

ABB-Welcome

M2305

Switch actuator



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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 M2305 switch actuator is an integral part of the ABB Welcome door communication system and operates exclusively with components from this system. The device can be mounted easily inside flush-mounted box.

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

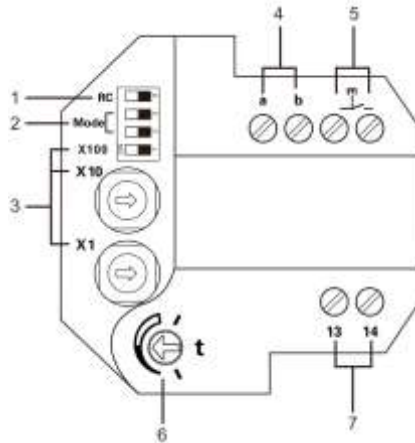


Fig. 1: Overview of control buttons

No.	Functions
1	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.
2	For operating the mode switchover button, see chapter on 'Operating modes'
3	Rotary switches for addressing (001-199)
4	Bus in/out
5	Connection with push-button (e.g. exit button, door bell)
6	Adjust relay switching time
7	Floating output for door opener or light

4.2 Operating modes

4.2.1 Call repetition

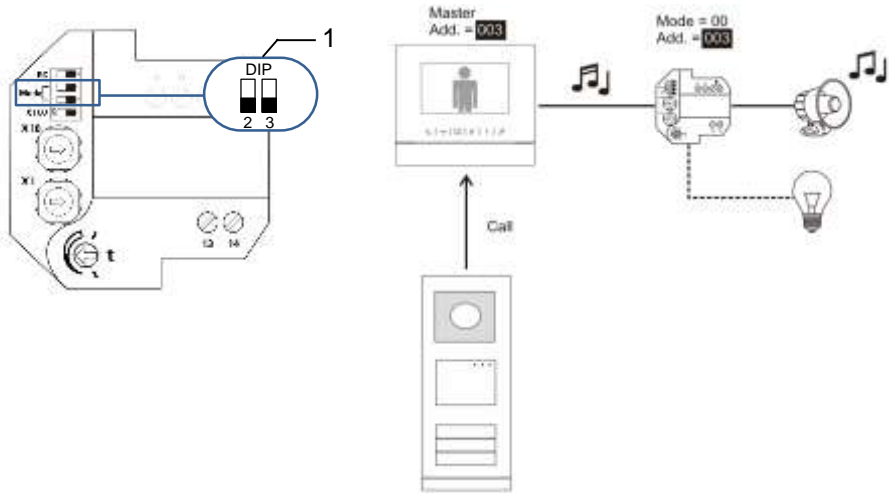


Fig. 2: Call repetition

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

The device is enabled for an incoming call to control an external bell or light.

The device is disabled after the call is answered or after a customized time out (ranging from 1 to 30 seconds).

The address of the switch actuator is equal to that of an indoor station in the same apartment.

4.2.2 Door Opener

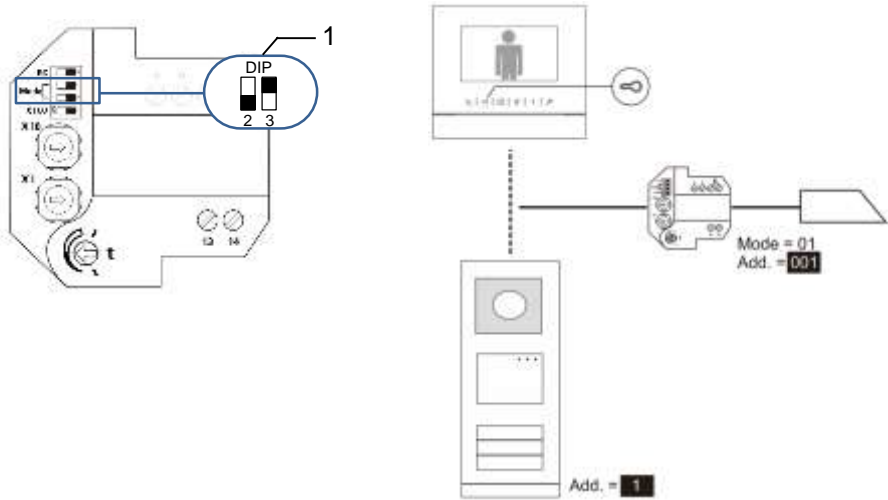


Fig. 3: Door opener

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

The device is enabled by pressing the unlock button of indoor stations / guard units, to release a connected lock.

The device is disabled after a customized time out (ranging from 1 to 10 seconds).

The address of the switch actuator is equal to that of an outdoor station in the same sub-system.

4.2.3 Time relay

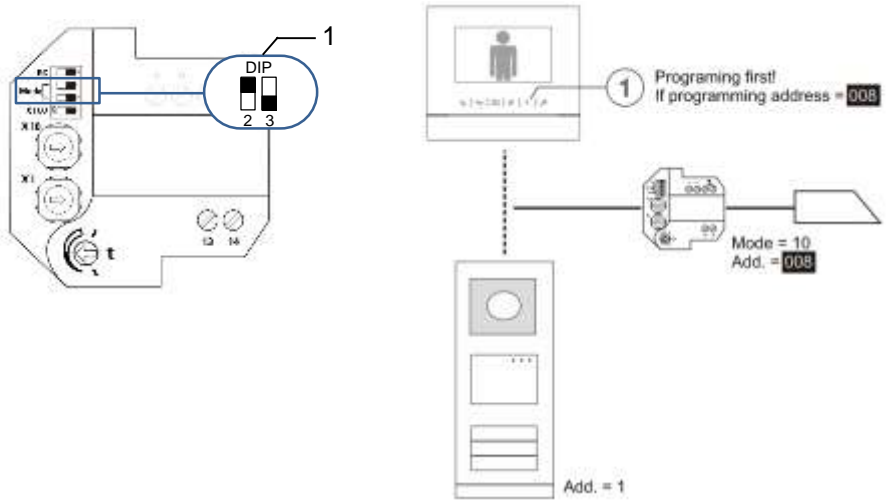


Fig. 4: Release a lock

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

The device is enabled by pressing the program button of indoor stations/ guard units or a light button of outdoor stations in the same sub-system, to release a connected lock or to switch on a light.

The device is disabled after a customized time out (ranging from 1 second to 5 minutes).

If an indoor station/ a guard unit is used to control the switch actuator, the address of the program button is equal to that of the switch actuator, which can be set from 001 to 199 in the same sub-system.

If an outdoor station is used to control the switch actuator, the address of switch actuator is equal to that of the outdoor station.

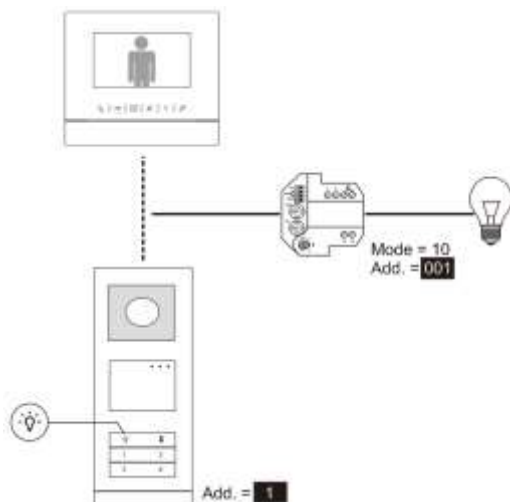


Fig. 5: Switch on a light

5 Technical data

Designation	Value
Operating temperature	-25°C to +55°C
Protection (with flush-mounted box)	IP 30
Single-wire clamps	2 x 0.28 mm ² – 2 x 1 mm ²
Fine-wire clamps	2 x 0.28 mm ² – 2 x 1 mm ²
Floating output for light	100-240 V AC, 3 AX
Bus voltage	30 V AC/DC; 3 A
Size	20-30V

6 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.

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.

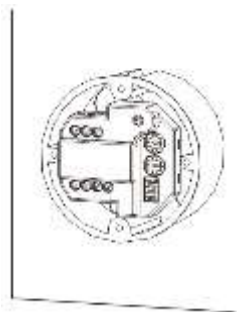
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the type supply network (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective earthing, necessary additional measures, etc.).

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

Mounted with a flush-mounted box



Notice

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