ABB Welcome®
83327-500
Camera interface

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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 integrates analog camera into the ABB Welcome door entry system. Up to four analog cameras can be connected to one camera interface. Each external camera is powered independently.

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.
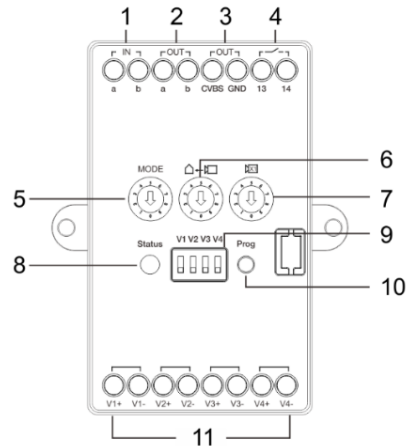
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4 Operation

4.1 Control elements

Fig. 1: Overview of control buttons

No.	Functions
1	Bus in
2	Bus out
3	CVBS out
4	Switch on camera power supply For details, please see *Chapter 4.4 With and without permanent power supply.*
5	**Working mode** There are four modes for the camera interface. For details, please see *Chapter 4.3 Operation mode.*
6	Set the address of the associated devices
7	Set the address of the camera interface
8	**Operating status notification LED** -Green: ready for operation -Orange: in setting mode -Red: fault
9	Dip switch to switch on/off the video channel
10	Program button to enter the programming mode
11	4 video (supports CVBS signal input)

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4.2   Operating modes

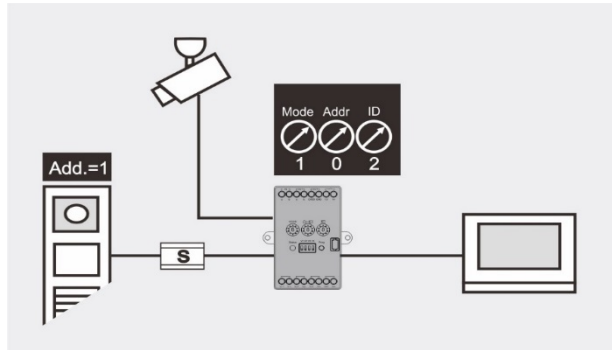### 4.2.1   Mode=1, works as an independent outdoor station

Fig. 2:   Mode=1, works as an independent outdoor station

Rotary	Value	Note
Mode	1	Camera interface works as an independent camera interface.
Addr	null	———
ID	2	ID starts from 1 to 9 sequentially, and should not be the same address as the camera interface or any other camera interface.

Dip Switch 1-4	Turn to ON when a camera is connected.

Capacity
Each camera interface supports four analog cameras.
A total of nine camera interfaces (mode=1) may be supported in one system.

Operation
Press ⌗ to view the cameras individually during surveillance.

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4.2.2   Mode=2, works associated with outdoor station
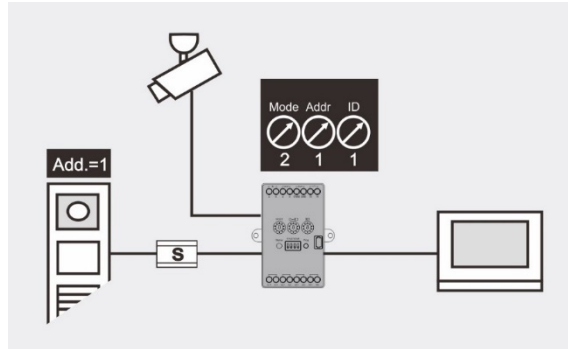
Fig. 3:   Mode=2, works associated with outdoor station

Rotary	Value	Note
Mode	2	Camera interface work associated with outdoor station.
Addr	1	Address of the associated outdoor station, from 1-9.
ID	1	ID can be set from 1-9, and should be unique.

Dip Switch 1-4	Turn to ON when a camera is connected.

Capacity

Each camera interface supports four analog cameras.

A total of 15 cameras can be associated with each outdoor station (including two built-in cameras in the outdoor station).

Operation

Press 🔲 to view the cameras individually during surveillance.

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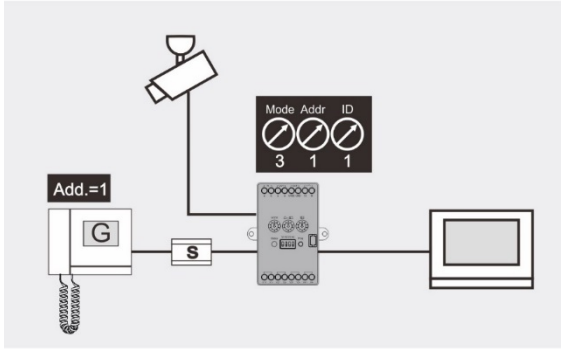## 4.2.3   Mode=3, works associated with guard unit

Fig. 4:   Mode=3, works associated with guard unit

Rotary	Value	Note
Mode	3	Camera interface work associated with guard unit.
Addr	1	Address of guard unit, from 1-9.
ID	1	ID can be set from 1-9, and should be unique.

Dip Switch 1-4	Turn to ON when a camera is connected.

Capacity

Each camera interface supports four analog cameras.

A total of 15 cameras can be associated with each guard unit.

Operation

During communication, image can be sent from guard unit to indoor station by pressing the "Enable" button.
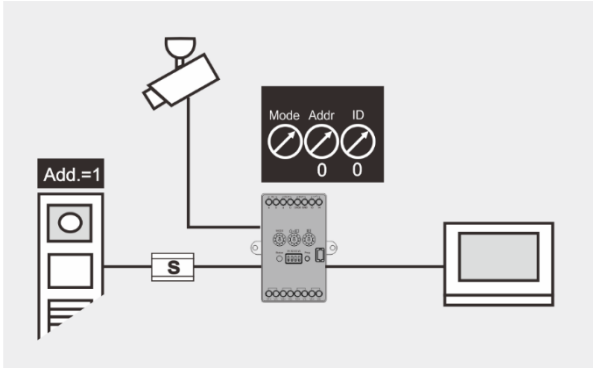
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4.2.4   Mode=4, programming mode
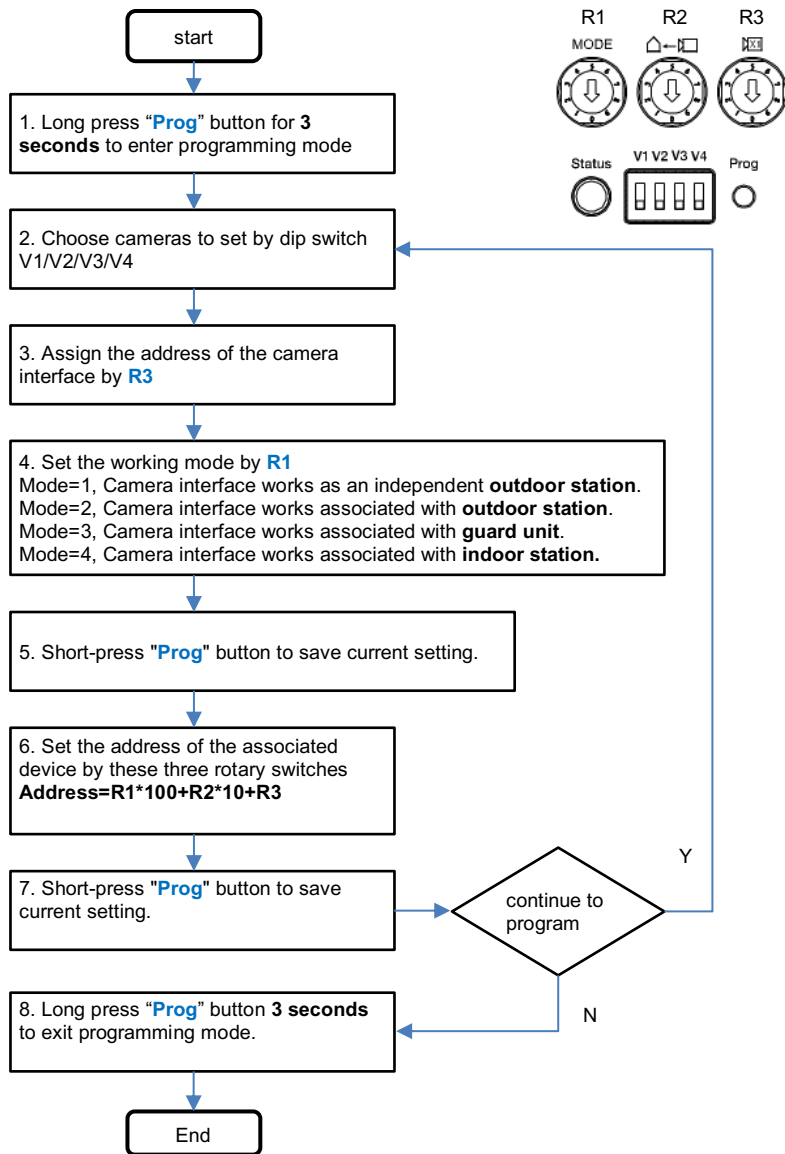

Fig. 5:   mode=4, programming mode

Rotary	Value	Note
Mode	4	Camera interface works in programming mode.
Addr	null	Camera interface mode, camera interface address and associated device address can all be programmed with software.
ID	null	In mode=4, besides camera interface and guard unit, camera interface can also be associated with video indoor station. If camera interface is associated with video indoor station, ID should start from 1 to 9 sequently. For details, see *Chapter 4.3 Programming mode.*

Dip Switch 1-4	Turn to ON when a camera is connected.

Capacity
Each camera interface supports four analog cameras. Each camera can be associated with different devices (i.e., outdoor station, guard unit, video indoor station).
A total of 36 cameras can be associated with each video indoor station. Each camera can be associated with 250 indoor stations.

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4.3 Programming mode

```
start
```

1. Long press "Prog" button for 3 seconds to enter programming mode

2. Choose cameras to set by dip switch V1/V2/V3/V4

3. Assign the address of the camera interface by R3

4. Set the working mode by R1
Mode=1, Camera interface works as an independent **outdoor station**.
Mode=2, Camera interface works associated with **outdoor station**.
Mode=3, Camera interface works associated with **guard unit**.
Mode=4, Camera interface works associated with **indoor station.**

5. Short-press "Prog" button to save current setting.

6. Set the address of the associated device by these three rotary switches Address=R1*100+R2*10+R3

7. Short-press "Prog" button to save current setting.

continue to program

Y

N

8. Long press "Prog" button 3 seconds to exit programming mode.

```
End
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R1   R2   R3
MODE

Status   V1 V2 V3 V4   Prog

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4.4   With and without permanent power supply

Camera with permanent power supply

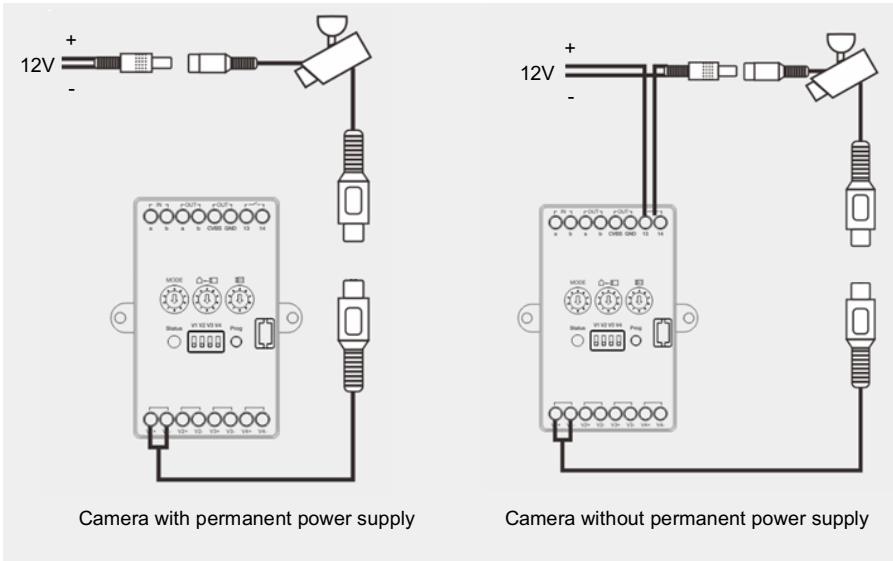Camera without permanent power supply

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4.5   Video signal from third party DVR
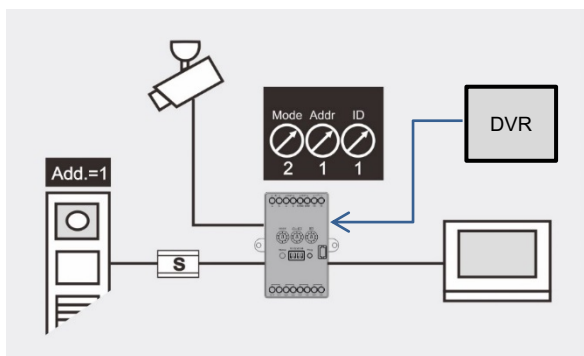
Fig. 6:   Video signal from third-party DVR

Note:

1) DVR output can be one of the inputs for camera interface in modes 1, 2, 3 and 4.

2) Each camera interface supports four DVR signals.

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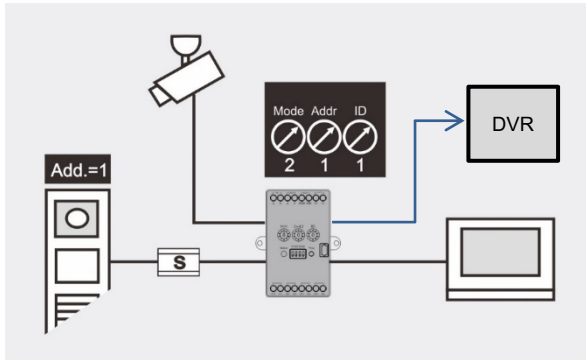
4.6   Video signal to be stored to third-party DVR

Fig. 7:   Video signal to be stored to third-party DVR

Note:

1) Camera interface sends video to video indoor station and also to DVR/TV through the CVBS output port.

2) Each camera interface supports one CVBS output.

3) After connecting CVBS output to DRV/TV, there are two options for sending video to DVR:

-Camera interface mode=2, video outdoor station calls video indoor station.

-Camera interface mode=3, "Enable" button is pressed at guard unit.

4) Camera interface doesn't send video to DVR/TV during video iIndoor station surveillance.

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5 Technical data

5.1 Overview table

Designation	Value
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 DC
Protection	IP 30
Operating temperature	-13 °F to 131 °F
Video input	1Vp-p, PAL/NTSC
Video output	1Vp-p@75Ω, PAL/NTSC
Camera interface to camera	Coax cable, max 328 ft. other cables, 32 ft. – 164 ft.
Size	3.03" x 2.40" x 0.98"

5.2 Device connection diagram

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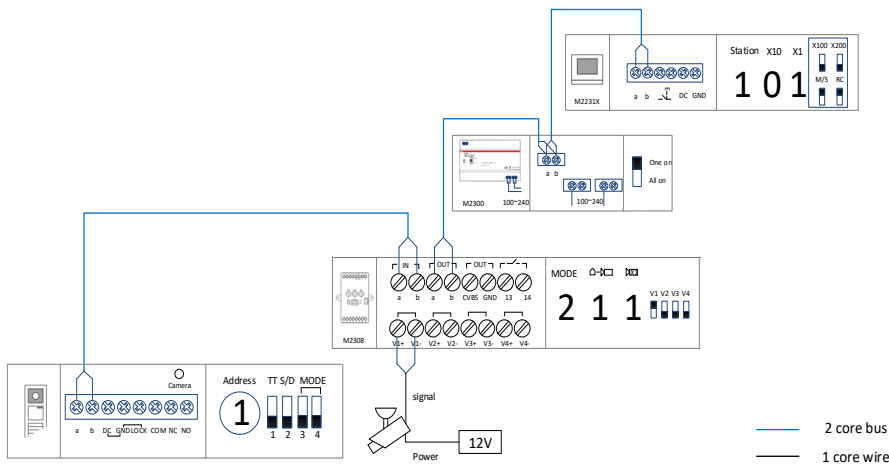
6   Mounting and installation

⚠ **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, such as a fire.

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

–   Apply the "five safety rules" (DIN VDE 0105, EN 50110):

–   Disconnect from power;

–   Secure against being re-connected;

–   Ensure there is no voltage;

–   Connect to earth;

–   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.).
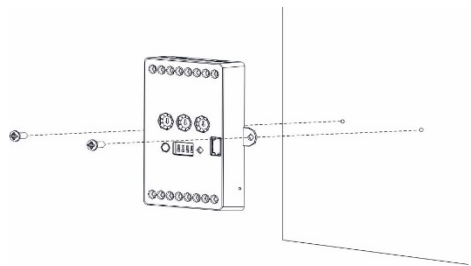
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6.2　　General installation instructions

– 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.

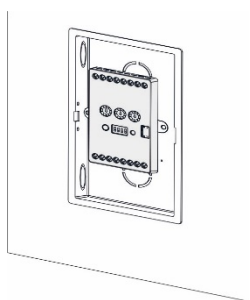– Never install the internal and external bus inside the same cable.
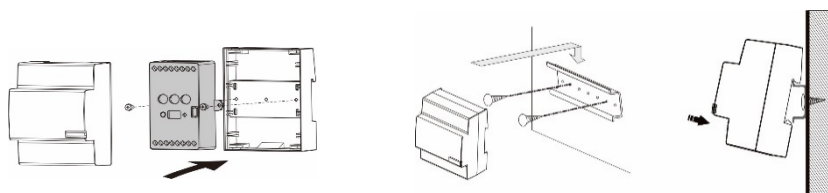
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6.3 Mounting
6.3.1 Surface-mounted installation

6.3.2 Flush-mounted installation

6.3.3 DIN installation

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