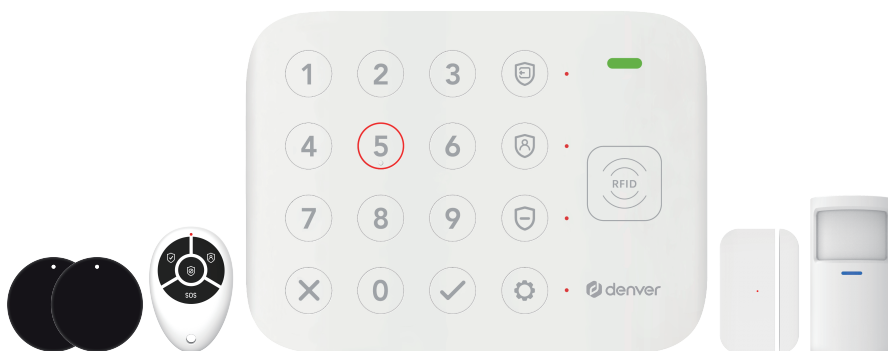




SHA-220
denver.eu

06/10/2025



Safety information

Please read the safety instructions carefully before using the product for the first time and keep the instructions for future reference.

1. This product is not a toy. Keep it out of reach of children.
2. Keep product out of the reach of children and pets to avoid chewing and swallowing.
3. Never use old and new batteries or different types of batteries together. Remove the batteries when you are not using the system for a longer period of time. Check the polarity (+/-) of the batteries when inserting them in the product.
4. Product operating and storage temperature is from 0 degree Celsius to 40 degree Celsius. Under and over this temperature might affect the function.
5. Never open the product. Touching the inside electrics can cause electric shock. Repairs or service should only be performed by qualified personnel.
6. Do not expose to heat, water, moisture, direct sunlight!
7. The unit is not waterproof. If water or foreign objects enter the unit, it may result in fire or electric shock. If water or a foreign object enters the unit, stop use immediately.
8. Only use with supplied Adaptor. The direct plug-in adapter is used as disconnect device, the disconnect device shall remain readily operable. So, make sure there is space around the power outlet for easy access.
9. Do not use non original accessories together with the product as this can make the product functionality abnormal.
10. Warning: This product includes lithium-Ion battery.

I. General Description (Subject to actual packaging)

1.1 What's in the Package

Security Panel



The central hub of the alarm system. It connects all the devices to the APP, so you can stay in control of your home from anywhere.

Entry Sensor



Alerts you when a door or window is opened.

Controller



Allows you to remotely control the alarm system to quickly enter Home, Away, Disarm, and SOS modes.

RFID



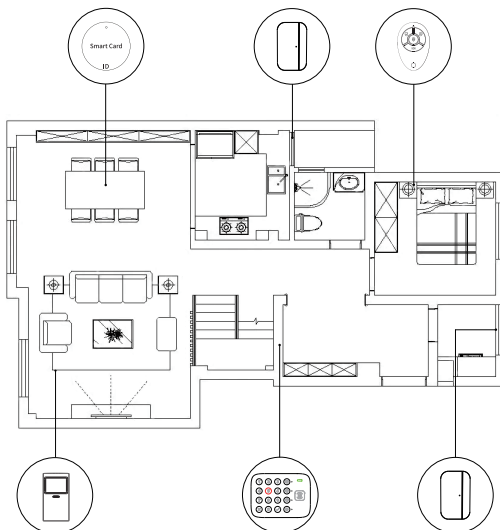
Allows you to quickly disarm the system.

Motion Detector



Alerts you when any movement detected.

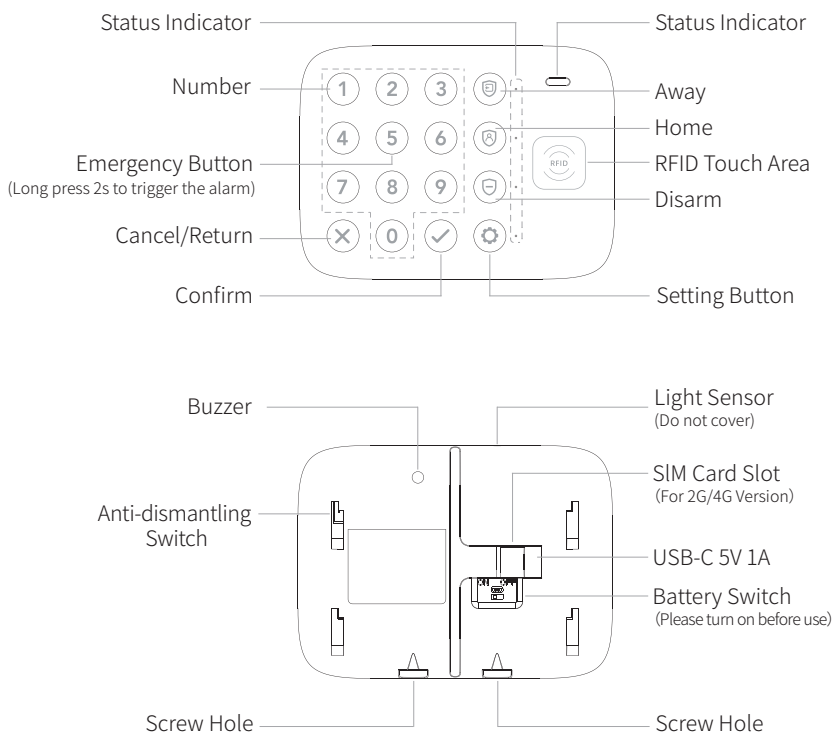
1.2 Home Installation Diagram



II. Main Features

- Stylish appearance
- Wireless connection
- APP remote control
- Multi-user password
- Light sensor
- Built-in 3.7V/1500mAh lithium battery
- Power supply: Type-C 5V 1A
- Low voltage reminder
- Anti-tampering alarm
- Phone/SMS emergency notification
- Five emergency phone numbers
- Support RFID tags, up to 6
- Support obfuscated passwords, up to 12 digits

III. Appearance Design



Default Code

Default Admin Code: **9876**; User 1 Code: **1234**

User 2-6: Not Enabled

IV. Power Indicator

Status Color	Solid	Fast Flash	Slow Flash (Once per second)	Slow Flash (Once per 5 second)	Breathing light
Red	/	Alarming	Delay Alarming	Security panel low battery (when powered only by battery and the security panel is in standby mode)	/
Yellow	External power supply (Battery switch off)	WiFi Connecting	WiFi Disconnected	/	/
Green	Security panel activated	/	/	Security panel in standby mode (Battery powered only)	Security panel in standby mode (when external power is connected)

V. Set up Tuya APP

5.1 Download APP -Tuya



Tuya

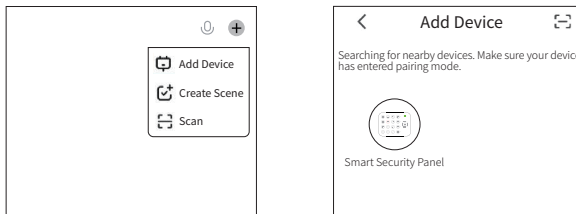
- (1)After downloading the APP, please enable all usage permissions for the APP in the phone settings.
- (2)Sign up or Log in to your APP account.

5.2 Connect Panel to Tuya APP

- This security panel only supports **2.4GHz WiFi** networks only. Make sure your router is set up correctly and can connect to the Internet.
- When adding the security panel to the Tuya APP, please turn on the mobile phone **WiFi and Bluetooth**, and confirm that the mobile phone is connected to the 2.4GHz frequency band.

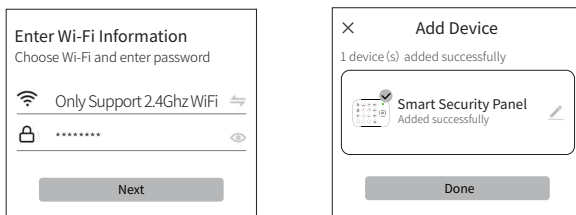
- (1)Power on: turn on the battery switch.
- (2)Open the "Tuya" APP and enter the "Home" interface.
 - A.Press "+" the on the upper right corner of the interface and select "Add Device".
 - B.Press "**Smart Security Panel**" on the discovering device's area.

B. Press “Add” on the discovering device’ s area.



C. Input the 2.4Ghz WiFi name and password, and Press "Next".

D. Paired successfully

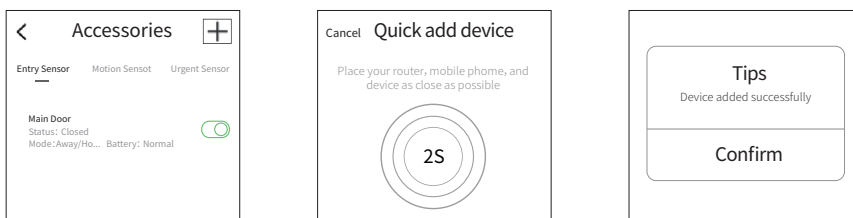


(3) You can remote control the alarm system on the APP.

5.3 Settings on the APP

5.3.1 Add Accessories

Click Accessories, press “+”, and then trigger the accessory to complete the pairing.



Accessories

Entry: Manage all the Entry sensors.

Motion: Manage all the Motion sensors.

Urgent: Emergency detectors such as SOS buttons, gas detectors, and smoke detectors

General: Other sensors or detectors, please add them here.

Controller: Manage all the Remote controls.

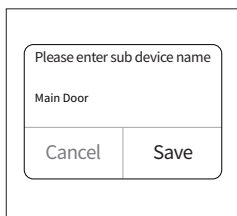
RFID: Manage all the RFID tags.

Note:

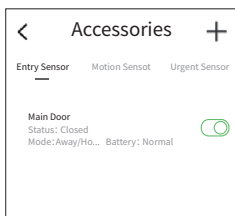
- 1) The security system supports the accessories with 433MHz, ev1527.
- 2) For the Entry sensors from another brand, please add it to “General”
- 3) Support up to 52 Sensors, 6 Controllers, 6 RFID Tags.
- 4) Keypad: Please pair it to “Controller”.

5.3.2 Rename Device

Accessory names can only be renamed on the APP, just press “Sub device name” to edit the name.



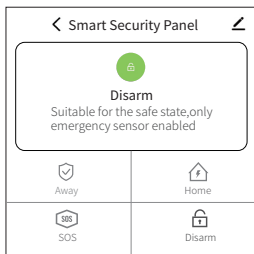
A dialog box for renaming a device. It has a title bar "Please enter sub device name". Below the title bar is a text input field containing "Main Door". At the bottom are two buttons: "Cancel" and "Save".



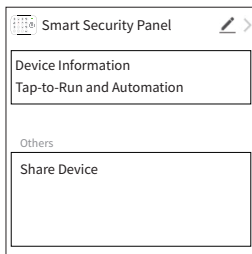
The "Accessories" screen in the app. It has a back arrow, the title "Accessories", and a plus icon. Below the title are three tabs: "Entry Sensor", "Motion Sensot", and "Urgent Sensor". The "Entry Sensor" tab is selected. Under this tab, there is a section for "Main Door" with a toggle switch. Below the toggle, it says "Status: Closed" and "Mode: Away/Ho... Battery: Normal".

5.3.3 Share Device

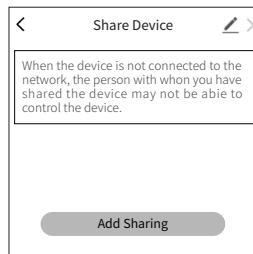
A security panel can only be paired with one APP account, but you can share it with multiple family members to manage together.



The main screen of the "Smart Security Panel" app. It has a back arrow, the title "Smart Security Panel", and a share icon. In the center is a large green circle with a lock icon and the word "Disarm". Below this, it says "Suitable for the safe state, only emergency sensor enabled". At the bottom are four buttons: "Away", "Home", "SOS", and "Disarm".



The settings screen for the "Smart Security Panel". It has a back arrow, the title "Smart Security Panel", and a share icon. Below the title are two sections: "Device Information" and "Tap-to-Run and Automation". Below these is a section titled "Others" which contains a "Share Device" button.



The "Share Device" screen. It has a back arrow, the title "Share Device", and a share icon. Below the title is a text box that says "When the device is not connected to the network, the person with whom you have shared the device may not be able to control the device." At the bottom is a large grey button labeled "Add Sharing".

5.3.4 Setting

- **Arm delay:** Customize the countdown time when Arming.
- **Timer:** Create a schedule for the system to run automatically.
- **Local Alarm:** Turn ON/OFF the security panel alarm sound.
- **Siren Alarm:** Turn ON/OFF the external siren sound.
- **Siren Beep:** Choose whether the siren will beep when Arm/Disarm the panel.
- **Delay Beep:** Turn on/off the arming or alarm countdown sound.
- **Entry opened warning:** When the system is armed, if the door/window is open, the APP will pop up a notification.
- **Entry open chime:** When the door sensor is opened, the panel emits a beep.
- **Alarm message push:** APP push alert notification
- **Alarm delay:** Customize the alarm countdown time.
- **Accessory low battery reset:** Clear accessory low battery status when battery is replaced.
- **Factory reset:** Clear all system records
- **Virtual password:** Set PIN code for Google assistant voice control.

5.3.5 Alarm Modes

1.Security Panel Alarm Modes

Away: The security panel is in a monitoring state, when the accessories are triggered, the security panel will alarm.

Home: When the user is at home, in this mode, some areas can be monitored and alarms.

Disarm: The security panel cancels the monitoring state, and only the SOS button or the accessories set to "Always" mode can trigger the alarm.

2.Accessories Modes

Away/Home: When the security panel is in the "Away" or "Home" state, the panel will alarm after the sensor is triggered. It is recommended that the outdoor sensor can be set to this mode.

Away: When the security panel is in the "Away" state, the panel will alarm after the sensor is triggered. It is recommended that the outdoor detector can be set to this mode.

Always: Regardless of the state of the security panel, any time the sensor is triggered, the panel will alarm. It is recommended to set this mode for gas leaks or smoke detectors, etc.

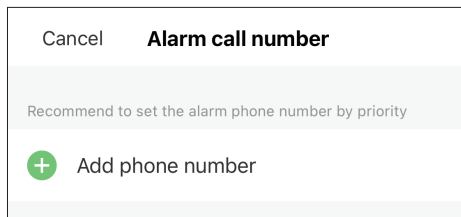
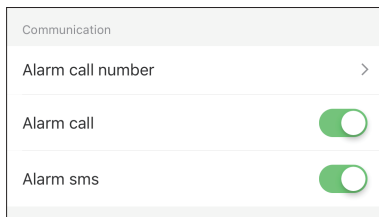
Disabled: The security panel will not respond to the alarm request of the sensor set in this mode.

Note:

You can choose which sensors are armed in Home and Away mode, or both, or always active.

For example, if you want to avoid triggering the alarm when you are at home, you can set the specific sensor in Away mode. Then when you set the panel in "Home" state, the alarm will not be triggered, only in "Away" state, the alarm will be triggered.

5.3.6 Alarm Call/SMS (For 2G/4G Version)



1. **Phone Number Format:** If the phone number cannot be successfully dialed or texted, please try adding the area code before the number: 00XX, 0XX.

2. **SMS/Phone Alarm Rules:** After the alarm is triggered, the security panel will send SMS messages in the order of the set numbers. After the text message is sent, the call will start from the first phone number. When the first number is dialed three times in a row and no answer, the second phone number will be dialed, and so on. If one of the phone numbers is answered, subsequent phone numbers will not be dialed.

3. **SIM Card Unlock:** The SIM card requires a PIN code, and the carrier usually sets the PIN code to something like 1234 or 0000. You need to disable it on the phone first.

4. Arm/Disarm Panel by SMS Command

The SMS commands and panel actions were taken are as below:

No.	SMS Command	Action Taken by the Panel	Replied SMS
1	away arm	The panel will be in "Away" mode	System armed!
2	stay arm	The panel will be in "Home" mode	System armed!
3	disarm	The panel will be in "Disarm" mode	System disarmed!

The panel will reply message to confirm the command is executed successfully.

NOTE:

The panel only accepts SMS commands from the phone number set in the APP, the SMS commands sent by other mobile numbers will be not recognized and no action will be taken.

5.4 Settings on the Panel

5.4.1 Control Alarm System

Away Arm	Press Away 	Note: Away/Home cannot be switched, you need to disarm and then switch the arming mode.
Home Arm	Press Home 	
Disarm	Press Disarm 	Enter Admin/User Code or Touch RFID Tag

Notice:

Two short beeps: Error/Failure

One long beep: Correct/Successful

5.4.2 Main Settings

(1) Accessory pairing

Press Setting Button 	Enter Admin Code	Quick Pairing	 → 	Automatically identify and pair Door Sensor, Motion Sensor, Remote control, RFID Tag	
		Accessory pairing	 → 	 → 	Entry
				 → 	Motion
				 → 	Urgent
				 → 	Secret
				 → 	General
				 → 	Remote
				 → 	RFID

(2) Delete Accessory

Press Setting Button 	Enter Admin Code	②→✔	①→✔	Delete All
			①→✔	Entry
			②→✔	Motion
			③→✔	Urgent
			④→✔	Secret
			⑤→✔	General
			⑥→✔	Remote
			⑦→✔	RFID

(3) Set Admin/User Code

Press Setting Button 	Enter Admin Code	③→✔	Set Admin Code	①→✔	· Enter the New 4-8 -digit code →✔ · Re-enter the New code →✔
			Set User 1 Code	①→✔	
			Set User 2 Code	②→✔	
			Set User 3 Code	③→✔	
			Set User 4 Code	④→✔	
			Set User 5 Code	⑤→✔	
			Set User 6 Code	⑥→✔	

(4) Delete User Code

Press Setting Button 	Enter Admin Code	 → 	Delete User 2	 → 	Press →  twice to delete the user Notice: Admin/User 1 are default and cannot be deleted.
			Delete User 3	 → 	
			Delete User 4	 → 	
			Delete User 5	 → 	
			Delete User 6	 → 	

(5) Reset WiFi Connection.

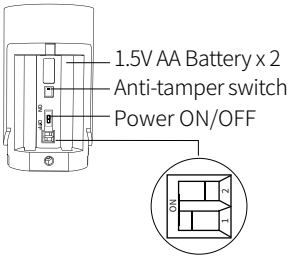
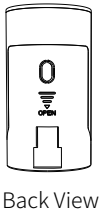
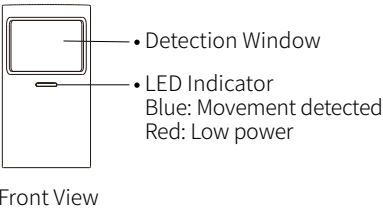
Press Setting Button 	Enter Admin Code	 → 	The WiFi connection will be reset, please reconnect to WiFi.
--	------------------	---	--

(6) Reset Security Panel

- Remove the power supply, and turn off the battery switch.
- Press and hold  , then turn on the battery switch. After holding for 10 seconds, the security panel will emit a long beep, indicating a successful reset.

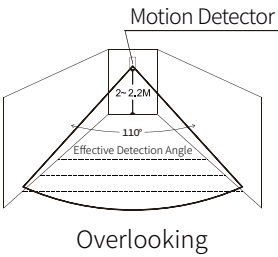
IV. Set up the Alarm Devices

5.1 Motion Detector



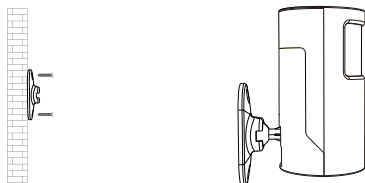
- ② Trigger time: 5s/5 min
- ① LED light switch

How to Install



Mounting Height

Motion detector must be mounted 79 to 87 inches (**2 to 2.2m**) above the floor.



As shown above, install the bracket on the wall with screws. Then put the motion detector into the holder. Adjusts the angle of the motion detector detection range.

5.2 Entry Sensor

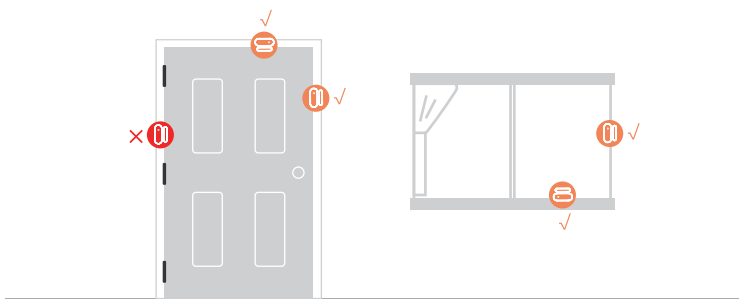
(1) Installation

The entry sensor should be installed on the door or window (see image).

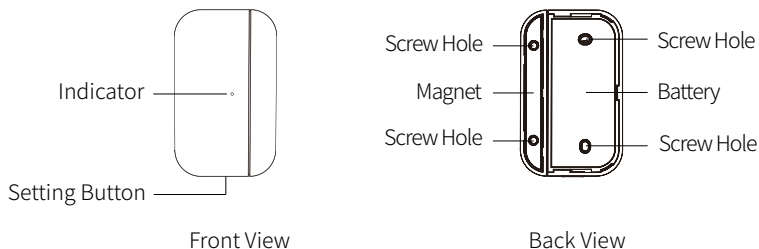
A. First, clean the area on the door or window and apply double-sided tape to the bottom.

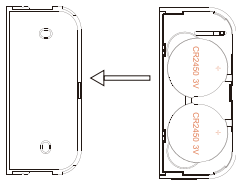
B. The door sensor transmitter (large) and the door sensor magnet (small) should be installed separately, and the distance between the two is less than 0.6" .

C. When the door or window is opened after installation, the indicator light will be on for 2 seconds to indicate that the installation is complete.

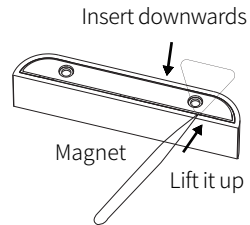


(2) Appearance Design



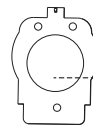
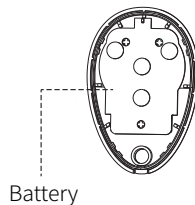
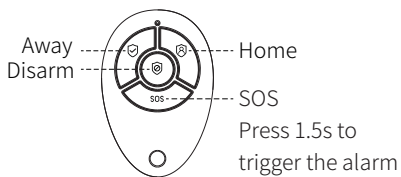


Slide in the direction of the arrow to
remove the back cover



5.3 Controller

(1) Appearance Introduction



Replace the battery
Battery specifications:
3V CR2032

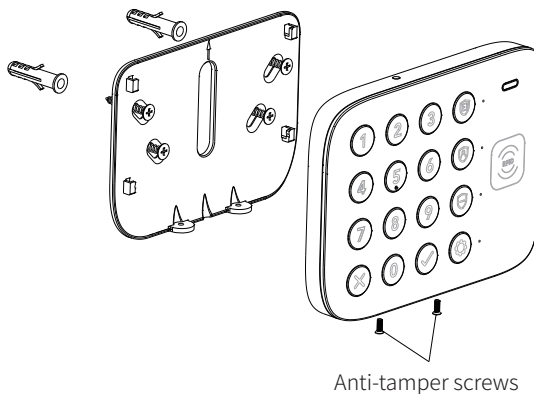
5.4 RFID Tag

RFID protocol : 125KHz, 4100/4200

RFID Tag: Up to 10 cards can be added

5.5 Installation

1. Fix the hanging plate to the wall with screws
2. Install the security panel on the hanging plate
3. Install the anti-tamper screws at the bottom



5.5 Specification

- Power supply: DC5V 1A
- Built-in battery: 3.7V/1500mAh lithium battery
- Standby current: <100mAh
- Wireless parameters: 433MHZ eV1527
- Receiving distance: 100 meters (open space)
- Working temperature: -10°C~50°C
- Relative humidity: <95% (no condensation)

Please notice - All products are subject to change without any notice. We take reservations for errors and omissions in the manual.

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Electric and electronic equipment and included batteries contains materials, components and substances that can be hazardous to your health and the environment, if the waste material (discarded electric and electronic equipment and batteries) is not handled correctly.

Electric and electronic equipment and batteries is marked with the crossed out trash can symbol, seen above. This symbol signifies that electric and electronic equipment and batteries should not be disposed of with other household waste, but should be disposed of separately.

As the end user it is important that you submit your used batteries to the appropriate and designated facility. In this manner you make sure that the batteries are recycled in accordance with legislature and will not harm the environment.

All cities have established collection points, where electric and electronic equipment and batteries can either be submitted free of charge at recycling stations and other collection sites, or be collected from the households. Additional information is available at the technical department of your city.

Hereby, Denver A/S declares that the radio equipment type SHA-220 is in compliance with Directive 2014/53/EU. The full text of the RED declaration of conformity is available at the following internet address: denver.eu and then click the search ICON on topline of website. Write model number: SHA-220. Now enter product page, and RED directive is found under downloads/other downloads. Alternatively, the QR code below can be scanned and the file can be accessed directly.

Hereby, Denver A/S declares that this connected device is in compliance with Data Act Regulation (EU) 2023/2854. The Data Act (EU) 2023/2854 product data sheet is available at the following internet address: denver.eu and then click the search ICON on topline of website. Write model number: SHA-220. Now enter product page, and the Data Act (EU) 2023/2854 product data sheet is found under downloads/other downloads. Alternatively, the QR code below can be scanned and the file can be accessed directly.

Information on standby/off mode power consumption and power management for products compliant with Commission Regulation (EU) 2023/826 can be found at the following internet address: denver.eu and then click the search ICON on topline of website. Write model number: SHA-220 and enter the page.



Operating Frequency Range: 433MHz

Max Output Power: 20mW

DENVER A/S

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