

# ABB-Welcome

M2301

Mini-system controller



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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 M2301 mini-system controller 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 500022.

## 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 packaging material and electric devices and their components via the authorized collecting 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 Operation

### 4.1 Control elements

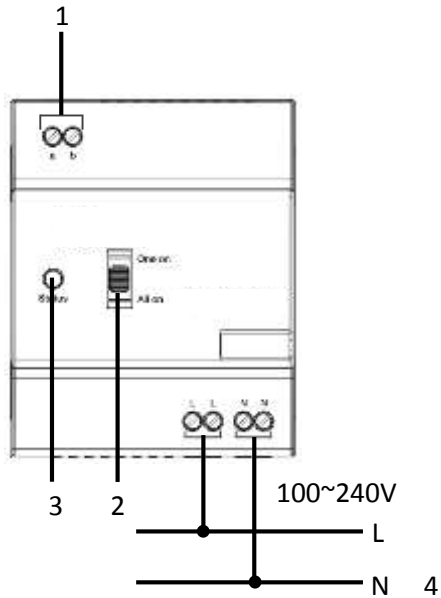





Fig. 1: Overview of control buttons

No.	Functions
1	<b>Bus in/out</b>
2	<b>Operating mode setting</b> Details see chapter 'Operating modes'.
3	<b>Operating status indicating LED</b>

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	- Ready for operation	- Fault
4	<b>Power supply</b>	

## 4.2 Operating modes

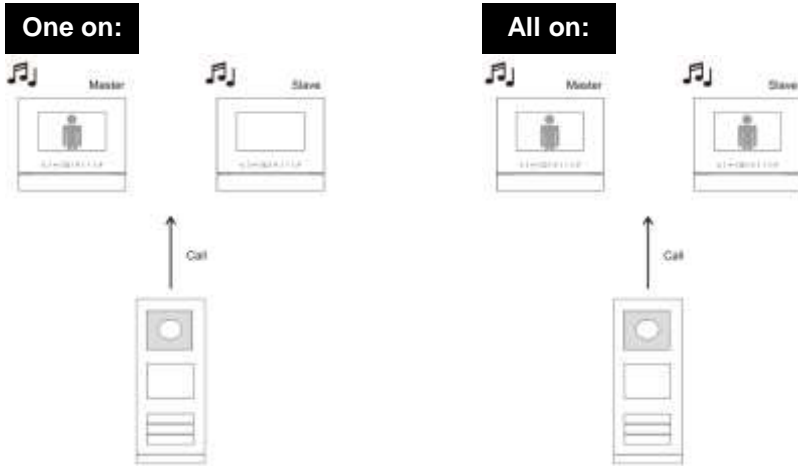


Fig. 2:

**“One on” mode:**

If there is an incoming call, all indoor stations in the same apartment ring together, but only the master indoor station switches on the screen.

**“All on” mode:**

If there is an incoming call, all indoor stations in the same apartment ring and switch on screen at the same time.

## 5 Technical data

<b>Designation</b>	<b>Value</b>
Operating temperature	-25°C to +55°C
Storage temperature	-40°C – +70°C
Protection	IP 20
Single-wire clamps	2 x 0.28 mm <sup>2</sup> – 2 x 1 mm <sup>2</sup>
Fine-wire clamps	2 x 0.28 mm <sup>2</sup> – 2 x 1 mm <sup>2</sup>
Mains voltage	100-240 V, 50 / 60 Hz, 1.0 A
Bus voltage	28 ± 2VDC, 0.65 A
Size	4 U



## 6 Mounting / Installation



### Warning

#### **Electric voltage!**

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

- 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 100-240V load on the low-voltage line.

### 6.1 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 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.

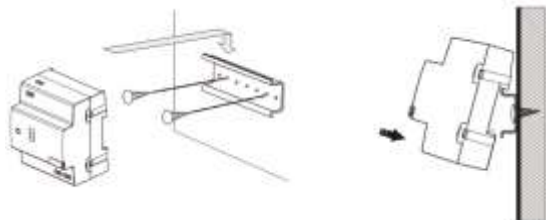
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the type supply network (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective earthing, necessary additional measures, etc.).

## 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 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.

## 6.3 Mounting

The device M2301 must only be installed on mounting rails according to DIN EN 50022.



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## Notice

We reserve the right to at all times make technical changes as well as changes to the contents of this document without prior notice.

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