

# ABB-Welcome

## 83327-500 Camera interface



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## 1 Safety



### Warning

#### **Electric voltage!**

Dangerous currents flow through the body when coming into direct or indirect contact with live components.

This can result in electric shock, burns or even death.

- Disconnect the mains power supply prior to installation and/or disassembly!
- Permit work on the 110-240 V supply system to be performed only by specialist staff!

## 2 Intended use

This device integrates analog camera into the ABB-Welcome door entry system. Up to 4 analog cameras can be connected to 1 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. Therefore, dispose of the device at the appropriate recycling facility.

### 3.1 ABB devices

## ABB-Welcome

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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 an authorized recycling facilities or 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

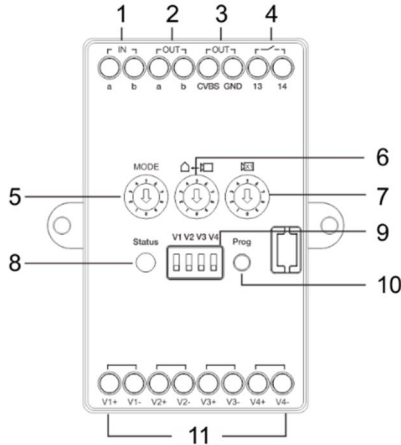


Fig. 1: Overview of control buttons

No.	Functions
1	Bus in
2	Bus out
3	CVBS out
4	Switch on camera power supply. For details, please see <a href="#">Chapter 4.4 With &amp; Without permanent power supply</a>
5	<b>Working mode</b> There are 4 modes for the camera interface, For details, please see <a href="#">Chapter 4.3 Operation mode</a> .
6	Set the address of the associated devices.
7	Set the address of the camera interface.
8	<b>Operating status notification LED</b> -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 in. (supports CVBS signal input)

## 4.2 Operating modes

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

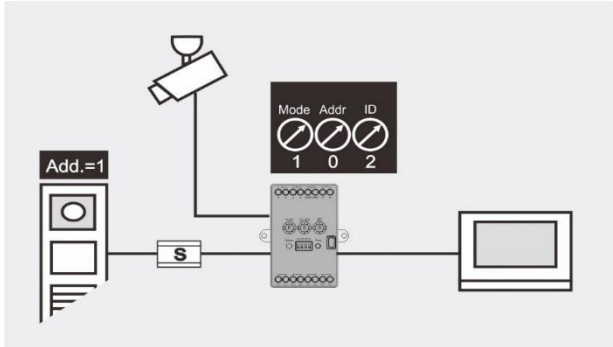


Fig. 2: Mode=1, works as an independent outdoor station

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 of camera interface or other camera interface.

<b>Dip Switch 1-4</b>	Turn to ON when a camera is connected.
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#### Capacity

Each camera interface supports 4 analog cameras.

A total 9 camera interfaces (mode=1) in one system.

#### Operation

Press **[A]** to view the cameras individually during surveillance.

## 4.2.2 Mode=2, works associated with outdoor station

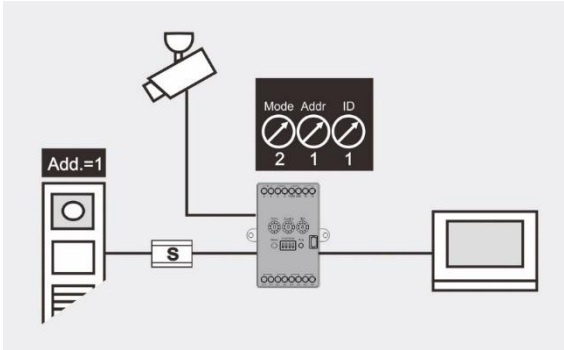


Fig. 3: Mode=2, works associated with outdoor station

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.

<b>Dip Switch 1-4</b>	Turn to ON when a camera is connected.
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### Capacity

Each camera interface supports 4 analog cameras.

A total of 15 cameras can be associated with each outdoor station (including 2 built-in cameras in outdoor station).

### Operation

Press **[2]** to view the cameras individually during surveillance.

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

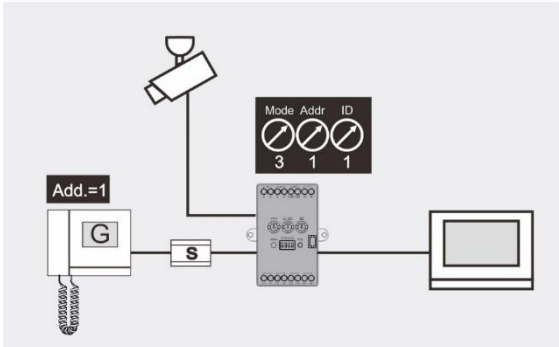


Fig. 4: Mode=3, works associated with guard unit

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.

<b>Dip Switch 1-4</b>	Turn to ON when a camera is connected.
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### Capacity

Each camera interface supports 4 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.



## 4.2.4 Mode=4, programming mode

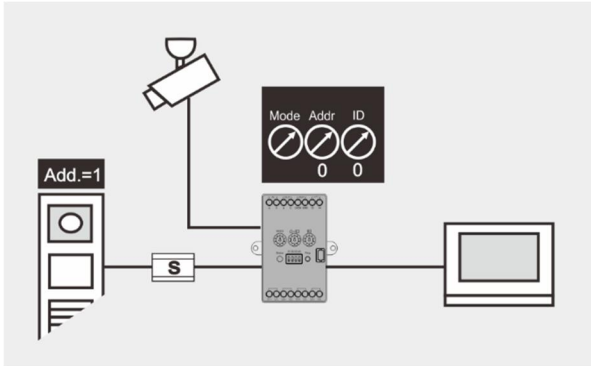


Fig. 5: mode=4, programming mode

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 sequentially. For details, see <a href="#">Chapter 4.3 Programming mode</a> .

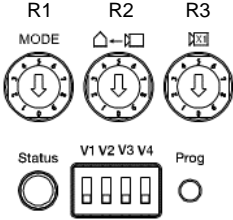
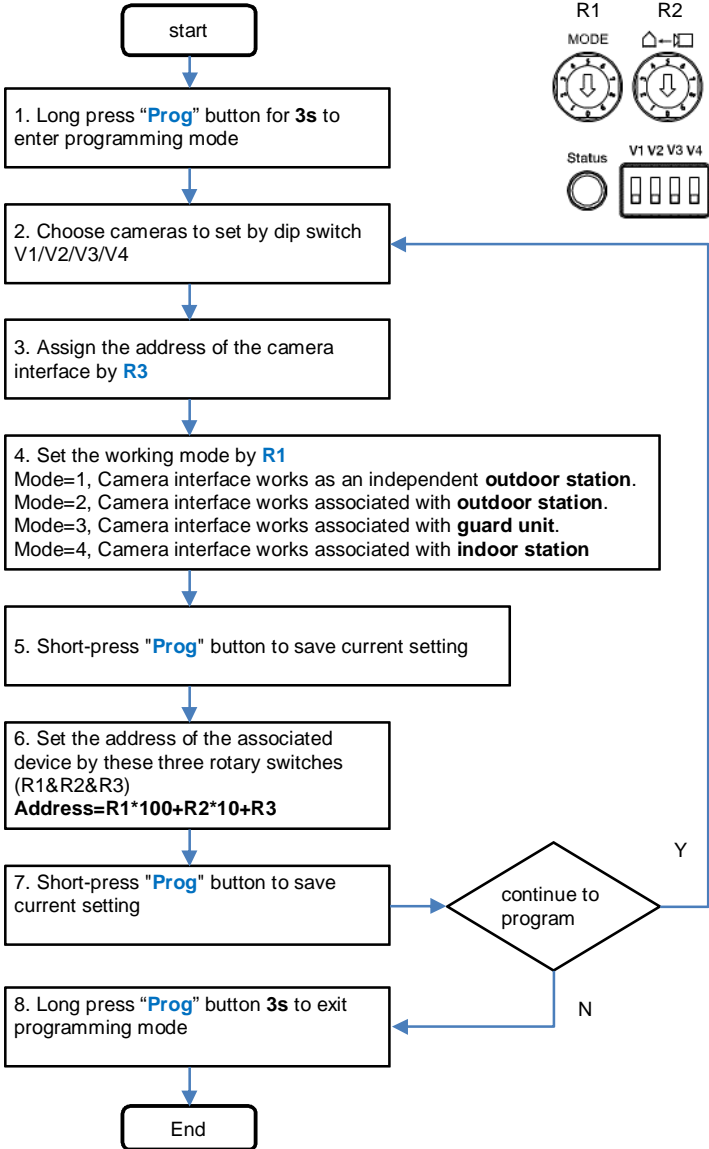
<b>Dip Switch 1-4</b>	Turn to ON when a camera is connected.
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### Capacity

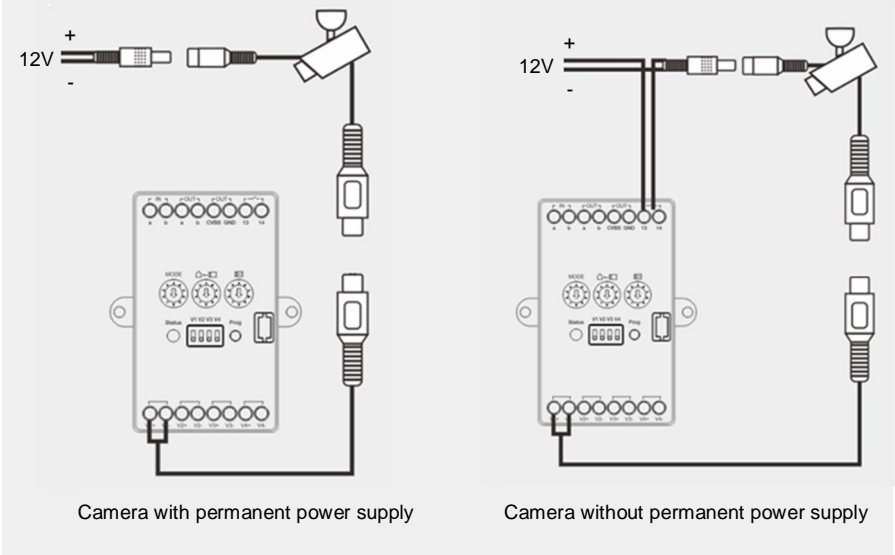
Each camera interface supports 4 analog cameras. Each camera can be associated with different devices (i.e., outdoor station, guard unit, video indoor station).

A total of 36 cameras can be associated with each video indoor station. Each camera can be associated with 250 indoor stations.

## 4.3 Programming mode



## 4.4 With and without permanent power supply



## 4.5 Video signal from third party DVR

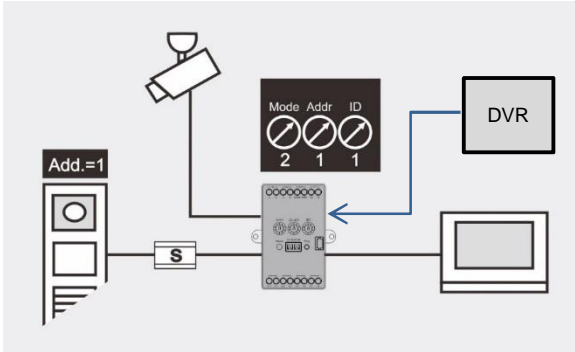


Fig. 6: Video signal from third party DVR

**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 4 DVR signals.

## 4.6 Video signal to be stored to third party DVR

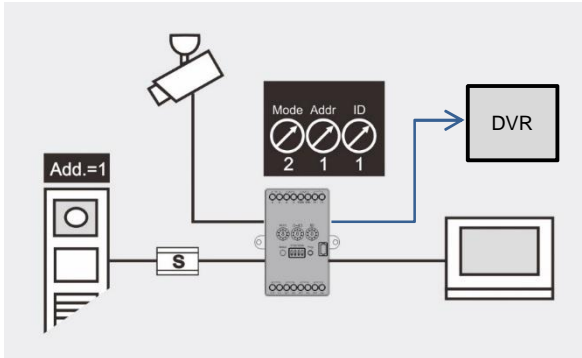


Fig. 7: Video signal to be stored to third party DVR

### Note:

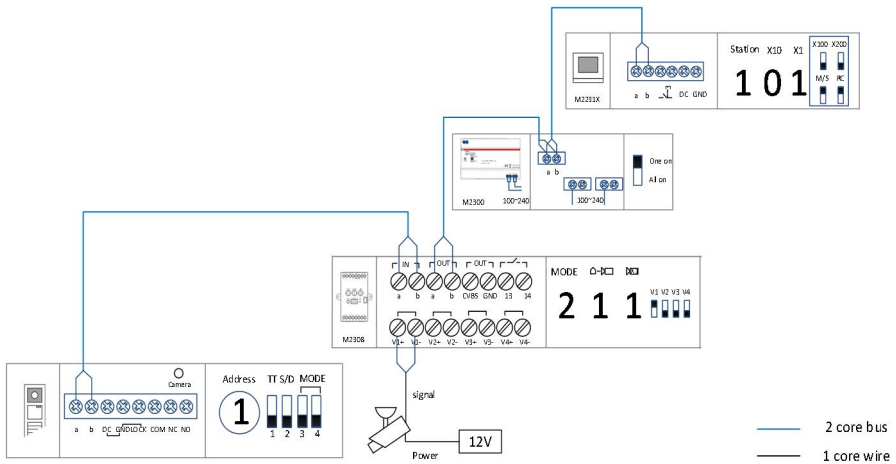
- 1) Camera interface sends video to video indoor station and also to DVR/TV through the CVBS output port.
- 2) Each camera interface supports 1 CVBS output.
- 3) After connecting CVBS output to DRV/TV, there are two options for sending video to DVR:
  - Camera interface mode=2, video outdoor station 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 Indoor station surveillance.

## 5 Technical data

### 5.1 Overview table

Designation	Value
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 DC
Protection	IP 30
Operating temperature	-25 °C - +55 °C
Video input	1Vp-p, PAL/NTSC
Video output	1Vp-p@75Ω, PAL/NTSC
Camera interface to camera	Coax cable, Max 100 metres other cables, 10-50 metres
Size	77 mm x 61 mm x 25 mm

### 5.2 Device connection diagram



## 6 Mounting/Installation



### Warning

#### **Electric voltage!**

Dangerous currents flow through the body when coming into direct or indirect contact with live components.

This can result in electric shock, burns or even death.

- Disconnect the mains power supply prior to installation and/or disassembly!
- Permit work on the 110-240 V supply system to be performed only by specialist staff!

### 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, 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):
  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.

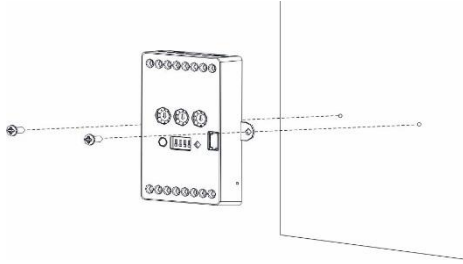


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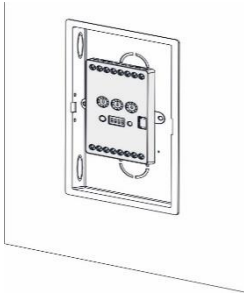
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## 6.3 Mounting

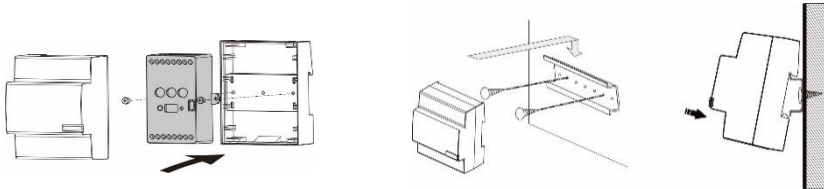
### 6.3.1 Surface-mounted installation



### 6.3.2 Flush-mounted installation



### 6.3.3 DIN installation



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