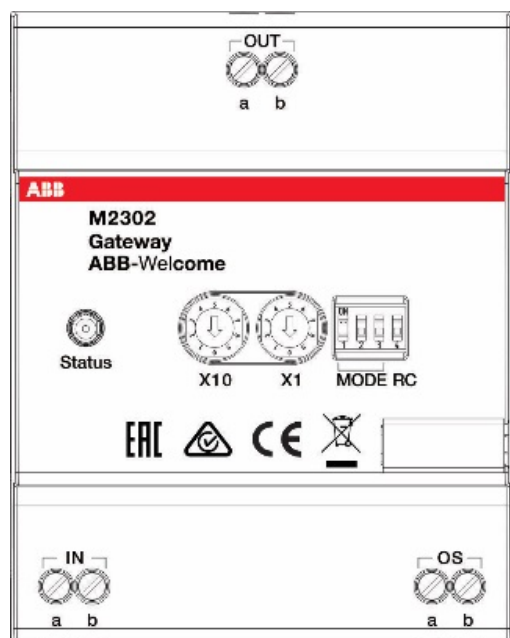


VER: 1.3 | 02.20.2017

ABB Welcome®

M2302

Gateway



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1 Safety



Warning

Electric voltage!

Direct or indirect contact with live components can cause dangerous currents to flow through the body, which may result in electric shock, burns or even death.

- Always disconnect the main power supply prior to installation and/or disassembly.
- Work on the 110 V - 240 V supply system must be performed only by qualified personnel.

2 Intended use

This device is an integral part of the ABB Welcome door communication system and operates exclusively with components from this system. The device must only be installed on mounting rails according to DIN EN 50022.

3 Environment



Consider the protection of the environment!

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



- The device contains valuable raw materials that can be recycled and should be disposed of at an appropriate recycling facility.

3.1 ABB devices

All packaging materials and devices from ABB bear the markings and test seals for proper disposal. Always dispose of the packaging material, electronic devices and their components via authorized recycling facilities or disposal companies.

4 Operation

4.1 Control elements

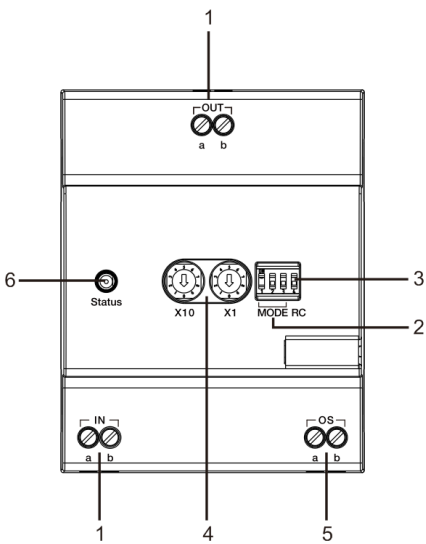


Fig. 1: Overview of control buttons

No.	Functions
1	Bus in and out.
2	Operating mode settings: See chapter "Operating modes" for details.
3	Terminal resistor ON/OFF. In video installations or audio- and video-combined installations, the switch must be set as "RC on" on the last device of the line.
4	Rotary switches for addressing (01-99).
5	Connection with outdoor stations, or connection with bus in, in "line Amplifier" mode.
6	Operating status indicating LED.

4.2 Operating modes
4.2.1 Building gateway

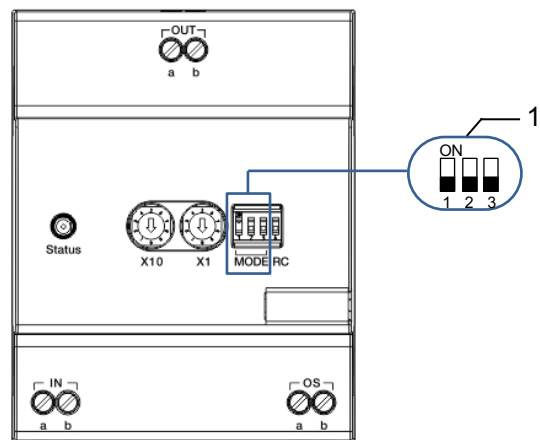


Fig. 2: Building gateway

No.	Functions
1	1->OFF, 2->OFF, 3->OFF

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Enable one building as an independent subsystem (outdoor station(s) and guard unit(s) can be connected). Up to 60 such systems are supported within the whole system.

The gateway address is equal to the riser number.

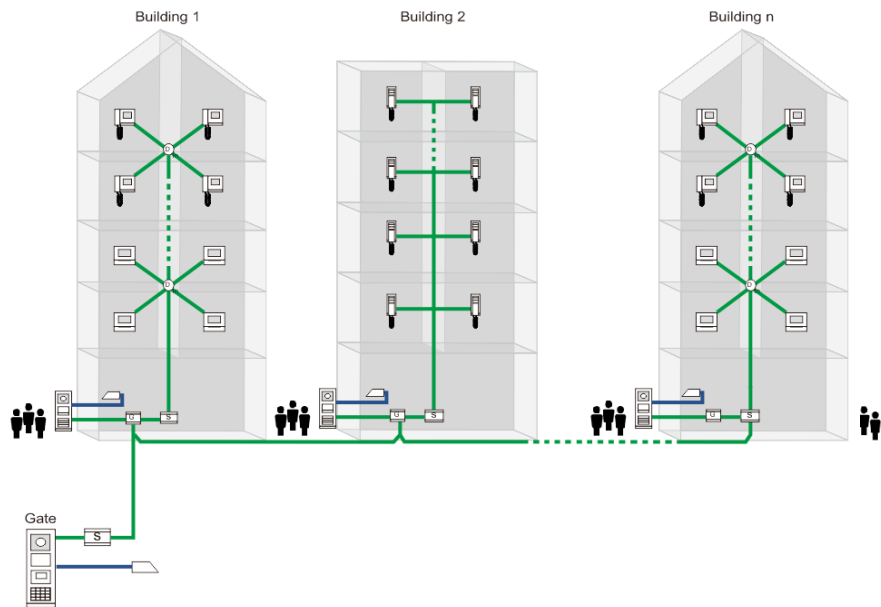


Fig. 3: Building gateway

Wiring diagram:

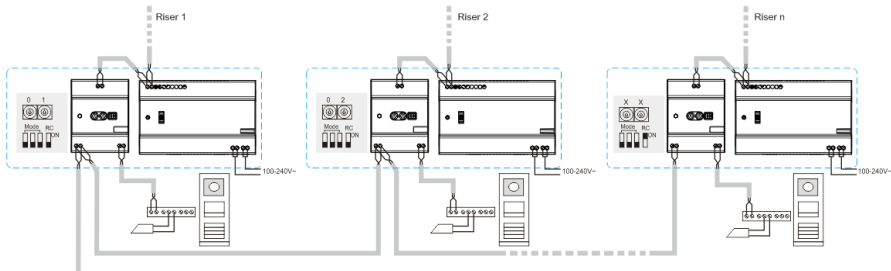


Fig. 4: Building gateway

4.2.2 Floor gateway

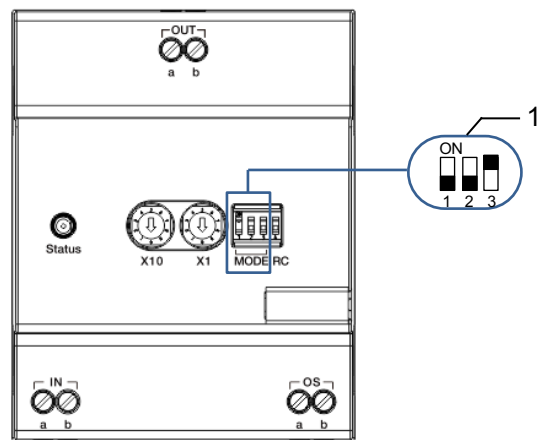
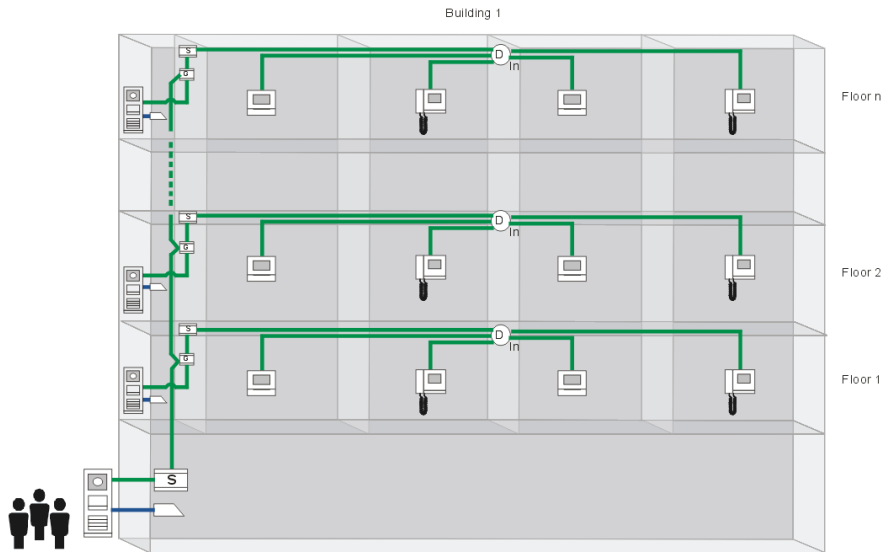


Fig. 5: Floor gateway

No.	Functions
1	1->OFF, 2->OFF, 3->ON

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Enable a multi-apartment as an independent subsystem (another outdoor station can be connected, for example, in front of the door of the floor with the multi-apartment).
The gateway address is equal to the minimum address of the indoor station inside



the subsystem.

Fig. 6: Floor gateway

Wiring diagram:

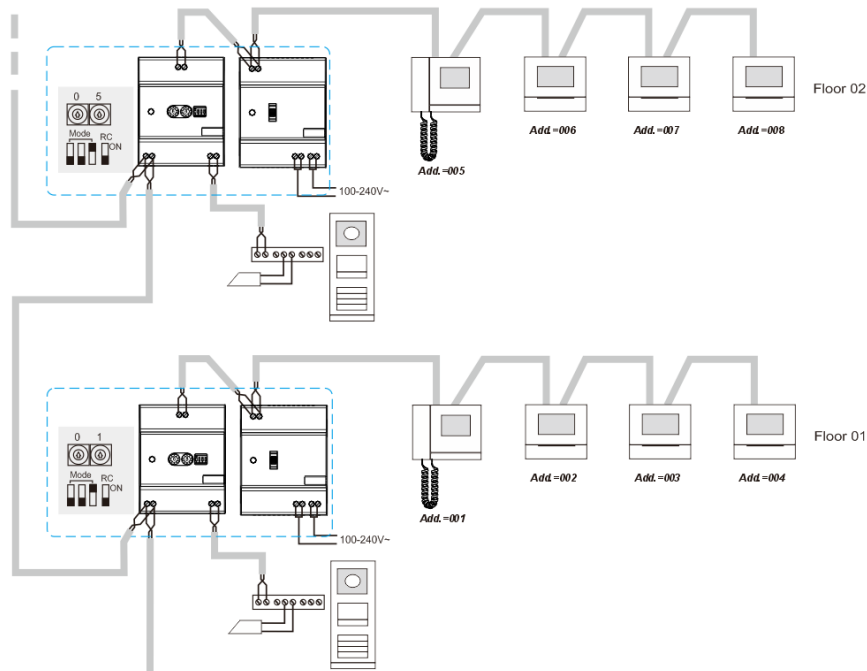
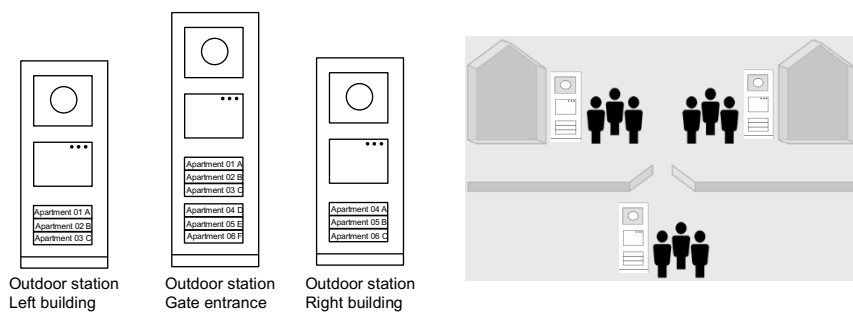


Fig. 7: Floor gateway

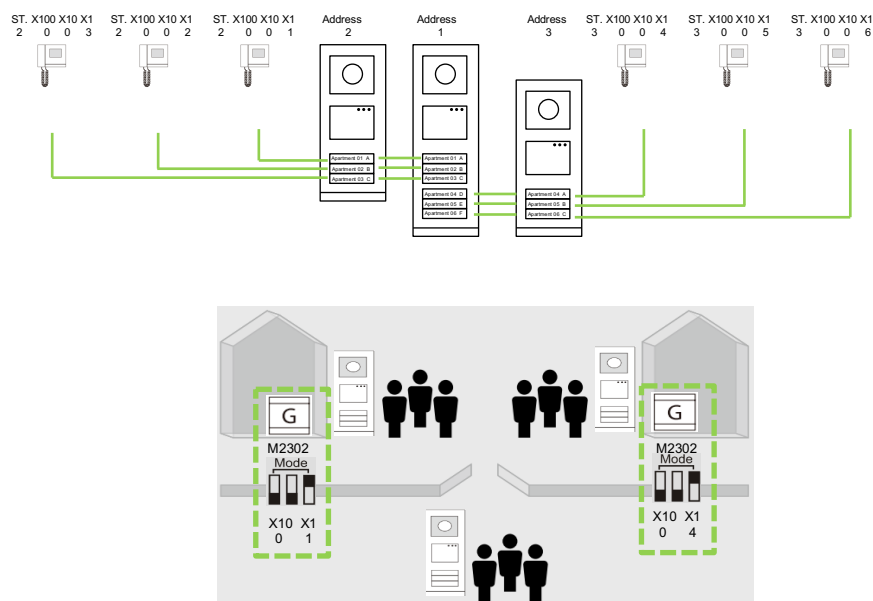
If you are using a pushbutton outdoor station as a gate station, the floor gateway is suitable for this application.

In the following example, an outdoor station is mounted at the gate entrance, from which all six apartments can be called. One outdoor station is at the left building with apartments 01 and 03, and an additional outdoor station is at the right building with apartments 04 and 05. This means that only three apartments can be called from these two outdoor stations. Using a floor gateway for each building, outdoor station 1 can manage the two buildings, with outdoor station 2 managing the left building and outdoor station 3 managing the right building.

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Wiring diagram (using floor gateway for each building)



4.2.3 Apartment gateway

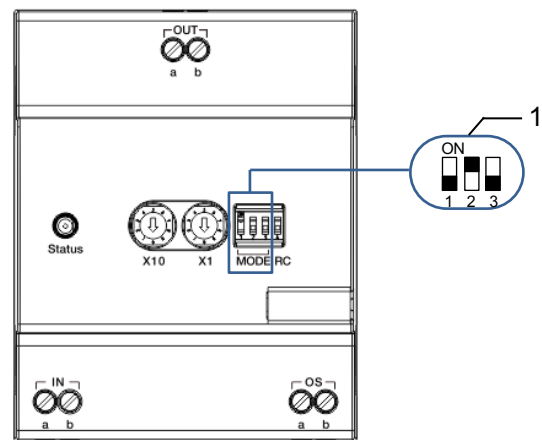


Fig. 8: Apartment gateway

No.	Functions
1	1->OFF, 2->ON, 3->OFF

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Enable one apartment as an independent subsystem (A second confirmed outdoor station can be connected). Up to 99 such systems can be supported within the whole system. The gateway address is equal to the apartment number.

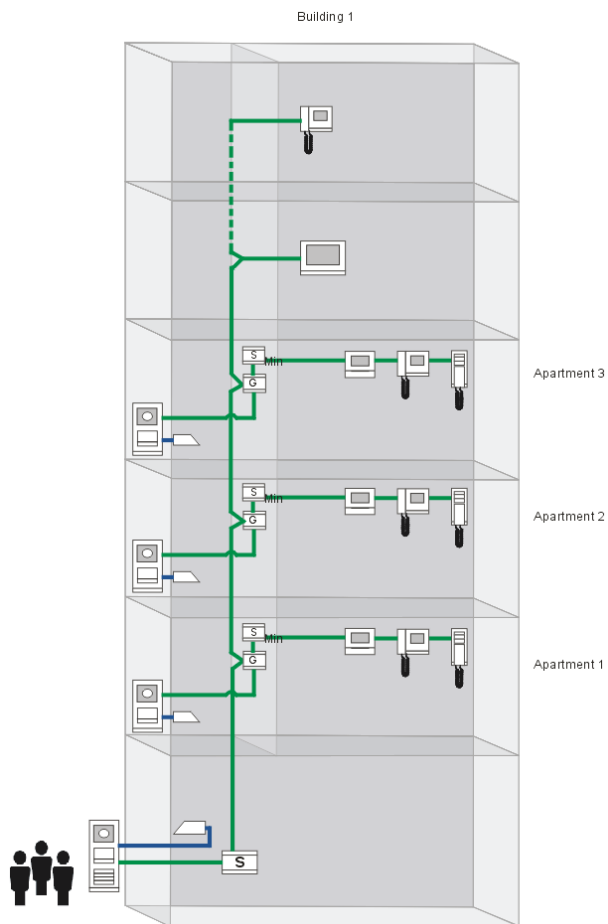


Fig. 9: Apartment gateway

Wiring diagram:

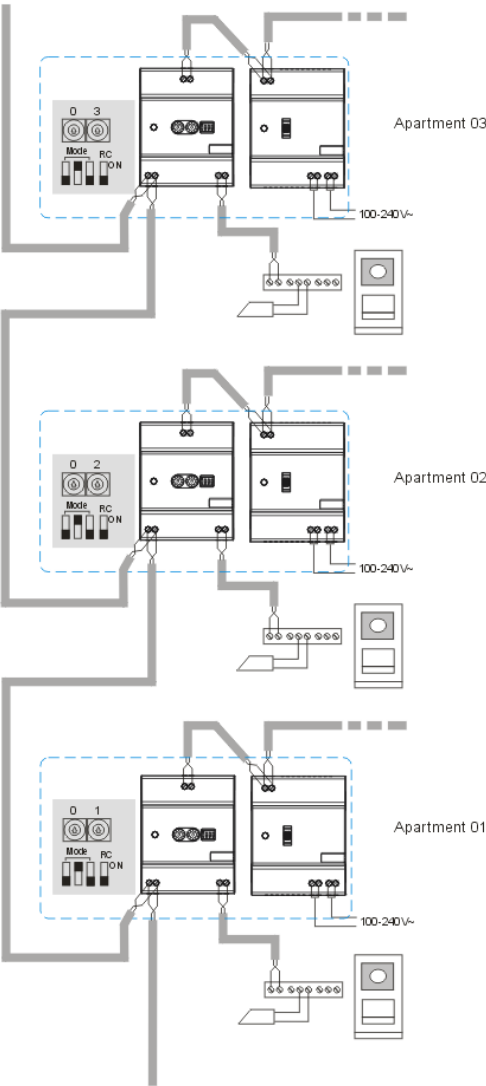


Fig. 10: Apartment gateway

4.2.4 Additional power supply mode

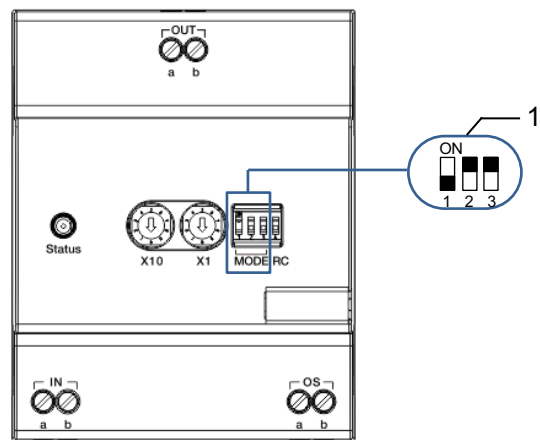


Fig. 11: Additional power supply mode

No.	Functions
1	1->OFF, 2->ON, 3->ON

Enable an additional power source for systems with a system controller.

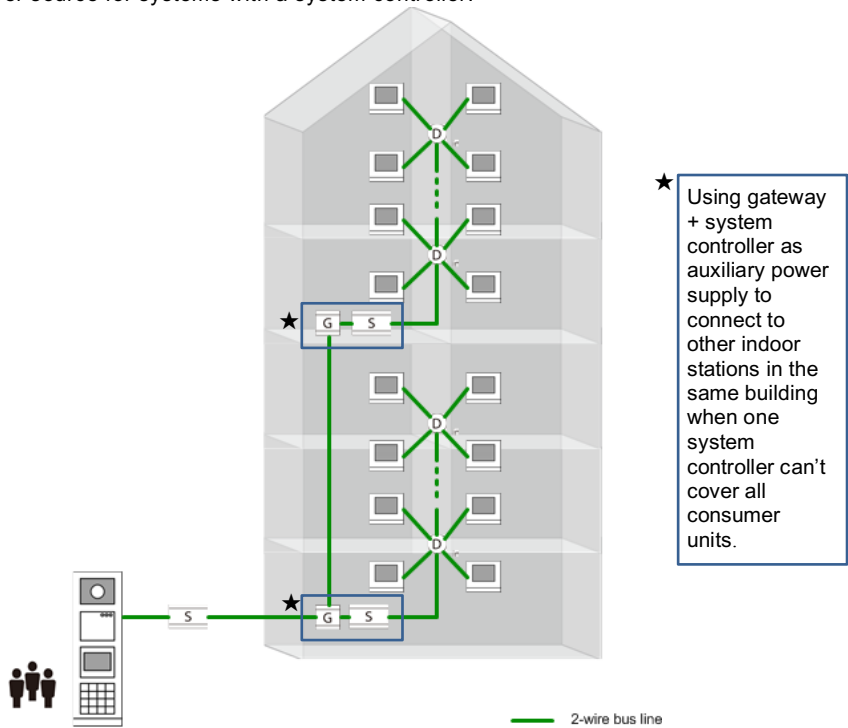


Fig. 12: Additional power supply mode

Wiring diagram:

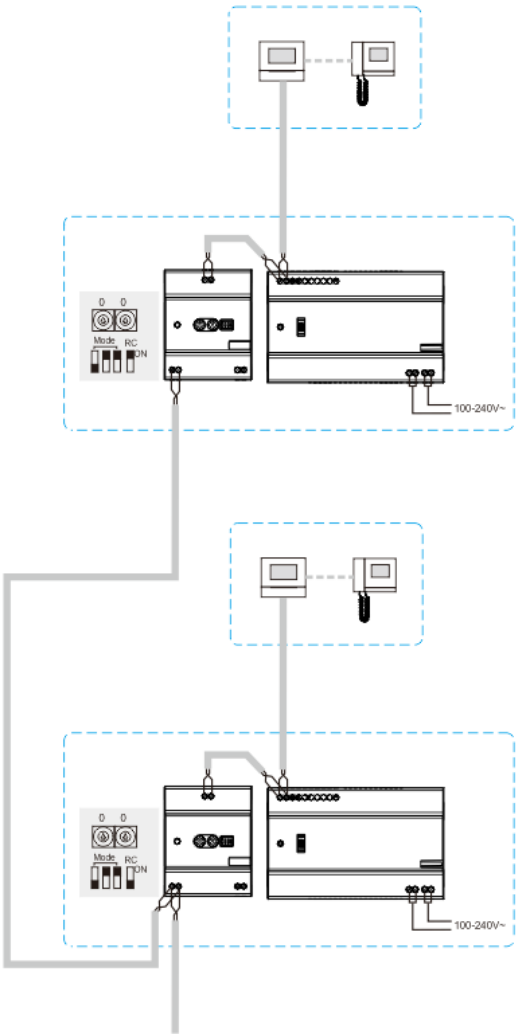


Fig. 13: Additional power supply mode

4.2.5 Line amplifier

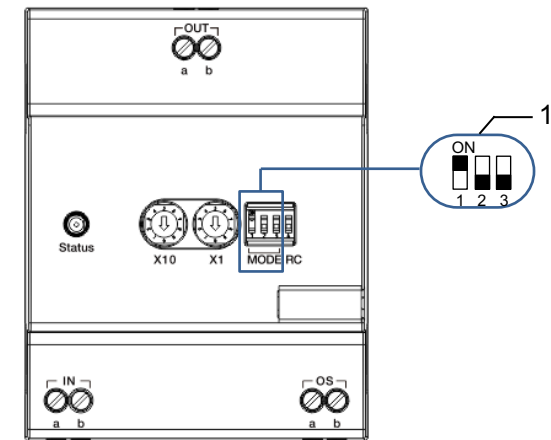


Fig. 14: Line amplifier

No.	Functions
1	1->ON, 2->OFF, 3->OFF

Strengthen the video signal and extend transmission. For increased distance, please refer to the ABB Welcome system manual.

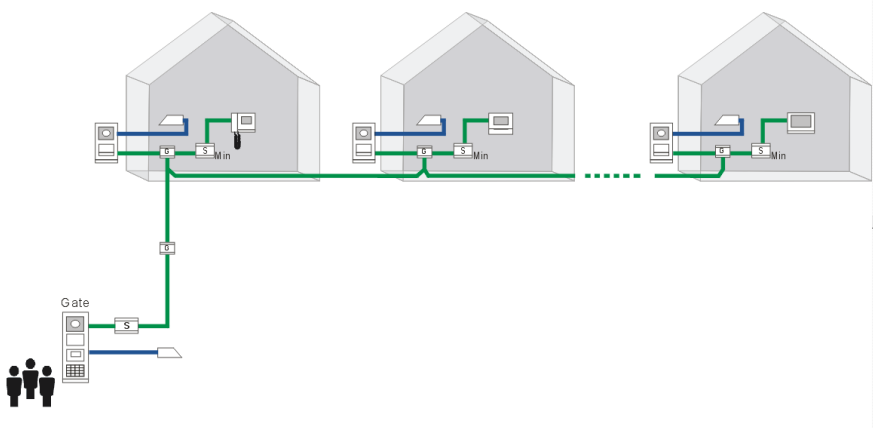


Fig. 15: Line amplifier
Wiring diagram:

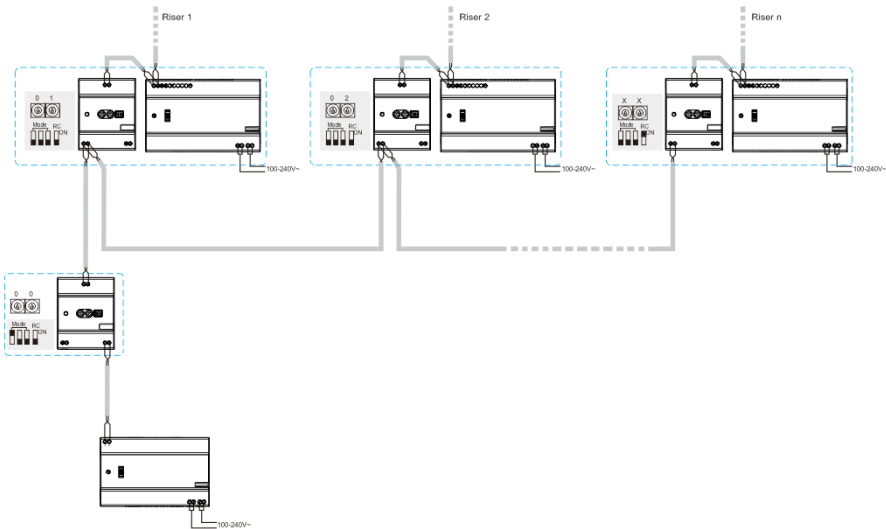


Fig. 16: Line amplifier

5 Technical data

Designation	Value
Operating temperature	-13 °F to +131 °F
Protection	IP 20
Single-wire clamps	2 x 22 AWG - 2 x 18 AWG
Fine-wire clamps	2 x 22 AWG - 2 x 18 AWG
Bus voltage	20 V - 30 V

6 Mounting and installation



Warning

Electric voltage!

Direct or indirect contact with live components can cause dangerous currents to flow through the body, which may result in electric shock, burns or even death.

- Always disconnect the main power supply prior to installation and/or disassembly.
- Work on the 110 V - 240 V supply system must be performed only by qualified personnel.

6.1 Requirements for the electrician



Warning

Electric voltage!

Install the device only if you have the necessary qualifications.

- 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 are as follows:

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

6.2 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 or other power supplies (to avoid interference).
- Do not install the wires of the system bus together with 100 V - 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.

6.3 Mounting

The device M2302 must only be installed on mounting rails according to DIN EN 500022.

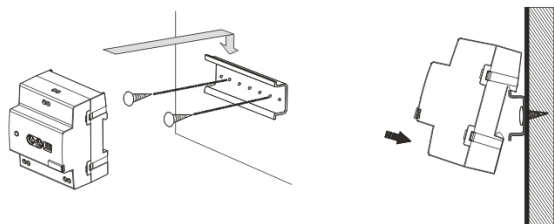


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