

# ABB-Welcome

M21311P1-A

M21311P2-A

M21312P1-A

M21312P2-A

Mini outdoor station



# ABB-Welcome

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## 1 Safety



### Warning

#### Electric voltage!

Risk of death and fire due to electrical voltage of 100-240 V.

- Work on the 100-240V supply system may only be performed by authorised electricians!
- Disconnect the mains power supply prior to installation and/or disassembly!

## 2 Intended use

The outdoor station is an integral part of the ABB-Welcome door communication system and operates exclusively with components from this system. The device must only be used with suitable ABB flush-mounted installation sockets and rain hood.

## 3 Environment



### Consider the protection of the environment!

Used electric and electronic devices must not be disposed of with domestic waste.

- The device contains valuable raw materials which can be recycled. Therefore, dispose of the device at the appropriate collecting depot.

### 3.1 ABB devices

All packaging materials and devices from ABB bear the markings and test seals for proper disposal. Always dispose of the packing materials and electric devices and their components via the authorized collection depots and disposal companies.

ABB products meet the legal requirements, in particular the laws governing electronic and electrical devices and the REACH ordinance.

(EU-Directive 2002/96/EG WEEE and 2002/95/EG RoHS)

(EU-REACH ordinance and law for the implementation of the ordinance (EG)

No.1907/2006)

## 4 Terminal description

### 4.1 Front overview



Fig. 1 Front overview

No.	Function
1	Light sensor
2	Infrared LED, total number is 6
3	Indicated LED, total 3LEDs: ring, call and door open
4	Speaker and microphone integration
5	Round pushbutton *If round pushbutton with ID card reader , please find the details in the <b>chapter 5.3</b>
6	Nameplate

4.2 Terminal description

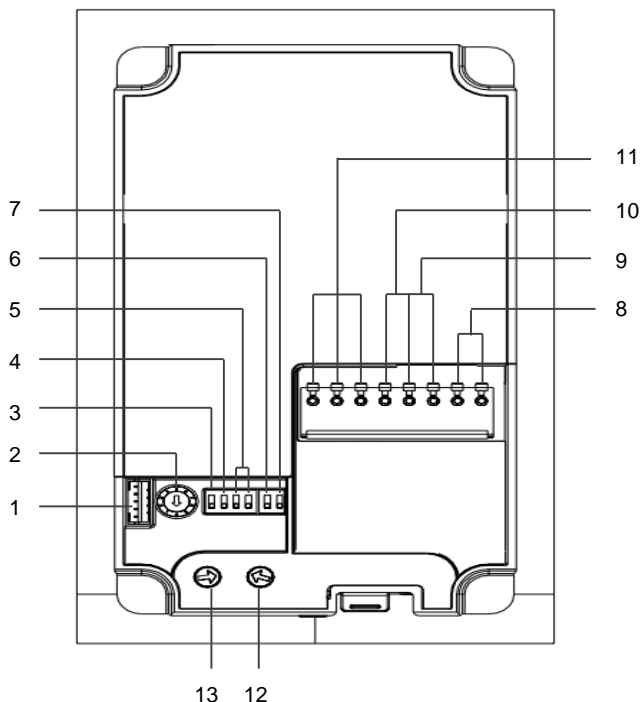







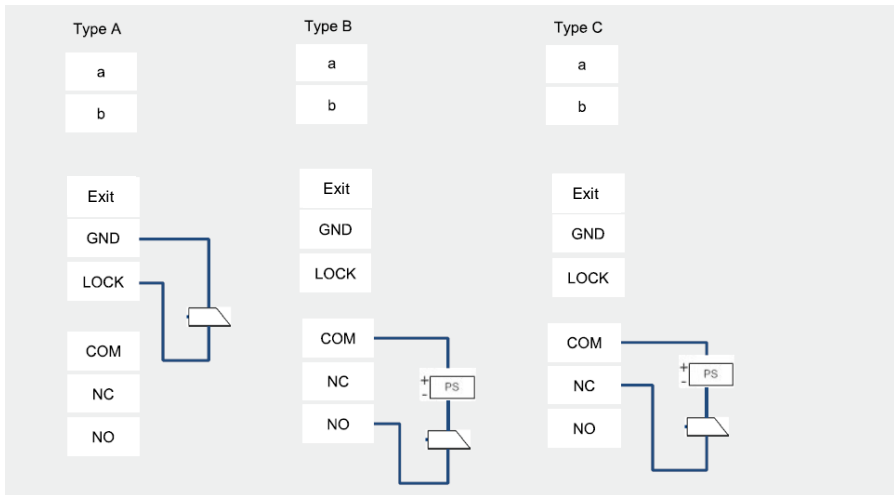
Fig. 2 Terminal description

No.	Functions
1	Connector for device software update
2	Rotary switch to set the address of outdoor station (1-9)
3	Set feedback tone of pushbutton ON/OFF
4	Set general call to all indoor stations in one family GC=ON, press button1/button2, all indoor stations ring For details, please find in the <b>chapter 5.2</b>
5	Configuration function of 1st/2nd round pushbutton For details, please find in the <b>chapter 5.1</b>

6	Set the video mode PAL/NTSC OFF=PAL video mode ON=NTSC video mode
7	Set default lock OFF= set (Lock-GND) as default lock ON= set (COM-NC-NO) as default lock *Default lock is controlled by “unlock” button on indoor station
8	Plug-in clamps (a, b) for connection
9	Plug-in clamps (Exit-GND) for exit button
10	Plug-in clamps (Lock-GND) for door opener
11	Plug-in clamps (COM-NC-NO) for floating output, door opener
12	Rotary switch to adjust default door lock release time :1-10s
13	Rotary switch to adjust loudspeaker volume

4.2.1 Lock connected with terminals 10 and 11

Lock type	Pic	Operation type	Voltage	Wiring
Electric Strike Lock, 12V		Power supply to open.	12V DC/AC	Type A Type B
Electric Strike Lock, 24V		Power supply to open.	24V DC/AC	Type B
Electric Rim Lock, 12V		Power supply to open.	12VDC	Type A Type B
Electric mortise lock		Power on to close.	12VDC	Type C
Magnetic lock		Power on to close.	12/24VDC	Type C





5 Operation

5.1 Configure functions of the 1st / 2nd push button

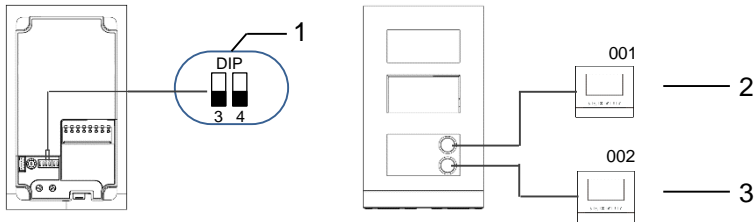
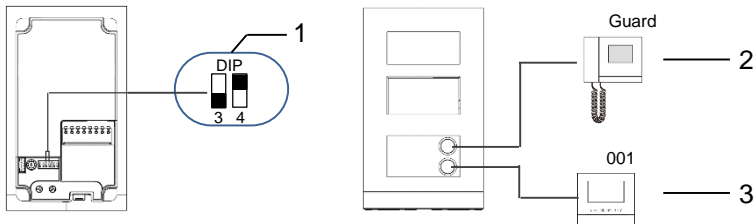
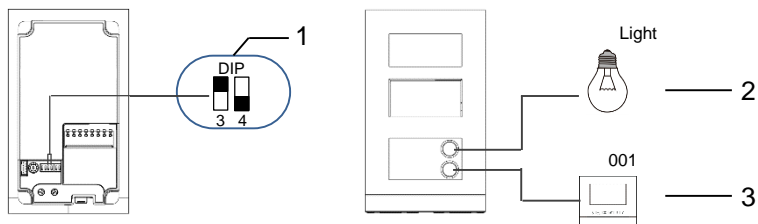


Fig. 3 Addressing

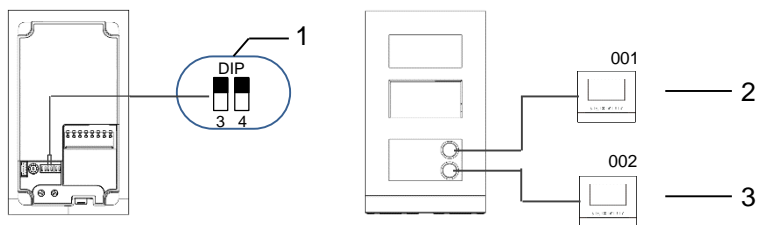
No.	Functions
1	3->OFF, 4->OFF
2	Call apartment 001
3	Call apartment 002



No.	Functions
1	3->OFF, 4->ON
2	Call guard unit
3	Call apartment 001

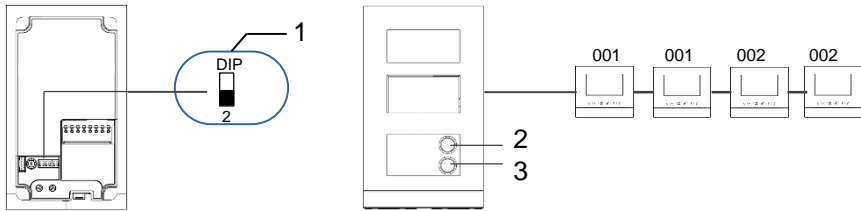


No.	Functions
1	3-> ON, 4->OFF
2	Switch on light
3	Call apartment 001

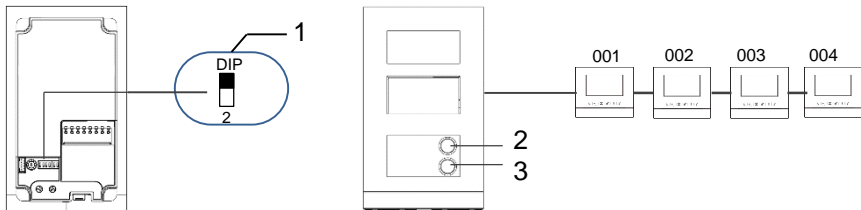


No.	Functions
1	3->ON, 4->ON
2	Call apartment 001
3	Call apartment 002

5.2 Configure functions of the general call button



No.	Functions
1	2->OFF
2	Call apartment 001, both 001 indoor stations ring
3	Call apartment 002, both 002 indoor stations ring





No.	Functions
1	2->ON
2	Call apartment, all 4 indoor stations (different address) ring
3	Call apartment, all 4 indoor stations (different address) ring

\* If the indoor station has been set “call forward function”, in this mode, this function can’t work well.  
 For example, 001IS has set call forward to 002 IS, when press 1st round pushbutton on OS to call 001 IS, if 001 IS doesn’t answer the call in 5s, it will not transfer to 002 IS.

### 5.3 Round pushbutton with ID card reader

#### Programming

Function	Command	Indicated LED for door open
Create admin card	Swipe card 1x	Green 
Enter Settings	Swipe admin card 1x	Orange 

The system will take the first card swiped after powering up the system within 60s to be the admin card.

After enter Settings, following functionalities can be implemented:

Function	Command	Indicated LED for door open
Enroll user	Swipe admin card 1x	Orange flash 1x
	Swipe card (new user) 1x	Green
Delete user	Swipe admin card 2x	Orange flash 2x
	Swipe card (user x) 1x	Green
Enroll new admin	Swipe admin card 3x	Orange flash 3x
	Swipe card (new admin) 1x	Green
Delete Admin	Swipe admin card 4x	Orange flash 4x
	Swipe card (admin x) 1x	Green
Delete all users	Swipe admin card 5x	Orange flash quickly
	Swipe admin card 1x	Green

During setting, please swipe the same admin card.

Function	Command	Indicated LED for door open
Exit Settings	Swipe admin card 1x or no cards swiped within 15 seconds	—

#### Open a door

Function	Command	Indicated LED for door open
Open a door:	Swipe the enrolled keycard	Green

#### Reset to factory default

Function	Command	Indicated LED for door open
Reset to factory default	Disconnect the power supply. Set rotary switches of address to "0" and set all the dip-switches to "OFF " Reconnect the power supply Long press the 1st button for 3s Finish	— — — Green Red,green,orange cycle —

#### 5.4 Setting the language for the voice messages

When outdoor station is power on;

1. Set outdoor station address as "0", switch all the dip-switches to "ON"
2. Long-press the 1st button for 3s to play the voice message;
  - If English, there will be "English" voice played;
  - If French, there will be "French" voice played;
  - If "DI" is played, it means the voice synthesis function is disabled.
3. Short press the 1st button to change the language.
4. After choosing the right language, long-pressing the 1st button to save and exit.

## 6 Technical data

<b>Designation</b>	<b>Value</b>
Operating temperature	-40 °C- +70 °C
Protection (cover frame assembled)	IP 54
Power supply, door opener (Lock-GND)	18V 4A impulsive, 250 mA holding
Floating output, door opener (COM-NC-NO)	30 V AC / DC 1A
Single-wire clamps	2 x 0,28 mm <sup>2</sup> – 2 x 0.75 mm <sup>2</sup>
Fine-wire clamps	2 x 0,28 mm <sup>2</sup> – 2 x 0.75 mm <sup>2</sup>
Bus voltage	20-30 V

## 7 Mounting / Installation



### Warning

#### Electric voltage!

Risk of death and fire due to electrical voltage of 100-240 V.

- Low-voltage and 100-240 V cables must not be installed together in a flush-mounted socket!

In case of a short-circuit there is the danger of a 100-240 V load on the low-voltage line.

### 7.1 Requirements for the electrician



### Warning

#### Electric voltage!

Install the device only if you have the necessary electrical engineering knowledge and experience.

- Incorrect installation endangers your life and that of the user of the electrical system.
- Incorrect installation can cause serious damage to property, e.g. due to fire.

The minimum necessary expert knowledge and requirements for the installation is as follows:

- Apply the "five safety rules" (DIN VDE 0105, EN 50110):
  1. Disconnect from power source;
  2. Secure against being re-connected;
  3. Ensure that there is no voltage;
  4. Connect to the earth;
  5. Cover or barricade adjacent live parts.
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the type supply network (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to the ground, protective grounding, necessary additional measures, etc.).

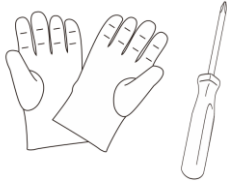
## 7.2 General installation instructions

- Terminate all branches of the wiring system via a connected bus device (e.g., indoor station, outdoor station, system device).
- Do not install the system controller directly next to the bell transformer and other power supplies (to avoid interference).
- Do not install the wires of the system bus together with 100-240 V wires.
- Do not use common cables for the connecting wires of the door openers and wires of the system bus.
- Avoid bridges between different cable types.
- Use only two wires for the system bus in a four-core or multi-core cable.
- When looping, never install the incoming and outgoing bus inside the same cable.
- Never install the internal and external bus inside the same cable.



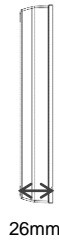
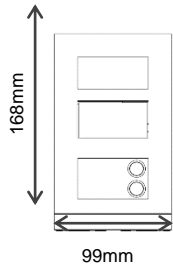
7.3 Mounting

7.3.1 Preparation

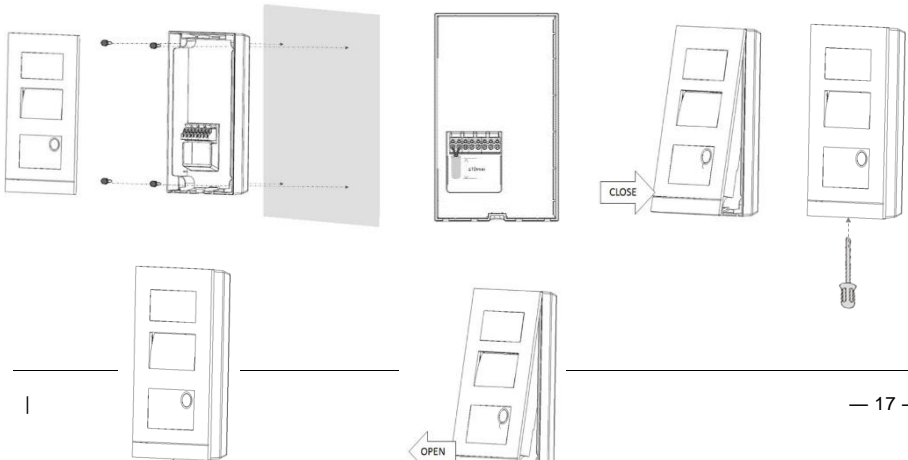


Prepare a pair of gloves to protect yourself from cutting.

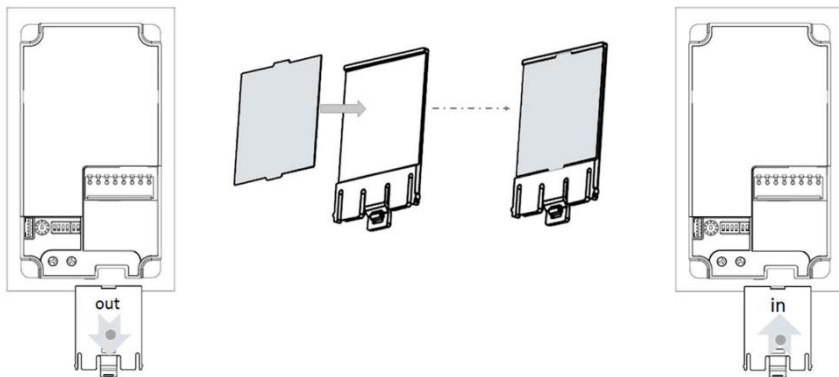
7.3.2 Dimension



7.3.3 Surface mounted



7.3.5 Replace nameplate



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