

2TMD041800D0010 | 14.04.2021

# Product manual ABB-Welcome IP

## H81381P.-. IP pushbutton outdoor station



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## 1 Notes on the instruction manual

Please read through this manual carefully and observe the information it contains. This will assist you in preventing injuries and damage to property and ensure both reliable operation and a long service life for the device.

Please keep this manual in a safe place. If you pass the device on, also pass on this manual along with it. ABB accepts no liability for any failure to observe the instructions in this manual.

## 2 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 100-240 V supply system to be performed only by specialist staff!

### 3 Intended use

As part of the ABB-Welcome IP system, this device can only be used with accessories from that system.

#### **Security mode**

This outdoor station runs in "Security mode" by default to guarantee high security.

In "Security mode", this outdoor station requires a certificate issued by the management software before it can function normally.

#### **Compatible mode**

If there is no management software, this outdoor station needs to run in "Compatible mode" to function normally. This can be set on the indoor station. Please refer to the product manual for "IP touch 7".

#### **Video privacy**



#### **Video privacy**

Making and saving video recordings can infringe on personal rights! Always observe the applicable legal and labeling requirements for the placement and operation of video components!

## 4 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 collecting facility.

### **4.1 ABB devices**

All packaging materials and devices from ABB bear the markings and test seals for proper disposal. Always dispose of the packing materials and electric devices and their components via an authorized collection facility or disposal company.

ABB products meet the legal requirements, in particular the laws governing electronic and electrical devices and the REACH ordinance.

(EU-Directive 2012/19/EU WEEE and 2011/65/EU RoHS)

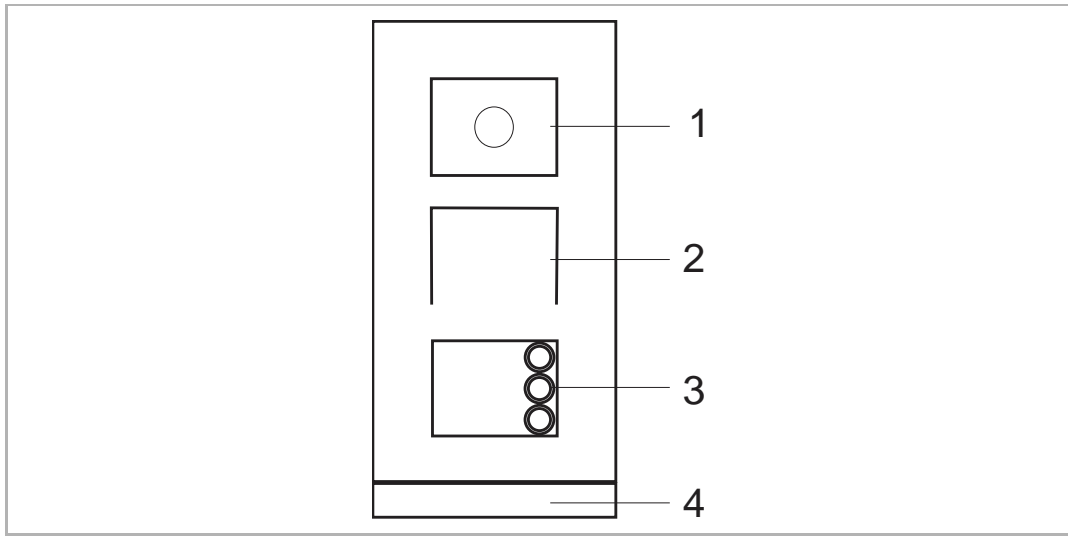
(EU-REACH ordinance and law for the implementation of the ordinance (EG) No.1907/2006)

## 5 Product description

### 5.1 Device type

Article number	Product ID	Product name	Colour	Size (HxWxD) Unit: mm
H81381P1-S	2TMA130010X0001	OS, IPpush, 1 gang	Stainless steel	135 x 277 x 29
H81381P2-S	2TMA130010X0002	OS, IPpush, 2 gang	Stainless steel	135 x 277 x 29
H81381P3-S	2TMA130010X0003	OS, IPpush, 3 gang	Stainless steel	135 x 277 x 29

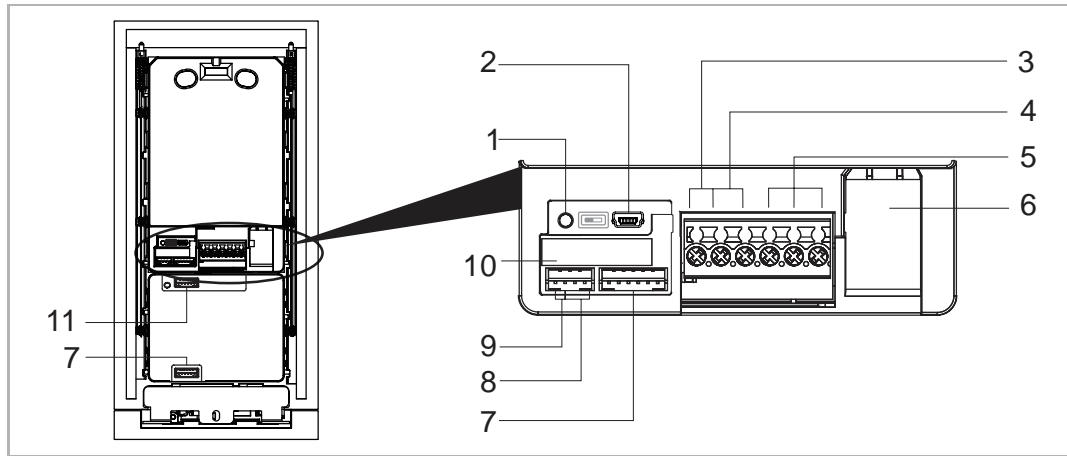
5.2 Control elements



No.	Function
1	Camera
2	Speaker and microphone integration
3	Round pushbutton
4	End strip








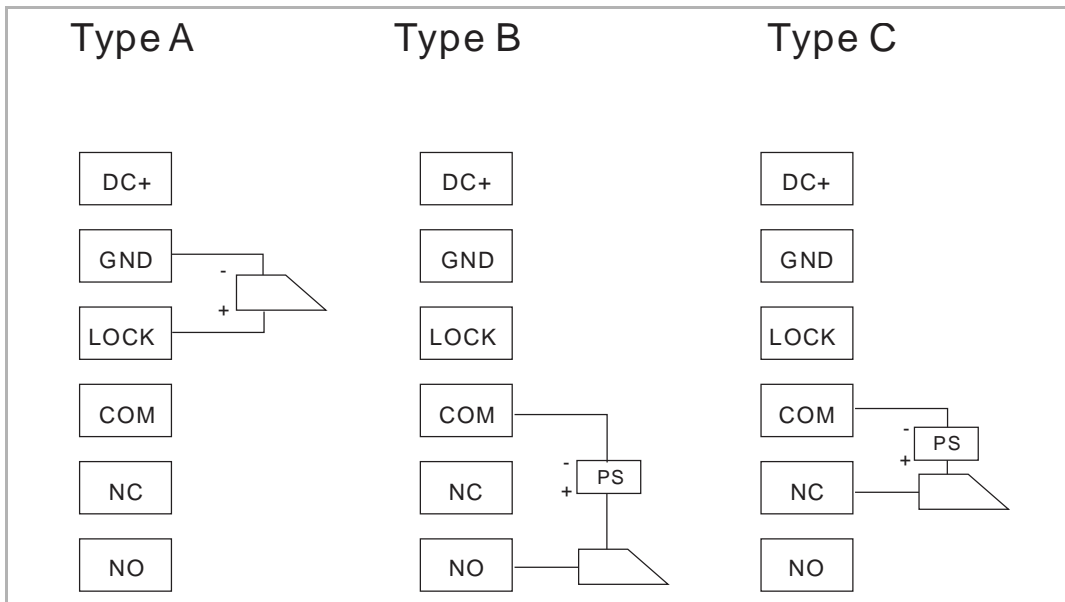
5.3 Terminal description



No.	Function
1	Reset button
2	Micro USB update connector
3	Plug-in clamps (DC+...GND) for standalone power supply
4	Plug-in clamps (LOCK...GND) for door opener
5	Plug-in clamps (COM...NC...NO) for floating output, door opener
6	LAN (PoE)
7	Connector for next module
8	Connector for exit button
9	Connector for the sensor used for door status detection
10	Connector for 5" display module
11	Connector for previous module

5.4 Lock type and connection

Lock type	Pic	Operation type	Voltage	Wiring type
Electrical strike lock, 12V		Power on to open	12 V $\overline{=}$ /~	Type A/B
Electrical strike lock, 24V		Power on to open	24 V $\overline{=}$ /~	Type B
Electrical rim lock, 12 V		Power on to open	12 V $\overline{=}$	Type A/B
Electrical mortise lock		Power off to open	12 V $\overline{=}$	Type C
Magnetic lock		Power off to open	12/24 V $\overline{=}$	Type C



## 6 Technical data

<b>Designation</b>	<b>Value</b>
Rating voltage	24 V DC
Operating voltage range	20-27 V DC
Rating current	27 V DC, 300 mA 24 V DC, 330 mA
Operating temperature	-40 °C...+55 °C
Product dimensions	135mm x 276.9 mm x 17.6 mm
Camera type	CMOS
Camera viewing angle	130°
Resolution ratio	HD (1280 x 720 pixel)
Power supply for door opener	18 V, 4 A impulse, max. 250 mA holding
Floating output for door opener	230 V AC, 3 A 30 V DC, 3 A
Video codec	H.264
Audio codec	G.711
IP level	IP 54
IK level	IK 07
Network connection standard	IEEE 802.3, 10Base-T/100Base-TX, auto MDI/MDI-X

## 7 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 100-240 V supply system to be performed only by specialist staff!

### 7.1 Requirement 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.

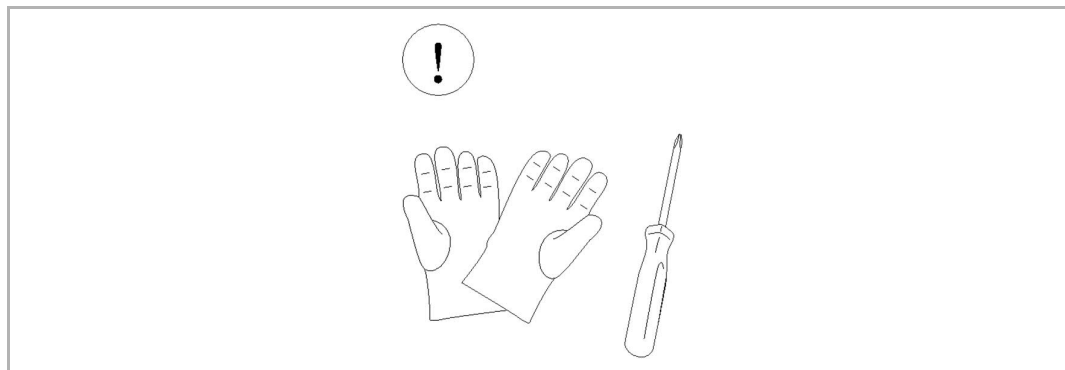
The minimum necessary expert knowledge and requirements for the installation are as follows:

- Apply the "five safety rules" (DIN VDE 0105, EN 50110):
  1. Disconnect
  2. Secure against being re-connected
  3. Ensure there is no voltage
  4. Connect to earth and short-circuit
  5. Cover or barricade adjacent live parts.
- Use 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 grounding, necessary additional measures, etc.).

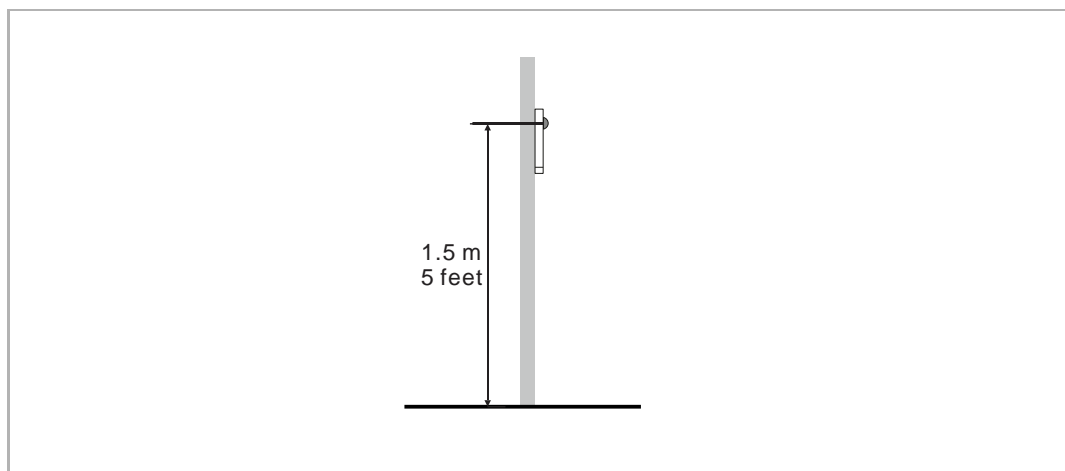
## 7.2 Mounting

### 7.2.1 Preparation

Use gloves to protect yourself against cuts.



### 7.2.2 Installation height

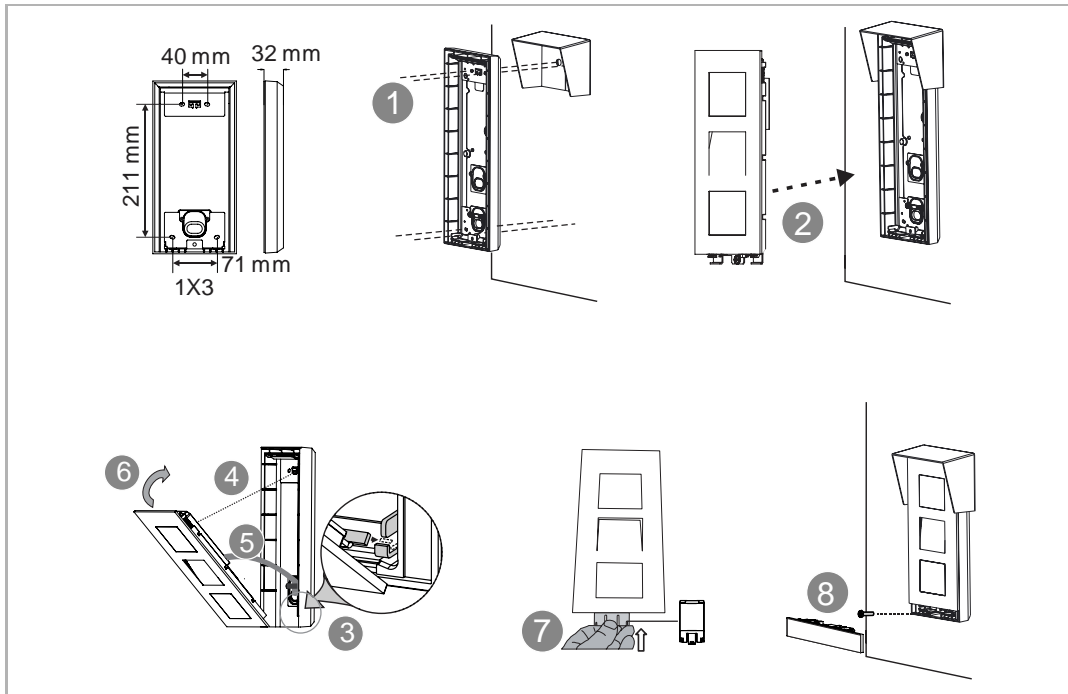


**Note**

The following installation situations must be avoided without fail to ensure picture quality:

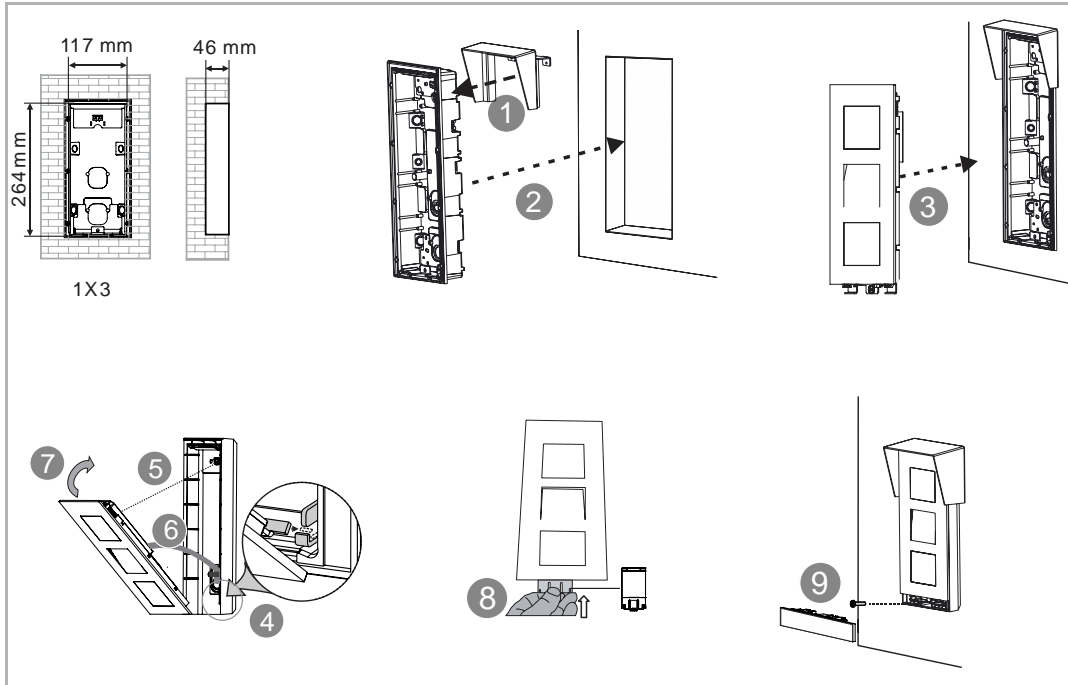
- Direct light
- Direct sunlight
- Extremely bright picture background
- Highly reflective walls on the opposite side of the door station

7.2.3 Surface-mounted installation



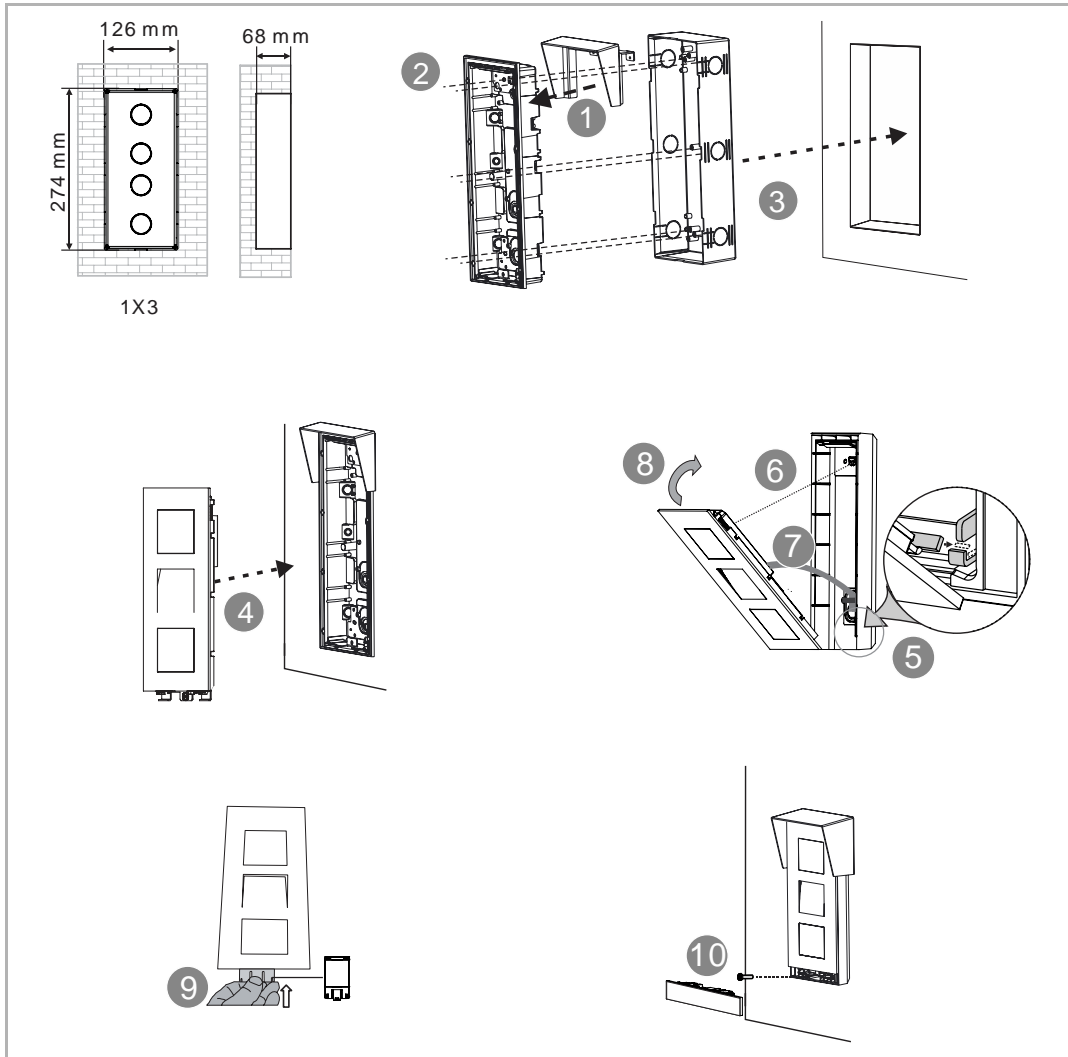
**7.2.4 Flush-mounted installation**

1. Flush-mounted without pre-installation box

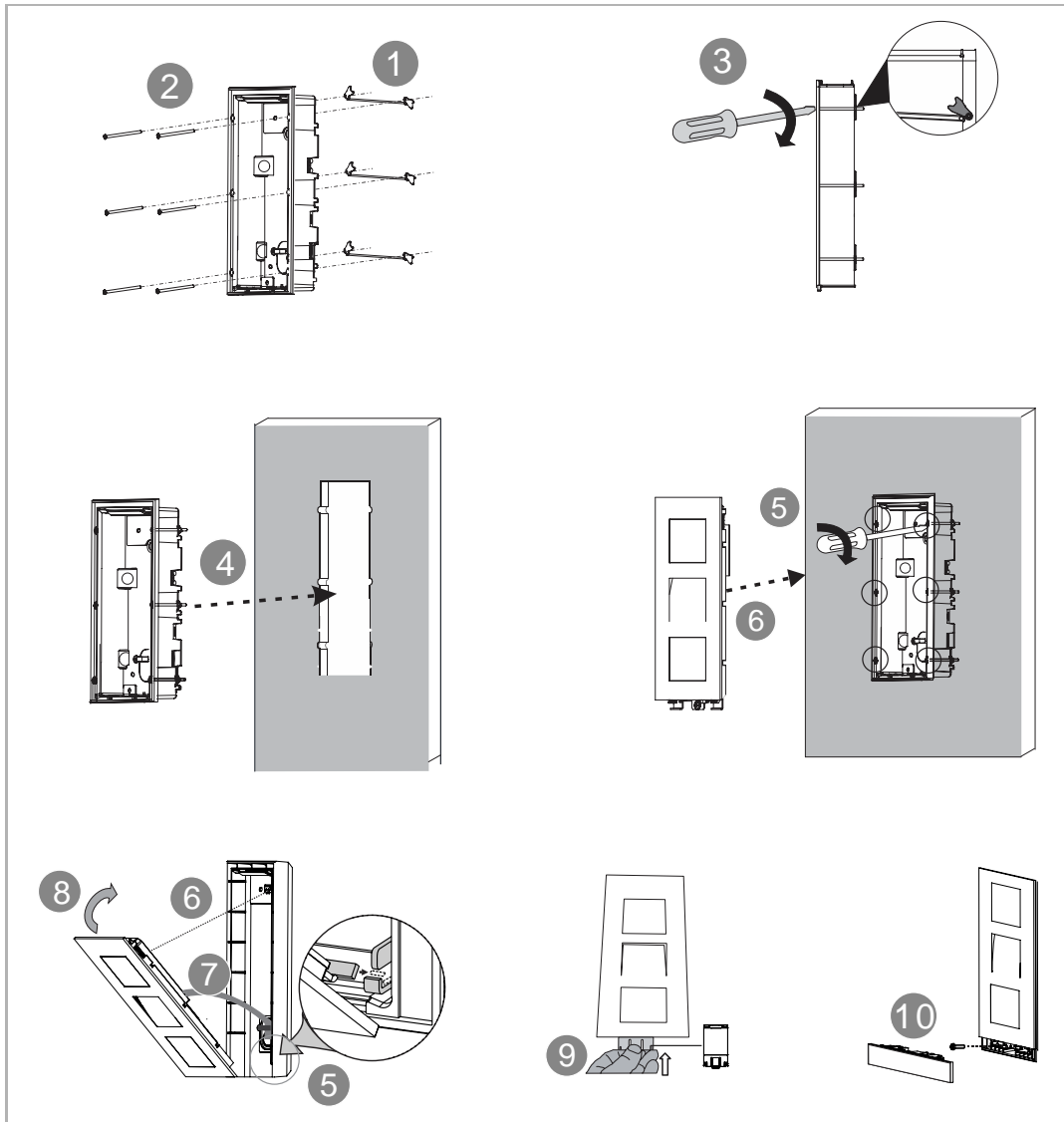




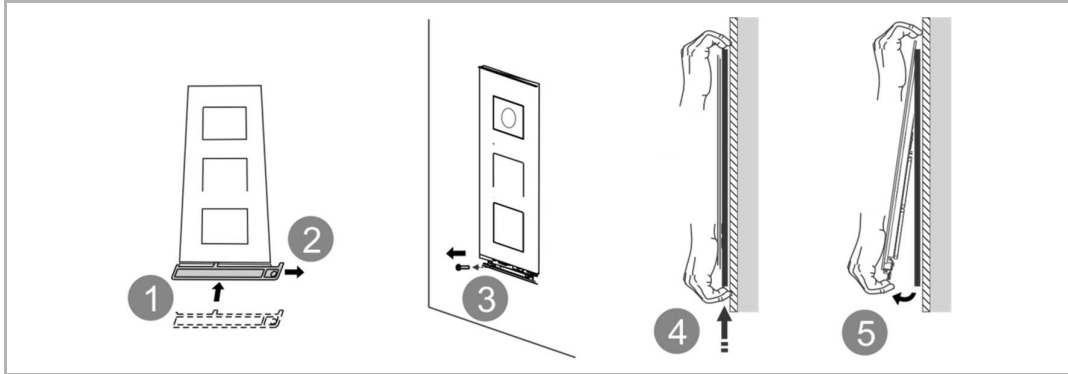
2. Flush-mounted with pre-installation box



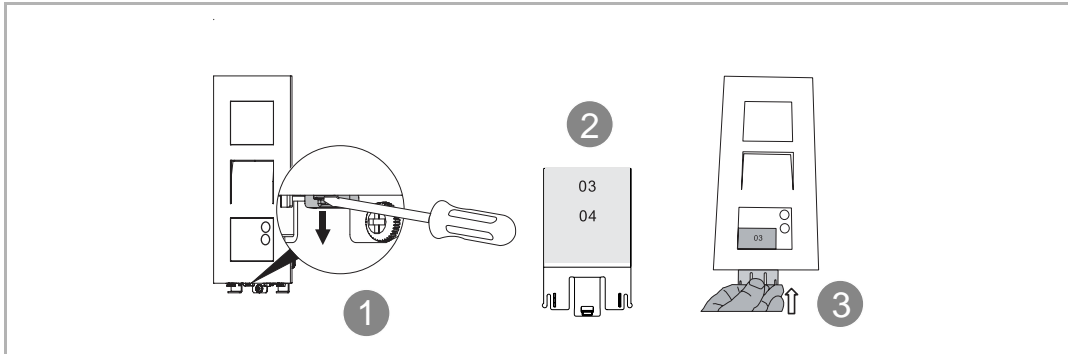
7.2.5 Cavity wall installation



7.2.6 Dismantling



7.2.7 Replacing the nameplate



## 8 Commissioning

The outdoor station must be configured via the indoor station.

### Step1: Outdoor station enters engineering mode

- Power on the outdoor station, wait a while until all 3 LED indicators go out.
- Hold the first button on the outdoor station for 10 s until all 3 LED indicators start to flash.

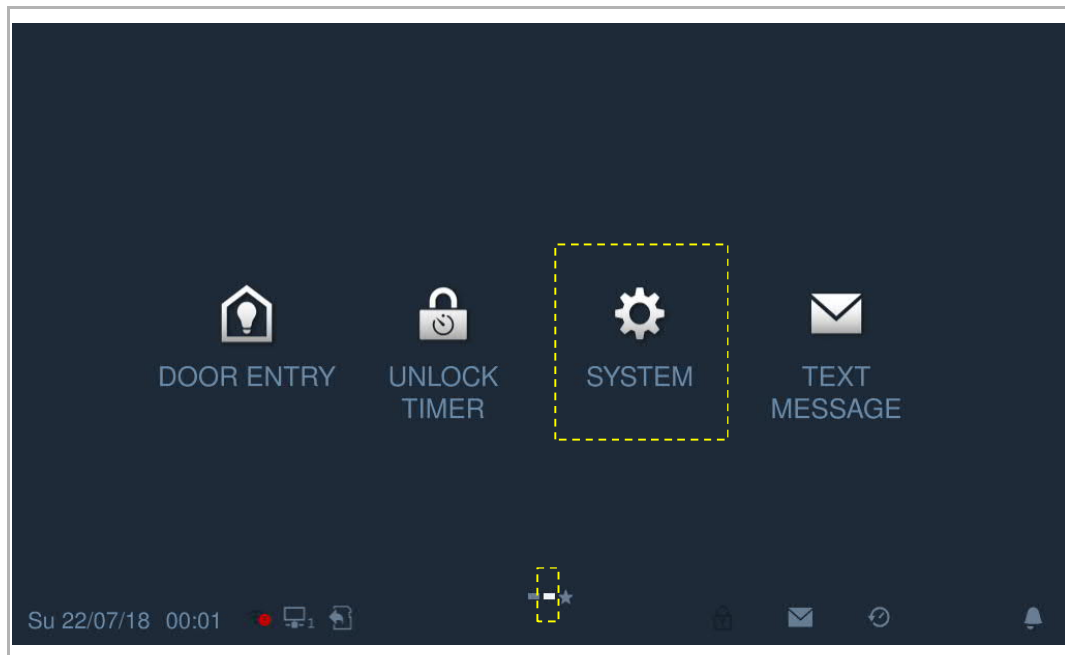


#### Tip

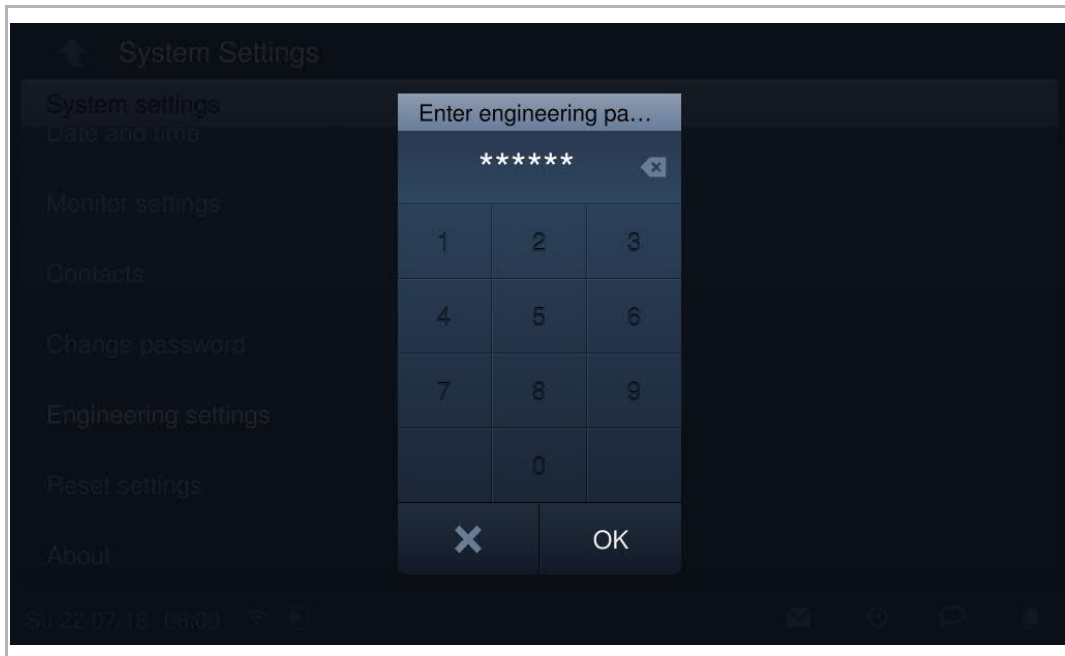
The outdoor station will quit engineering mode after 5 minutes.

### Step 2: Indoor station enters engineering mode

On the extra screen on the indoor station, click "System" to enter the settings screen.



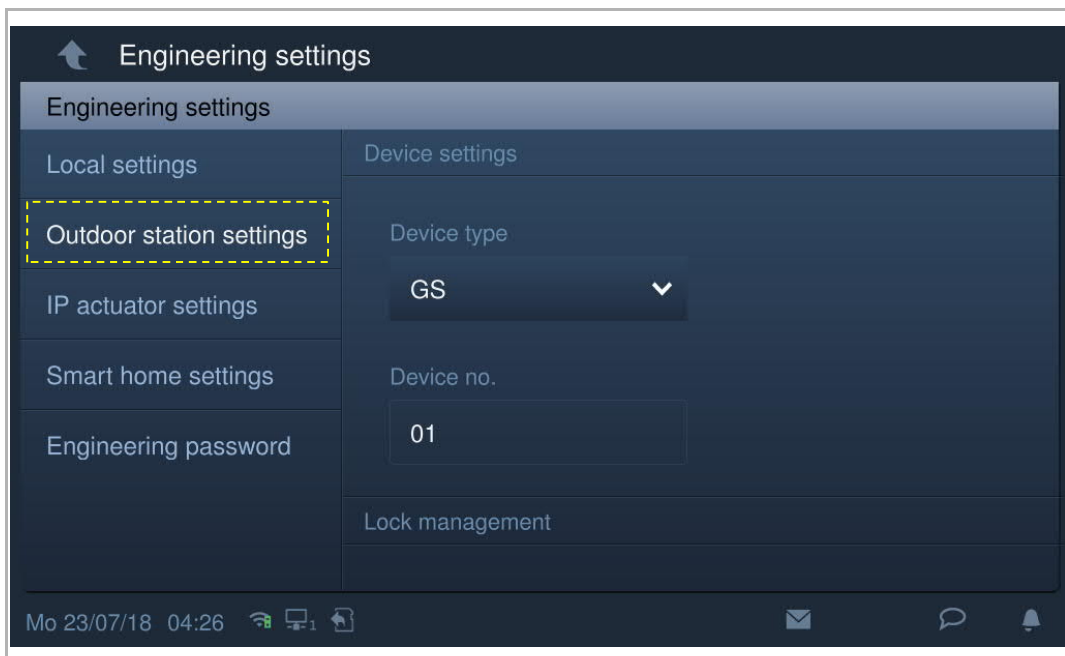
On the "System settings" screen, click "Engineering settings", enter the engineering password (default is 345678) to enter the settings page.



**Step3: Indoor station configures outdoor station**

On the "Engineering settings" screen, click "Outdoor station settings" to configure the outdoor station.

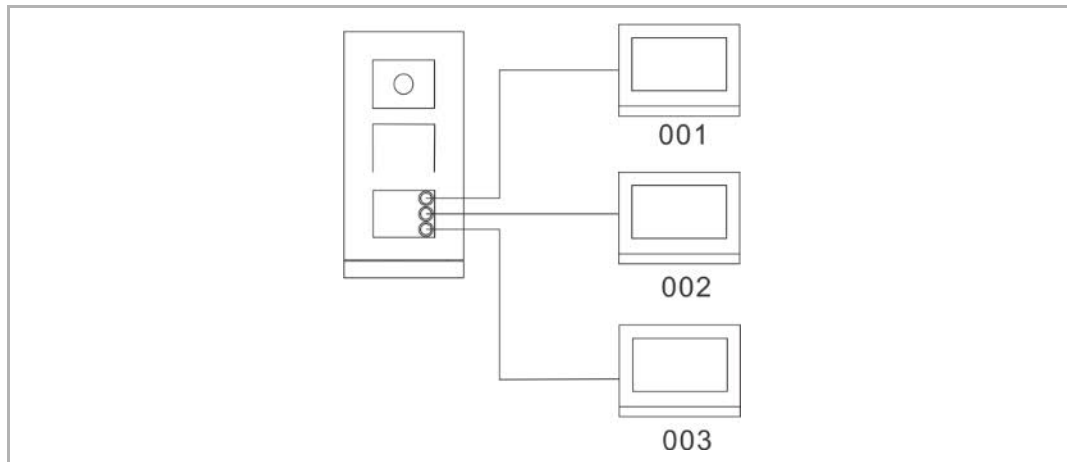
Please refer to the product manual for the IP touch 7".



## 9 Operation

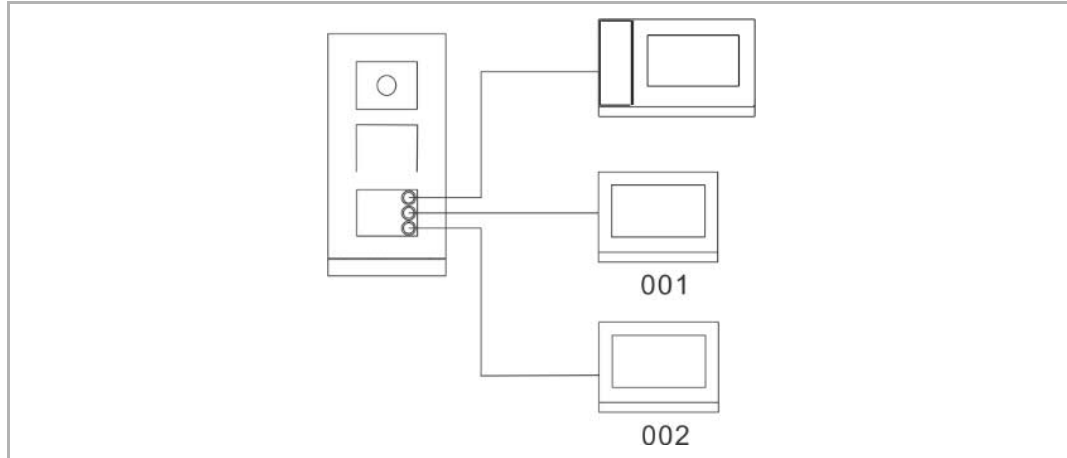
### 9.1 Calling a resident

Press the button to start a call (default) and press again to restart the call.



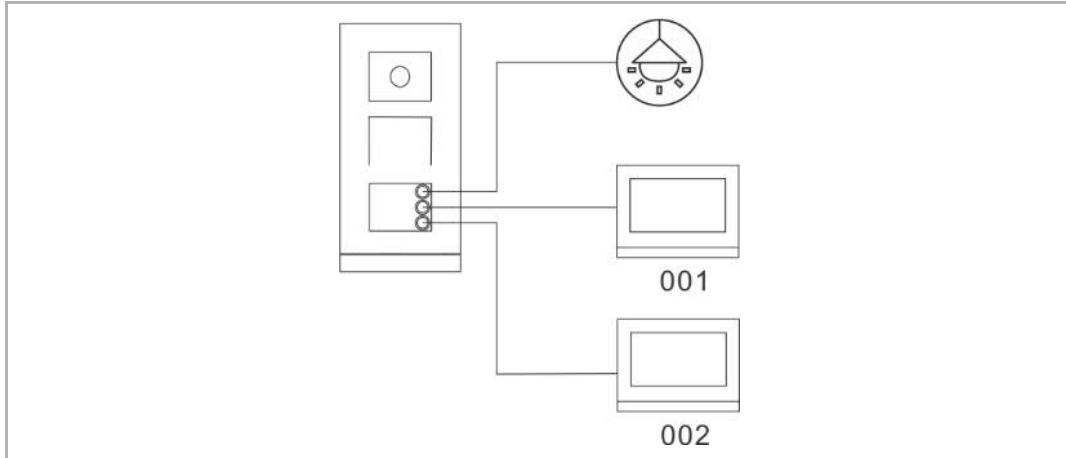
## 9.2 Calling a guard unit

If the outdoor station has been configured via the indoor station, we can press the pushbutton to call the designated guard unit. Please refer to the product manual for the IP touch.



### 9.3 Turn on a light

If the outdoor station is configured by the indoor station, we can press the pushbutton to switch on the light connected to the IP actuator. Please refer to the product manual for the IP touch.





## 10 Cyber security

### 10.1 Disclaimer

H81381P.-. products are designed to be connected and to communicate information and data via a network interface, which should be connected to a secure network. It is customer's sole responsibility to provide and continuously ensure a secure connection between the product and customer's network or any other network (as the case may be) and to establish and maintain appropriate measures (such as but not limited to the installation of firewalls, application of authentication measures, encryption of data, installation of antivirus programs, etc.) to protect the H81381P.-. product, the network, its system and interfaces against any kind of security breaches, unauthorized access, interference, intrusion, leakage and/or theft of data or information. ABB and its affiliates are not liable for damages and/or losses related to such security breaches, unauthorized access, interference, intrusion, leakage and/or theft of data or information.

Although ABB provides functionality testing on the products and updates that we release, you should institute your own testing program for any product updates or other major system updates (to include but not limited to code changes, configuration file changes, third party software updates or patches, hardware change out, etc.) to ensure that the security measures that you have implemented have not been compromised and system functionality in your environment is as expected.

### 10.2 Performance and service

#### Network performance

Type	Value
Ethernet	24 Mbps (37,449 packets/sec)
ARP	12 Mbps (18,724 packets/sec)
ICMP	22 Mbps (34,328 packets/sec)
IP	22 Mbps (34,328 packets/sec)

#### Port and service

Port	Service	Purpose
5070	UDP	To be used by SIP client.
7777	TCP/UDP	To be used for device management.
10777	TLS	Secure channel for device management
7005	TCP	To be used for connectivity detection when this feature is enabled.
8887	TCP	To be used for firmware update.

### 10.3 Deployment guideline

All devices need to work in security mode by default and. all devices in one system shall be signed by a public CA at commissioning stage, normally management software works as CA.

It's suggested that compatible mode only to be used when device needs to communicate with previous generation products. In this mode, data transmission between devices are not encrypted, it may lead to data leaks and has the risk of being attacked.

When user decide to remove the device from system, user shall reset the device to factory setting in order to remove all the configuration data and sensitive data in the device. This will prevent sensitive data leak.

It is recommended to apply "MAC filter" and "Rate limiter" in the switch to prevent DOS attack.

### 10.4 Upgrading

Device supports firmware updates via management software, a signature file will be used to verify the authentication and integrity of firmware.

### 10.5 Backup/Restore

None.

### 10.6 Malware prevention solution

The H81381P.-. device is not susceptible to malware, because custom code cannot be executed on the system. The only way to update the software is by firmware upgrades. Only firmware signed by ABB can be accepted.

### 10.7 Password rule

The user must change the engineering password when accessing the engineering settings for the first time. This engineering password must not include continuously increasing or decreasing numbers (e.g. 123456, 654321), and three consecutive identical numbers are similarly not permitted (e.g. 123444, 666888).

## 11 Notice

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Approvals and Compliances

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