H4020 | H4021

GoSmart videophone 7" set IP-750A / 750B

Table of Contents

zdroj: 3010040200_31-H4020_00_01_WEB_CSY.indd

Safety instructions and warnings

⬚ Before using the device, read the instructions for use.

⚠ Observe the safety instructions in this manual.

Do not use multiple extension cables to power the device. Failure to do so may generate elevated temperatures and a fire hazard.

Do not place heavy objects on the device.

Do not use water or chemicals to clean dirt from the outside of the device. Always use a dry cloth to prevent mechanical damage and electric shock.

Do not bend or disconnect the power cable from the mains by force. If it is damaged, there is a risk of fire or electric shock.

Do not connect the device to other devices, otherwise it may be permanently damaged.

Do not connect the power cord to the power outlet with wet or damp hands, as there is a risk of electric shock.

Do not install the device in a humid environment. Failure to observe the prescribed operating conditions may result in fire, electric shock or permanent damage to the equipment.

Do not disassemble, repair or modify the equipment yourself. Doing so may result in fire, electric shock or permanent damage.

EMOS Ltd. hereby declares that the radio equipment type H4020 and H4021 are in compliance with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available on this website http://www.emos.eu/download.
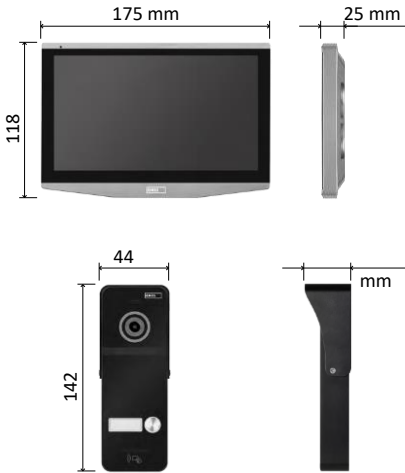
The equipment can be operated on the basis of general authorisation No. VO-R/10/07.2021-8 as amended.

Package Contents

Indoor Monitor
Monitor Holder
Camera unit (H4020 only)
Power supply
5x RFID chip
Installation material - screws
Manual
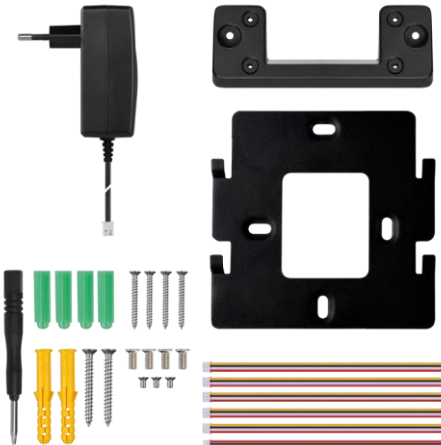
## Technical Specifications

Display: 7" IPS
Resolution:
1080p/960p/720p/480p
Video formats: AHD/CVI/TVI/CVBS
Lens angle: 160°
Storage: SD card (max. 128 Gb, min. Class 10, FAT32), expandable to Cloud storage directly in EMOS GoSmart
Degree of protection: IP55
Maximum number of users: 10
APP: EMOS GoSmart for Android and iOS
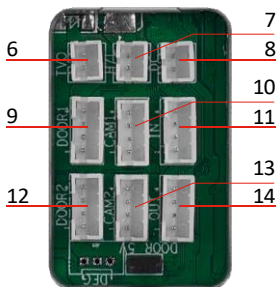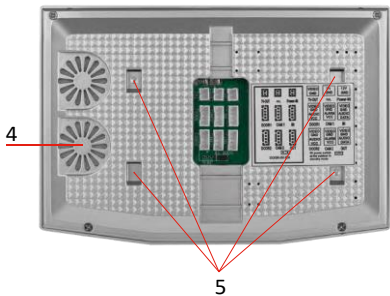Connectivity: 2.4 GHz WIFI (IEEE802.11b/g/n)

Notice

2.4 GHz   5 GHz
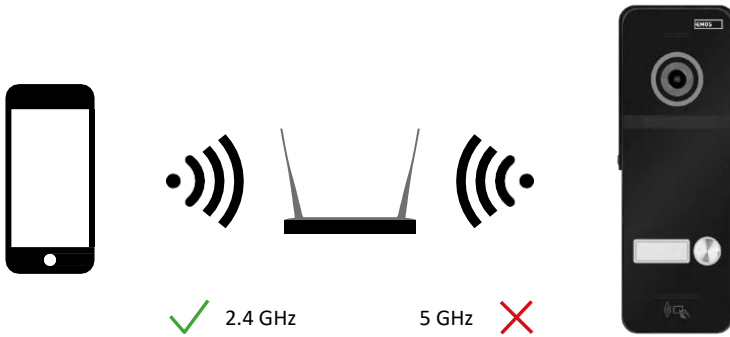
The device only supports 2.4GHz Wi-Fi (does not support 5GHz).
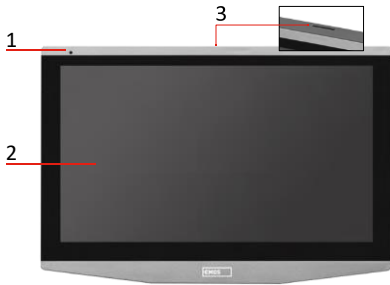
Description of the device

Description of the connectors of the indoor unit

1 - Microphone
2 - IPS display
3 - SLOT for SD card
4 - Speaker
5 - Anchor points

PCB Description:
6 - Video output
7 - Gate travel control
8 - Power supply
9 - Door unit - door 1
10 - External CCTV camera 1
11 - Input from previous monitor
12 - Door unit - door 2
13 - External CCTV camera 2
14 - Output to another monitor
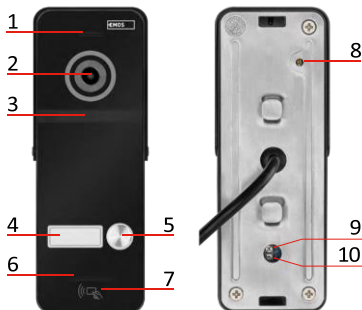
Description of the outdoor unit

1 - Microphone
2 - Lens
3 - IR illuminator
4 - Place for paper with name
5 - Button for ringing
6 - Speaker
7 - RFID chip reader
8 - Video mode selection button
   Press the button for 5 seconds to switch the video mode*.(1080P/720P/CVBS)
9 - Length adjustment button (1-10 s) for door lock control
10 - Setting the volume of the camera unit

*If you would like to use an older type of monitor with Max. 720p resolution, you need to use this button to change the output quality of the outdoor unit. Otherwise, the image would not be displayed on the monitor at all or would be truncated.
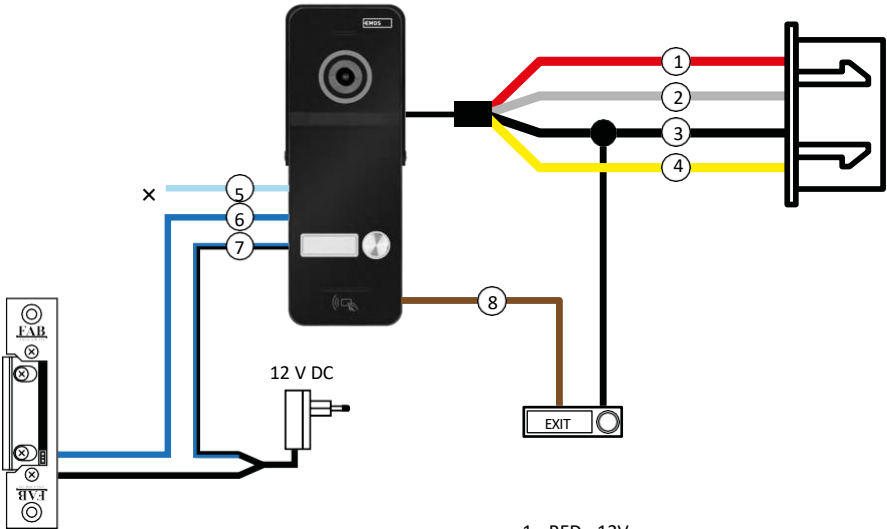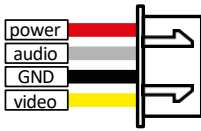
1 - RED - 12V
2 - WHITE - Audio
3 - BLACK - GND
4 - YELLOW - Video
5 - LIGHT BLUE - NC
6 - BLUE - COM
7 - BLUE/BLACK - NO
8 - BROWN - EXIT Button

Description of cabling

Door camera unit
Red - 12 V
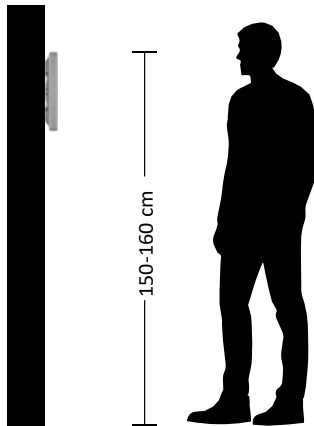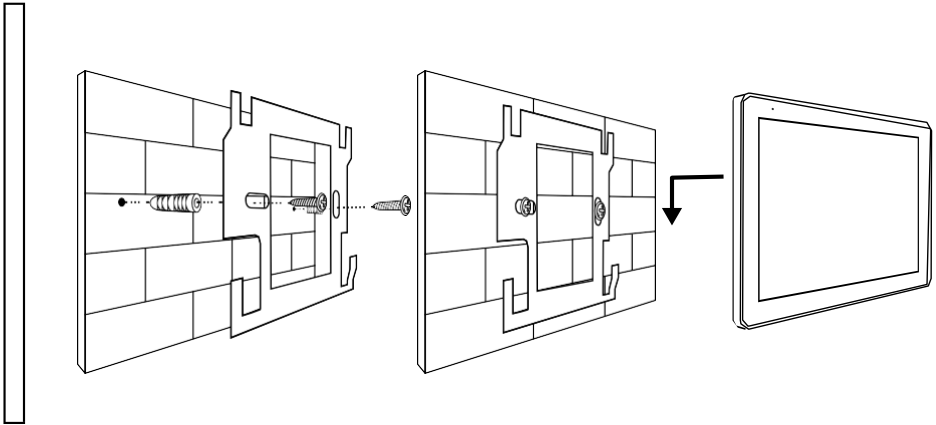White - audio
Black - GND
Yellow - video
Light blue - NC relay disconnect contact
Blue - COM relay common contact
Blue/black - NO relay connection contact
Brown - exit button (switches with GND terminal)

Cables are connected to the DOOR1 or DOOR2 slot.

Installing the monitor

Place the bracket in the predetermined installation location.
Drill holes to attach the bracket to the wall. Press the monitor slightly against the bezel so that the tabs fit into the hole on the back of the monitor. Push the monitor down slightly to secure it.

Recommended: It is advisable to mount the installation box A9457 (general product number on the EMOS website) behind the monitor for easier cable handling.

Attention:

- Please install away from equipment with intense radiation: TV, DVR...
- Do not disassemble by yourself to avoid electric shock.
- Do not drop, shake or tap the device or you may damage the internal components.
- Choose the best position for installation, the optimum height is 150-160 cm.
- Turn off the power before installation.
- Keep more than 30 cm away from AC power to prevent interference.
- Install away from water, magnetic fields and chemicals.

150-160 cm
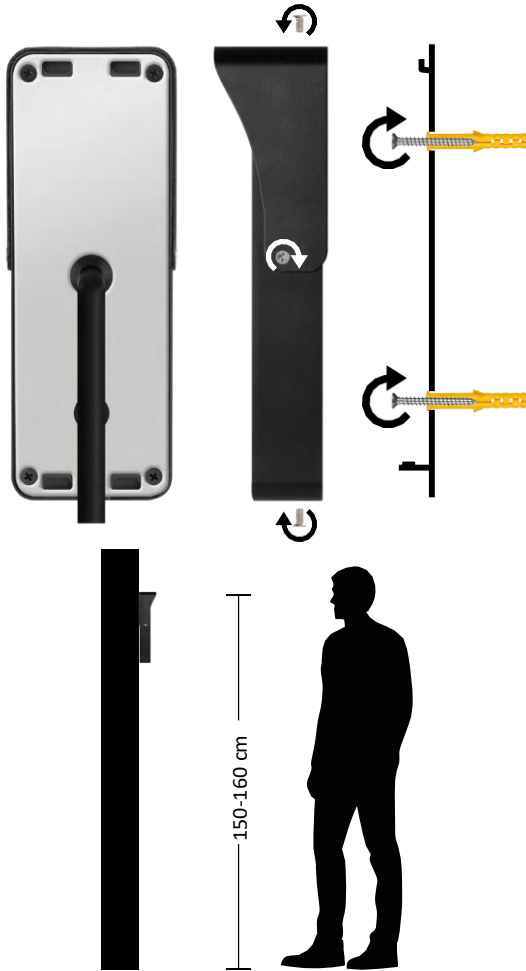
Outdoor unit installation

1. Select a suitable mounting location and attach the mounting frame here.
2. Pull the supply cable through the mounting hole and plug it into the terminal block on the back of the door camera unit.
3. Screw the connected door camera unit to the mounting frame using the screws provided.
4. Apply a layer of silicone between the wall and the door camera unit to prevent moisture from getting under the door camera unit. The silicone should be on the top and side walls. The bottom edge must be free to allow moist air to escape from the space under the door camera unit.

Setting the volume and length of time the lock is unlocked
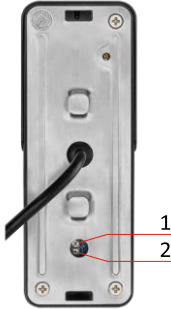
- If you are uncomfortable with the amount of time the door lock is open and would like to extend or shorten it, you can do so by using the potentiometer hidden in the rear of the outdoor unit under the rubber insert. Using a really thin screwdriver, OPERATELY turn the potentiometer to the right or left.
  - Right = +time
  - Left= -time
- The volume of the outdoor unit can be controlled in the same way with the bottom potentiometer.
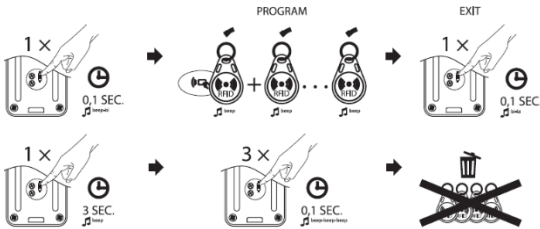
RFID Chip pairing

- There are 5 RFID chips in the H4020 package. These chips must first be programmed into the outdoor unit using the button to the right of the potentiometers described above.
- Press the button briefly to activate the programming mode.   Then simply attach the individual RFID chips to the sensor on the outdoor unit one by one (   ). A short beep sounds when it is attached and the chip is paired.
- The maximum number of chips that can be added to an outdoor unit is 200.
- You can erase RFID chips in a similar way by holding the programming button for at least 3 seconds until the beep sounds. Then press this button briefly 3 times in succession (3 beeps) and all chips will be removed.

Connecting the cabling

When using CAT5 or CAT6 network cable, the effective distance from the outdoor camera to the farthest indoor monitor will be limited. In the case of an unshielded network cable, the distance will be a maximum of 20 m. For shielded network cable, the distance will be a maximum of 40 m.

A CAT5 or CAT6 network cable consists of 4 twisted pairs (8 wires), here one pair of twisted wires will be used as one cable. Green/White+Green, Brown/White+Brown, Orange/White+Orange, Blue/White+Blue.

If you want to extend the distance to more than 60 m, it is best to choose a shielded cable with a thick copper core. Connect the shield at both ends to the GND (Black wire) terminal.

For longer distances, we recommend using the SYKFY cable.

It is recommended to always place the cable for communication between the outdoor camera unit and the indoor monitor in a PVC protector.
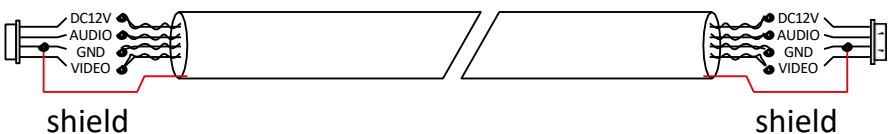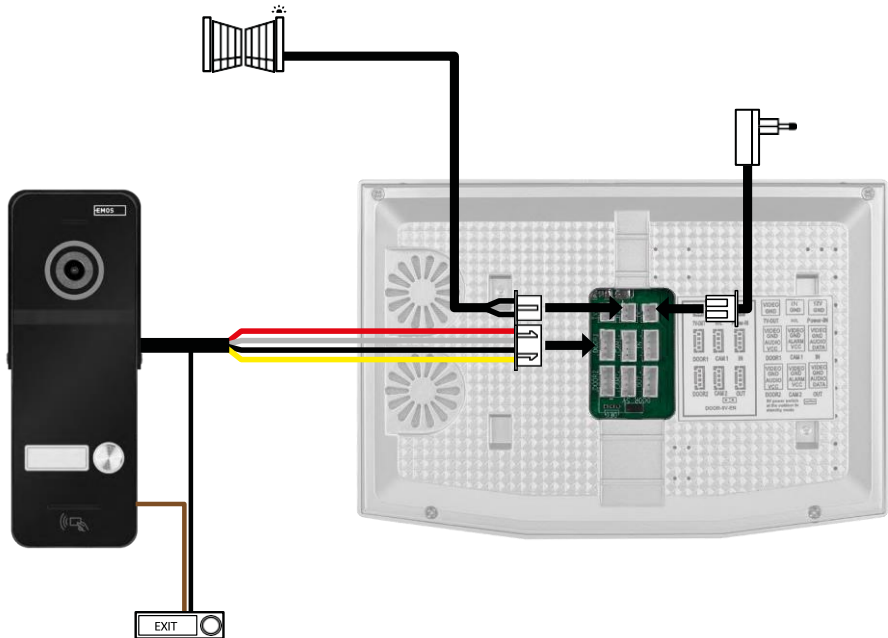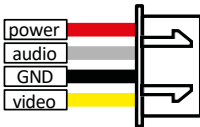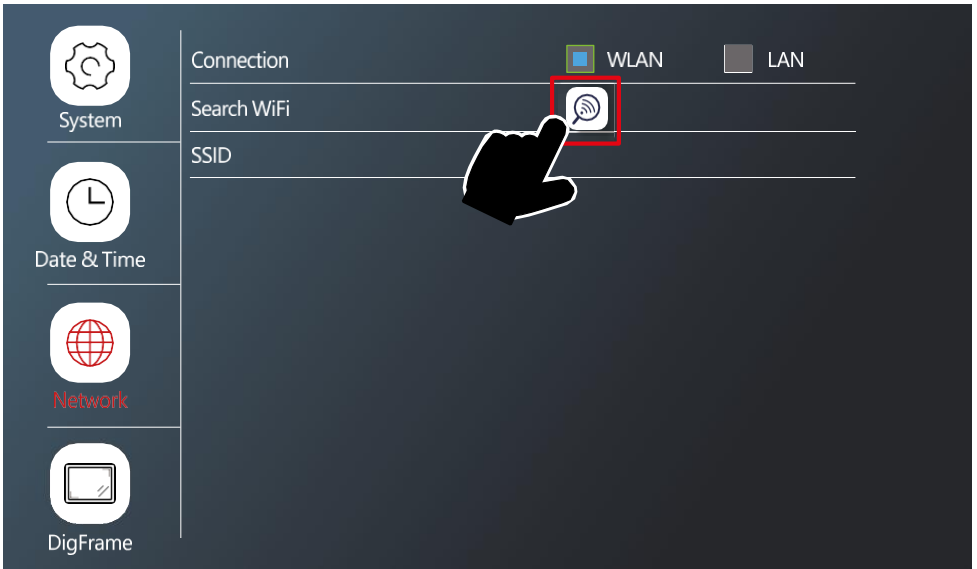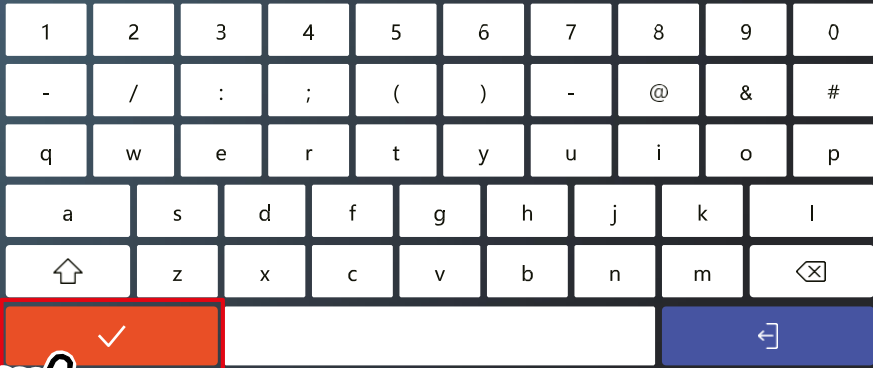
Pairing a monitor with an application
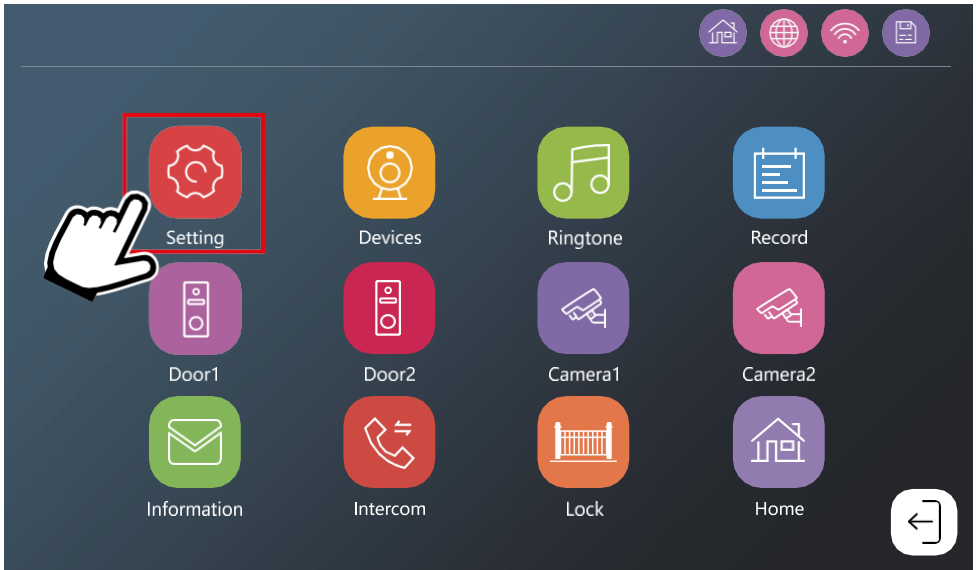
The monitor must first be connected to the wifi network that your phone is connected to. Go to settings.

Select network settings

System	Connection	☐ WLAN ☐ LAN
	Search WiFi	
Date & Time	SSID	
Network		
DigFrame		

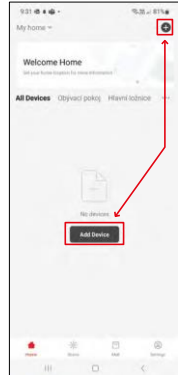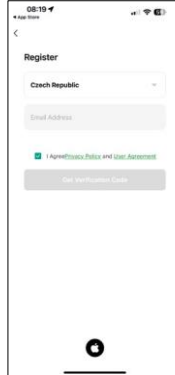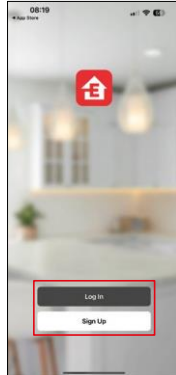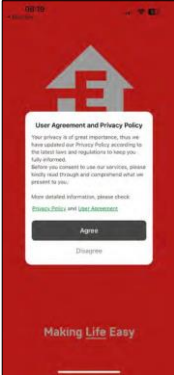|		SSID:
89/100 TP-LINK_OEE5_Sales		Security:
85/100 PDCN		Password:
75/100 Tuya		
63/100 YFCS		
56/100 TP-LINK_01		
56/100 03		
52/100 QC-3		
48/100 HF-LPB120		
47/100 SETUP		

1/3

Select a suitable WiFi network and enter your password.

Installing the EMOS GoSmart app

- The app is available for Android and iOS via Google play and the App Store.
- Please scan the QR code to download the app.

Open the EMOS GoSmart app and confirm the privacy policy and click I agree. Select the registration option.
Enter the name of a valid email address and choose a
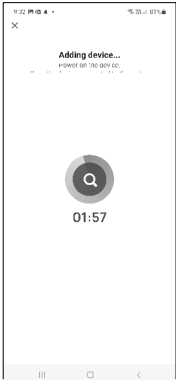password. Confirm your consent to the privacy policy.
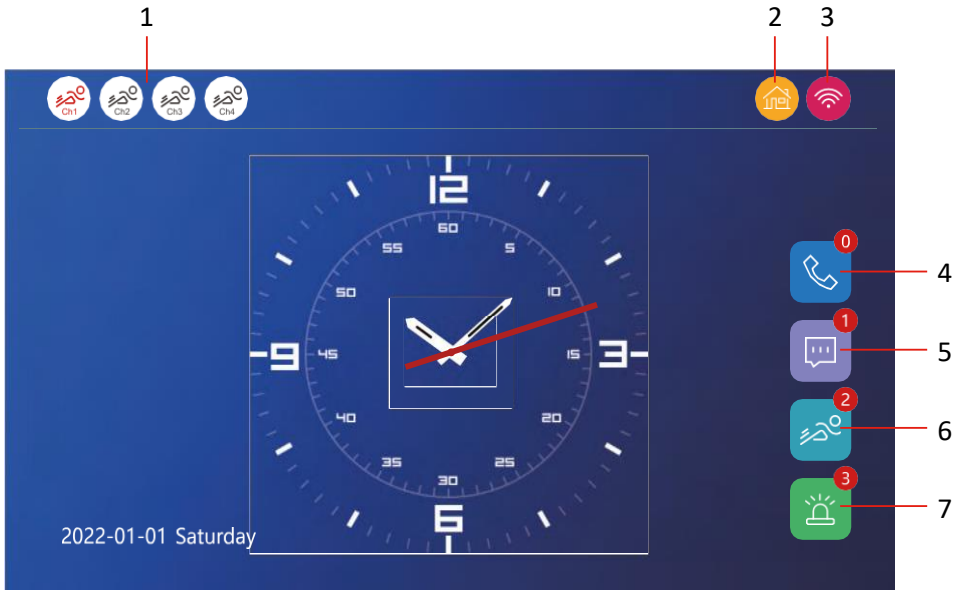Select register.
Select Add device.

Select the GoSmart product category and select the Video Doorphone IP-750AB. Make
sure the device is turned on and click "next".
Make sure your device is connected to the wifi network and move on.

An automatic search is performed
The device should pair and you can start using it.

Description of the main screen controls

1 - Motion detection on individual channels

Red means that detection is enabled, if the icon is grey, it means that the camera does not have motion detection enabled.

2 - Mode switching:

"At home" - Normal operation. Notifications are also sent to the phone.

"Away from home" - Visitors can upload a video message. This will also be sent to your mobile phone.
"Sleep mode" - Sleep mode, the indoor and outdoor unit will not have any ringing, and only a notification will be sent to the mobile phone.
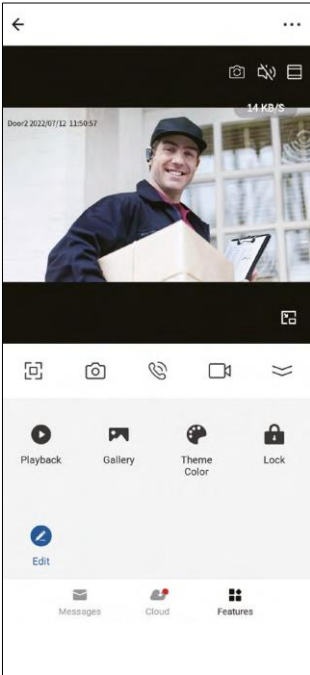
3 - Network connection status indicator

4 - Call log

5 - Message log files

6 - Motion detection records

7 - Alarm records

Description of controls in the application

· · ·	Advanced settings (described in more detail in the following section)
📷	Switching channels
🔇	Mute
⊟	Zoom in
⌞ ⌟	Full screen mode
🔳	Take pictures using the app and save them to your mobile album
📞	Speak
▷◁	Take a video using the app and save it to your mobile album
△	Expand menu
▶	To play a video stored on an SD card
🎞	See videos and photos taken by the app
🔒	Unlocking the lock
☁	Manage and purchase cloud storage

Advanced device settings in the app
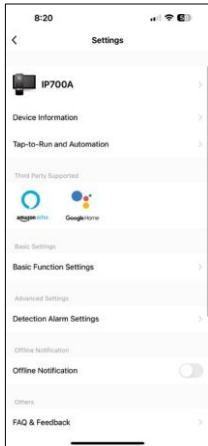
- Device information - Basic information about the device and its owner
- Tap-to-Run and Automation - View scenes and automations assigned to the device. Creation of scenes is possible directly in the main menu of the application in the section
  "Scenes". For example, the H4020 could be automated to set a lower motion detection sensitivity between 6:00 pm and 7:00 am.
- Basic Function Settings - Option to enable/disable basic control functions such as status indicator, auto screen rotation or watermark with time and date display.
- Detection Alarm Settings - Alarm sensitivity settings.
- Offline Notification - To avoid constant reminders, a notification will be sent if the device remains offline for more than 30 minutes
- Storage Settings - Display the remaining inserted SD card and the option to format it (only displayed if an SD card is inserted)
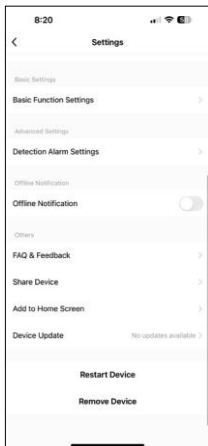
- FAQ & Feedback - View the most common questions along with their solutions plus the ability to send a question/suggestion/feedback directly to us
- Share Device - Share device management to another user
- Add to Home Screen - Add an icon to your phone's home screen. With this step, you don't have to open your device through the app every time, but just click directly on this added icon and it will take you straight to the camera view
- Device update - Device update. Option to enable automatic updates
- Restart Device - Restart the device
- Remove Device - Remove and unpair a device. An important step if you wish to change the owner of the device. After adding the device to the app, the device is removed from the app. paired and cannot be added under another account.

Description of the controls during a call in the app

If you wish to answer the ringtones via your phone, the following is an explanation of each icon.

 Answer call

 End call
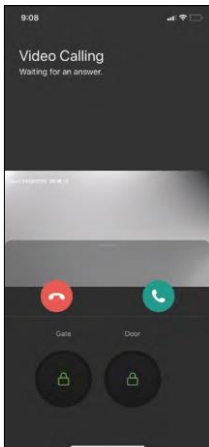
If you want to unlock the gate or door without answering the call, swipe up the menu and you'll see 2 more icons that you can use to unlock.

GATE = Unlocking the gate
DOOR = Unlocking the door

This display will appear when you pick up the call.

 Voice change - Feature implemented for security reasons. If you are in a situation where you don't want to answer the call and speak in your own voice, then there is an option to change your voice to female/male/filtered...

 End call

Main menu styles

In the settings you can choose 3 types of main menu according to your preferences.

Android menu:

Standard menu:
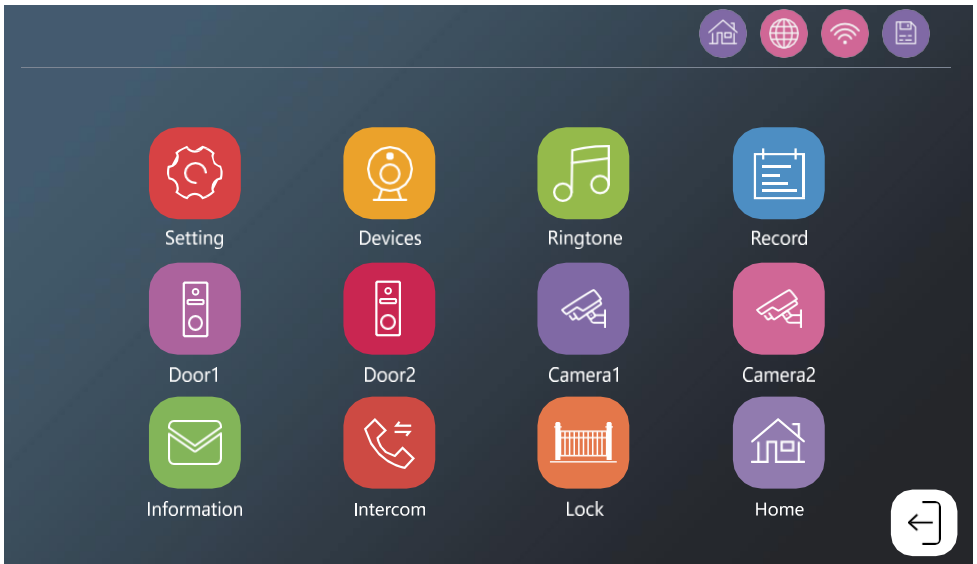
Windows menu:
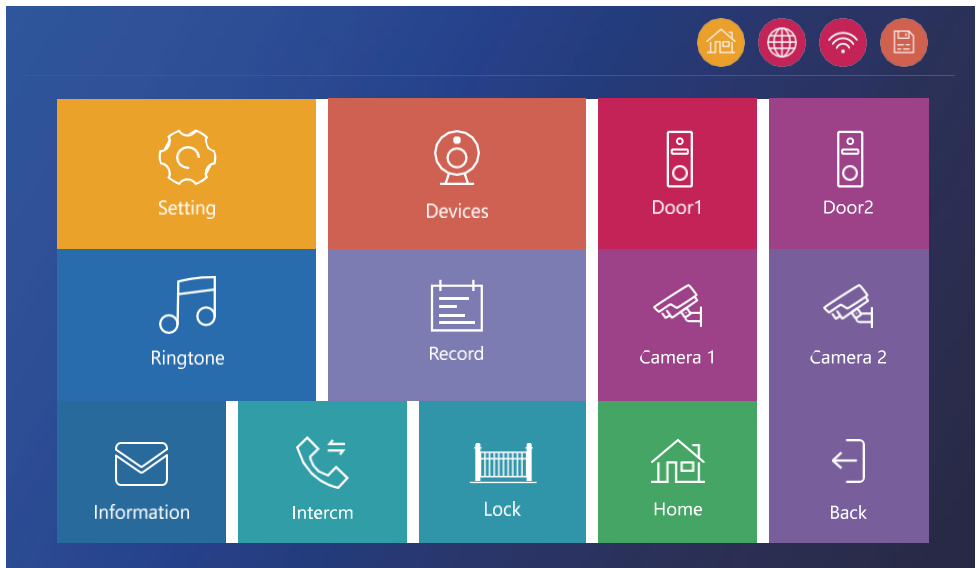
Description of the monitor main menu

Settings

System
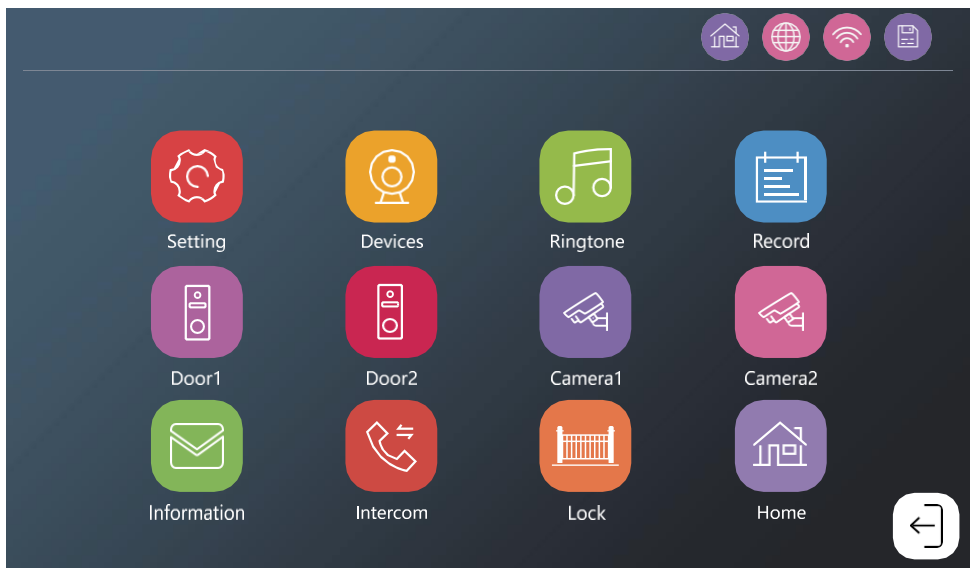
Language - monitor language selection (English, German, Hungarian, French, Polish, Czech, Slovenian, Czech)
Device_ID - Selection of the monitor identifier. Important: The main monitor must have ID 1. If you connect additional monitors (IP-750B) to the main monitor, you must assign them a unique ID (2-6). Two monitors connected together must not have the same ID. Only the monitor with ID 1 is connected to the wifi.
Theme - Main menu style selection (see Main menu styles chapter)
Touch tone - Touch sound response
Push notification delay - delay of sending a call notification to the phone (1-10 seconds). If you receive the call on the monitor before the delay is set, the phone will not start ringing.
Factory reset - resetting to factory settings
Firmware update - updating the device using the SD card
Restart - restarting the monitor
Format SD Card - format the inserted SD card
Free / Total - Free / total capacity of the SD card

Date & Time 🕐

System	Automatic		🔵
	Year	⏪	2023 ⏩
	Month	⏪	01 ⏩
Date & Time	Day	⏪	01 ⏩
	Hour	⏪	00 ⏩
	Minute	⏪	07 ⏩
Network	Date Format	⏪	MM-DD-YYYY ⏩
	Clock Style	⏪	Analog Clock ⏩
DigFrame	Screen Saver		🔵

Automatic - automatic date and time setting using Wifi network
Date format - date format
Clock style - Clock style in the main menu. Digital and analogue can be selected
Screen saver - After inactivity, the screen will not turn off, but images with the current time will be displayed.

Network settings 🌐
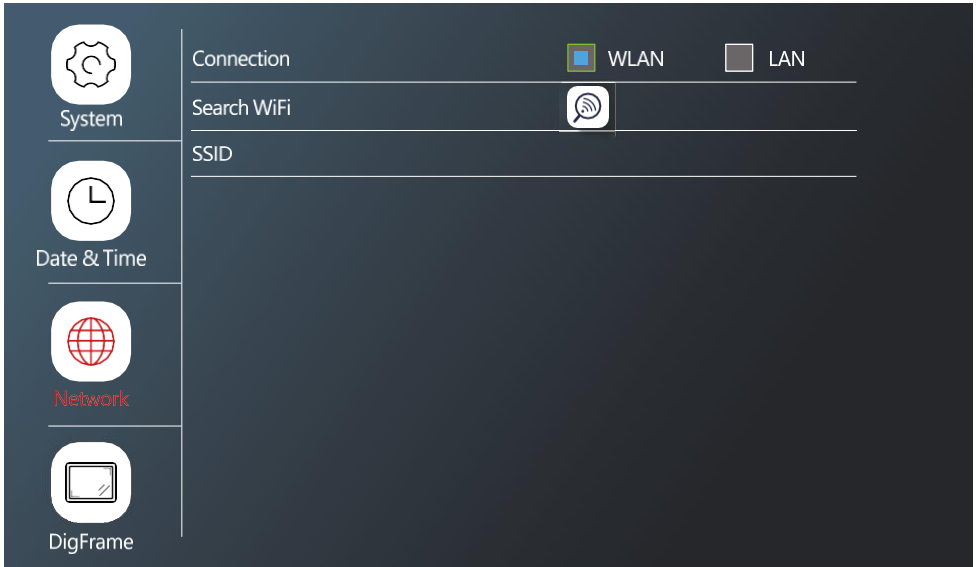
Connection - enable/disable connection to Wifi network
Search WiFi - search for available wifi networks
SSID - the name of the wifi to which the monitor is connected
*LAN not available for H4020

TP -LINK_ۥEE5_Sales	SSID:
PDCN	Security:
Tuya	Password:
YFCS	
TP-LINK_01	
03	
QC-3	
HF-LPB120	
SETUP	

1/3
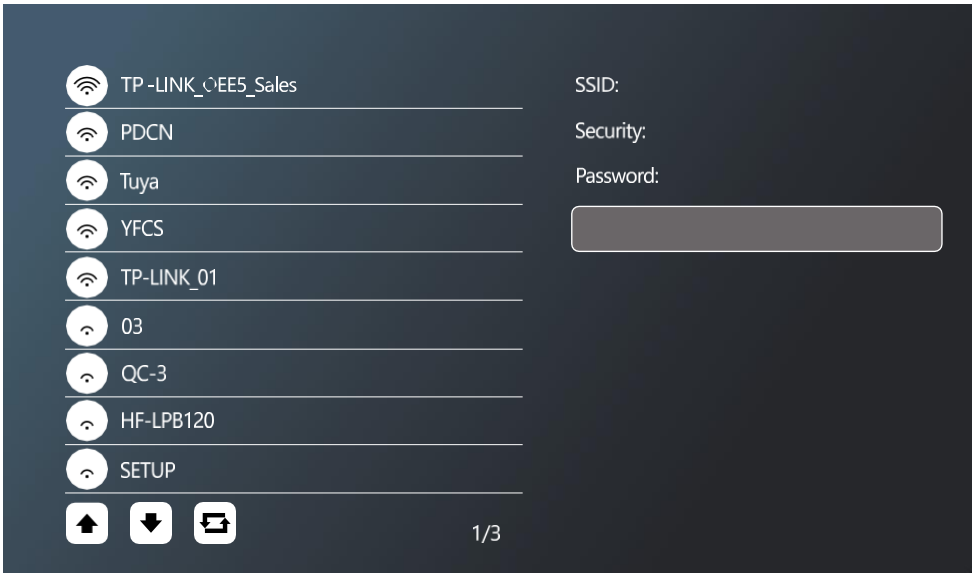
To connect to a WiFi network, search for available networks nearby and click on the network you want. If the network is secured with a password, enter it in the Password field.

TP-LINK_Tech

Himoring

1	2	3	4	5	6	7	8	9	0
-	/	:	;	(	)	-	@	&	#
q	w	e	r	t	y	u	i	o	p

a s d f g h j k l

z x c v b n m
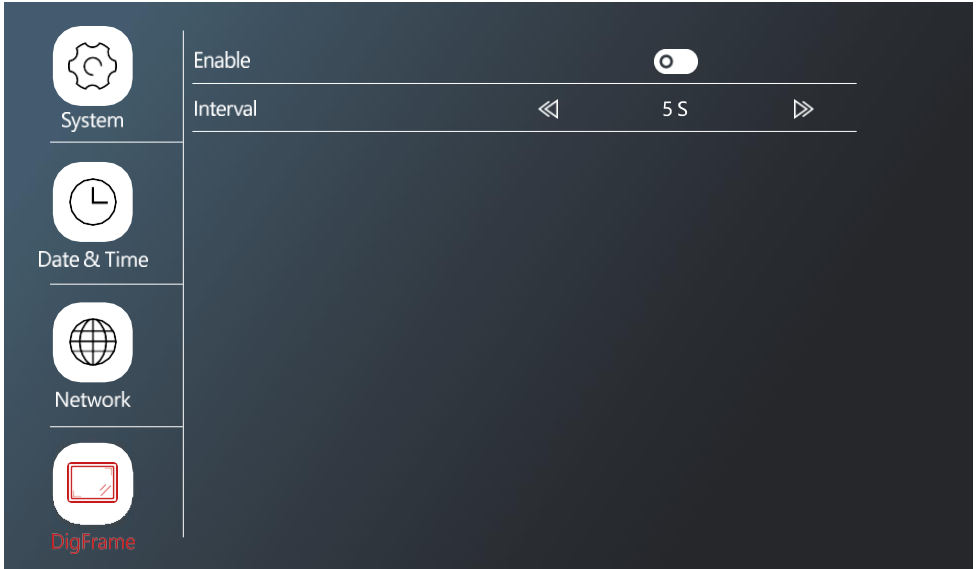
Photo frame

Ability to play photos from the SD card as a photo frame when the monitor is idle. The monitor supports photos in JPG format with a resolution of 1024x600.

Setting up connected devices

Outdoor unit settings

Enable - switching on/off the outdoor unit connected to the DOOR 1 connector + possibility of renaming the unit Video Signal - Setting the type of signal from the outdoor unit. No need to change if you are using units dedicated to a monitor. If you would use a different brand, then you need to set the correct video signal type for the unit to work properly.

Unlocking time - Gate lock activation time

Recording type - type of call recording. You can record a video recording or just a snapshot.

Visitor Message. If the "away from home" mode is set, the device will allow visitors to upload a short message.

Motion detection - enable/disable motion detection. Use the icon to select the area where motion is to be detected.

Sensitivity - motion detection sensitivity setting
Motion Alarm - Sounds when motion is detected
Screen Popup - when enabled, each time motion is detected, the current video transmission is also displayed
Alarm Push Notification - Sends a notification of motion detection to the phone

CCTV camera settings
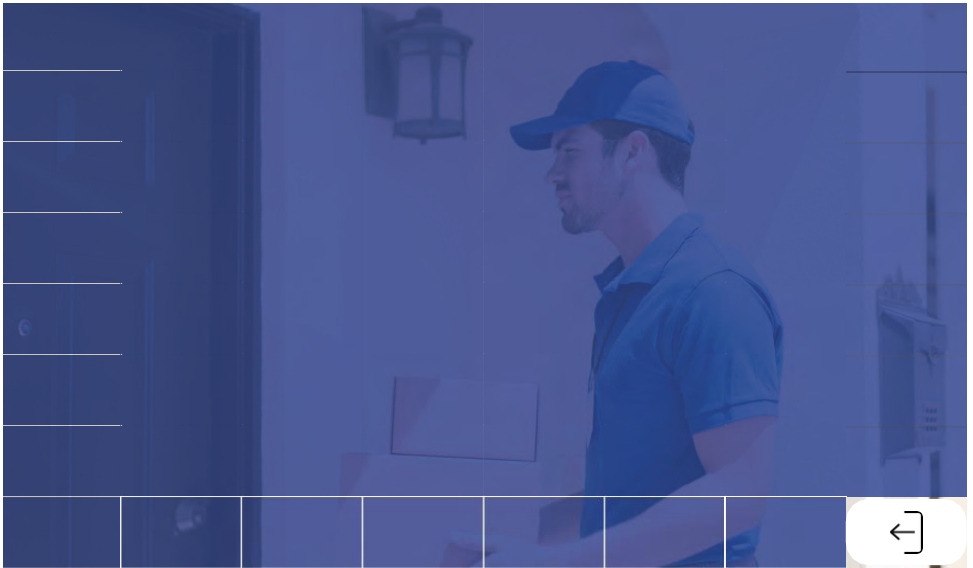
Enable - enable / disable the camera connected to the CAM 1 connector + rename option
Video Signal - Setting the type of signal from the camera.
Alarm input - Alarm device input
Alarm Record - recording during an alarm. Video recording or snapshot.
Alarm buzzer - alarm siren from the monitor

Motion detection - enable/disable motion detection. Use the icon to select the area where motion is to be detected.
Sensitivity - motion detection sensitivity setting
Motion Alarm - Sounds when motion is detected
Screen Popup - when enabled, each time motion is detected, the current video transmission is also displayed
Alarm Push Notification - Sends a notification of motion detection to the phone

Ringtone settings

Setting	⟪	Device	⟫
Selection	⟪	1	⟫
Volume	⟪	6	⟫
Duration	⟪	15S	⟫
Door Ringtone		⬤	

Setting - Select the source of ringtones (from the device itself or SD card)
Selection - Select from 10 preset ringtones
Volume - volume setting
Duration - ringing duration
Door Ringtone - Turn on/off the outdoor unit ringtone

View records

| Channel | < | All | > | Time | 07.14.2023 |
| Event | < | All | > | | 00:00~23:59 |

Mon.   Thu.   Sun.

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Channel / Time / Type

Cam1	11:12:20	0001 jpg
Door1	09:45:39	0006 avi
Door1	09:13:45	0003 avi
Door1	09:01:06	0002 avi
Door1	08:18:48	0003 avi
Door1	07:36:24	0015 avi
Door1	01:23:02	0018 avi

1 / 1

Channel - outdoor unit / camera selection
Event - event type filtering (calls, absent messages, motion detection, alarms, everything)
In the calendar, the days when the monitor has recorded an entry are marked in pale blue. When you click on a day, a list of events within that day is displayed on the right. Each of these records can be clicked to view a video/photo.

View live feed from outdoor units / cameras

	Adjust brightness, contrast, colour and volume
	Taking pictures
	Acquisition of video footage
	Switching between outdoor units / cameras
	Answer the call
	Unlocking the lock connected to the outdoor unit
	Opening a gateway connected to a monitor
	Leave a call

Information ✉

Firmware Version	V1.02_Build_20230727
UUID	*5357fa2
Network Status	192.168.3.28
Tuya Server	Connected

View basic monitor and network information.

Intercom

Thanks to the intercom function, you can communicate between interconnected indoor units.

In the menu, just click on the intercom icon and then select which indoor unit you wish to communicate with. Also for the intercom you need to set the monitor ID correctly.

Gate travel control

After connecting the gate travel to the H/L connector, this icon allows you to control the opening/closing of the gate directly from the monitor.

Presence settings

At home - the monitor rings as standard
Do Not Disturb - The monitor is completely silent
Away - Visitor will be notified to leave a message (SD card required).

Connection options
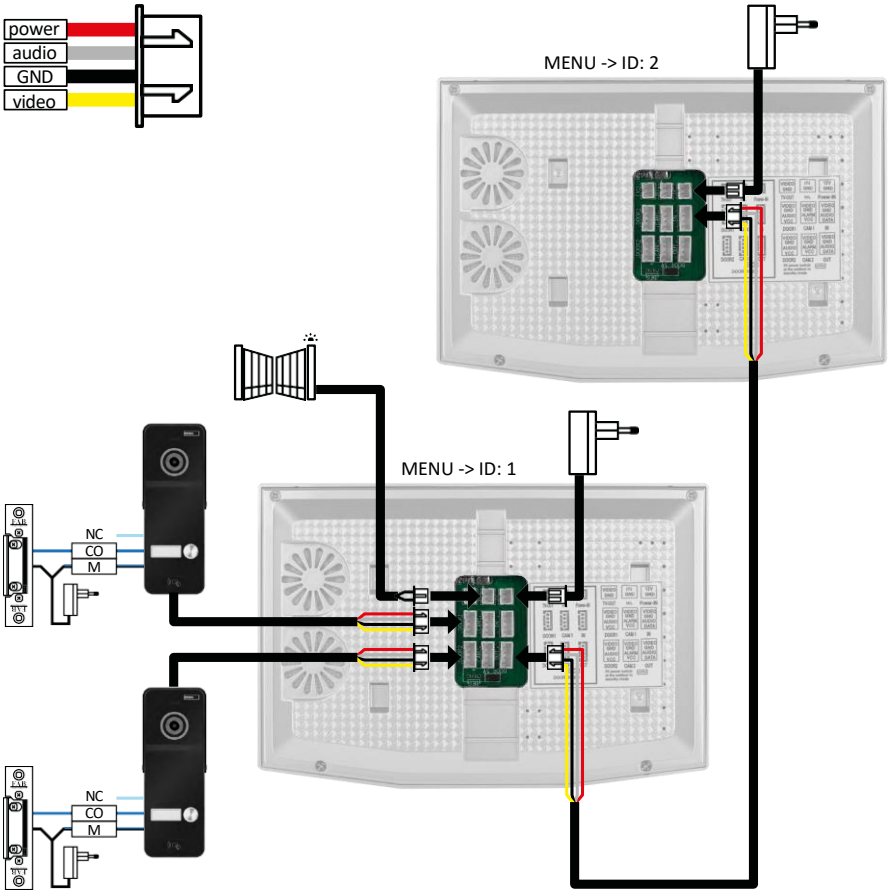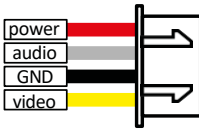
2x Outdoor units + Main monitor (DOOR1+DOOR2) + Slave monitor

power	
audio	
GND	
video	

NC
COM
NO

NC
COM
NO
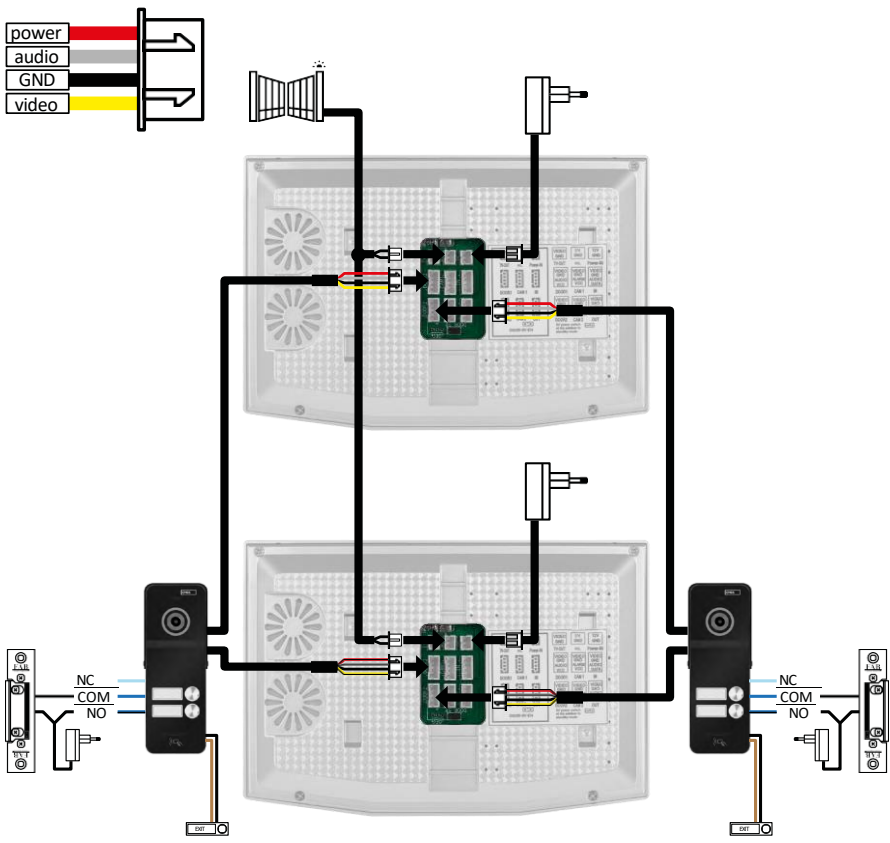
2x Main monitor (2 residential units) + 2 outdoor units (DOOR1 and DOOR 2).
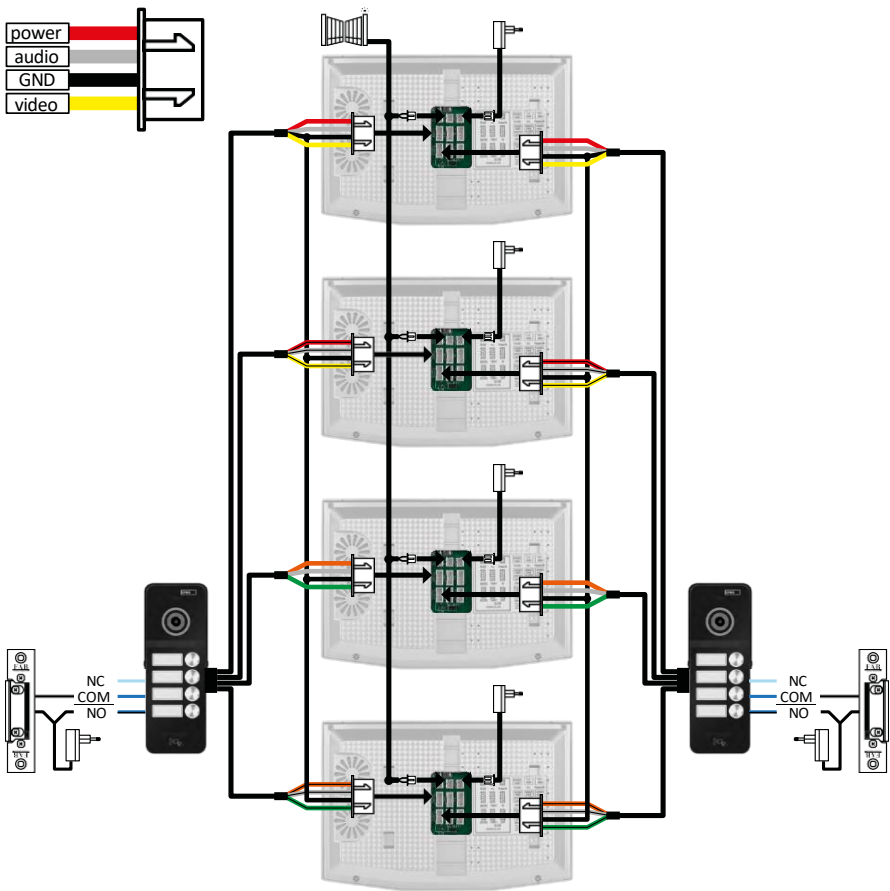
4x Main monitor + 2 outdoor units H3018 (DOOR1 and DOOR 2) (e.g. for 4 residential units with front and rear entrance)

power	
audio	
GND	
video	

H8011

12 V DC

+/−
AC

Whi

Distribution box

Pink

Cable duct

black = control circuit
grey (blue) = minus
brown = plus

Optional: use of cable
disconnection plugs
(included in delivery)

COM
NO
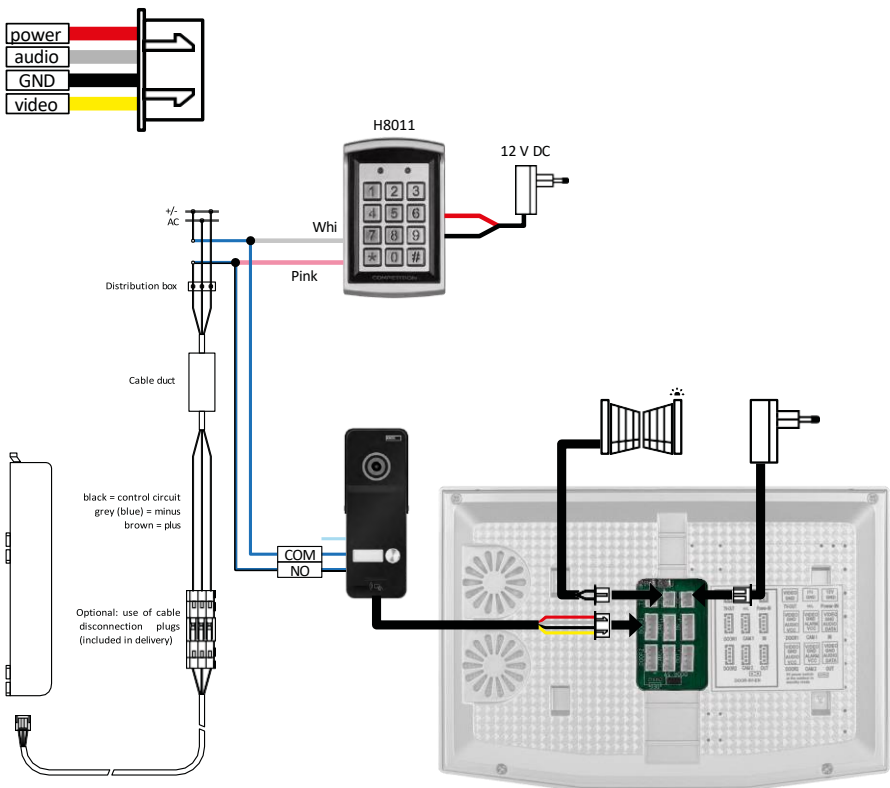
Connection of one housing unit with one separate input in combination with the H8011 keypad and G.U-SECURY.

ID: 1 (master)   ID: 2 (slave)

NC
COM
NO

NC
COM
NO

EXTRA ALARM
PIR detect.
CCTV
Signal: AHD - analog HD
CVBS - analog
TVI, CVI

EXTRA ALARM
PIR detect.
CCTV
Signal: AHD - analog HD
CVBS - analog
TVI, CVI

H8011

12 V DC

power	
audio	
GND	
video	
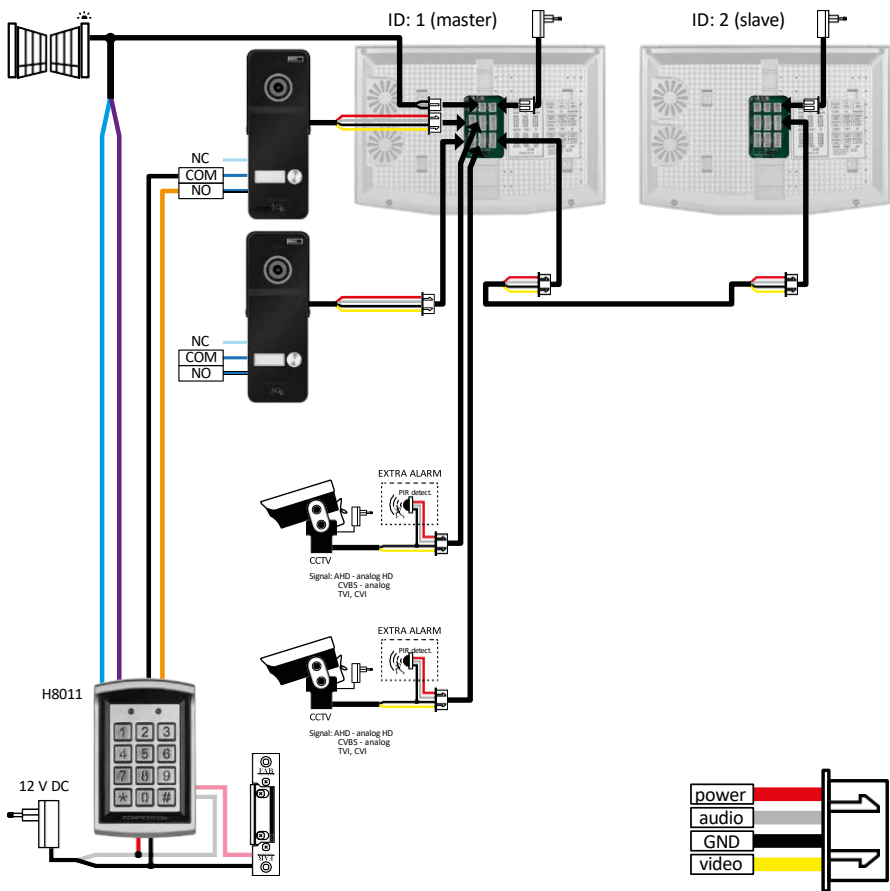
Connection of 2 separate inputs with H8011 keypad and CCTV cameras for one housing unit with intercom.
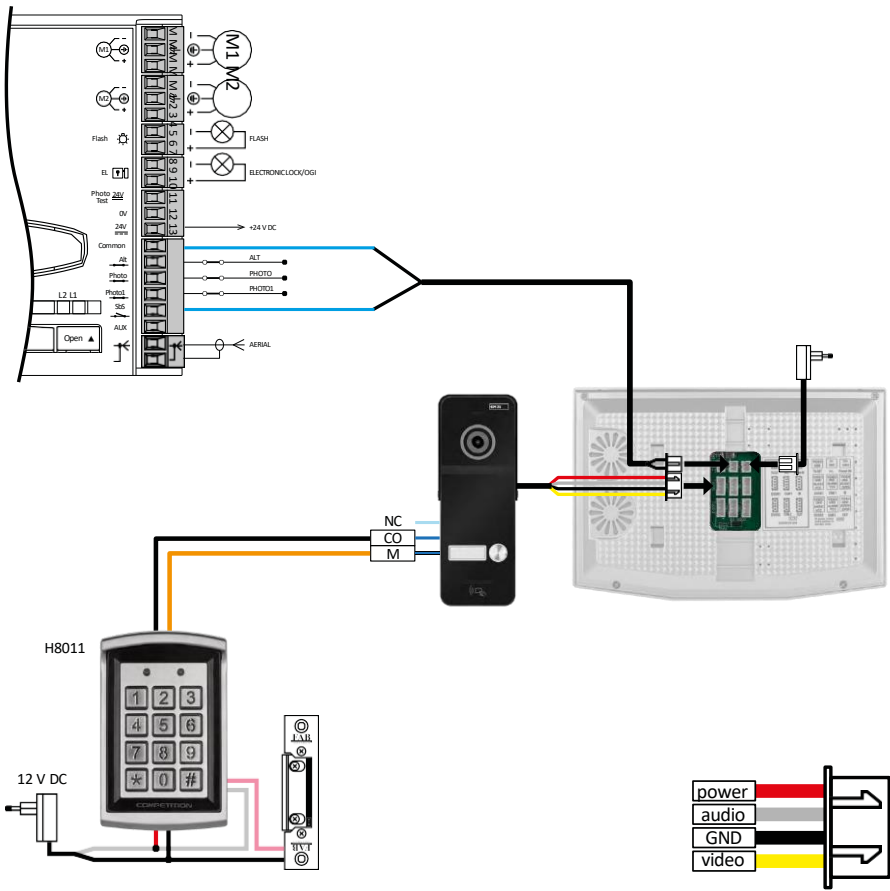
Connection of one separate input in combination with the H8011 keypad and WINGO NICE 2024 KCE for one separate housing unit.

The following labels appear in the diagram:

- M1
- M2
- Flash — FLASH
- EL — ELECTRONICLOCK/OGI
- Photo Test 24V
- 0V
- 24V enmn — +24 V DC
- Common
- Alt — ALT
- Photo — PHOTO
- Photo1 — PHOTO1
- SbS
- AUX
- AERIAL
- L2 L1
- Open
- NC
- CO
- M
- H8011
- 12 V DC

power	(red)
audio	(grey)
GND	(black)
video	(yellow)

power	
audio	
GND	
video	

NC
CO
M

IN

Relay 12 V

OUT

EXIT

ELEKTROBOCK CZ

ZV2 Econom
ZV2-1 Gong
ZV2-3 Gong
ZV2 Melody
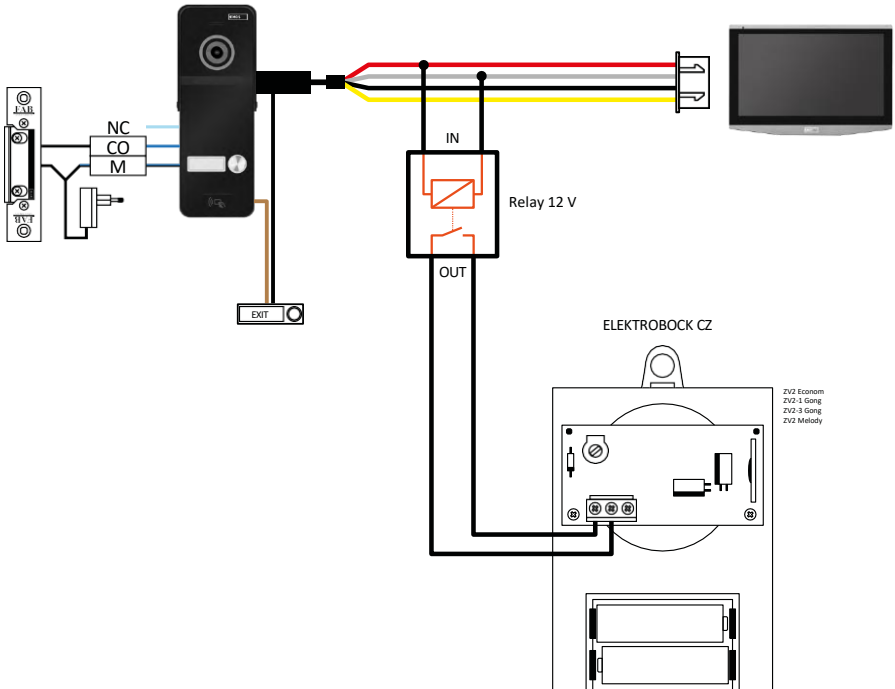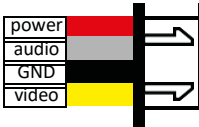
Connection of one separate entrance with exit button and additional indoor bell ELEKTROBOCK ZV2 for one separate housing unit.
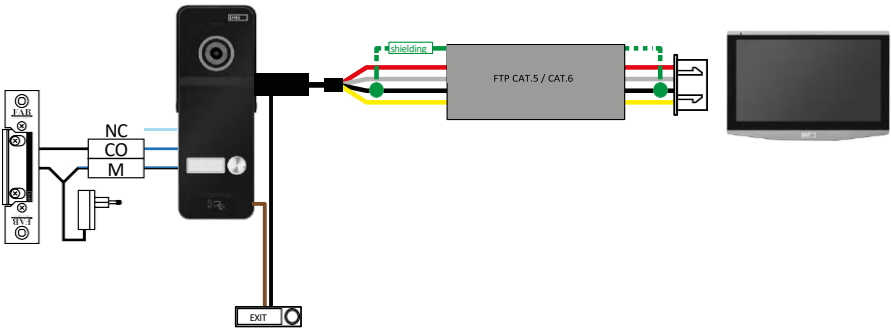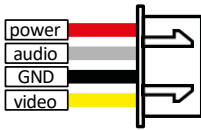
Connection of one separate entrance with exit button for one separate dwelling unit. Connection via FTP cable.
Double-sided shielding connected to GND.
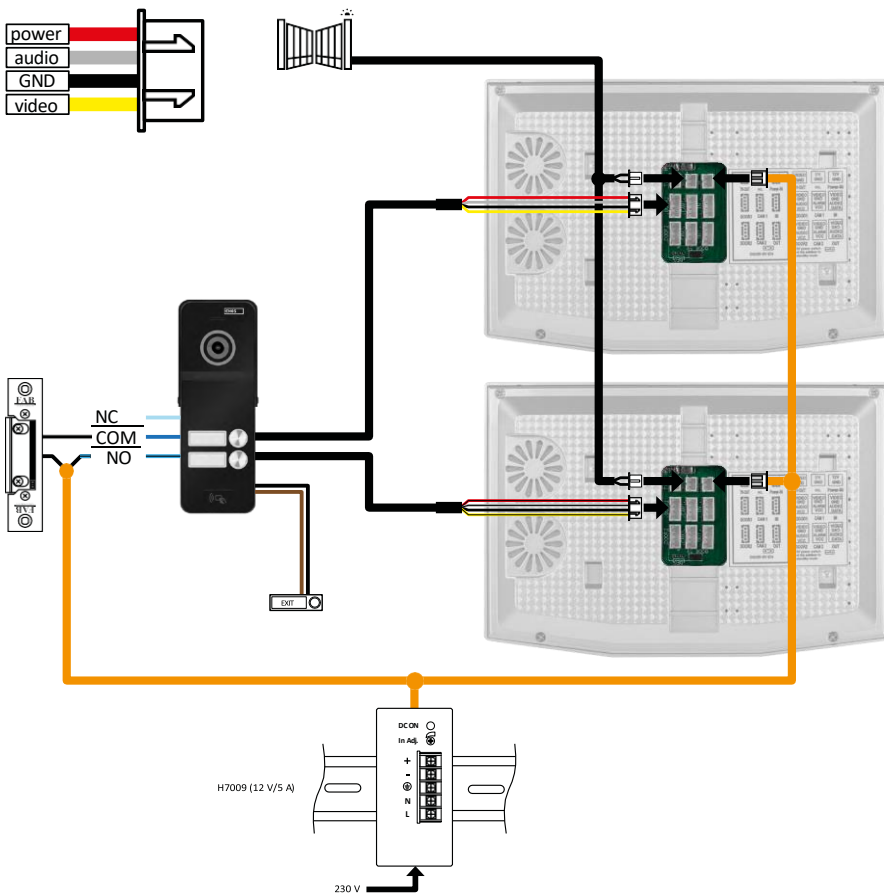
Connection of one separate entrance with exit button for 2 separate housing units. The power supply is implemented by a power supply to the switchboard on DIN rail H7009.

WARNING: Do not connect the master monitors to each other. If you have an outdoor unit for two or more subscribers and you connect the master monitors to each other, all connected monitors will ring when you press any bell. For this reason, it is important to separate the master monitors and interconnect only the Master and Slave monitors. This style of wiring will also give you an intercom function between the units.

Practical example: you install the device in a house with 2 separate two-storey flats. There is only one entrance, so you install an outdoor unit with two subscribers. In each apartment you have a master monitor on the 1st floor and a slave monitor on the 2nd floor. When bell A is pressed, the master and slave monitors in apartment A ring. When bell B is pressed, the units in apartment B ring. Thanks to the intercom function, you can call from the upper floor of apartment A to the lower floor of apartment A. The same within apartment B. However, it is not possible to make calls between apartments A and B.

In case of a bad connection, if you connect the master monitors of apartment A and apartment B, all monitors in apartments A and B would start ringing when you press any bell.

Troubleshooting FAQ

I can't get the devices to pair. What can I do?
- If you can't pair the device, try resetting the monitor to factory settings 2-3 times first (Settings -> factory settings -> OK).
  - Make sure you are using a 2.4 GHz wifi network
  - Allow the app all permissions in the settings
  - Make sure you are using the latest version of the mobile operating system and the latest version of the app

I'm not getting notifications, why?
- Allow the app all permissions in the settings
- Turn on notifications in the app settings (Settings -> App notifications)
- Check that you don't happen to have Do-Not-Disturb mode enabled in the same notification settings

What will I use to power the device?
- Original power supply included
- You can use our H7009 DIN rail power supply to power up to 3 monitors and 1 lock at the same time

How do I connect the monitor to the outdoor unit?
- To connect the outdoor and indoor unit, a quality shielded cable, at least CAT.5 category, must be used
- For longer distances (from 50 m) we recommend the SYKFY cable
- For more information we recommend the chapter "Connecting the cabling"

I need to wire up an external lock. How to do it?
- The lock must be wired from the outdoor unit
- Own 12 V power supply is required

The lock is unlocked very briefly. Is it possible to extend this interval?
- Yes, for more information on how to do this, see the chapter "adjusting the volume..."
- ATTENTION! Turn the screw very carefully, as the device may be irreparably damaged.

What SD-Card can I use?
- SD card with a maximum storage capacity of 128 Gb and a minimum speed class of CLASS 10

I have 2 inputs, can I have 2 outdoor units?
- Yes, the device supports a maximum of 2 input units

How many indoor units can I have?
- Each "master" monitor supports the connection of up to 5 additional "slave" monitors
- Setting the correct device ID is very important. Master monitor must have ID 1 and slave monitors must have ID 2 to 6
- For example, if you have an outdoor unit with 4 bells (names), you can connect up to 4 master monitors to it, each of which can have 5 more slave monitors

How many CCTV cameras can I connect?
- 2

The sound is hoarse/noisy and the video is of poor quality or has streaks. What's wrong?
- Properly shielded cables were not used during installation, or cables run parallel to the power lines.
- The solution is to use a quality shielded cable and connect the shield to terminal 2 (GND)

How many languages does the monitor support?
- The monitor supports up to 8 languages (English, Czech, German, French, Spanish, Polish, Italian, Russian).
- The language of the app is set to the language in which your phone is set up.

Is it possible to connect an RFID chip reader on the other side as well, which would be used to exit?
- For this case, an exit button located on the inside of the entrance door is sufficient. Alternatively, purchase H8011 (must be plugged into the mains), adapter not included.

When the SD card memory is full, are the oldest records automatically overwritten or does the user have to manually delete them?
- Yes, the records are overwritten automatically.

Who all can use the equipment?
- Facilities must always have an admin (owner)
- Admin can share the equipment with the rest of the household, see. Advanced Device Settings in the application, and assign them rights