SA203 3 in/out bridge module

General Introduction

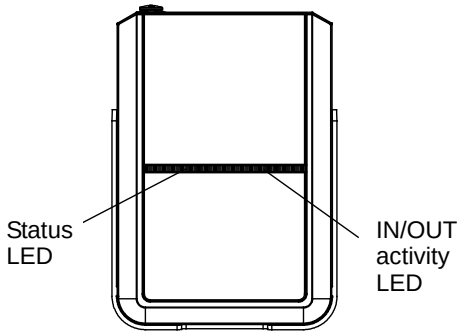
The SA203 3in/3out bridge module is equipped with three sets of signal input terminals and three sets of relay output terminals. Its primary function is to convert wired products into the wireless U-Net protocol through SA203. This allows for the integration of wired alarm systems into the U-Net environment, enabling the system (Gateway) to monitor input signals, control relay outputs, and establish trigger conditions for input signals to manage relay outputs.
This product utilizes the U-Net wireless two-way networking control method and can connect to the Gateway for smart home integration and functionality. It facilitates the creation of a smart home environment with additional U-Net features.

Main Feature:
- Wireless two-way communication.
- 3 sets of signal input terminals support NC/NO dry contacts connected to the alarm system.
- 3 sets of relay output terminals support SPDT type with their own NC-COM-NO terminals connected to the alarm system.
- Notifications will be sent when a signal input is triggered by the alarm system.
- Notifications will be sent when there is a main power loss or recovery.
- Tamper protection is included.
- Parameters can be configured through the gateway.
- Firmware updates are supported through the OTA function.

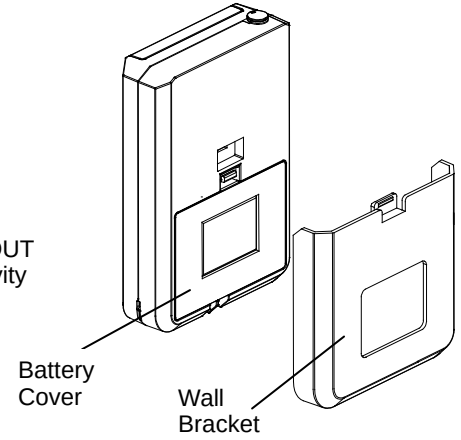
*Note: Do not connect the output to high voltage AC mains (100V AC/220V AC).

Product Overview

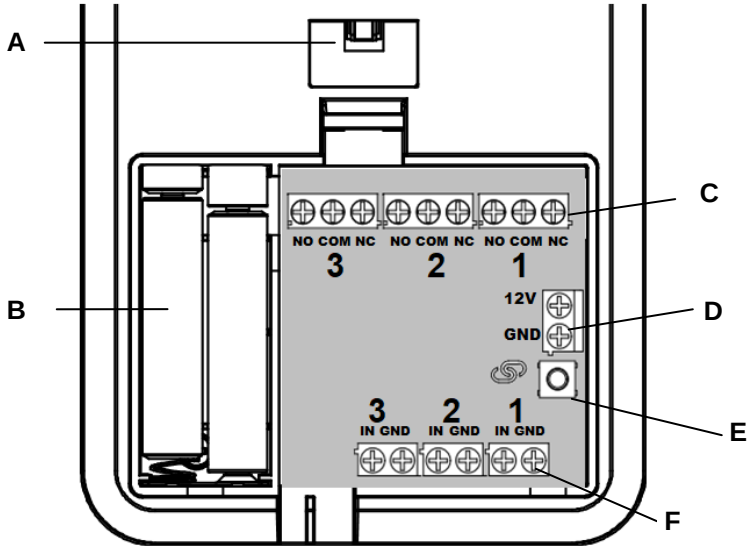
Front View



Rear View

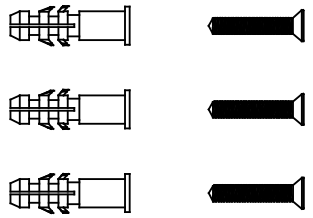


View with Battery Cover removed



A. Tamper Switch	D. DC Power input terminals
B. Backup battery	E. Learning Button
C. Output terminasl 1~3	F. Input terminals 1 ~3

Accessories

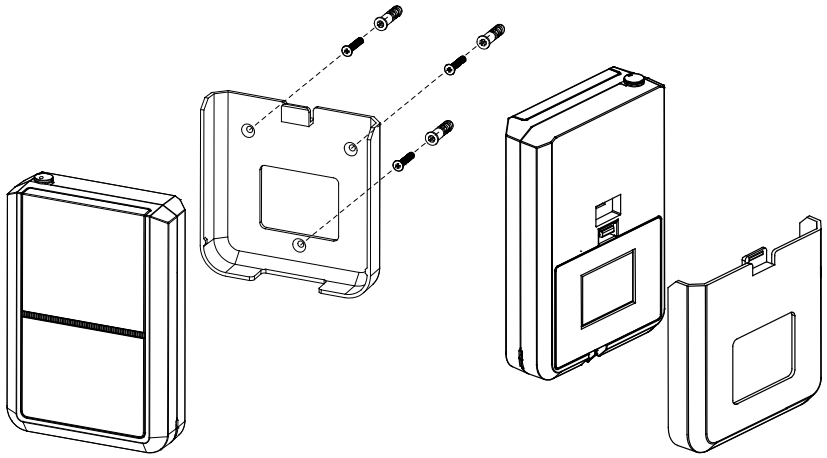


Screws

Mounting

The SA203 3 in/out module can be used only in an indoor environment

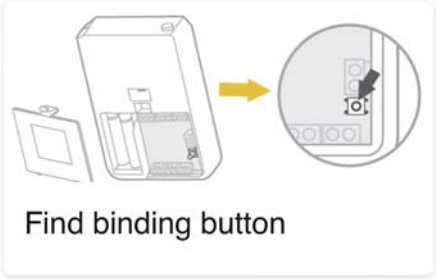
1. After connecting the terminal blocks, thread the wires neatly through the slot at the bottom of the unit.
2. If necessary, install four AAA size 1.5-volt alkaline batteries in the battery compartment.
3. Attach the rear cover to the battery compartment.
4. To mount the unit on the wall, first use the supplied wall bracket as a template to mark and drill the positions of two mounting holes on the wall.
5. Secure the bracket to the wall using the provided plastic wall plugs and fixing screws.
6. Slide the unit onto its bracket to secure it in place. This will also activate the tamper protection.

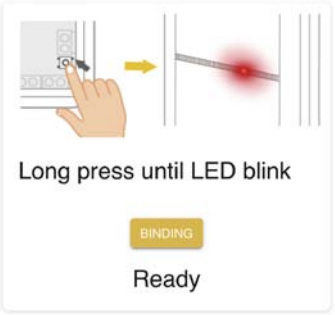


Operation

Learning procedures in the VIAS app

1. Press the binding button for 3 seconds, and the SA203 enters the learning mode, with the LED indicator flashing every half second for 30 seconds.





2. After naming the SA203 input and output terminals, configuring the settings, and saving them, the learning process will be successful.

LED display table:

LED display	Indicates
ON, Red	External DC power connected
Slow blink, Red, every 3 secs	External DC power disconnected, running on backup battery

3 IN/OUT Activity LED:

LED display	Indicates
Blink green, twice	Input signal detected
Blink red, twice	Relay output activated

Sensor information

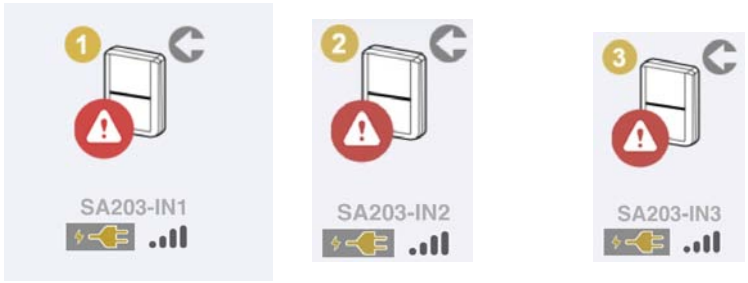
The sensor information page will display sensor's status as shown below.

3 input terminals:

- Input terminals are **not triggered,**



- Input terminals are **triggered**,



3 output terminals:

- Output terminals are **not triggered,**



- Output terminals are **triggered,**
- The number 1,2,3 indicate the number of the output terminal triggered.



- Output terminals 1,2,3 triggered,



Tamper switch:

- The SA203 3 in/out bridge module includes 3 input and 3 output terminals. When one of them is triggered by the tamper switch, all icons display that tampering has occurred.



DC adaptor as a power source:



Both DC adaptor and batteries(DC priority):

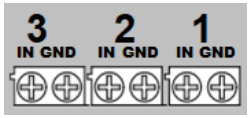


Device wiring:

1. Connect the terminals to external devices according to input or output channels

Input channels

Channels IN1, IN2, IN3, each with its GND terminals.



Input type specification :

- Analog : 0~12V
- Digital : 0~12V
- Dry contact output, NC (Normally Close) and NO (Normally Open) type

Features:

- Internal pull high voltage 3.3V enable/disable
- Input over voltage protection up to 12V (works even if input voltage is over supply voltage)
- periodic report of status to gateway

Output channels

Channel OUT1, OUT2, OUT3 each with NO-COM-NC terminals

Output specification:

- SPDT type relay
- Relay current limit as follows (at 24V DC)



Relay	NO terminal	NC terminal
OUT1	10A	5A
OUT2	3A	3A
OUT3	3A	3A

Note: not suitable for AC mains high voltage applications such as 100VAC/220VAC.

Features:

- Output can be set to activate automatically when input terminals trigger (VIAS automation)
- periodic report of status to gateway

2. Power : Connect an external DC power source, 9V~12V range. Typical 12V / 1A min.



Software reporting commands 3

Auto report	When battery is inserted, it will report to controller after 2 minutes. It will report the condition every hour.
Tamper switch	Tamper switch is release: It will report to controller.

Specifications

Power	9V-12V DC, 1A min.(Reverse polarity protection)
Battery	AAA battery x 4 (6V)
Range	Up to 800 meters (open space)
Frequency Range	EU: 868HMz, US: 923 MHz
Operating temperature	-10 ~ 40℃
Operating humidity	0 ~ 85%RH
Dimensions	143mm x 100mm x 32 mm

Specifications are subject to change without notice

Trouble Shooting

Symptoms	Possible Cause	Recommendation
Device does not work	No batteries attached or no power.	Check if batteries are attached or replace with new ones.
	Break down	Send it for repair.
Cannot carry out binding or out of control	Binding with controller did not complete successfully.	Bind again using manual binding
	Disturbed by other radio waves	Please operate later

Reset to factory default

1. Press and hold the device button for more than 3 seconds to enter learning mode.
2. After releasing the button, press and hold the device button again for more than 6 seconds.
3. Restore factory default settings.

WARNING:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal free of charge.

CAUTION:
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

Federal Communication Commission Interference Statement

FCC warning:
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Industry Canada statement:

This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RF radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.”

Ce matériel est conforme aux limites d'exposition aux rayonnements rf de ic énoncés dans un autre environnement.
Ce matériel doit être installé et exploité à une distance minimale de 20 cm entre le radiateur et votre corps.

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