GatewayNode 2

Manual

17.06.2021

Contents

1 General

2 General safety instructions

Signal word (ANSI Z535.6)	Possible immediate effects of non-compliance
DANGER	Death or serious injury (likely)
WARNING	Death or serious injury (possible, but unlikely)
CAUTION	Minor injury
IMPORTANT	Property damage or malfunction
NOTE	Low or none

WARNING

Blocked access

Access through a door may stay blocked due to incorrectly fitted and/or incorrectly programmed components. SimonsVoss Technologies GmbH is not liable for the consequences of blocked access such as access to injured or endangered persons, material damage or other damage!

Blocked access through manipulation of the product

If you change the product on your own, malfunctions can occur and access through a door can be blocked.

⠿ Modify the product only when needed and only in the manner described in the documentation.

IMPORTANT

Damage resulting from electrostatic discharge (ESD)

This product contains electronic components that may be damaged by electrostatic discharges.

1. Use ESD-compliant working materials (e.g. Grounding strap).
2. Ground yourself before carrying out any work that could bring you into contact with the electronics. For this purpose, touch earthed metallic surfaces (e.g. door frames, water pipes or heating valves).

Damage resulting from liquids

This product contains electronic components that may be damaged by liquids of any kind.

⠿ Keep liquids away from the electronics.

Damage resulting from aggressive cleaning agents

The surface of this product may be damaged as a result of the use of unsuitable cleaning agents.

⠿ Only use cleaning agents that are suitable for plastic or metal surfaces.

Damage as a result of mechanical impact

This product contains electronic components that may be damaged by mechanical impacts of any kind.

1. Avoid touching the electronics.
2. Avoid other mechanical influences on the electronics.

Damage as a result of overcurrent or overvoltage

This product contains electronic components that may be damaged by excessive current or voltage.

∷ Do not exceed the maximum permissible voltages and/or currents.

Damage due to polarity reversal

This product contains electronic components that may be damaged by reverse polarity of the power source.

∷ Do not reverse the polarity of the voltage source (batteries or mains adapters).

Operational malfunction due to radio interference

This product may be affected by electromagnetic or magnetic interference.

∷ Do not mount or place the product directly next to devices that could cause electromagnetic or magnetic interference (switching power supplies!).

Communication interference due to metallic surfaces

This product communicates wirelessly. Metallic surfaces can greatly reduce the range of the product.

∷ Do not mount or place the product on or near metallic surfaces.

NOTE

Intended use

SmartIntego-products are designed exclusively for opening and closing doors and similar objects.

∷ Do not use SmartIntego products for any other purposes.

Qualifications required

The installation and commissioning requires specialized knowledge.

∷ Only trained personnel may install and commission the product.

Incorrect installation

SimonsVoss Technologies GmbH accepts no liability for damage caused to doors or components due to incorrect fitting or installation.

Modifications or further technical developments cannot be excluded and may be implemented without notice.

The German language version is the original instruction manual. Other languages (drafting in the contract language) are translations of the original instructions.

Read and follow all installation, installation, and commissioning instructions. Pass these instructions and any maintenance instructions to the user.

3 Product-specific safety instructions

CAUTION

Risk of burns due to hot circuit board

If you power the device with Power-over-Ethernet (PoE), the board can become very hot.

▪▪ Allow the unit to cool down before opening the housing.

Risk of electric shock from connected power supply

The device is supplied with power during operation. Opening the housing and touching live parts may result in electric shock.

1. If the power supply is connected, do not open the housing.
2. Disconnect the power supply (or disconnect the network cable) before opening the housing.

NOTE

Unauthorised access with standard access data

The standard access data can be viewed freely. Unauthorised persons cannot change the access authorisations, but they can change the network configuration. You will then no longer be able to reach the device via the network and will have to reset it.

Some browsers do not transmit spaces at the beginning of the password.

1. Change the default password.
2. Do not start or end the password with spaces.

Further documentation

You can find further documentation about SmartIntego products on the SmartIntego page (www.smartintego.com).

4 Meaning of the text formatting

This documentation uses text formatting and design elements to facilitate understanding. The table explains the meaning of possible text formatting:

|	
Example	button
☑ Example ☐ Example	checkbox
⊙ Example	Option
[Example]	Tab
"Example"	Name of a displayed window
| Example |	Upper programme bar
Example	Entry in the expanded upper programme bar
Example	Context menu entry
▼ Example	Name of a drop-down menu
"Example"	Selection option in a drop-down menu
"Example"	Area
Example	Field
Example	Name of a (Windows) service
Example	Commands (e.g. Windows CMD commands)
`Example`	Database entry
[Example]	MobileKey type selection

5 Scope of delivery

- GatewayNode 2: Cover, base plate with circuit board and three pre-assembled strain reliefs
- Removable sticker with Chip-ID
- Quick guide

5.1 Accessories

You can use optionally available accessories to adapt your device to different applications.

Order code	Name	Purpose
ANTENNA.EXT.868	External antennas	You can connect the external antenna to the MCX connector of the circuit board and improve reception (see *Antenna [▶ 12]*).
POWER.SUPPLY.2	Power supply (12 V_{DC}, 500 mA)	You can use this power supply unit to power your device.

6 Connections
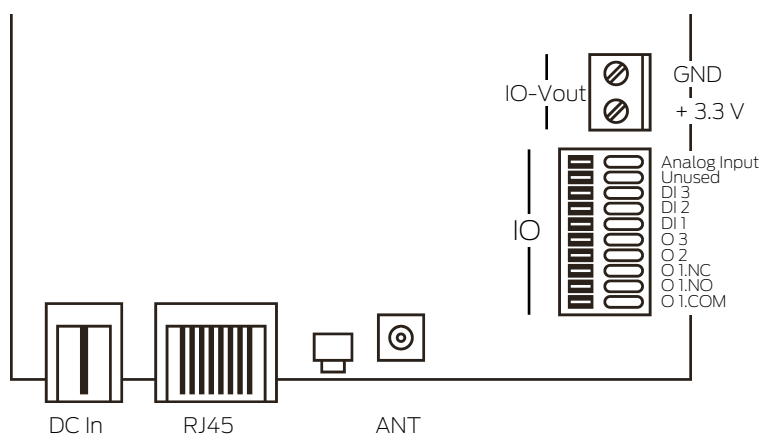
> **NOTE**
>
> **IO connector only for RouterNode 2**
>
> You can only use the connectors of the IO connector at RouterNode 2.

Connection		Meaning
DC In	Pin connector	Power supply with round plug connector
IO-V$_{out}$	Terminal block: GND	Auxiliary voltage output – Earth connection
	Terminal block: +3.3 V	Auxiliary voltage output – Positive pole
RJ45		Network connection
ANT		Connector for external antenna (see *Antenna [▶ 12]*)

7 Installation

The device can be mounted horizontally or vertically. You can carry out the horizontal mounting easily and safely with the integrated mounting holes. Observe the radiation pattern of the internal antenna (see *Antenna [▸ 12]*) and align the device appropriately.

IMPORTANT

Adverse effect on reception due to interferences

This device communicates wirelessly. Wireless communication can be affected or may fail due to metal surfaces or interference.

1. Do not fit the device to metal surfaces.
2. Keep the device away from sources of electrical or magnetic interference.

Unauthorised access

If the electrical contacts in the device are short-circuited by unauthorised persons, undesired reactions may occur.

∷ Mount the device in an environment that is protected from unauthorised access.

Malfunctions due to weather conditions

This device is not protected against splash water and other weather influences.

∷ Mount the device in an environment that is protected from the weather.

Wiring to device

You can install the cables both on (surface-mounted) and under (flush-mounted) plaster.

∷ If you install the cables under the plaster, then use the opening integrated in the base plate.

∷ If you lay the cables on the plaster, then you must modify the housing.

✓ Power supply disconnected.

1. Push the ribbed area laterally inwards and remove the housing cover.
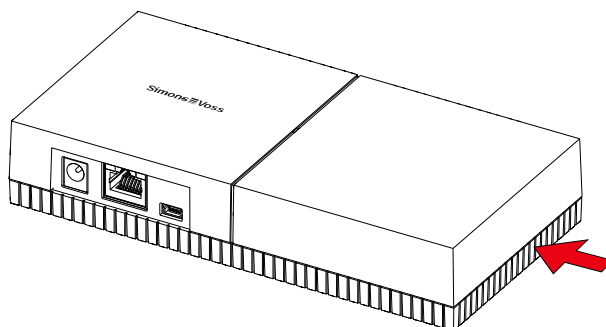
2. Check the required width of the housing opening. The height of the opening is approx. 7 mm. Each removed bar widens the opening by 4 mm.
3. Select a location where you want to remove the bars.


IMPORTANT

Insufficient fit due to removed clips

The housing cover is positioned and held by clips on the webs. If you saw off or break off these clips, the housing cover will no longer be held at this point.

1. Do not remove any bars that have a clip over them.
2. Do not damage clips during sawing.

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4. Use a suitable saw to saw through the bars at both ends of the desired opening to the base plate.
5. Bend the bars back and forth at the desired opening until the bars break.
   ↳ The housing is prepared for surface mounting.

7.1 Antenna

The internal antenna radiates as shown. The transmitting and receiving power is therefore different depending on the direction and is possibly influenced by the environment (sources of interference and/or metallic surfaces).
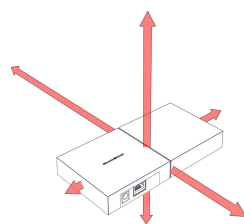
External antennas

Use the external antenna if any of the following problems occur.

∷ Transmission and reception behaviour not stable

∷ Range too short

∷ Transmission and reception outdoors (LockNodes available outdoors)

The external antenna is suitable for outdoor use. This allows you to place the device in the protected area while the antenna is outdoors.

The scope of delivery of the external antenna includes:

∷ Integrated magnetic base

∷ Wall mounting material

∷ Dowels and screws

You do not need to change any settings after connecting the external antenna. When the external antenna is connected, the device transmits via the internal and external antennas (the internal antenna is not disabled by connecting the external antenna).

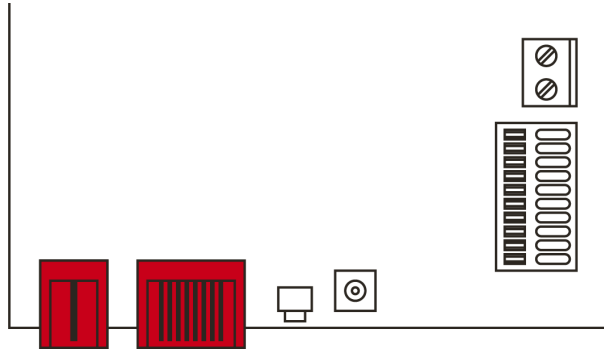✓ Power supply disconnected.

1. Open the housing.

2. Locate the connector socket on the circuit board.
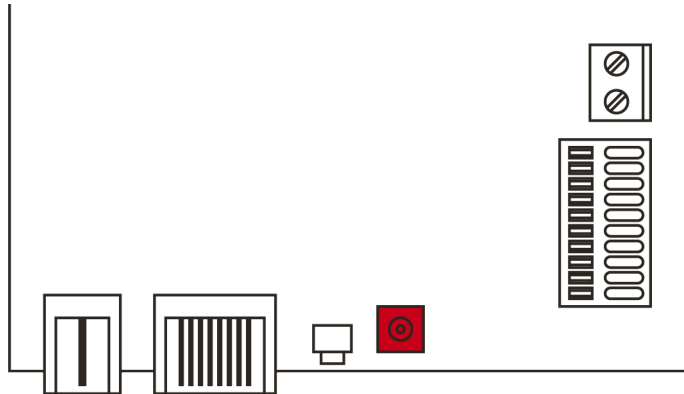
3. Connect the external antenna to the connector socket.
   ↳ The external antenna is connected.
4. Close the housing again.
↳ The device transmits via internal and external antenna.

8 Initial operation

1. Mount the device (see *Installation [▸ 11]*).
2. Supply the device with power.

3. Connect the device to your network.
4. Use the OAM-Tool to determine the IP address of your device in the network (see OAM-Tool manual).
5. Connect the device to your system (see SmartIntego TechGuide).
   ↳ The device has been put into operation and is now flashing green slowly (see *Signalling [▸ 17]*).

8.1 IPsettings

Your device can be addressed via an IP address in the network. There are two ways to integrate your device into the network:

⚌ Automatic assignment of an IP address by a DHCP server in the network: Unless you make other settings, an IP address is automatically assigned to your device by a DHCP server. You can change this IP address manually later. If you do not know the IP address, you can determine the IP address with the OAM tool.

⚌ Manual assignment of an IP address: Assign the IP address manually.

You can change the IP settings in the SmartIntego Manager.

If you reset the network settings in your device (see *Reset [▸ 18]*), the default IP address will only be restored if you assign it manually. However, if the IP address was assigned by a DHCP server, the IP address will be reassigned by the DHCP server directly following reset.

9 Maintenance

The device itself is maintenance-free. However, the performance of radio networks will always depend on environmental influences. These influences can change and affect the performance of your radio network. You should therefore check the network configuration and performance of your radio network at regular intervals.

> **CAUTION**
>
> **Network failure in critical situations**
>
> With the System 3060 and WaveNet you can implement emergency functions such as amok protection. These emergency functions are critical.
>
> 1. Test locking systems in which critical emergency functions are implemented at least once a month.
> 2. If necessary, also comply with other standards and regulations according to which your system is operated.

10 Signalling

| Signal	Meaning
Green flashing (~1.5 Hz)	Configured and ready to use.
Green flashing (~0.3 Hz)	Not configured, but ready for operation
Red flashing (briefly)	Restart
Green flickering	Data transfer

11 Fault rectification

If problems occur during operation, you may be able to rectify them yourself:

1. Check the power supply of the affected devices.
2. Check the network connection.
3. Check the authorisations assigned.

11.1 Reset

If problems should occur or you want to reset the device to its initial state, you can reset the device with the reset button.
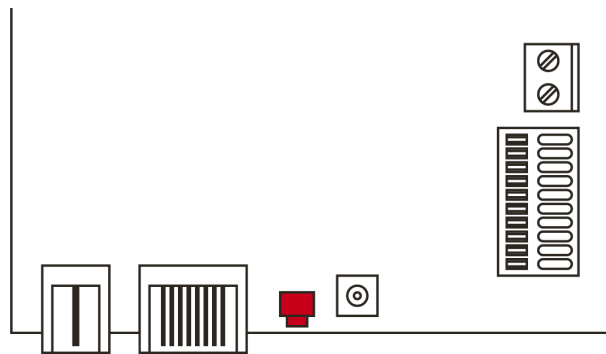
Make a distinction between them:

⬛ Reset SmartIntego configuration: Reset all SmartIntego settings.

⬛ Reset network configuration: Reset all network settings (IP address, DHCP settings, host name).

NOTE

IP address recovery

If the IP address is assigned by a DHCP server (default setting), the DHCP server assigns the IP address again directly after resetting (depending on settings of the DHCP server).

Reset the SmartIntego configuration

1. Disconnect the power supply (round plug or network cable for PoE).
2. Wait 20 seconds.
3. Press and hold the reset button.
4. Reconnect the power supply (round plug or network cable for PoE).
5. Release the reset button after one second.
   ↳ Device flashes green again (see *Signalling [▸ 17]*).
↳ SmartIntego configuration is reset.

Reset network configuration

1. Disconnect the power supply (round plug or network cable for PoE).
2. Wait 20 seconds.
3. Press and hold the reset button.
4. Reconnect the power supply (round plug or network cable for PoE).
5. Release the reset button after five seconds.
   ↳ Device flashes green again (see *Signalling [▸ 17]*).
↳ Network configuration is reset.

NOTE

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The standard access data can be viewed freely. Unauthorised persons cannot change the access authorisations, but they can change the network configuration. You will then no longer be able to reach the device via the network and will have to reset it.

Some browsers do not transmit spaces at the beginning of the password.

1. Change the default password.
2. Do not start or end the password with spaces.

You receive the device with the following factory configuration:

IPaddress	192,168,100,100
User name	SimonsVoss
Password	SimonsVoss

The IP address of your device on your network can be determined using the free OAM tool (*https://www.simons-voss.com/de/downloads/software-downloads.html*). Please refer to the manual for more information.

12 Technical specifications

General	
Dimensions	172 mm × 86 mm × 33 mm
Weight	About 100 g
Material	ABS plastic, UV-stable
Colour	White (like RAL 9016 "Traffic white")
Installation	∷ horizontal ∷ vertical ∷ Wall mounting possible ∷ Integrated strain relief (3x)
Connections	∷ RJ45 (Network/PoE) ∷ Round plug Ø 5.5 mm, Ø pin 2.0 mm (power supply) ∷ Screw terminal block 2-pole, wire diameter 0.14 mm^2 to 1.5 mm^2 (power supply for external applications) ∷ MCX socket (optional external antenna) Power supply via PoE and round plug possible simultaneously: round plug > 12 V_{DC} → Round plug used, round plug < 12 V_{DC} → PoE used
Environment	
Temperature	∷ Operational: -10 ºC to +55 ºC ∷ Storage: -20 ºC to +60 ºC
Humidity	Max. 90%, non-condensing
Standard protection rating	IP20
Electric	
Operating voltage	9 V_{DC} to 32 V_{DC} (reverse polarity protected) or PoE according to IEEE 802.3af Power supply via PoE and round plug possible simultaneously: round plug > 12 V_{DC} → Round plug used, round plug < 12 V_{DC} → PoE used
Output	max. 3 W

Output VOUT	3.0 V_{DC} to 3.3 V_{DC}, max. 200 mA
Relay output O1	▪ Max. switching voltage 30 V_{DC}/24V_{AC} (resistive load) ▪ Max. switching current 1 A (resistive load)
Interfaces	
RJ45	▪ Network interface ▪ 10T/100T ▪ HP Auto_MDX ▪ DHCP-Client (DHCP: on) ▪ IPv4 ▪ Service ▪ TCP: 1x at Port 2101 ▪ UDP: 1x for Digi-Scan (OAM tool) ▪ Web server: Enable
868 MHz radio	WaveNet interface, range up to 30 m
Analogue input	1x with 12-bit resolution from 0 to 3.3 V_{DC}
Relay contacts	1x change-over contact, potential-free.
Signalling	
LED	RGB LED (centre of housing)
Software	
Programming	via TCP/IP interface

Radio emissions		
SRD (WaveNet)	868.000 MHz – 868.600 MHz	<25 mW ERP

There are no geographical restrictions within the EU.
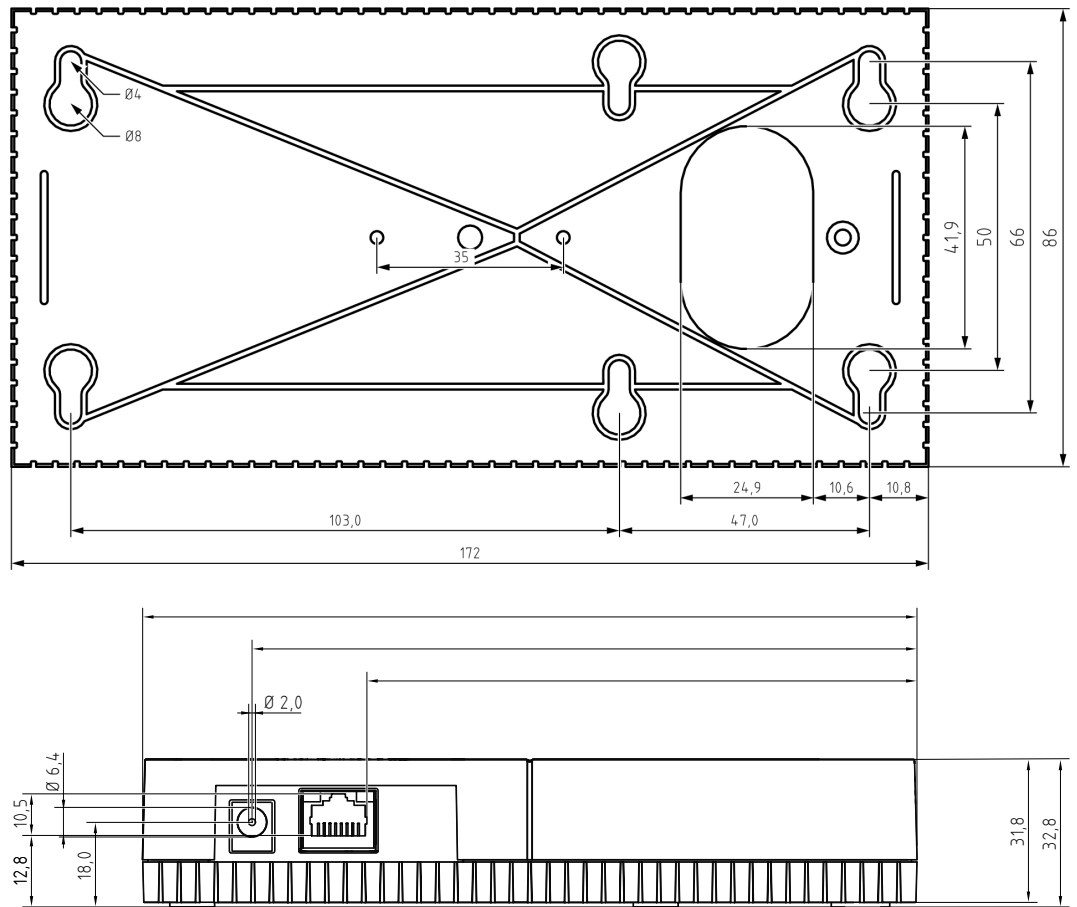
12.1 Optional external antenna

12.1.1 Electrical specifications

Type	Multiband antenna
Frequencies	▓ AMPS (824 - 894 MHz) ▓ GSM (900 MHz) ▓ DCS (1800 MHz) ▓ PCS (1900 MHz) 3G (UMTS 2,1 GHz)
Impedance	50 Ω
Polarization	Linear
Gain	2,2 dBi max.
VSWR	< 3:1
Operating temperature	–40 ºC to +85 ºC

12.1.2 Connection specifications

Connector type	MCX male

Cable	RG174U
Cable length	250 cm

12.1.3 Mechanical specifications and dimensions

Mounting	Magnetic Mount
Material	ABS
Max. dimensions	30,9 mm x 71,5 mm (Ø x H)
Weight	50 g 'weight with connection above'
Colour	Black
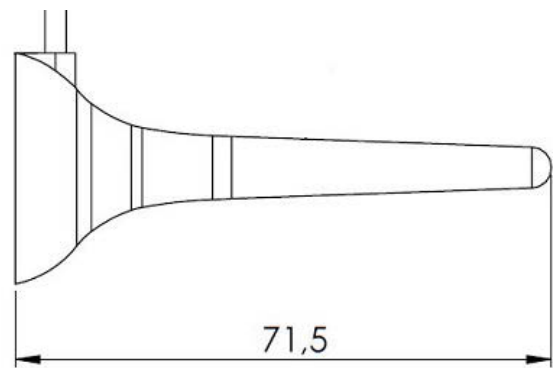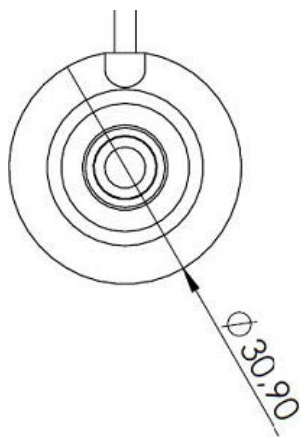
13 EU/UK Declaration of conformity

The company SimonsVoss Technologies GmbH hereby declares that article MK.SMARTBRIDGE.ER/WNM.RN2.ER.IO/WN.RN2.ER/SI.GN2.ER(.M) complies with the following guidelines:

- 2014/53/EU "Radio equipment"
  as well as the corresponding UK statutory 2017 No. 1206 "Radio equipment"

- 2014/30/EU "EMC"
  as well as the corresponding UK statutory 2016 No. 1091 "EMC"

- 2012/19/EU "WEEE"
  as well as the corresponding UK statutory 2013/3113 "WEEE"

- 2011/65/EU "RoHS"
  as well as the corresponding UK statutory 2012 No. 3032 "RoHS"

- and regulation (EG) 1907/2006 "EU REACH"
  as well as the corresponding "UK REACH"

The full text of the EU/UK Declaration of conformity is available at the following internet address:

www.simons-voss.com/en/certificates.html

CE UKCA

14 Help and other information

Information material/documents

You will find detailed information on operation and configuration and other documents on the website:

www.smartintego.com/int/home/infocenter/documentation

Software and drivers

Software and drivers can be found on the website:

www.simons-voss.com/en/service/software-downloads.html

Declarations of conformity

You will find declarations of conformity and other certificates on the website:

www.simons-voss.com/en/certificates.html

Information on disposal

▪ Do not dispose the device (MK.SMARTBRIDGE.ER/WNM.RN2.ER.IO/ WN.RN2.ER/SI.GN2.ER(.M)) in the household waste. Dispose of it at a collection point for electronic waste as per European Directive 2012/19/ EU.

▪ Take the packaging to an environmentally responsible recycling point.

Hotline

Our hotline will be happy to help you (landline, costs depend on provider):

+49 (0) 89 / 99 228 333

Email

You may prefer to send us an email.

si-support-simonsvoss@allegion.com

FAQs

You will find information and help in the FAQ section:

faq.simons-voss.com/otrs/public.pl

Address

SimonsVoss Technologies GmbH
Feringastr. 4
D-85774 Unterfoehring
Germany

This is SimonsVoss

SimonsVoss is a technology leader in digital locking systems.

The pioneer in wirelessly controlled, cable-free locking technology delivers system solutions with an extensive product range for SOHOs, SMEs, major companies and public institutions.

SimonsVoss locking systems unite intelligent functions, optimum quality and award-winning German-made design. As an innovative system provider, SimonsVoss attaches great importance to scalable systems, effective security, reliable components, high-performance software and simple operation.

Our commercial success lies in the courage to innovate, sustainable thinking and action, and heartfelt appreciation of employees and partners. With its headquarters in Unterföhring, near Munich, and its production site in Osterfeld, eastern Germany, the company employs around 300 staff in eight countries.

SimonsVoss is a company in the ALLEGION Group, a globally active network in the security sector. Allegion is represented in around 130 countries worldwide (www.allegion.com).

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technologies