



INSTRUCTIONS

Version 2.0

D IP-Kamera
GB **IP Camera**
F Caméra IP

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Important Information

Please note that Behnke intercoms and accessories may only be installed and serviced by qualified electricians in compliance with all relevant safety provisions.

Before carrying out service and maintenance work, please ensure that the devices are safely disconnected from the power grid (unplug power supply unit) and are disconnected from any other network or phone connection.

For further legal information, please see page 56.

CONTACT

Information

For detailed information on our product, projects and services:

+49 (0) 68 41/81 77-700

24-hour-service

Do you need help? Feel free to contact us 24/7. We will be happy to assist you with any technical questions you may have and we will also help you getting set-up.

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1. INTRODUCTION

1.1. What's in the box

- ▶ IP camera module
- ▶ CD containing
 - the present instructions as a PDF file
 - Behnke IP video software
- ▶ The present instructions
- ▶ Supplement „B-Smart set-up“

Please note: Keep the supplement in a safe place. Without the supplement information, you will not be able to activate the B-Smart function. Keep all passwords in a safe place. If the “admin” password is lost the camera must be sent to Telecom Behnke GmbH. The camera is equipped with special software to enable smartphone access. For security reasons, the web configurations cannot be accessed.

1.2. General Information

Features

The Behnke B-Smart camera module consists of an Axis M3005 type camera and is built into a Behnke Telecom Series 20 or 30 modular systems framework. The camera module comes pre-set with B-Smart software and only requires user activation if necessary.

The camera provides video images with FullHD resolution of up to 1920 x 1080 pixels. Regardless of the chosen resolution, up to 30 images per second can be transmitted. The camera may be integrated into standard video surveillance systems. The camera is also equipped with LED illumination for use in poorly lit areas.

The video may be transferred to a video surveillance system via RSTP stream. Motion JPEG and H.264 are available as compression methods.

System requirements

Minimum requirements to install Behnke IP cameras:

- ▶ PC or Apple Macintosh with browser (e.g. Microsoft Internet Explorer, Mozilla Firefox, Apple Safari)
- ▶ Monitor/graphics with a resolution of at least 800 x 600 pixels and true colour display
- ▶ Set-up network connection
- ▶ A free ethernet port with PoE or a separate PoE injector.

Requirements to use the B-Smart option:

- ▶ Smartphone or tablet PC with iOS 4 or later or Android 2.3 or later
- ▶ The “TC Behnke” app from Apple’s AppStore or Google Play.
- ▶ WiFi
- ▶ DHCP server (to connect the smartphone to your local WiFi)
- ▶ Internet access in case you want to use the app on the go (3G, 4G, LTE). Please note that your mobile phone provider may charge additional rates for mobile data.

Requirements to install

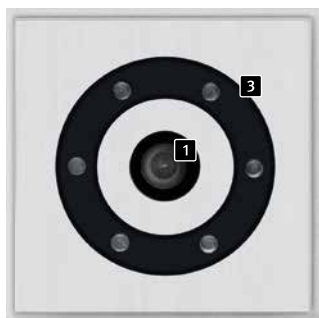
Behnke IP video software

- ▶ PC with Intel® Pentium® IV processor (1.7 GHz) or AMD Athlon™ Processor (1.2 GHz) or better
- ▶ Network interface controller, configured
- ▶ Microsoft® Windows 2000® or Windows XP® operating system or later
- ▶ 512 MB RAM or more
- ▶ Monitor/graphics with a resolution of at least 800 x 600 pixels and true colour display

1.3. IP camera module



20-2913-IP
21-2913-IP



20-2906-IP
21-2906-IP

1.4. Retrofit IP camera



43-9582-IP

- 1** Camera lens
- 2** Dome
- 3** Illumination

1.5. IP camera connection

LAN connection

Usually, an RJ-45 connector is used to establish LAN connection (**1** page 36 + 37). When operated with the series 20 IP basic electronics, the network connection can also be established via the series 20 IP basic electronics. To do so, connect the camera module's RJ-45 socket to the socket marked "Port2" on the Series 20 basic electronics using a patch cable.

Power supply

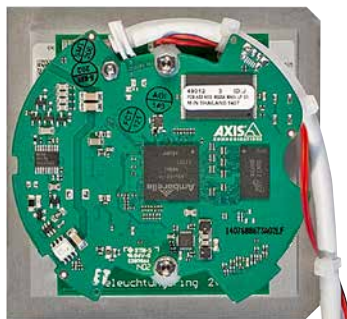
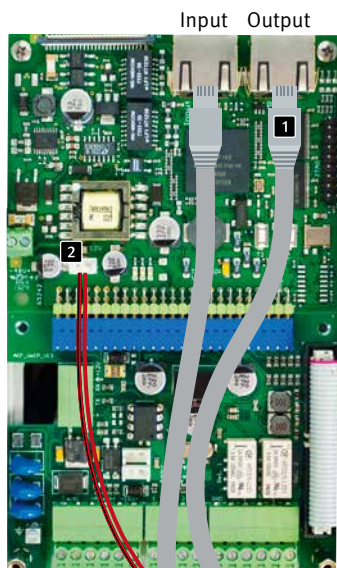
Power for the Behnke IP camera is supplied via the ethernet port (PoE). When operated with the series 20 IP basic electronics, power for the camera is supplied via PoE from the IP basic electronics.

Illumination

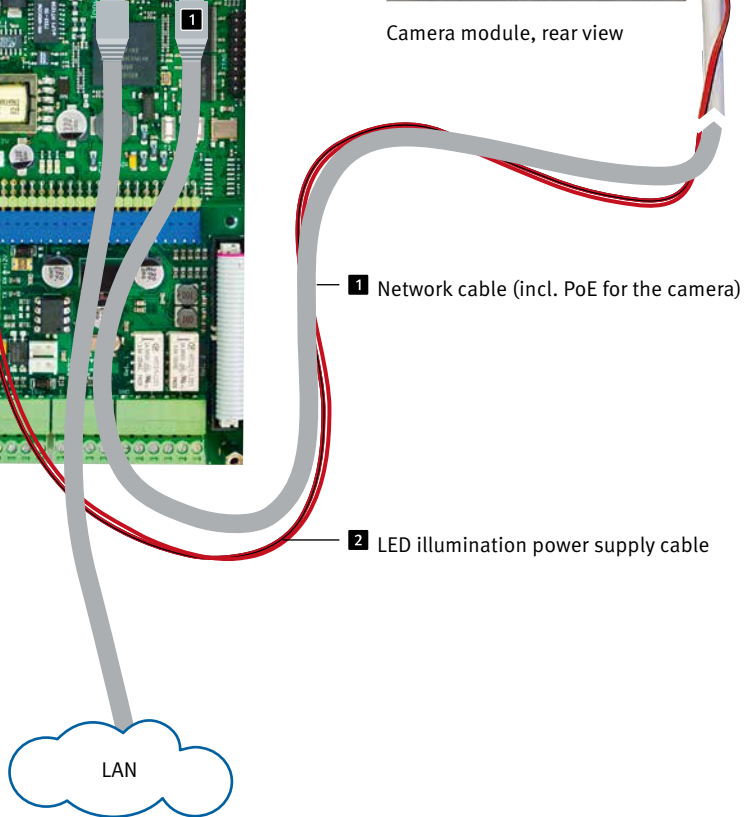
Cameras featuring illumination (20-1906-IP and 21-2096-IP) are equipped with an additional cable (**2** page 36 + 37) to supply power for the illumination unit. Continuous power supply is possible. Alternatively, you may use your SIP door intercom's relay 2 to supply power for the illumination unit. You may choose from any form of configuration to be realised via the SIP door intercom's relay operations modes.

Camera LED illumination permanently turned on

IP basic electronics

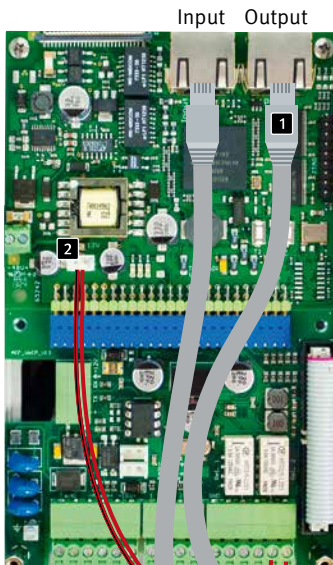


Camera module, rear view

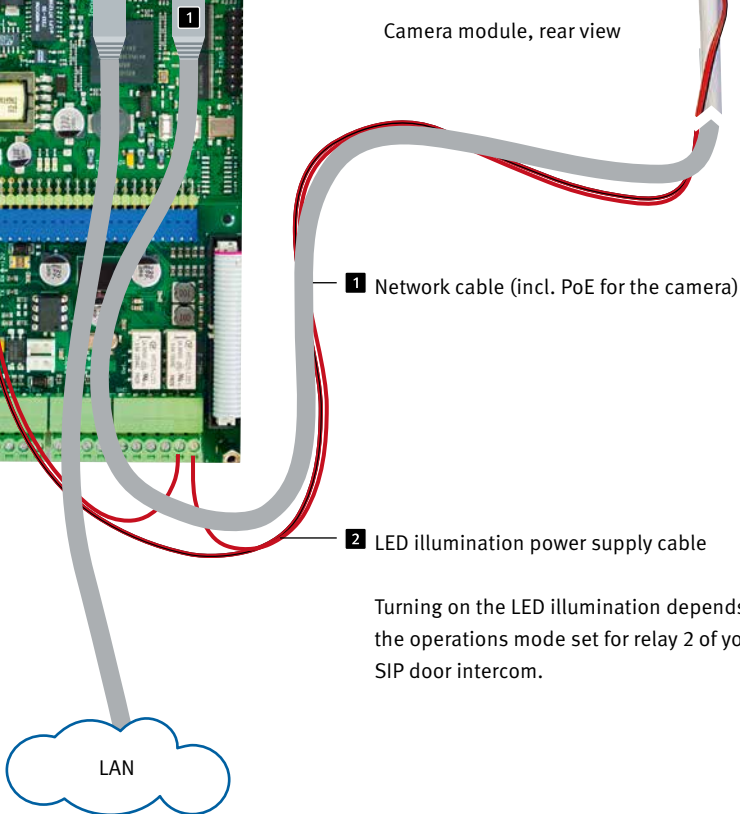


Camera LED illumination default setting: only turned on during a call.

IP basic electronics



Camera module, rear view



1 Network cable (incl. PoE for the camera)

2 LED illumination power supply cable

Turning on the LED illumination depends on the operations mode set for relay 2 of your SIP door intercom.

2. CONFIGURATION AND SET-UP

2.1. Preparation

- ▶ Connect the IP camera to a 100 Mbit Ethernet LAN
- ▶ Power supply via Power over Ethernet (PoE) or suitable power supply unit

Connection via Ethernet

The IP camera is set up as a DHCP client, i.e. it obtains its IP address from a DHCP server. Use Axis Camera Management Software to locate and set-up existing cameras within your network. Changes to the IP configuration are possible within 20 minutes after enabling the power supply. To do so, enter the camera's IP address in your browser's address line. Click on "Network TCP/IP settings" (1), to assign the camera a static IP address.

Scope of applications

1. Using the IP camera as a B-Smart camera ▶ In case you want to use the camera together with your smartphone and the "TC Behnke" app please have a look at chapter "Behnke B-Smart" on page 39.
2. Using the IP camera with a PC and the Behnke IP video software ▶ Please have a look at the separate instructions on IP Video Software configuration.
3. Using the IP camera as a surveillance camera ▶ Follow the instructions of your existing video management system to add an "Axis M3005 or M3007" type camera.

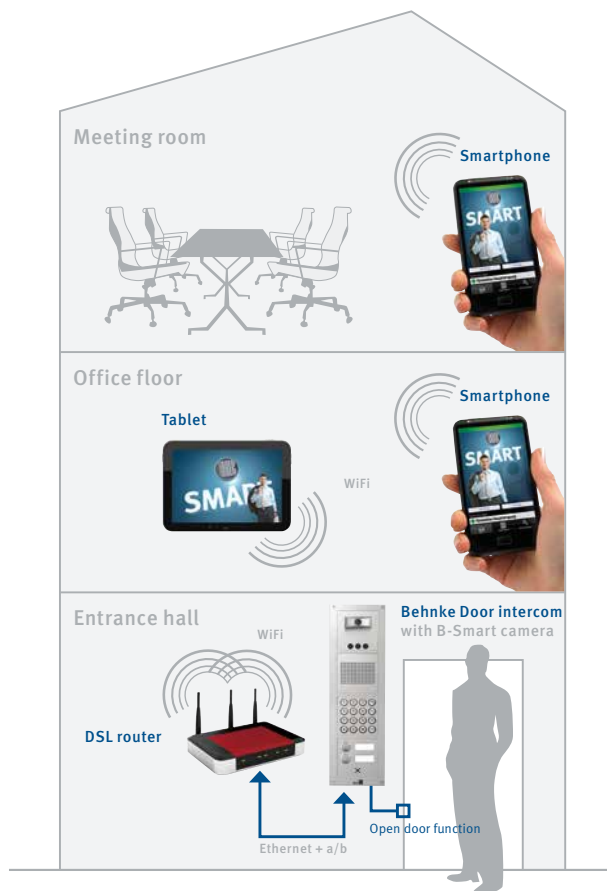
3. BEHNKE B-SMART

The B-Smart function turns your smartphone or tablet PC into a remote video station for your door intercom. It works at home when your smartphone or tablet PC is connected to your local WiFi-network or on the go using the mobile data connection of your device. The last 20 events are saved with camera image and time so that no call from the door is lost. The data is stored directly on the camera.

3.1. Possible applications

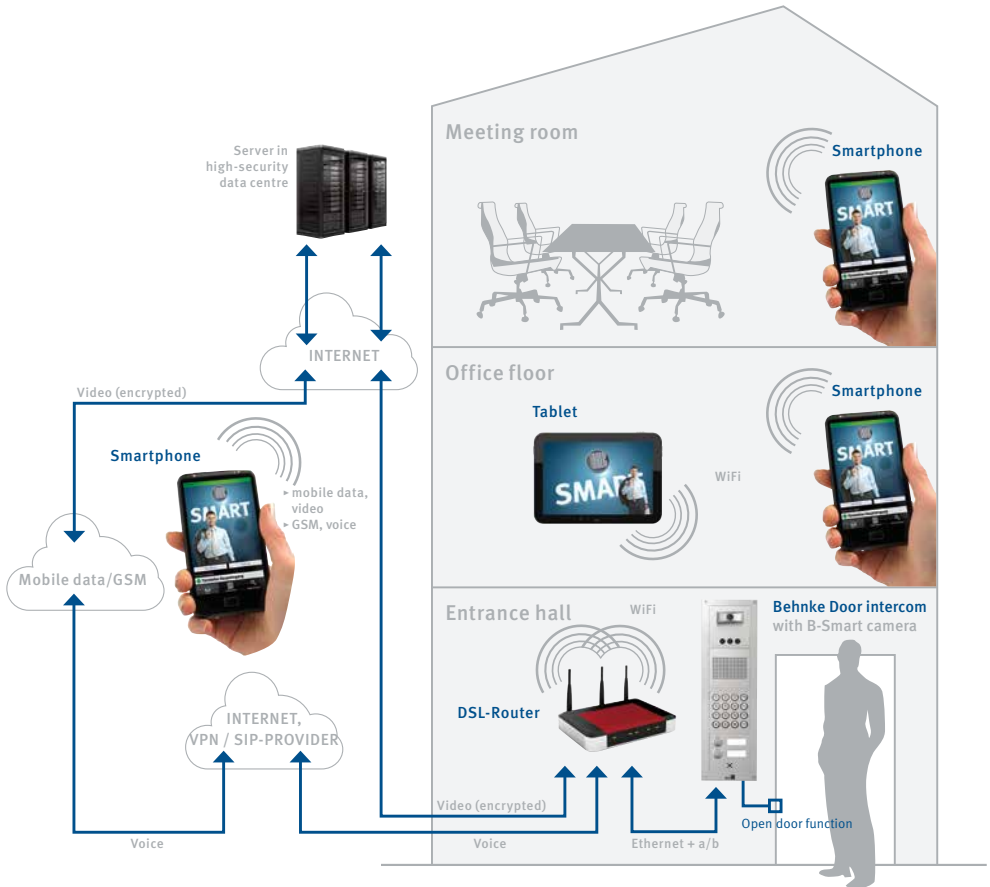
Locally

This diagram shows the IP camera's application within an office building (equally applies to residential buildings).



Globally

This diagram shows the IP camera's application outside of an office building (equally applies to residential buildings). To use this function, you need to purchase an individual licence for each camera. Using the SIP protocol needs to be included in your mobile phone contract.



3.2. Activating the camera

To use the B-Smart functions, you need to enable this feature. After this feature has been enabled, all camera configurations will be made via your smartphone or tablet PC. To enable this feature, please proceed as follows:

1. Open the page: www.behnke-online.de/app
2. Enter the data you find on the supplement marked „B-Smart set-up“.
3. You will consequently receive access information to use the B-Smart function.

3.3. Starting the app

Download the “TC Behnke” app from Apple’s AppStore or from Google Play, depending on your type of smartphone or tablet PC. The screenshots shown in the present instructions were created on an iOS device. The app looks exactly the same on Android devices. To open the menu at the bottom of the screen, press the Menu button on your Android device.

After starting the app you will see an empty start screen.

To use the app with your B-Smart camera, you first need to assign a user to the camera, please cf. chapter “Camera Administration”. Then you need to add the door intercom, please cf. chapter “Adding door intercom devices”. To do so, you will need the access information provided during the user assignment process.

Please note: You cannot add a door intercom using the administrator’s access information. As a first step, you need to assign a user to the camera. In case you want to use B-Smart functions outside your home network via a mobile data connection, you need to activate a corresponding license on our website.

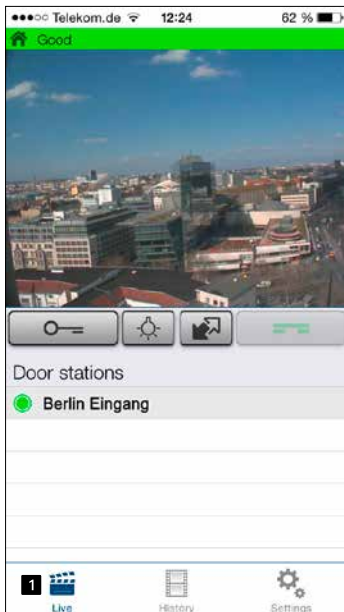
Your door intercom set-up is successfully completed.

3.4. Overview

The “TC Behnke App’s” three most important screens are as follows:

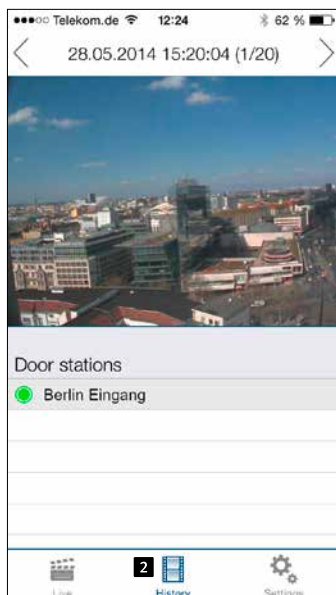
Main screen **1**

This screen appears upon starting the app. Depending on the user’s authorisation settings a camera image is provided or not.



History **2**

Take a look at the latest calls from your door intercom including calling time and image recorded at the time of the call. Speech / voice data is not recorded. Each camera keeps a log of the last 20 calls.



Settings **3**

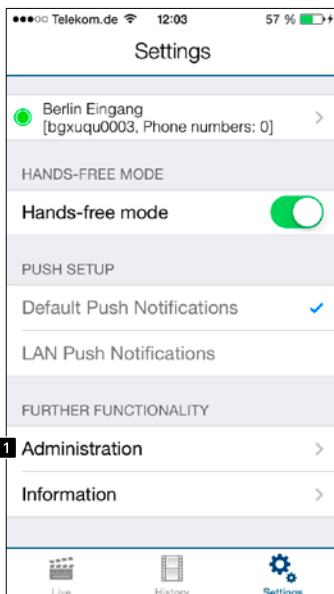
Use this screen to change settings on both the app and your camera.



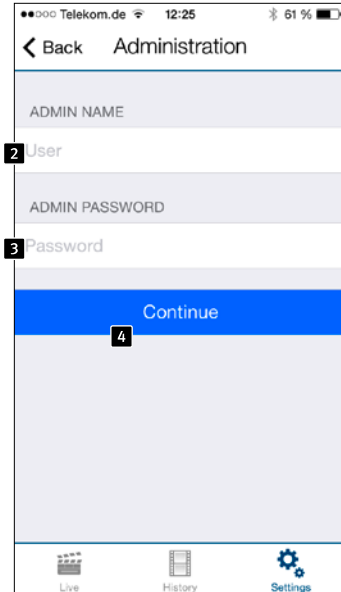
3.5. Camera Administration

Settings necessary to run the B-Smart system may be changed via the app on your smartphone or tablet PC. An additional PC is not required. Use any device for camera administration purposes, regardless of whether this device will later be used to display the camera image or not.

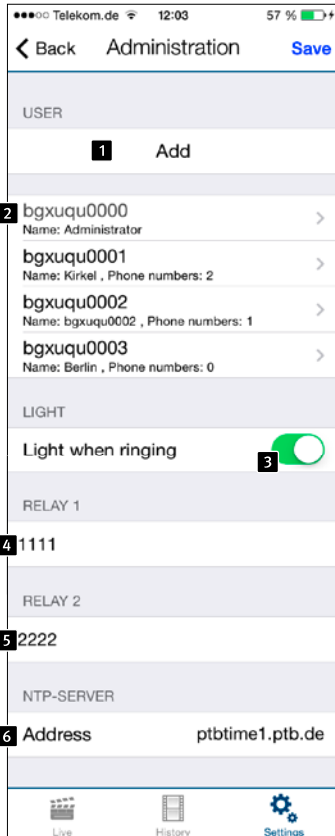
Access the Settings screen by tapping the “Settings” key on the app’s main screen:



Tap the „Administration 1“ key to access camera settings. Enter user name 2 and password 3 before making changes to the settings:



Find this information under “access information to use the B-Smart function”. You will receive this information during the B-Smart activation process on our web page at www.behnke-online.de/app. The user name already contains unique reference information for the camera in question, so that no further information is necessary to set-up the camera. Tap „Continue 4“ to log on to the camera.



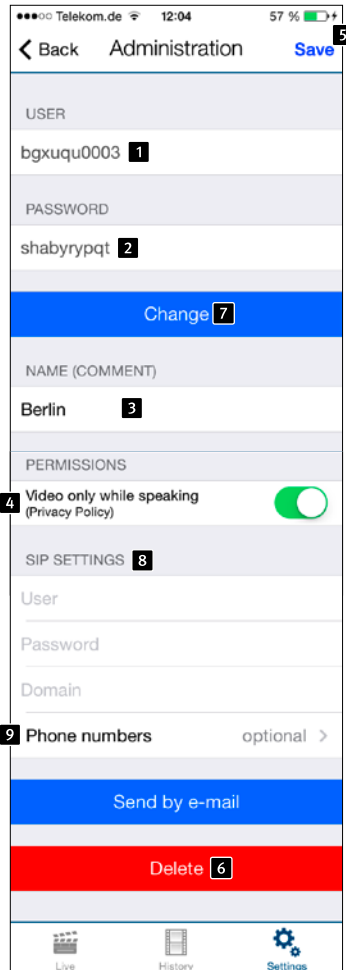
From the administration screen you may do the following:

- ▶ Add users **1**
- ▶ Manage users **2**
- ▶ **3** The cameras described in the present instructions do not support this option.
- ▶ Please enter the relay enabling codes (**4** and **5**) as they are set for your SIP door intercom. The codes will only enable the relay if the relay's operation mode is set accordingly.
- ▶ Set-up the NTP server **6** (in order for the call log to always show the correct calling time)

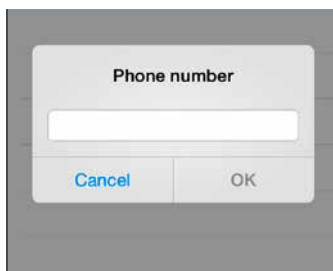
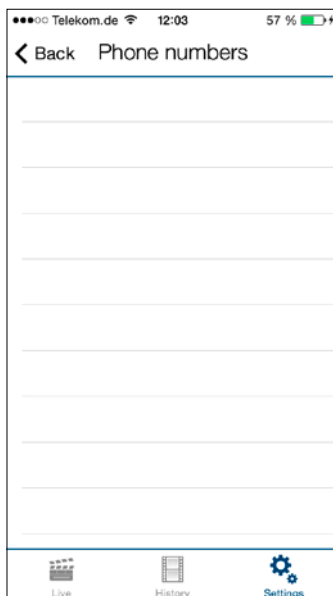
Tap "Add" to create a new user.

User management

User name **1** and password **2** will automatically be filled in. Enter a “Name **3**” for easier user identification at a later stage. It is not possible to “Save **5**” without entering a name. Determine if the user in question should always have access to the live video feed **4**. When disabled, the user in question will only have access to the video feed with an incoming call from the door intercom. Without a call from the door intercom the video feed cannot be accessed. Make a note of the access data displayed here (“User” and “Password”). You will need this information for app configuration of the video image feed. See the next chapter “Adding door intercom devices” to learn how to do so. Tap “Save **5**” to assign this user to the camera. Tapping “Delete **6**” will delete the user selected from this camera. A deleted user no longer has access to the camera. Tap “Change **7**” to change the user’s password. A new random password will be generated and saved in the camera. Then the user enters this new password into their smartphone. Please use the app key “SIP settings” **8** to enter the SIP client’s access information enabling you to accept an incoming call from your SIP door intercom directly via the app. In case your telephone number differs from your SIP user name, you may enter your telephone number in the section „telephone numbers“ **9**. Should this extension be part of a group of extensions, you may also add this group of extensions in the section „telephone numbers“ **9**.



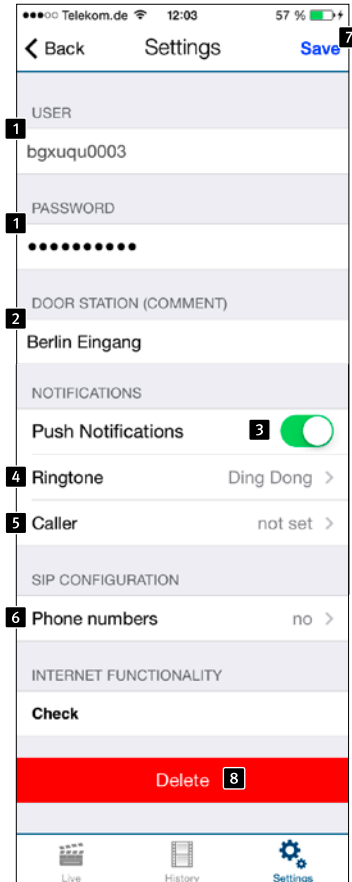
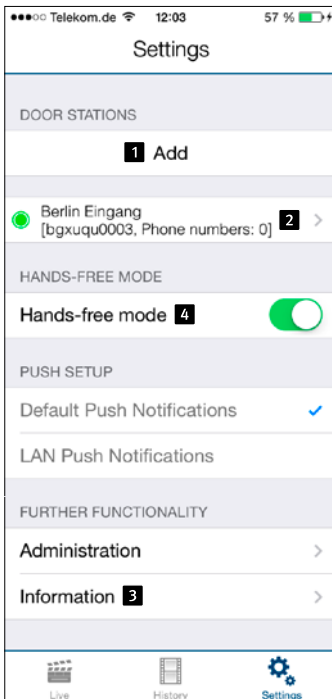
Click the „+“ symbol to add an entry to the list. Push notifications will appear on this device, as soon as the corresponding SIP door intercom will place a call to one of the telephone numbers listed.



3.6. App administration

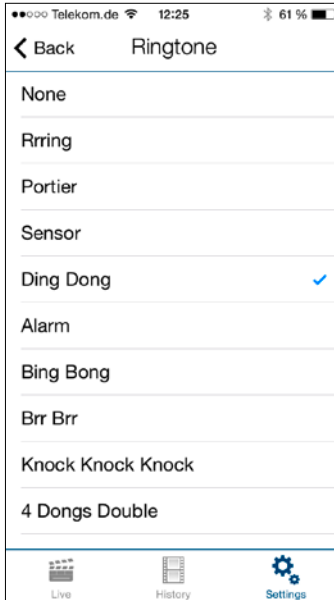
Tap “Settings” on the main screen to access the settings screen.

Tap „Add **1** “ to add a new door intercom to the app on this smartphone or tap an already existing **2** door intercom to change its configurations. Tap the “Information **3** ” key for further information and assistance on how to use the app. Tapping the “Hands-free mode **4** ” key will enable/disable hands-free communications.



Enter the user’s access information previously created on the „Administration“ screen here **1**. Add an optional entrance description under “Door Station **2** ”. Once again the user name holds the reference information to establish a connection with the door intercom. Consequently, no additional information regarding the camera about to be added is necessary. Disable push notifications **3** when you do not want to be disturbed.

Tap “Ringtone **4**” and choose from the list provided.



After tapping the “Caller **5**” key, the following screen appears:



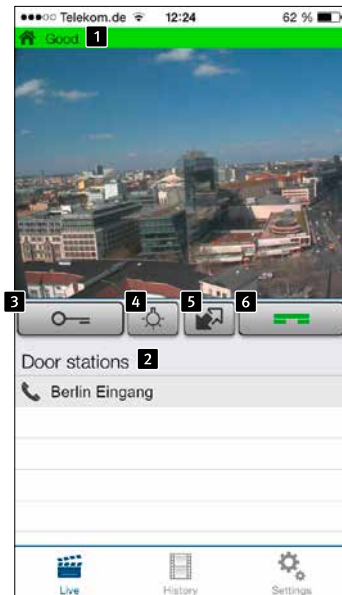
Enter the SIP door intercom’s telephone number used to call the app. Calls from other telephone numbers will not be connected.

Tap “Save **7**” to end the process. Tapping “Delete **8**” will remove the respective video door intercom from the app’s configuration.

3.7. Using the app

The app is divided into two parts: Live Video and History. Depending on their authorisation setting, the user may access the camera's live video feed at all times or only when there is a connected call from the door.

During the call

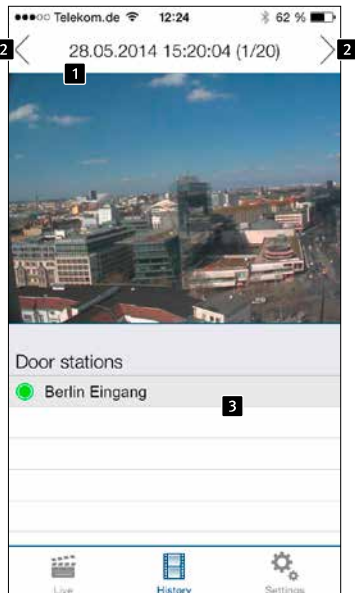


On this screen you will see the video feed from the door camera. The bar **1** at the top of the screen indicates video reception either via local or mobile data connection. Transmission quality is indicated by bar colour and bar length (red: poor, green: good).

The lower list **2** provides an overview over all the door intercom devices set-up on this smartphone. Pressing the respective row in the list will deliver the video feed from the corresponding door intercom device. Should you lack the necessary authorisation to access live video feed outside of a connected call (cf. “User management”), you will instead see a blue screen with the Behnke logo. A green dot indicates an accessible cameras, inaccessible cameras are marked with a red dot. A telephone receiver indicates an incoming call.

Tap the “Open Door **3**” key to trigger the open door function on relay 1; use the “Lights On **4**” key to trigger the door intercom’s relay 2. Please bear in mind which relay operation modes were set for the door intercom. The functions for these keys depend on the relay operation modes of your door intercom.

History



The “snapshots” option from the History menu allows you to take a look at all those who rang your doorbell while you were away. The top bar **1** indicates when the doorbell was rung (date and time). Swipe the screen or use the arrow keys **2** to navigate through the last 20 entries.

Choose which door intercom camera history you want to access from the lower table **3**.

3.8. Reset to default settings

- ▶ Disable the camera's power supply
- ▶ Press and hold the reset key **1**
- ▶ Continue to hold the reset key and enable the camera's power supply
- ▶ When the LEDs start flashing yellow (after approx. 15 - 30 seconds), you may let go of the key



4. TECHNICAL SPECIFICATIONS

20/21-2913-IP, 20/21-2906-IP

Features

- ▶ Power supply via PoE
- ▶ LED illumination (only for 20/21-2906-IP)
- ▶ Digital PTZ
- ▶ ONVIF compatibility to use with video surveillance systems by different manufacturers
- ▶ Dome (only for 20/20-2913-IP)

Optics

- ▶ 1/4" CMOS sensor
- ▶ Focal length 2.8 mm, F2.8
- ▶ Horizontal angle of view 118°
- ▶ Vertical angle of view 66°
- ▶ Illumination 1.5 – 100000 lux, F2.8, 0 lux with LED switched on
- ▶ Shutter speed 1/24500s to 1/6s

Video

- ▶ Motion JPEG, H.264 compression
- ▶ HDTV Resolution of 1280 x 720 down to 320 x 240 pixel
- ▶ 25 images / s for all resolution settings and all types of compression

Network

- ▶ IPv4/v6, HTTP, HTTPS*, SSL/TLS*, QoS Layer 3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS.
- ▶ Password protected web interface
- ▶ HTTPS encryption

43-9582-IP

Features

- ▶ Power supply via PoE
- ▶ Digital PTZ
- ▶ ONVIF compatibility to use with video surveillance systems by different manufacturers

Optics

- ▶ 1/3.2" CMOS sensor
- ▶ Focal length 1.3 mm, F2.8
- ▶ Horizontal angle of view 187°
- ▶ Illumination 0.6 – 200000 lux, F2.0, 0 lux
- ▶ Shutter speed 1/24500s to 1/6s

Video

- ▶ Motion JPEG, H.264 compression
- ▶ Resolution 2592 x 5 to 160 x 90 pixel
- ▶ 21 images/s for a 360° panorama view

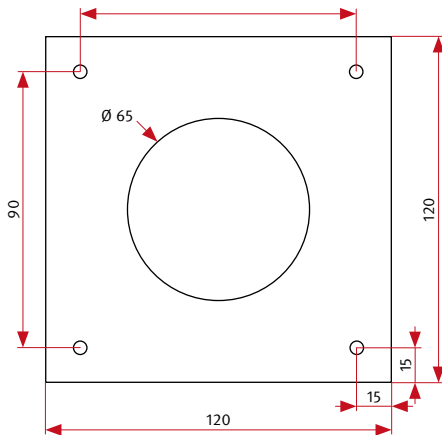
Network

- ▶ IPv4/v6, HTTP, HTTPS*, SSL/TLS*, QoS Layer 3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS.
- ▶ Password protected web interface
- ▶ HTTPS encryption

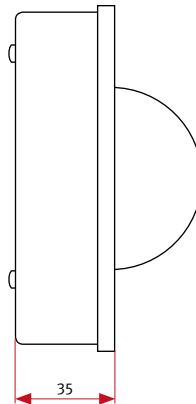
5. DIMENSIONS

Retrofit

Front view



Side view



We suggest a cavity size of
120 x 120 x 40 mm (HxWxD)



**Electromagnetic Compatibility
Low Voltage Directive**

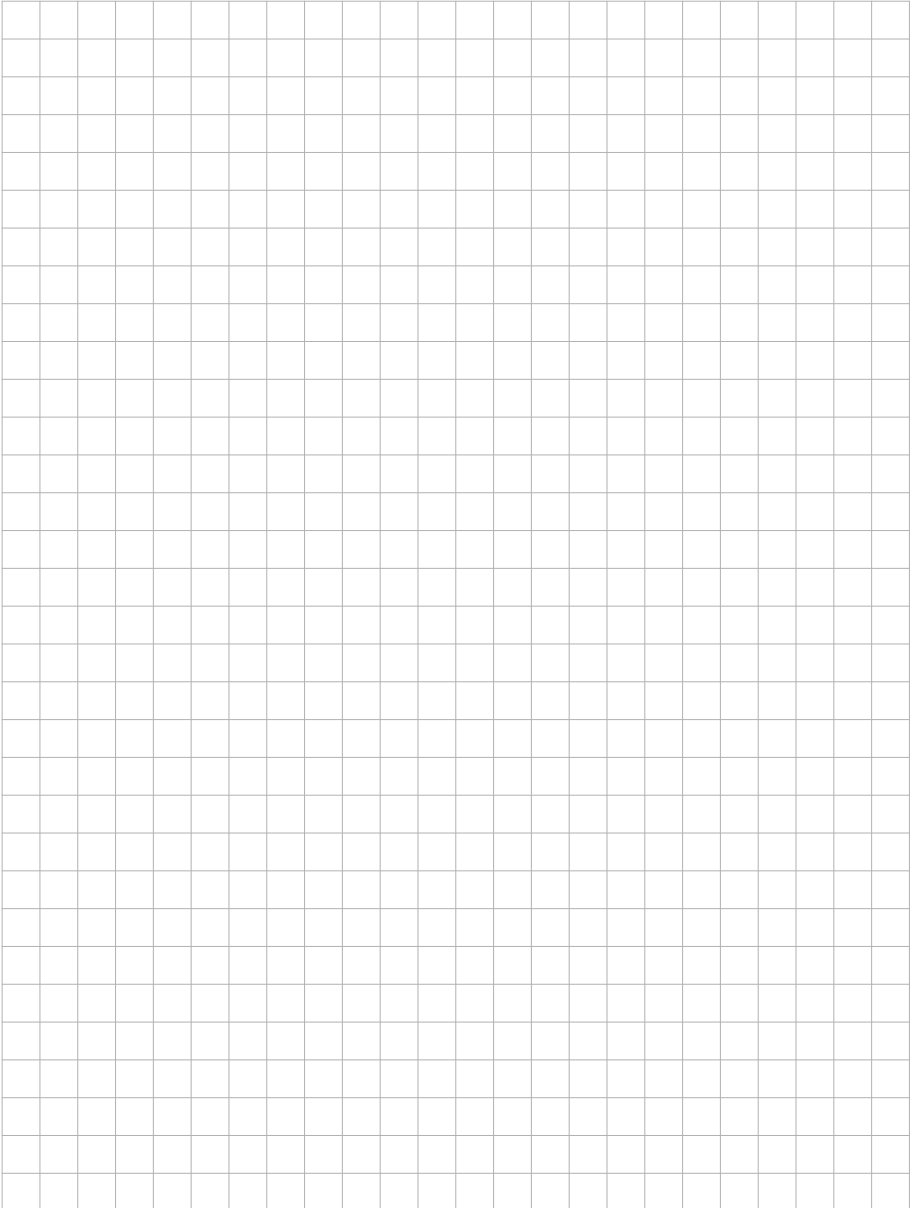
All our products meet the standards for CE certification valid in the entire EU: Electromagnetic Compatibility according to directive 2004/108/EC and Low Voltage Directive 73/23/EEC modified by 93/68/EEC.

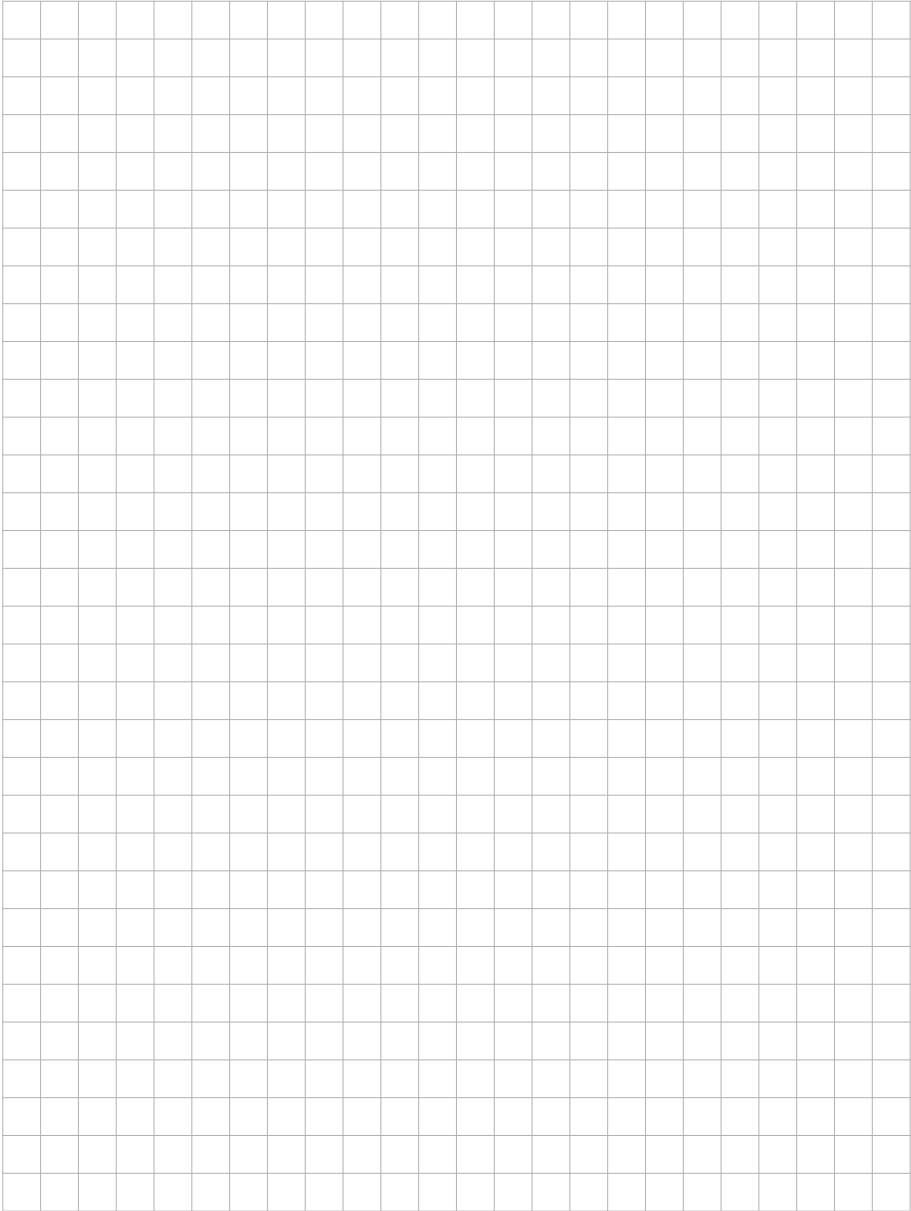
6. LEGAL INFORMATION

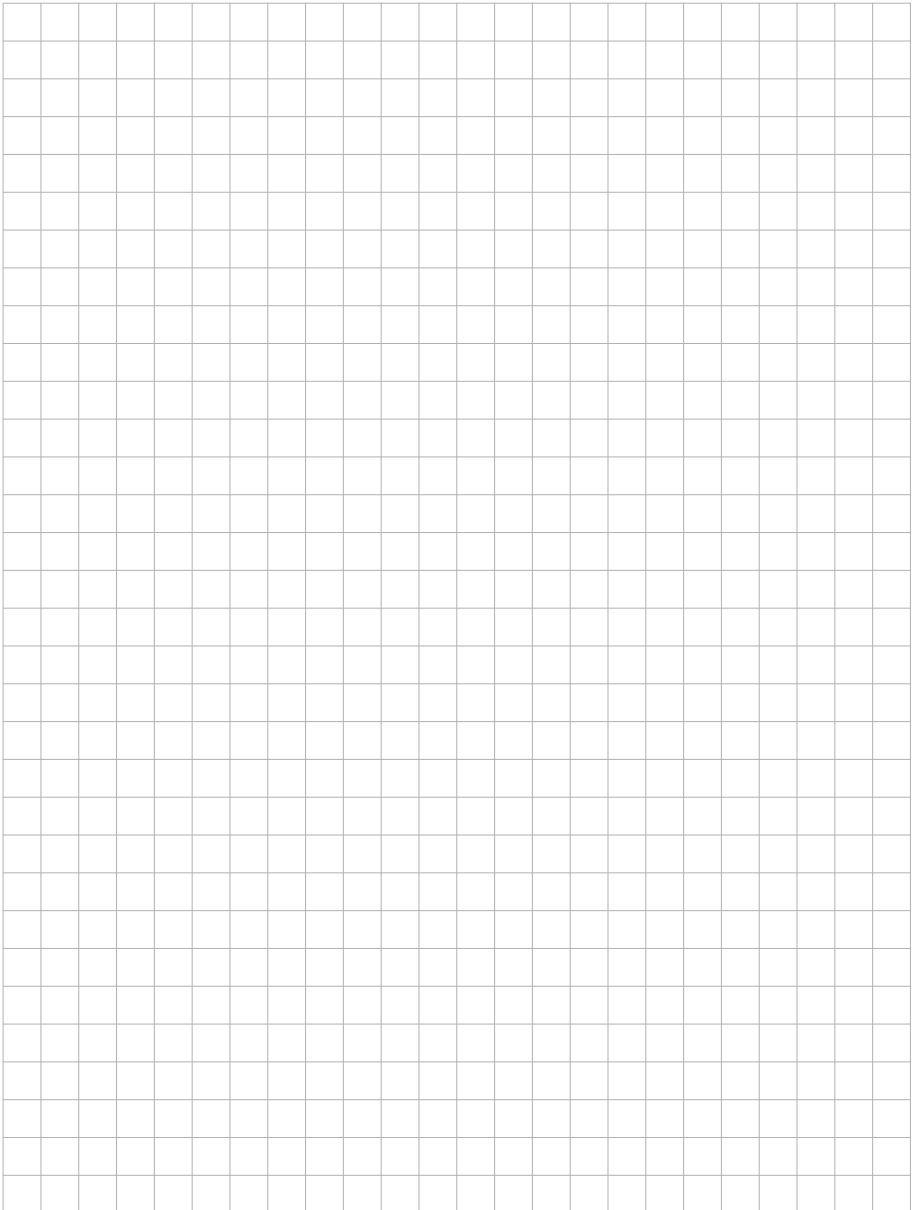
1. We reserve the right to change our products, without notice, for technical progress. As a result of continuous development, the products illustrated may look different from the products actually delivered.
2. Reprints of texts, images or pictures or copies from these instructions in any media – given in full or as extracts – require our express written consent.
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6. Google, Android and Google Play are trademarks of Google, Inc.
7. All other company and product names may be trademarks of the respective companies with which they are associated.

Information with regard to product liability:

1. All products mentioned in these instructions may only be used for the purpose intended. In case of doubts, please contact a competent specialist or our services department (cf. telephone numbers).
2. Products with a power supply (especially those plugged in to 230 V) must be unplugged before opening or during installation.
3. Damage and consequential damage resulting from altering or meddling with our products or their improper use are excluded from product liability. This also applies to improper storage or external influences.
4. The respective guidelines for working on power supplies with 230 V or batteries equally apply to working with our products, e.g. directives regarding electromagnetic compatibility or the Low Voltage Directive. Please leave corresponding work to trained specialists familiar with the matter.
5. Our products meet all technical guidelines and telecommunications regulations currently applicable in Germany and the EU.







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