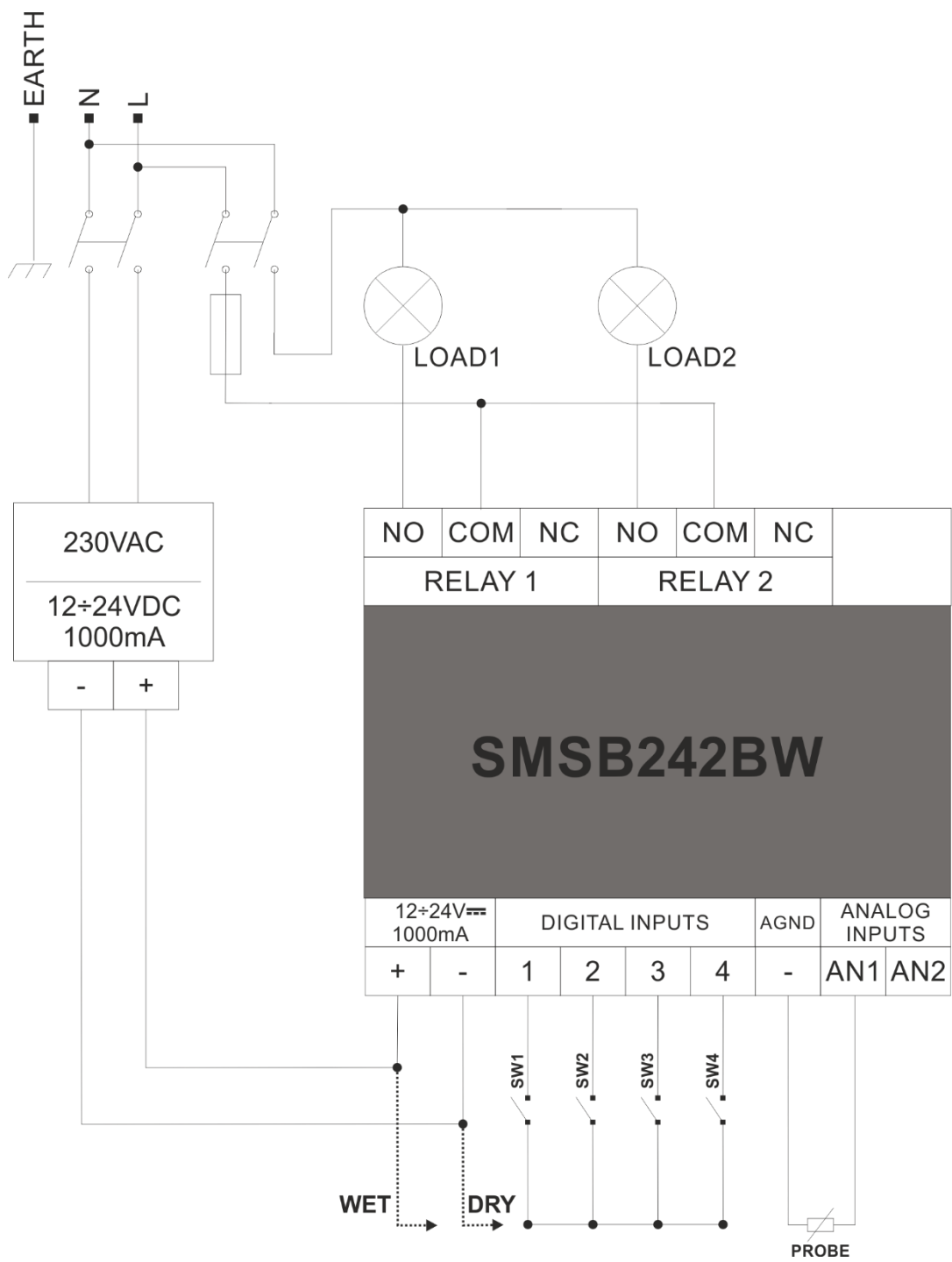
3. Interfaces

- SIM slot for nano SIM card (4FF) with tray holder, insertion as specified in chapter 10.1.2
- MMCX antenna connection for extending the antenna using an SMSBAI-020M adapter

4. Clamps

15 x 12 to 24 (AWG) 0.2 to 3.3 mm<sup>2</sup>

**17 Installation diagram**

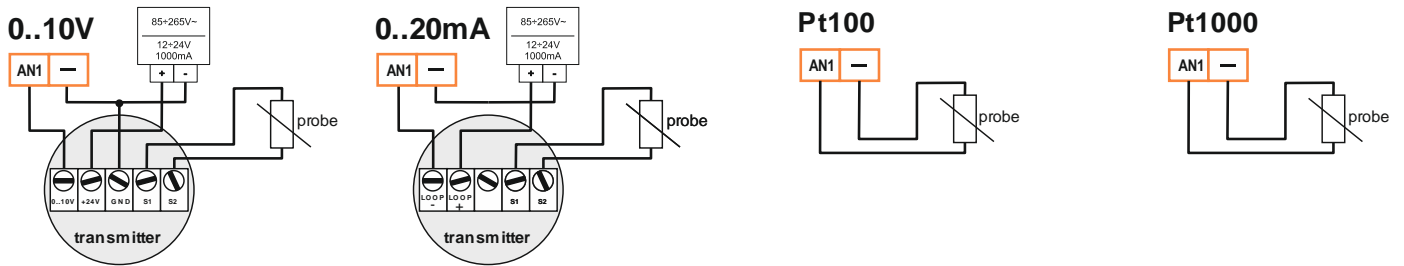


Zero-potential, mechanical contact, e.g. pressure switch, temperature switch, limit switch, push button, relay output

Voltage output contact, e.g. PLC.

### 17.1 Analog inputs

The SMSB242BW is provided with two analog inputs that can be adjusted to 0-10V, 0-20mA, PT100 and PT1000 and that allow for the transmission of text messages to several users if threshold values being exceeded or not reached. For each input, two different threshold values can be defined.



### 17.2 Digital inputs

The digital inputs serve to monitor systems and devices. Via a potential-free contact in the periphery, which can be programmed as NO contact, NC contact or as voltage dependent contact, the users stored can be alerted via SMS or email. Wire the inputs as shown in the installation diagram.

### 17.3 Relays



The relays can be switched manually, via call function, via automatic function and via SMS. If you send an SMS command for switching on or switching off, the SMSB242BW responds with a message which can be configured individually.

**i** The installation instructions must be strictly observed with regard to the nameplate data (see corresponding chapter).

## 18 Programming

### 18.1 Getting started

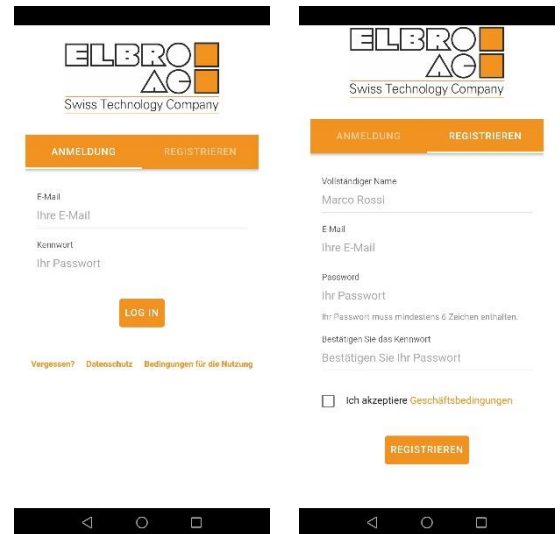
In general, the SMSB242BW is ready for operation without having to be programmed. Basic commands such as switching on and off can also be carried out without prior programming. However, if you wish to program these functions, please download the app for your Android or iOS smartphone. Please connect your SMSB242BW to the power supply unit/the power supply as specified in the instructions.

**i** iOS devices require at least an iPhone 7 for programming!

### switchButler APP

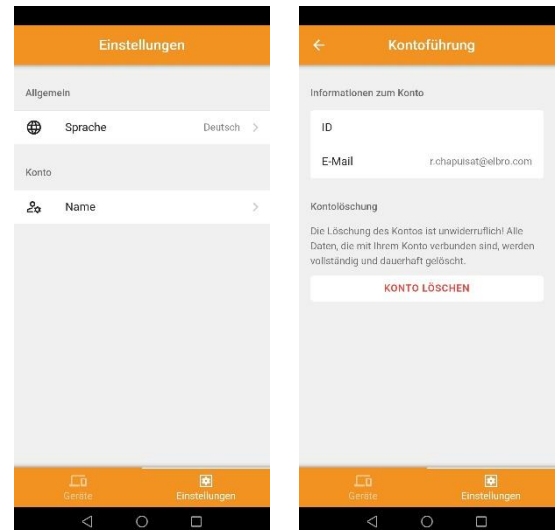
## 18.2 Registration

You need register once only using the app.




## 18.3 Settings

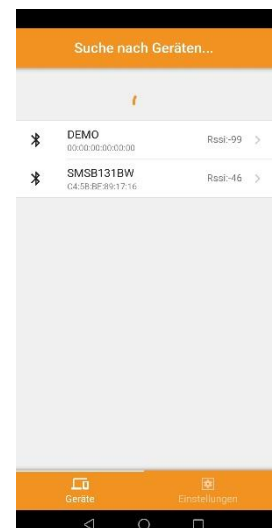
In the settings you can select the language for the app; you can also delete your account here.



## 18.4 Coupling the device via Bluetooth

After you have registered and logged in successfully, you can view the devices available via Bluetooth in your proximity. To make the SMSB242BW visible and allow for successful coupling, it has to be connected to the power supply as specified in the instructions. Please select the device to which you wish to couple. The RSSI value stands for "Received Signal Strength Indicator" (indicator for the received signal strength) - the lower the value, the better the connection.

 To view the demo version, click on the top orange bar 10x



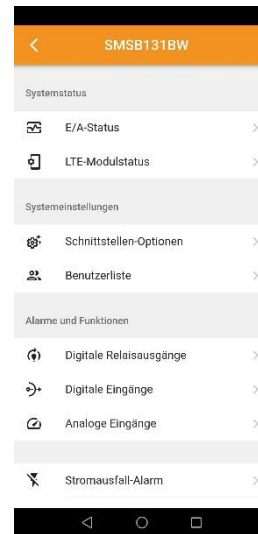
## 18.5 System status

### 18.5.1 I/O- status

Overall display of the status of the inputs and outputs of the SMSB242BW.

### 18.5.2 LTE module status

Details regarding the network of the mobile provider and the telephone status. Here, important information such as the signal strength, provider, remaining credit and the technology used is displayed.



## 18.6 System settings

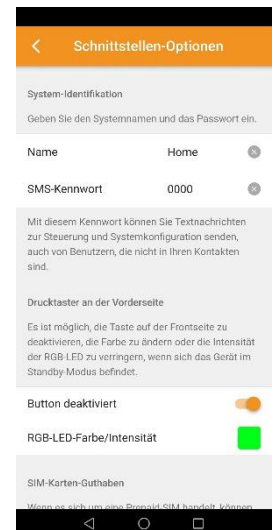
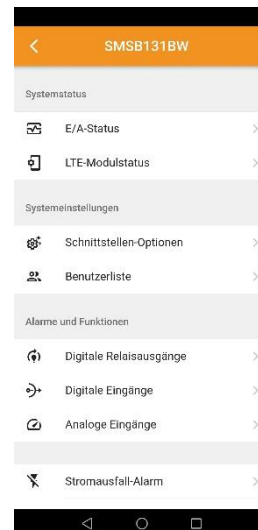
### 18.6.1 Interface options

Here you can select relevant safety and comfort settings. Name your device individually and define an alphanumerical password for incoming text messages.

If you use a prepaid SIM, you can activate the credit query function to continuously monitor your current costs.

#### Query code prepaid credit

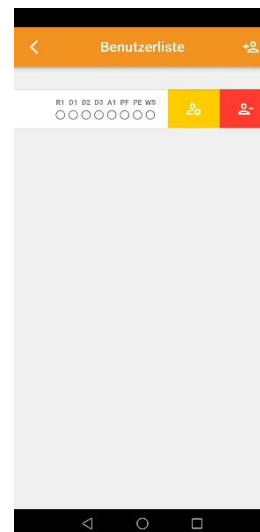
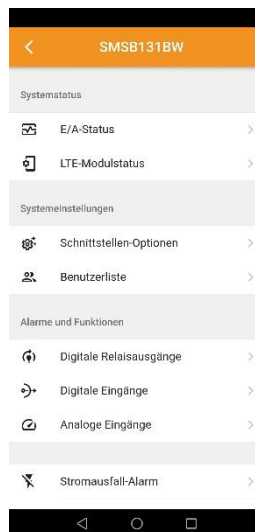
<i>Swisscom</i>	<i>*130#</i>
<i>Sunrise</i>	<i>*121#</i>
<i>Yallo</i>	<i>*123#</i>
<i>Salt</i>	<i>Service is not supported</i>



18.6.2 User list

This list contains the personal data of the users that are authorised to receive alarm messages. Every user's profile can be created individually and changed or deleted at any time. Registered users are enabled to send SMS commands without a password. In order to edit or delete an existing profile, just swipe to the right.

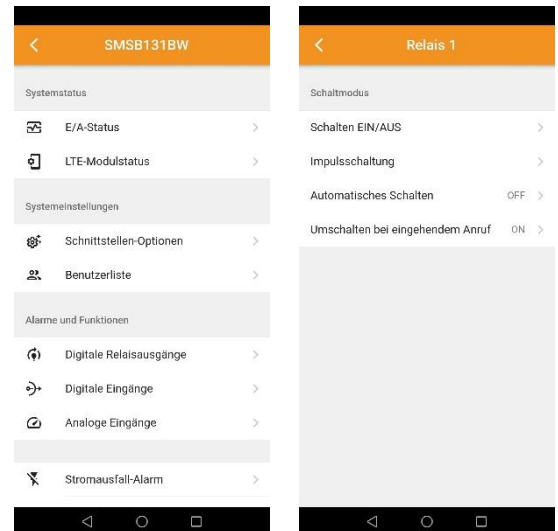
Functions	Notification/connection
Relay 1	<ul style="list-style-type: none"> <li>In/off</li> <li>Pulse switching</li> <li>Automatic function (logic)</li> <li>On an incoming call</li> </ul>
Relay 2	<ul style="list-style-type: none"> <li>In/off</li> <li>Pulse switching</li> <li>Automatic function (logic)</li> <li>On an incoming call</li> </ul>
Digital input 1	<ul style="list-style-type: none"> <li>Potential-free contact as NO or NC contact</li> <li>Voltage-dependent contact</li> </ul>
Digital input 2	<ul style="list-style-type: none"> <li>Potential-free contact as NO or NC contact</li> <li>Voltage-dependent contact</li> </ul>
Digital input 3	<ul style="list-style-type: none"> <li>Potential-free contact as NO or NC contact</li> <li>Voltage-dependent contact</li> </ul>
Digital input 4	<ul style="list-style-type: none"> <li>Potential-free contact as NO or NC contact</li> <li>Voltage-dependent contact</li> </ul>
Analog input 1	<ul style="list-style-type: none"> <li>0-10 V</li> <li>0-20 mA; 4-20 mA</li> <li>PT100</li> <li>PT1000</li> </ul>
Analog input 2	<ul style="list-style-type: none"> <li>0-10 V</li> <li>0-20 mA; 4-20 mA</li> <li>PT100</li> <li>PT1000</li> </ul>
Power failure message	<ul style="list-style-type: none"> <li>In the event of a power failure of the voltage supply</li> <li>In the case of voltage-related events</li> </ul>
Periodic status message	<ul style="list-style-type: none"> <li>Notification on the status at regular time intervals</li> </ul>
Wireless sensors	<ul style="list-style-type: none"> <li>In the case of a temperature or humidity alarm</li> </ul>



## 18.7 Alarms and functions

### 18.7.1 Relay

Configure your relays here. Here you can choose between on/off, pulse switching, automatic switching or switching on an incoming call. In order to be able to use these functions, please activate the relay permission for the desired user. The text for the reply messages to an authorised user can be adapted individually.



### 18.7.2 Digital and analog inputs

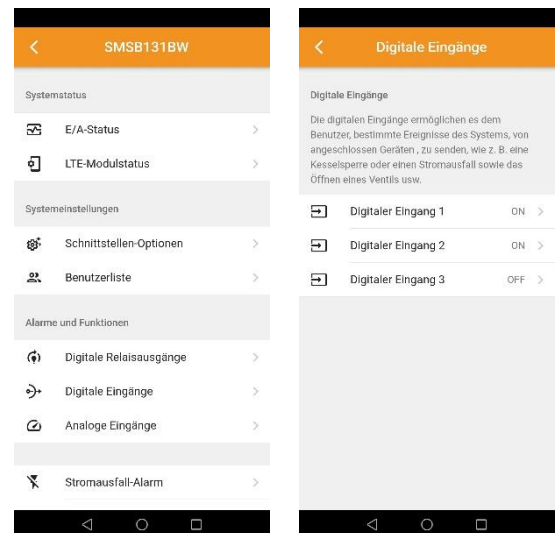
#### 18.7.2.1 Digital inputs

The digital inputs can be programmed individually and independently of each other. Select the type of contact and define the alarm text and any delay for an alarm event.

- Potential-free contact as NO or NC contact
- Voltage-dependent contact

#### 18.7.2.2 Analog inputs

The SMSB242BW is provided with two analog inputs that can be configured with probes 0-10 V, 0-20 mA, 4-20 mA, PT100 or PT1000.



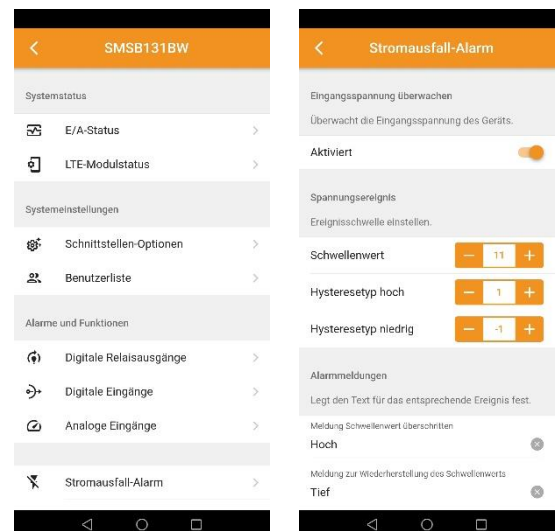
### 18.7.3 Power failure message

#### 18.7.3.1 Input voltage

This function makes it possible to send a notification to users defined in advance when a power failure occurs and/or ends. Any potential power failure is offset in the device by means of a capacitor.

#### 18.7.3.2 Voltage-related event

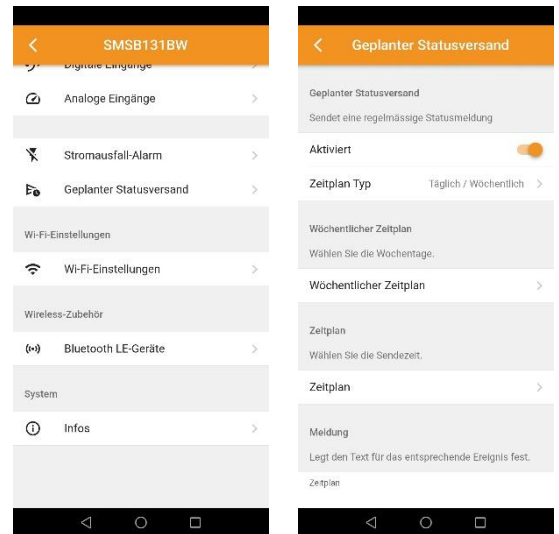
Additionally, the voltage supply can be monitored. This function is useful in particular for systems separated from the network such as self-sufficient traffic surveillance systems. In this way, for example, a 12 V battery supplied by a photovoltaic system can be monitored.





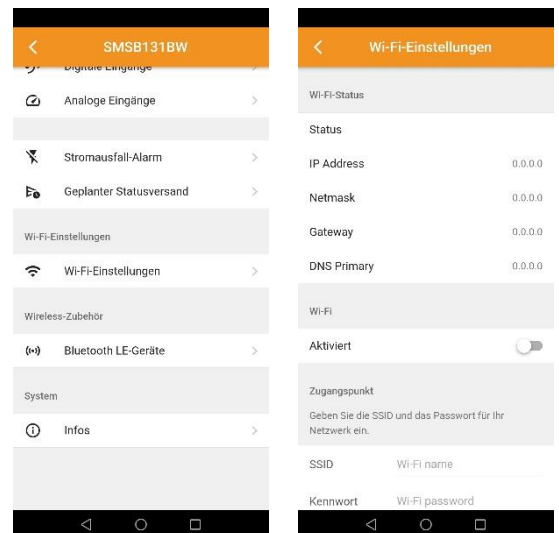
**18.8 Periodic status message**

You can use this function to have a message sent to activated users at regular intervals (daily, weekly or monthly). This mode is helpful to permanently monitor an installation or to avoid the expiry of SIM cards when they are not used for a longer time.



**18.9 Wi-Fi settings**

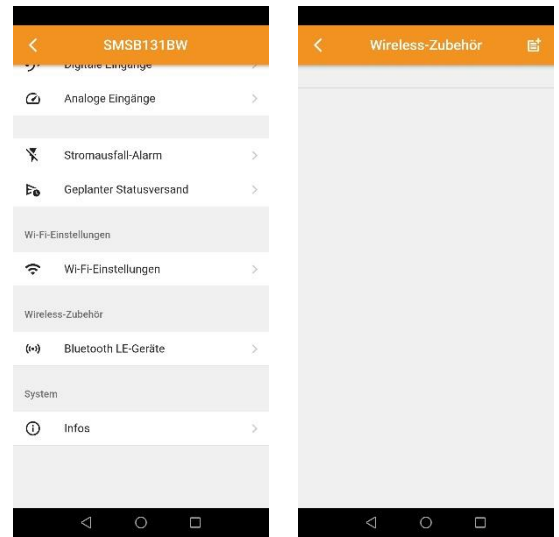
Activate Wi-Fi and enter the SSID and the password for the network. It is mandatory to fill in the password field. The Wi-Fi settings are only required for Internet services like for example a firmware update.



**18.10 Wireless accessories**

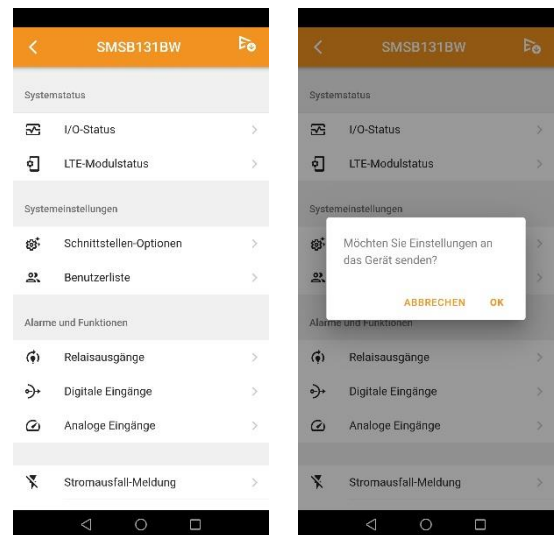
Connection of wireless sensors via Bluetooth. Take the device near the telephone (~5 cm) and press the "Add" button at the top right. After successful coupling, you can personalise the wireless sensors. Define your own temperature and humidity alarm.

**i** The sensor is mandatory for automatic functioning.



**18.11 Save**

At the end of each change, the changed parameters must be transferred to the device through the app. To do so, please click on the moving symbol at the top right of the screen. Confirm the message shown with OK. After the save process has been completed, the symbol disappears.



## 18.12 System

### 18.12.1 System information

Display of relevant system information.

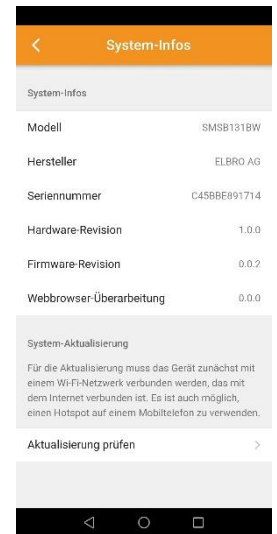
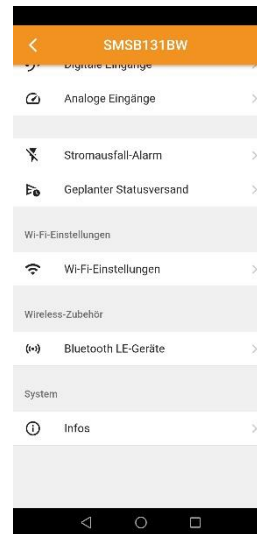
- Model
- Manufacturer
- Serial number
- Hardware revision
- Firmware revision
- Web browser revision

### 18.12.2 System update

If new firmware is available, this will be shown when the device is connected. To carry out the update, the device first must be logged in to a Wi-Fi network that is connected to the Internet. A mobile phone hotspot can also be used for this purpose. Then select "Check update" and your device will check automatically whether new firmware is available.



The system update is also possible manually via the input on the control panel





## 19 SMS commands

The SMSB242BW is provided with various configuration and control commands that can be sent via SMS. Command messages are protected by a password.

The format of the command message is as follows:

[PASSWORD]#[COMMAND] Example: 0000#1

-  The default password for a command message is → 0000
-  Registered users in the user list are enabled to send commands without a password

A password must always have a length of 4 characters plus # hash mark as an obligatory separator. You can replace it by the 'point' character. To learn how to change a password, please refer to chapter 16.6.1.

The following tables show a list of SMS commands with descriptions and examples:

### 19.1 Relay

Command	Description	Example	Notes
<b>Switch-on</b>			
[PASSWORD]#R1#1	Switch on relay 1 (COM-NO)	0000#R1#1	
[PASSWORD]#R1#ON		0000#R1#ON	
[PASSWORD]#R2#1	Switch on relay 2 (COM-NO)	0000#R2#1	
[PASSWORD]#R2#ON		0000#R2# ON	
[PASSWORD]#R3#1	Switch on relay 3 (COM-NO)	0000#R3#1	
[PASSWORD]#R3#ON		0000#R3# ON	
[PASSWORD]#R4#1	Switch on relay 4 (COM-NO)	0000#R4#1	
[PASSWORD]#R4#ON		0000#R4#ON	
<b>Switch-off</b>			
[PASSWORD]#R1#0	Switch off relay 1 (COM-NC)	0000#R1#0	
[PASSWORD]#R1#OFF		0000#R1#OFF	
[PASSWORD]#R2#0	Switch off relay 2 (COM-NC)	0000#R2#0	
[PASSWORD]#R2#OFF		0000#R2#OFF	
[PASSWORD]#R3#0	Switch off relay 3 (COM-NC)	0000#R3#0	
[PASSWORD]#R3#OFF		0000#R3#OFF	
[PASSWORD]#R4#0	Switch off relay 4 (COM-NC)	0000#R4#0	
[PASSWORD]#R4#OFF		0000#R4#OFF	
<b>Execute pulse function</b> Saves the pulse value between 1 and 300 seconds.			
[PASSWORD]#R1#P#[1-300]	Relay 1 pulse function 5s saved	0000#R1#P#5	
[PASSWORD]#R2#P#[1-300]	Relay 2 pulse function 5s saved	0000#R2#P#5	
[PASSWORD]#R3#P#[1-300]	Relay 3 pulse function 5s saved	0000#R3#P#5	
[PASSWORD]#R4#P#[1-300]	Relay 4 pulse function 5s saved	0000#R4#P#5	
<b>Execute pulse function</b> Switches the relay to pulse operation with the value saved.			
[PASSWORD]#R1#P	Pulse function relay 1 execute 5s	0000#R1#P	
[PASSWORD]#R2#P	Pulse function relay 2 execute 5s	0000#R2#P	
[PASSWORD]#R3#P	Pulse function relay 3 execute 5s	0000#R3#P	
[PASSWORD]#R4#P	Pulse function relay 4 execute 5s	0000#R4#P	

**19.2 Status query**

Command	Description	Example	Notes
<b>General</b>			
[PASSWORD]#?	Query status relay, credit, signal strength, sensors	0000#?	
[PASSWORD]#STATUS		0000#STATUS	
<b>Relay</b>			
[PASSWORD]#R1#?	Query status relay 1	0000#R1#?	
[PASSWORD]#R1#STATUS		0000#R1#STATUS	
[PASSWORD]#R2#?	Query status relay 2	0000#R2#?	
[PASSWORD]#R2#STATUS		0000#R2#STATUS	
[PASSWORD]#R3#?	Query status relay 3	0000#R3#?	
[PASSWORD]#R3#STATUS		0000#R3#STATUS	
[PASSWORD]#R4#?	Query status relay 4	0000#R4#?	
[PASSWORD]#R4#STATUS		0000#R4#STATUS	
<b>Firmware</b>			
[PASSWORD]#VER	Query firmware version	0000#VER	

**19.3 Digital inputs**

Command	Description	Example	Notes
<b>Activation</b>			
[PASSWORD]#D1#1	Activate digital input 1	0000#D1#1	
[PASSWORD]#D1#ON		0000#D1#ON	
[PASSWORD]#D2#1	Activate digital input 2	0000#D2#1	
[PASSWORD]#D2#ON		0000#D2#ON	
[PASSWORD]#D3#1	Activate digital input 3	0000#D3#1	
[PASSWORD]#D3#ON		0000#D3#ON	
[PASSWORD]#D4#1	Activate digital input 4	0000#D4#1	
[PASSWORD]#D4#ON		0000#D4#ON	
<b>Deactivation</b>			
[PASSWORD]#D1#0	Deactivate digital input 1	0000#D1#0	
[PASSWORD]#D1#OFF		0000#D1#OFF	
[PASSWORD]#D2#0	Deactivate digital input 2	0000#D2#0	
[PASSWORD]#D2#OFF		0000#D2#OFF	
[PASSWORD]#D3#0	Deactivate digital input 3	0000#D3#0	
[PASSWORD]#D3#OFF		0000#D3#OFF	
[PASSWORD]#D4#0	Deactivate digital input 4	0000#D4#0	
[PASSWORD]#D4#OFF		0000#D4#OFF	
<b>Status query</b>			
[PASSWORD]#D1#?	Query status digital input 1	0000#D1#?	
[PASSWORD]#D1#STATUS		0000#D1#STATUS	
[PASSWORD]#D2#?	Query status digital input 2	0000#D2#?	
[PASSWORD]#D2#STATUS		0000#D2#STATUS	
[PASSWORD]#D3#?	Query status digital input 3	0000#D3#?	
[PASSWORD]#D3#STATUS		0000#D3#STATUS	
[PASSWORD]#D4#?	Query status digital input 4	0000#D4#?	
[PASSWORD]#D4#STATUS		0000#D4#STATUS	

**19.4 Analog inputs**

Command	Description	Example	Notes
<b>Activation</b>			
[PASSWORD]#A1#1	Activate analog input 1	0000#A1#1	
[PASSWORD]#A1#ON		0000#A1#ON	
[PASSWORD]#A2#1	Activate analog input 2	0000#A2#1	
[PASSWORD]#A2#ON		0000#A2#ON	
<b>Deactivation</b>			
[PASSWORD]#A1#0	Deactivate analog input 1	0000#A1#0	
[PASSWORD]#A1#OFF		0000#A1#OFF	
[PASSWORD]#A2#0	Deactivate analog input 2	0000#A2#0	
[PASSWORD]#A2#OFF		0000#A2#OFF	
<b>Status query</b>			
[PASSWORD]#A1#?	Status query analog input 1	0000#A1#?	
[PASSWORD]#A1#STATUS		0000#A1#STATUS	
[PASSWORD]#A2#?	Status query analog input 2	0000#A2#?	
[PASSWORD]#A2#STATUS		0000#A2#STATUS	

**19.5 Voltage supply**

Command	Description	Example	Notes
<b>Status query</b>			
[PASSWORD]#V#?	Status query power supply	0000#V#?	
[PASSWORD]#V#STATUS		0000#V#STATUS	
<b>Activation</b>			
[PASSWORD]#V#ON	Voltage supply	0000#V#ON	
<b>Deactivation</b>			
[PASSWORD]#V#OFF	Voltage supply	0000#V#OFF	

## 19.6 User input (COMING SOON)

- [NUMBER] with international code maximum 20 characters
- [NAME] user name maximum 20 characters
- [PERMISSION] see table

Command	
<b>Add user</b>	
Command	[PASSWORD]#U#ADD#[NUMMER]#[NAME]#[EMAIL]
Example	0000#U#ADD#+41799112233#PAUL KELLER#paul@keller.ch
Response	
<b>Delete user</b>	
Command	[PASSWORD]#U#DEL#[NUMMER]
Example	0000#U#DEL#+41799112233
Response	
<b>Permissions</b>	
Command	[PASSWORD]#U#AUTH#[NUMMER]#[BERECHTIGUNG]:[ON/OFF]
Example	0000#U#AUTH#+41799112233#R1:ON#R2:ON
Response	
Command	[PASSWORD]#U#AUTH#[NUMMER]#[BERECHTIGUNG1]:[ON/OFF]#[BERECHTIGUNG2]:[ON/OFF]
Example	0000#U#AUTH#+41799112233#R1:ON#D1:OFF
Response	
<b>Status query</b>	
Command	[PASSWORD]#U#?#[NUMMER]
Example	0000#U#?#+41799112233
Response	
Command	[PASSWORD]#U#STATUS#[NUMMER]
Example	0000#U#STATUS#+41799112233
Response	

### 19.6.1 Authorisations

The following functions can be allocated to the individual users via SMS for any alert. It is possible to send several authorisations at the same time.

R1	R2	D1	D2	D3	D4
Relay 1	Relay 2	Digital input 1	Digital input 2	Digital input 3	Digital input 4
A1	A2	PF	PE	WS	
Analog input 1	Analog input 2	Power failure alert	Periodic status message	Wireless accessories	

## 19.7 Reset to factory settings

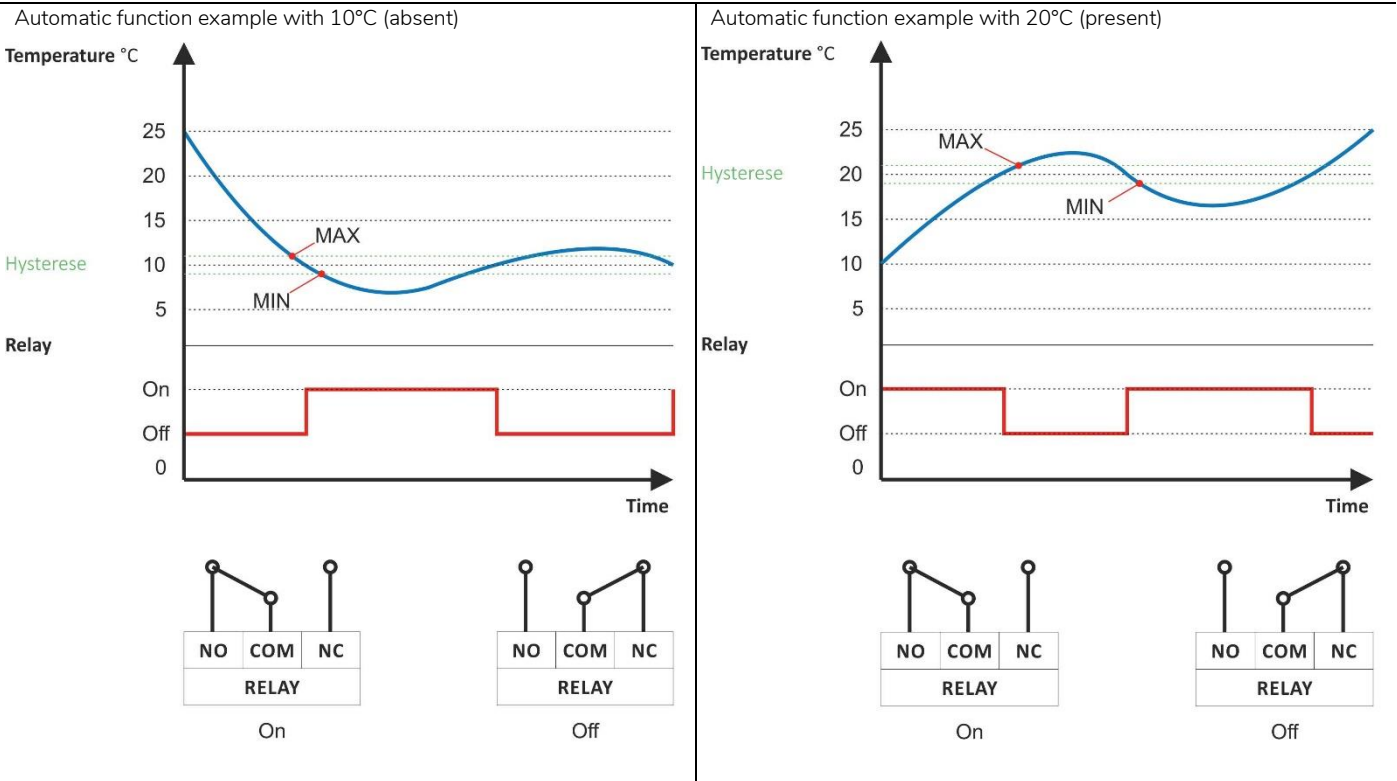
Command	Description	Example	Notes
[PASSWORD]#FACTORY	Reset to factory settings	0000#FACTORY	



**19.8 Automatic function**

The automatic function allows you to set the relays of the SMSB242BW to respond to temperature or humidity levels when the external sensor BTH1 is used. This function is especially suitable for controlling heating levels in secondary residences. Thanks to this function, the heating can be reduced to a defined temperature to avoid freezing when you are absent and increased to the desired comfort temperature before your arrival.

Command	Description	Example	Notes
<b>Activation</b>			
[PASSWORD]#R1#A#ON	Activates the automatic function of relay 1 with the last stored value	0000#R1#A#ON	
[PASSWORD]#R1#AUTO#ON		0000#R1#AUTO#ON	
[PASSWORD]#R2#A#ON	Activates the automatic function of relay 2 with the last stored value	0000#R2#A#ON	
[PASSWORD]#R2#AUTO#ON		0000#R2#AUTO#ON	
[PASSWORD]#R3#A#ON	Activates the automatic function of relay 3 with the last stored value	0000#R3#A#ON	
[PASSWORD]#R3#AUTO#ON		0000#R3#AUTO#ON	
[PASSWORD]#R4#A#ON	Activates the automatic function of relay 4 with the last stored value	0000#R4#A#ON	
[PASSWORD]#R4#AUTO#ON		0000#R4#AUTO#ON	
<b>Deactivation</b>			
[PASSWORD]#R1#A#OFF	Deactivates the automatic function of relay 1	0000#R1#A#OFF	
[PASSWORD]#R1#AUTO#OFF		0000#R1#AUTO#OFF	
[PASSWORD]#R2#A#OFF	Deactivates the automatic function of relay 2	0000#R2#A#OFF	
[PASSWORD]#R2#AUTO#OFF		0000#R2#AUTO#OFF	
[PASSWORD]#R3#A#OFF	Deactivates the automatic function of relay 3	0000#R3#A#OFF	
[PASSWORD]#R3#AUTO#OFF		0000#R3#AUTO#OFF	
[PASSWORD]#R4#A#OFF	Deactivates the automatic function of relay 4	0000#R4#A#OFF	
[PASSWORD]#R4#AUTO#OFF		0000#R4#AUTO#OFF	
<b>Automatic function in accordance value (present)</b>			
[PASSWORD]#R1#A#[ZAHL]	Activates the automatic function of relay 1 in accordance with the specified temperature value of 20°C	0000#R1#A#20	
[PASSWORD]#R2#A#[ZAHL]	Activates the automatic function of relay 2 in accordance with the specified temperature value of 20°C	0000#R2#A#20	
[PASSWORD]#R3#A#[ZAHL]	Activates the automatic function of relay 3 in accordance with the specified temperature value of 20°C	0000#R3#A#20	
[PASSWORD]#R4#A#[ZAHL]	Activates the automatic function of relay 4 in accordance with the specified temperature value of 20°C	0000#R4#A#20	
<b>Automatic function in accordance with the temperature value (absent/prevention of freezing)</b>			
[PASSWORD]#R1#A#[ZAHL]	Activates the automatic function of relay 1 in accordance with the specified temperature value of 10°C	0000#R1#A#10	
[PASSWORD]#R2#A#[ZAHL]	Activates the automatic function of relay 2 in accordance with the specified temperature value of 10°C	0000#R2#A#10	
[PASSWORD]#R3#A#[ZAHL]	Activates the automatic function of relay 3 in accordance with the specified value of 10°C	0000#R3#A#10	
[PASSWORD]#R4#A#[ZAHL]	Activates the automatic function of relay 4 in accordance with the specified value of 10°C	0000#R4#A#10	







**19.9 Call function**

Command	Description	Example	Notes
<b>Activation</b>			
[PASSWORD]#R1#C#ON	Call function relay 1	0000#R1#C#ON	
[PASSWORD]#R1#CALL#ON		0000#R1#CALL#ON	
[PASSWORD]#R2#C#ON	Call function relay 2	0000#R2#C#ON	
[PASSWORD]#R2#CALL#ON		0000#R2#CALL#ON	
[PASSWORD]#R3#C#ON	Call function relay 3	0000#R3#C#ON	
[PASSWORD]#R3#CALL#ON		0000#R3#CALL#ON	
[PASSWORD]#R4#C#ON	Call function relay 4	0000#R4#C#ON	
[PASSWORD]#R4#CALL#ON		0000#R4#CALL#ON	
<b>Deactivation</b>			
[PASSWORD]#R1#C#OFF	Call function relay 1	0000#R1#C#OFF	
[PASSWORD]#R1#CALL#OFF		0000#R1#CALL#OFF	
[PASSWORD]#R2#C#OFF	Call function relay 2	0000#R2#C#OFF	
[PASSWORD]#R2#CALL#OFF		0000#R2#CALL#OFF	
[PASSWORD]#R3#C#OFF	Call function relay 3	0000#R3#C#OFF	
[PASSWORD]#R3#CALL#OFF		0000#R3#CALL#OFF	
[PASSWORD]#R4#C#OFF	Call function relay 4	0000#R4#C#OFF	
[PASSWORD]#R4#CALL#OFF		0000#R4#CALL#OFF	

## 20 Manual operation

### Touchscreen

By swiping the screen from left to right, you can access the various adjustable menus.

Symboles	Signification
	Switch relay on and off
	Firmware update
	Settings <ol style="list-style-type: none"> <li>1. Change language</li> <li>2. Reset</li> <li>3. Reset to factory settings</li> <li>4. Information about the device</li> </ol>
	Overview of connected wireless sensors

## 21 Technical data

<b>Radio</b>	4G LTE Cat 1, GNSS receiver ready (on request) Frequencies: <ul style="list-style-type: none"> <li>• LTE-TDD B34/B38/B39/B40/B41</li> <li>• LTE-FDD</li> <li>• B1/B2/B3/B4/B5/B7/B8/B12/B13/</li> <li>• B18/B19/B20/B25/B26/ B28/B66</li> <li>• UMTS/HSPA+</li> <li>• B1/B2/B4/B5/B6/B8/B19</li> <li>• GSM/GPRS/EDGE</li> <li>• 850/900/1800/1900MHz</li> </ul>
<b>Wi-Fi range</b>	802.11 b/g/n (802.11n up to 150 Mbps) Frequencies: 2.4 GHz ~ 2.5 GHz
<b>Bluetooth</b>	Bluetooth v4.2 BR/EDR and BLE
<b>SIM card slot</b>	Nano SIM (4FF) pluggable SIM card connection with tray holder (SIM card not included in the scope of supply)
<b>LTE antenna</b>	Integrated; optionally an external antenna with MMCX connection can be installed.
<b>Clamps</b>	15 x 12 to 24 AWG (0.518 to 2.08 mm <sup>2</sup> ), stripping length 6-7 mm, 0.5 Nm
<b>Power supply</b>	Supply voltage: 12÷24V DC; extended 9÷30V DC Current: I <sub>max</sub> = 1000 mA Power supply with reverse polarity protection and short circuit protection

<b>Outputs</b>	2 relays form C (SPDT-NO, NC) ⚡ ⚠ Rated load: <ul style="list-style-type: none"> <li>• 10 A at 250 VAC, (NO) ohmic load</li> <li>• 8 A at 250 VAC, ohmic load</li> <li>• 5 A at 30 VDC, ohmic load</li> </ul>
<b>Inputs</b>	4 programmable digital inputs (potential-free / voltage-dependent) 2 analog inputs: 0-10 V; 0-20 mA; 4-20 mA; PT100; PT1000
<b>General characteristics</b>	Information on the housing colour <ul style="list-style-type: none"> <li>• Colour description light grey</li> <li>• RAL code 7035</li> </ul> Information on the material <ul style="list-style-type: none"> <li>• Material housing blend PC/ABS self-extinguishing</li> <li>• Halogen-free</li> </ul> Temperature resistance and areas of application <ul style="list-style-type: none"> <li>• Standardbetriebstemperatur: -5°C bis +45°C</li> </ul> Weight <ul style="list-style-type: none"> <li>• 0.160 kg</li> </ul> Dimensions <ul style="list-style-type: none"> <li>• WxHxD 53.3x90.51x62 mm</li> </ul> Customs tariff number <ul style="list-style-type: none"> <li>• 85437000</li> </ul> Country of origin <ul style="list-style-type: none"> <li>• CH</li> </ul> EAN <ul style="list-style-type: none"> <li>• 7611664192753</li> </ul> ETIM class <ul style="list-style-type: none"> <li>• EC000373</li> </ul> Technical characteristics of the housing <ul style="list-style-type: none"> <li>• Protection rating IP20</li> <li>• Standard of protection class DIN EN 60529</li> <li>• Flame retardancy V2 ?</li> <li>• UL approval UL 94</li> <li>• Protection class II</li> </ul>
<b>Declaration of conformity</b>	ELBRO AG hereby declares that the product SMSB242BW complies with the fundamental requirements and other relevant provisions of the RED Directive.

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**21.1** Revision history

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Revision	Description	Chapter	Date
1.0	Creation	All	30/01/2023