

# IP-VarioBell - DoorPhone

## *IP-VarioBell*

*IPVB-00, IPVB-01, IPVB-02  
IPVB-00C, IPVB-01C, IPVB-02C  
VBD5-mod, VBD10-mod, VBDKey*



Installation and operating instructions



# Welcome

Congratulations to purchasing a modern SIP based VoIP audio-video door entry system “VoIP Door Phone VarioBell”, the IP VarioBell. This door entry system widely satisfies your needs for audio and video IP communication with visitors of your company, houses, schools, etc. VoIP means “**Voice over Internet Protocol**” – the IP VarioBell door entry system can be connected to the IP network and it allows 2 ways of calling. Either P2P (peer to peer), it means it calls directly to an IP address of other SIP based IP device or it registers to a SIP server / IP PBX (as a SIP client) and then it calls to phone numbers. To each call button you can assign up to 5 phone numbers with possibility of progressive or simultaneous dialling.

The IP-VarioBell doorphone is supplied with one or two call buttons or no call buttons, in audio version or with a color camera module. The system is modular and can be expanded up to 87 call buttons and equipped with an access control and dialling keypad and NFC proximity door access controller.

The IP VarioBell is powered from an optional 12VAC or 12VDC power supply adapter which can also power the electrical lock(s) at your door entrance. The doorphone might be powered also by PoE (Power over Ethernet). Based on its basic features and basic use, it is similar to a handsfree phone. Among the basic features you can find a possibility to open up 4 doors via connected electrical locks as well as user friendly configuration by WEB based interface accessible via any standard web browser.



The producer progressively improves features of the doorphone (firmware). The IP VarioBell can be upgraded with the latest firmware version via PC. The latest firmware version can be download at [www.alphatechtechnologies.cz](http://www.alphatechtechnologies.cz) . The firmware upgrade procedure can be found in the chapter 4.6.5 Service – Firmware upgrade. We recommend using the latest firmware version which brings new features as well as eventual correction and fixes of errors of previous versions. At [www.alphatechtechnologies.cz](http://www.alphatechtechnologies.cz) you can also find the latest versions of user’s documentation and manuals.



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# 1 Basic description

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## 1.1 Features

- audio is full duplex with ECHO cancellation
- phone book with up to 999 subscribers/users with 5 phone numbers for each user (max. 87 physical call buttons + keyboard + NFC access module)
- every subscriber can use more phone numbers with progressive or simultaneous calling
- Email sending when unreachable including attachment with images
- 10 time plans with week program
- 4 relays. 2 included on the pcb board with possibility to connect 2 independent el. locks for door opening and 2 virtual (webrelays) for remote control of IP relays or for relays synchronization
- relays system via synchronization allows combination of any mode (progressive opening, 2 pulses, etc.)
- 10 shared adjustable codes for every relay + every subscriber can use his own code for each relay
- based on a specific purchase order you can use door sensors or exit buttons; it needs to be HW pre-configured in the production
- SNMP available
- real time clocks from NTP or SIP server
- extendable possibilities of call buttons functionality, light intensity settings, call duration restriction, etc.
- audio signalling settings, saving your own tones or messages
- multilanguage support
- configuration and loading of your specific setup profile
- reliable firmware upgrade
- WEB interface management
- power supply 12V or PoE (Class 0 - 12,95W)
- Ethernet – 10/100Mb with standard 10BaseT and 100BaseTx
- unit starts in 10 seconds
- Linux operating system
- USB connection of integrated web camera. Video transmission to web browser – JPEG/MJPEG, video transmission to IP phones - stream H.263, H.264
- SIP connection P2P or IP PBX (SIP server) system
- SIP 2.0 protocol, defined by RFC3261

## 1.2 Used terminology

- **Incoming call** - Connection between the doorphone and a phone made by selecting an option on the phone. The doorphone connects the call after set number of rings.
- **Outgoing call** - Connection between the doorphone and a phone made by choosing an option on the doorphone (e.g., pressing a call button).
- **External code** - Combination of call buttons or keyboard keys (after pressing the key symbol) for a relay activation. [External = entering a door access code outside the building]
- **Internal code** - Combination of call buttons on the phone for a relay activation (by DTMF dialling). [Internal = entering a door access code inside the building].
- **Code lock** - function for closing the relay switch by entering a combination of the first 10 call buttons or keyboard keys (after pressing the key symbol)
- **Ethernet** is technology which is used to build up local networks (LAN)
- **LAN** - Local Area Network refers to a computer network that covers a small geographical area (eg, households, small businesses).
- **10Base-T** It uses a twisted pair cable with a speed of 10 Mbit/s as the transmission medium. It uses two pairs of structured cabling out of four.
- **100Base-TX** A variant with a transmission speed of 100 Mbit/s, which is called **Fast Ethernet**
- **Ethernet** uses two pairs of UTP or STP category 5 cable.
- **Twisted 2line** or also a **twisted pair** is a type of cable which is used in PC networks. Twisted 2line consists of cables pairs which are regularly twisted along the length and the resulting pairs are twisted together.
- **UTP**, Unshielded Twisted Pair
- **STP**, Shielded Twisted Pair
- **WEB** - World Wide Web (WWW, shortly **web**), is a designation for HTTP Internet protocol applications
- **HTTP** (Hypertext Transfer Protocol) is an Internet protocol originally intended for exchanging hypertext documents in HTML format
- **USB** (Universal Serial Bus) is a universal serial bus. A modern way to connect peripherals to a computer.
- **Video codec** (a compound of the initial syllables of the words "**encoder** and **decoder**", taken from the English codec of analogous origin). **H.263** compression is derived from MPEG-4, **H.264** is an encoder for the MPEG-4 part.10 (AVC) format. MPEG-4 is a type of video compression - reducing the bitrate of an image sequence
- **JPEG** is a standard loss compression method used to store computer images
- **Voice over Internet Protocol (VoIP)** is a technology that enables the transmission of digitized voice in the body of **UDP / TCP / IP** family of packets over a computer network. It is used for making phone calls via the Internet, Intranet or any other data connection.
- **TCP / IP** contains a set of protocols for computer network communication and is the main protocol of the worldwide Internet.
- **IP address** is a number that uniquely identifies a network interface on a computer network that uses the IP protocol.

- **Dynamic Host Configuration Protocol (DHCP)** is an application protocol from the **TCP / IP** family. It is used to automatically assign IP addresses to individual personal computers in computer networks, thus simplifying their management
- **Internet** is a worldwide system of interconnected computer networks
- **Intranet** is a computer network similar to **the Internet** but "private". This means that it is intended for use by only a small group of users (for example, employees of a company).
- **PoE (Power over Ethernet)** is powered by a data network cable, without the need to apply power to the device with another separate cable.
- **NTP (Network Time Protocol)** is a protocol for synchronizing computers' internal clocks
- **NAT (Network Address Translation)** is a way in computer networks to modify network traffic passing through a router by rewriting the source or destination IP address.
- **STUN (Session Traversal Utilities for NAT)** is a set of auxiliary Internet standards, including a network protocol, that are used to enable communication through NAT. The STUN client sends a request to the STUN server, which returns a response to the client with the IP address of the NAT router and the port number that NAT opened for the incoming connection.
- **SIP User Agent** - each SIP user agent (phone, software, device) can identify itself by its name (string). The syntax for creating this name is not defined, but it is recommended to use "device name + version" for practical reasons.



### 1.3 Sestava modulů

The IP-VarioBell doorphone is a modular system, incorporating modern technology, timeless design and easy installation and operation.

The IP-VarioBell doorphone is equipped with two relay switches, PoE power supply and the basic modules differ in the use of zero, one or two call buttons. Optionally you can choose the basic module with a colour camera. The entire system can be expanded to a maximum of 87 call buttons and can also be expanded with an access control / dialling keypad and an NFC proximity door access controller.

The basic module IPVB-xx. The IP-VarioBell basic module is can be equipped with two call buttons / one double call button (IPVB-02), one single call button (IPVB-01) or zero call buttons (IPVB-00). The models with a color camera have a "C" ending (e.g., IPVB-02C).

The VBDx-mod extension modules (they are the same also for analog and GSM modular versions of the VarioBell doorphone) - there are only two types:

- VBD5-mod is a module with five single call buttons
- VBD10-mod is a module with ten call buttons (five double call buttons)

The peculiarity is that the numbering of the buttons does not depend on the connection of the modules and it is set with a DIP switch on each module (see below).

The last expansion module is the VBDKey keyboard - the connection of the keyboard does not depend on the connection point (see below).

### 1.3.1 Call button modules



Basic module  
IPVB-02



Basic module  
IPVB-01



Basic module  
IPVB-00



Basic module  
IPVB-02C



Basic module  
IPVB-01C



Basic module  
IPVB-00C



Call buttons module  
VBD5-mod



Call buttons module  
VBD10-mod



Keypad module  
VBDKey

### 1.3.2 Mechanical parts

For simplicity, the mechanical parts for 1, 2 and 3 modules are shown here. There is a maximum of 3 modules in one column, a large set contains a maximum of 2 columns (6 modules). For even larger assemblies, blocks of 6 modules can be stacked on top of or next to each other.

#### **Flush mounting boxes:**



Flush mount box-1



Flush mount box-2



Flush mount box-3

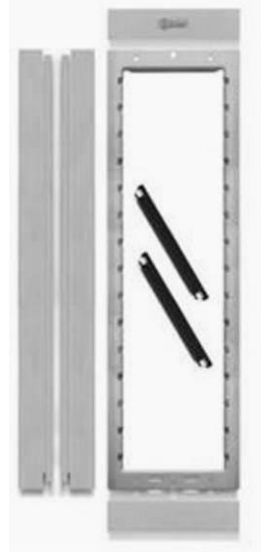
**Mounting and cover frame** – for surface and flush mounting



for 1 module



for 2 modules



for 3 modules

**Rain hoods** – for flush mounting - examples



Rain hood-1



Rain hood-2



Rain hood- 2x2

**Surface mounting boxes with integrated rain hoods** – examples for surface mounting (frames are supplied separately)



SMB-1



SMB-2



SMB-3

## 1.4 Connecting the IP-VarioBell

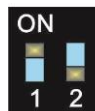
The IP-VarioBell doorphone consists of a motherboard, a processor board and is always equipped with two call buttons. How many call buttons will be used at the installation site is determined only by the front panel (0, 1 or 2 call buttons). Additional call button modules of up to 85 call buttons, including the keyboard, can be connected to the motherboard. Furthermore, the motherboard is equipped with two inputs (door sensors or exit buttons which need to be HW specified in the production based on your purchase order) and two relay switches (relays).

### 1.4.1 IP-VarioBell motherboard

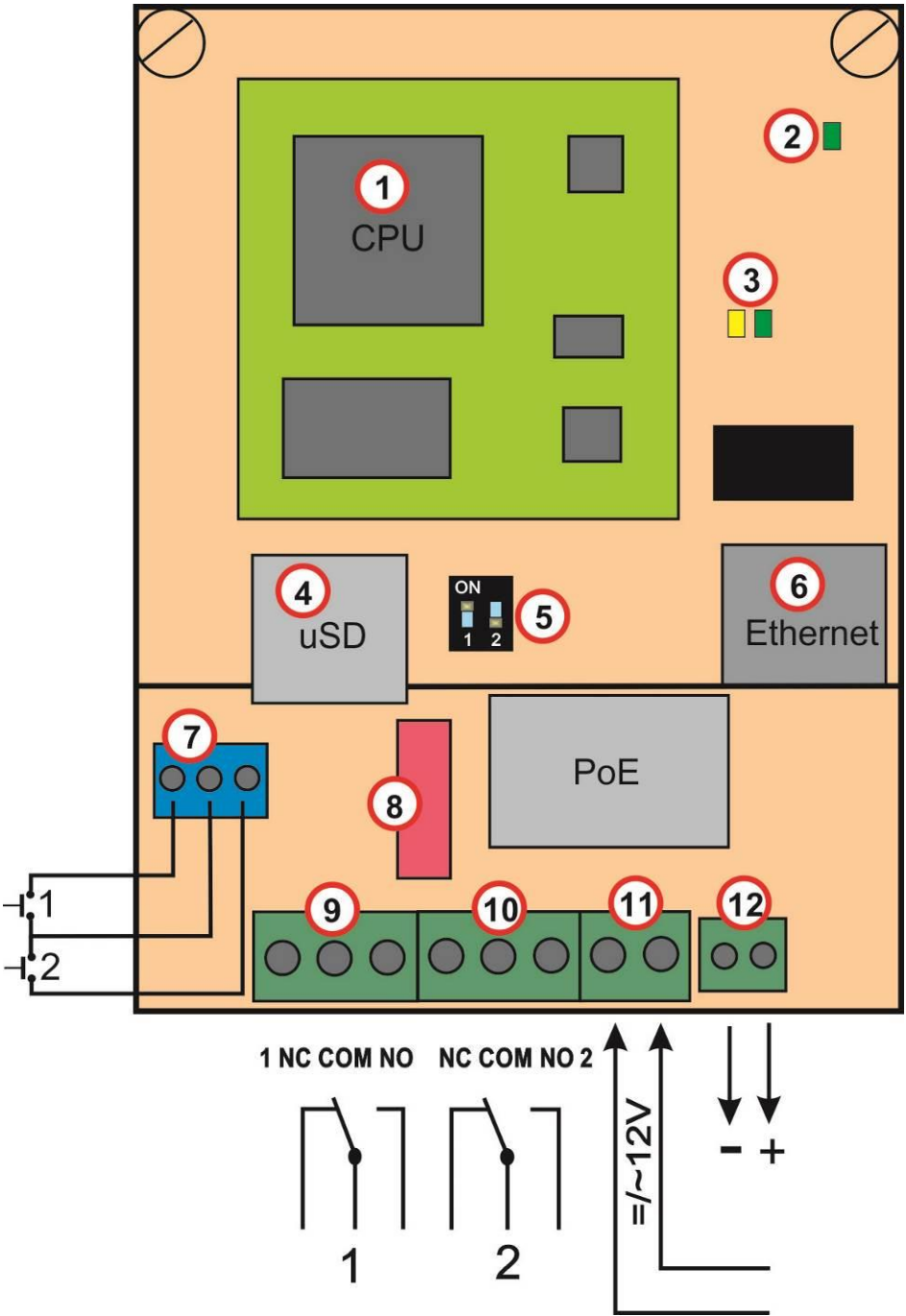
The motherboard is the same for all IP-VarioBell models and only differs in the installation of the camera module. As standard, it is equipped with a PoE module (according to the IEEE802.3af standard), a connector for connecting expansion modules, LED name-card backlight, a microSD card reader and two relay switches.

All functional and connecting elements are marked with a number in a red circle.

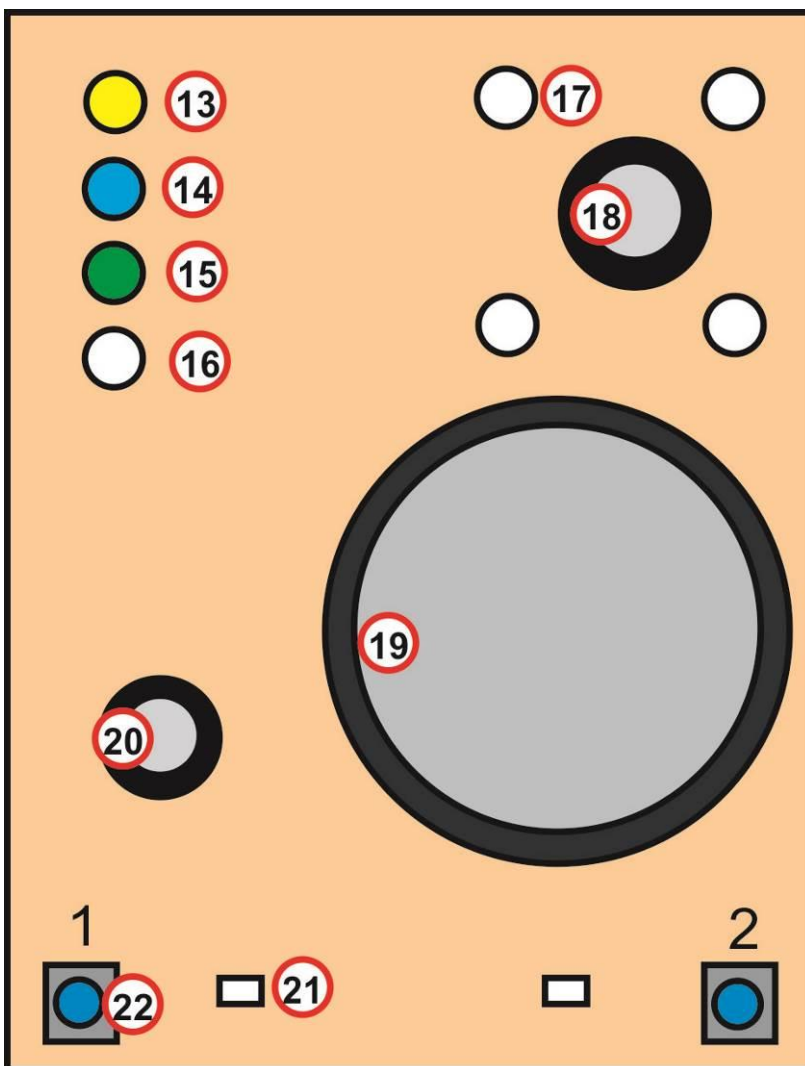
1. CPU board (processor module)
2. LED green - the power supply of the doorphone is OK
3. LED for network activity control, green = 100M LAN connection, yellow = data transmission to LAN
4. MicroSD card slot - insert the card before switching on the door intercom and it must not be ejected during the whole operation!
5. DIP switch
  - 1 – always ON (used for service purposes only)
  - 2 – OFF; if switched to ON before start, the intercom sets to the default IP address 192.168.1.250 and to the default/empty style. The name is *admin* and the password is *1234*. To display video, the name is *video* and the password *1234* (if requested). The standard position for operation of the intercom is **OFF**.
6. UTP cable connection (Ethernet, LAN, network)
7. Two inputs (middle terminal is common to both) for door sensors or exit buttons (programmable)
8. Cable connection **K0** for expansion module(s) - flat cable, orange connector on one side and black connector on the other side
9. Terminal block of the changeover contact of **the first relay** (NC = normally closed, NO = normally open and COM = common, middle terminal)
10. Terminal block of the changeover contact of **the second relay** NO = open at rest and COM = common, middle terminal)



11. **Input** for power supply IP-VarioBell 12V AC / DC (consumption approx. 300mA max.). It is recommended to use a direct current (DC) power supply.
12. **Output** 12V DC, max. 300mA, e.g. for power supply of low consumption electric lock with PoE power supply of the IP-VarioBell.







- 13. The yellow LED lights up when the doorphone is ringing or establishing and terminating a connection (establishing connection).
- 14. The blue LED lights up when the connection is established and you can talk (Call).
- 15. The green LED lights up when at least one of the two relay switches is active (Door open).
- 16. Ambient light sensor for controlling the backlight of name-cards and camera.

- 17. White LED to illuminate the area in front of the camera (only for models with a camera)
- 18. Camera lens (camera models only). The lens view angle is 120°, max. resolution 640x480px.
- 19. Speaker
- 20. Microphone
- 21. White LED – name-card illumination
- 22. Call buttons 1 and 2 – they are on each motherboard whether the basic module has two, one or zero buttons. This depends only on the front panel.

### 1.4.2 Power supply - terminal (10)

12V power supply can be **DC** or **AC**, regardless of polarity, from 12V is a maximum consumption of 300mA.

The power supply can also be used to power the el. lock, then a 12V / 1A power supply is recommended.

A **24VDC** power supply can also be used. It is mainly used in installations where the power supply already exists and is used, for example, for an attendance system or a sliding gate. However, an AC power supply must not be used. Only a **24VDC** power supply is allowed. The polarity does not matter when connected.

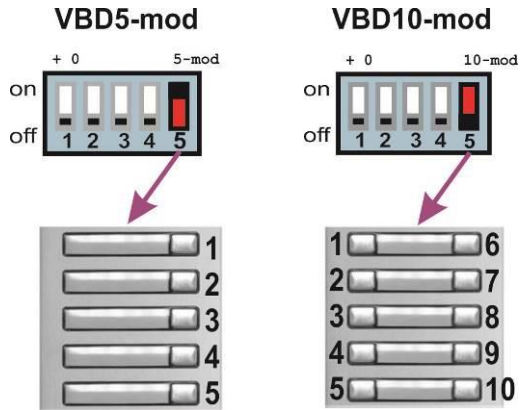
### 1.4.3 Bus for call buttons expansion

This bus allows you to connect up to 87 expansion buttons, including the keyboard. In addition to serial data, the bus also supplies power to the name-card lighting.

The call buttons module exists in two versions:

**VBD10-mod** can handle 10 call buttons - 5 on the left side and 5 of the right side.

**VBD5-mod** can handle 5 call buttons on the right side only. The keyboard **VBDKey** can be included in the bus anywhere.



## 1.5 Connection of expansion modules VBD10(5)-mod

There are two types of call button expansion modules, the **VBD10-mod** with ten call buttons (five double call buttons) and the **VBD5-mod** with five single call buttons. However, the method of numbering is essential, the connection is arbitrary. You can link modules as you wish, regardless of numbering!

The numbering of the call buttons will be explained below, but it is set on each call button module using a DIP switch (**E6**).

The **VBDx-mod** electronics board is only connected to the VarioBell call buttons module via a terminal block (**E5**) and a three-core connection cable (**E4**). The connector (**E7**) is not used with the IP-VarioBell version.

**The connection** is made using the flat cable **K1** (two black connectors at both ends). The cable **K0** is used exclusively for the connection between the basic module and the first call buttons module or keypad (orange connector on one side and black connector on the other side).

(**E1**) is the connection to the basic module (cable K0) or the connection to the previous push-button module (cable K1), (**E2**) is the connection to the next push-button module (cable K1), (**E3**) is the connection between the call buttons modules (cable K1).

### 1.5.1 Cable K0 / K1

**Cable K0** – an orange connector on one side and a black connector on the other end – it is used exclusively to connect the first expansion module to the basic module.

**Cable K1** – black connector on both sides – it is used for connection between expansion modules.

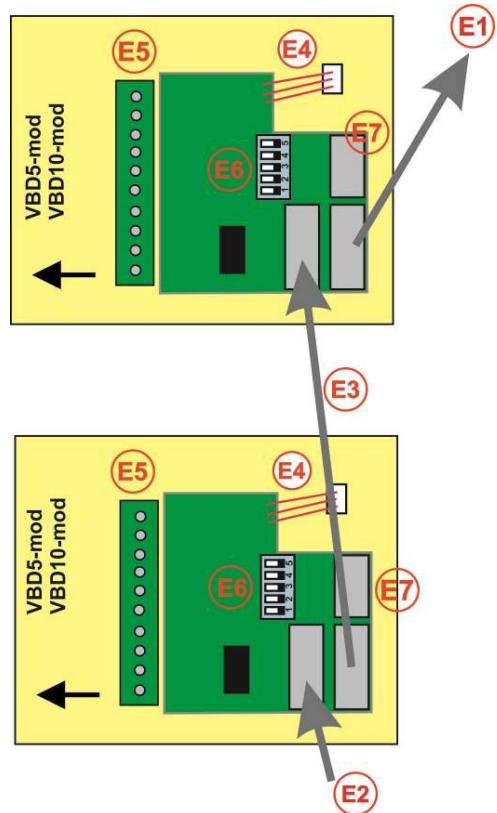


Fig. 1 Connection of VBD10-mod and VBD5-mod

## 1.5.2 Example of connecting VBD10-mod modules

The connection is made using a flat cable K1 / K0. The example uses a basic module with two call buttons and also a VBDKey keyboard module is used in the connection. The numbering of the modules is set using the DIP switches (E6) always shown next to the respective module. The button numbers then correspond to the description in the left column next to the modules. The keyboard module is detected automatically and there is no need to set anything. The keyboard connection location is arbitrary, it can be connected at any place. If the K1 cables were connected randomly, nothing happens and the numbering is retained (given by the DIP switch on the relevant module).

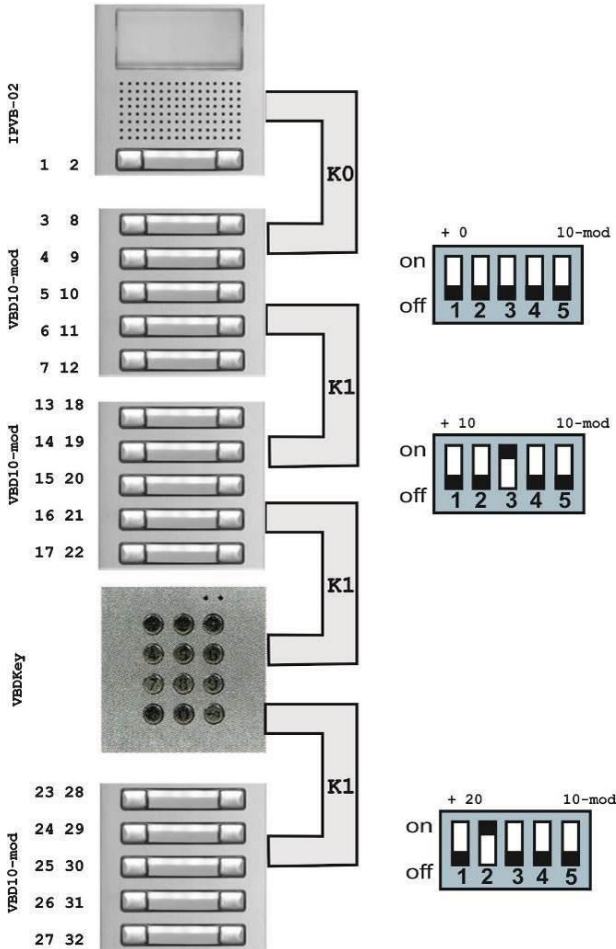


Fig. 2 Interconnection of IP-VarioBell and VBD10-mod modules

### 1.5.3 Example of connecting VBD5-mod modules

The connection is made using a flat cable K1 / K0. The example uses a basic module with two call buttons and also a VBDKey keyboard module is used in the connection. The numbering of the modules is set using the DIP switches (E6) always shown next to the respective module. The button numbers then correspond to the description in the left column next to the modules. The keyboard module is detected automatically and there is no need to set anything. The keyboard connection location is arbitrary, it can be connected at any place. If the K1 cables were connected randomly, nothing happens and the numbering is retained (given by the DIP switch on the relevant module).

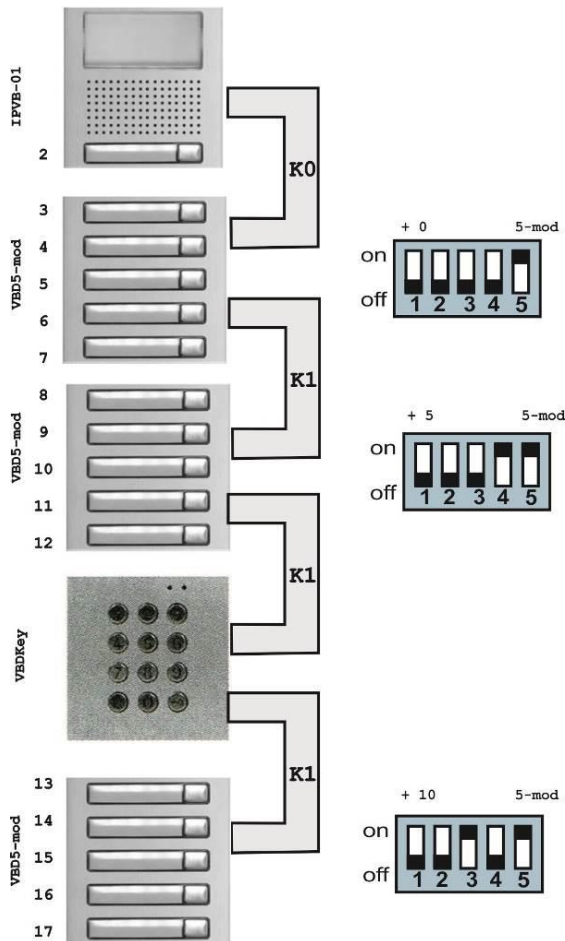


Fig. 3 Interconnection of IP-VarioBell and VBD10-mod modules

## 1.5.4 Call buttons numbering

The numbering of the buttons **depends on** the setting of the DIP switch on each call buttons module.

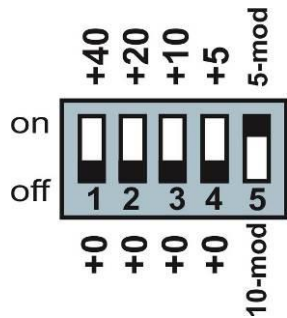
The numbering **does not depend** on the way (order) of interconnection of individual call buttons modules.

**DIP switch setting (E6)** on the call button module.

The individual DIP switches have this meaning:








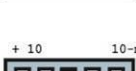





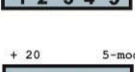











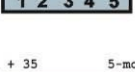







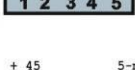



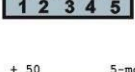



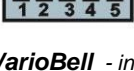

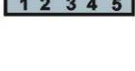
**DIP 1 - 4** = setting of the number of previous buttons of call buttons modules (the basic module **does not count** !!)

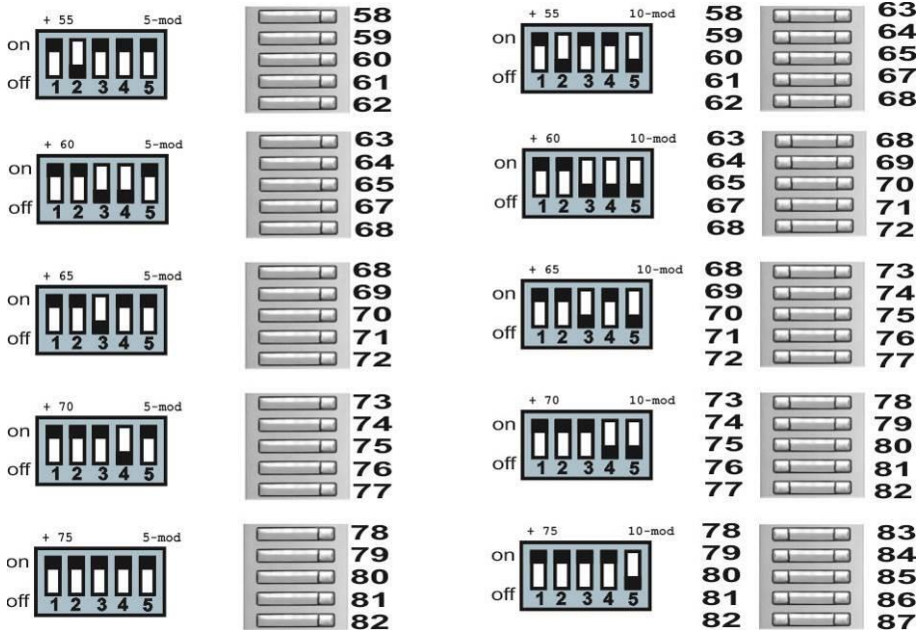
**DIP 5** = setting of the specific module, whether its front panel / front plate has 5 or 10 call buttons



In the doorphone settings, **it is necessary to set the connected number of expansion call buttons** (this determines the number of entries in the phonebook). The call buttons on the basic module are not included in this number. **The call buttons on the basic module are specified separately** (0, 1 or 2) based on the front panel/plate you use (with 0, 1 or 2 call buttons).


Extended settings	Prolongation key:	* - Asterisk
DoorPhone	Ringing cycles count:	1
RC commands	Same key pressed again:	Cancel call
Audio	Another key pressed:	Dial
Audio codecs	Dialing timeout [sec]:	2
Video	DTMF dialing timeout [sec]:	2
Video codecs	Keyboard mode:	Direct number entry (phone)
Streaming	DTMF dial from keyboard during call:	None
Service	Camera light:	During a call
Video camera	Light intensity [%]:	1
	Labels light:	Always
	Light intensity [%]:	100
	Daylight lower threshold:	250
	Daylight upper threshold:	300
	<b>IP VarioBell:</b>	
	Number of buttons on basic module:	2
	Expansion buttons count:	10
	Keyboard connected:	<input checked="" type="checkbox"/>

<p>+ 0      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 3</p> <p><input type="checkbox"/> 4</p> <p><input type="checkbox"/> 5</p> <p><input type="checkbox"/> 6</p> <p><input type="checkbox"/> 7</p>	<p>+ 0      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 3</p> <p><input type="checkbox"/> 4</p> <p><input type="checkbox"/> 5</p> <p><input type="checkbox"/> 6</p> <p><input type="checkbox"/> 7</p>	<p><input type="checkbox"/> 8</p> <p><input type="checkbox"/> 9</p> <p><input type="checkbox"/> 10</p> <p><input type="checkbox"/> 11</p> <p><input type="checkbox"/> 12</p>
<p>+ 5      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 8</p> <p><input type="checkbox"/> 9</p> <p><input type="checkbox"/> 10</p> <p><input type="checkbox"/> 11</p> <p><input type="checkbox"/> 12</p>	<p>+ 5      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 8</p> <p><input type="checkbox"/> 9</p> <p><input type="checkbox"/> 10</p> <p><input type="checkbox"/> 11</p> <p><input type="checkbox"/> 12</p>	<p><input type="checkbox"/> 13</p> <p><input type="checkbox"/> 14</p> <p><input type="checkbox"/> 15</p> <p><input type="checkbox"/> 16</p> <p><input type="checkbox"/> 17</p>
<p>+ 10      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 13</p> <p><input type="checkbox"/> 14</p> <p><input type="checkbox"/> 15</p> <p><input type="checkbox"/> 16</p> <p><input type="checkbox"/> 17</p>	<p>+ 10      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 13</p> <p><input type="checkbox"/> 14</p> <p><input type="checkbox"/> 15</p> <p><input type="checkbox"/> 16</p> <p><input type="checkbox"/> 17</p>	<p><input type="checkbox"/> 18</p> <p><input type="checkbox"/> 19</p> <p><input type="checkbox"/> 20</p> <p><input type="checkbox"/> 21</p> <p><input type="checkbox"/> 22</p>
<p>+ 15      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 18</p> <p><input type="checkbox"/> 19</p> <p><input type="checkbox"/> 20</p> <p><input type="checkbox"/> 21</p> <p><input type="checkbox"/> 22</p>	<p>+ 15      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 18</p> <p><input type="checkbox"/> 19</p> <p><input type="checkbox"/> 20</p> <p><input type="checkbox"/> 21</p> <p><input type="checkbox"/> 22</p>	<p><input type="checkbox"/> 23</p> <p><input type="checkbox"/> 24</p> <p><input type="checkbox"/> 25</p> <p><input type="checkbox"/> 26</p> <p><input type="checkbox"/> 27</p>
<p>+ 20      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 23</p> <p><input type="checkbox"/> 24</p> <p><input type="checkbox"/> 25</p> <p><input type="checkbox"/> 26</p> <p><input type="checkbox"/> 27</p>	<p>+ 20      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 23</p> <p><input type="checkbox"/> 24</p> <p><input type="checkbox"/> 25</p> <p><input type="checkbox"/> 26</p> <p><input type="checkbox"/> 27</p>	<p><input type="checkbox"/> 28</p> <p><input type="checkbox"/> 29</p> <p><input type="checkbox"/> 30</p> <p><input type="checkbox"/> 31</p> <p><input type="checkbox"/> 32</p>
<p>+ 25      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 28</p> <p><input type="checkbox"/> 29</p> <p><input type="checkbox"/> 30</p> <p><input type="checkbox"/> 31</p> <p><input type="checkbox"/> 32</p>	<p>+ 25      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 28</p> <p><input type="checkbox"/> 29</p> <p><input type="checkbox"/> 30</p> <p><input type="checkbox"/> 31</p> <p><input type="checkbox"/> 32</p>	<p><input type="checkbox"/> 33</p> <p><input type="checkbox"/> 34</p> <p><input type="checkbox"/> 35</p> <p><input type="checkbox"/> 36</p> <p><input type="checkbox"/> 37</p>
<p>+ 30      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 33</p> <p><input type="checkbox"/> 34</p> <p><input type="checkbox"/> 35</p> <p><input type="checkbox"/> 36</p> <p><input type="checkbox"/> 37</p>	<p>+ 30      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 33</p> <p><input type="checkbox"/> 34</p> <p><input type="checkbox"/> 35</p> <p><input type="checkbox"/> 36</p> <p><input type="checkbox"/> 37</p>	<p><input type="checkbox"/> 38</p> <p><input type="checkbox"/> 39</p> <p><input type="checkbox"/> 40</p> <p><input type="checkbox"/> 41</p> <p><input type="checkbox"/> 42</p>
<p>+ 35      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 38</p> <p><input type="checkbox"/> 39</p> <p><input type="checkbox"/> 40</p> <p><input type="checkbox"/> 41</p> <p><input type="checkbox"/> 42</p>	<p>+ 35      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 38</p> <p><input type="checkbox"/> 39</p> <p><input type="checkbox"/> 40</p> <p><input type="checkbox"/> 41</p> <p><input type="checkbox"/> 42</p>	<p><input type="checkbox"/> 43</p> <p><input type="checkbox"/> 44</p> <p><input type="checkbox"/> 45</p> <p><input type="checkbox"/> 46</p> <p><input type="checkbox"/> 47</p>
<p>+ 40      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 43</p> <p><input type="checkbox"/> 44</p> <p><input type="checkbox"/> 45</p> <p><input type="checkbox"/> 46</p> <p><input type="checkbox"/> 47</p>	<p>+ 40      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 43</p> <p><input type="checkbox"/> 44</p> <p><input type="checkbox"/> 45</p> <p><input type="checkbox"/> 46</p> <p><input type="checkbox"/> 47</p>	<p><input type="checkbox"/> 48</p> <p><input type="checkbox"/> 49</p> <p><input type="checkbox"/> 50</p> <p><input type="checkbox"/> 51</p> <p><input type="checkbox"/> 52</p>
<p>+ 45      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 48</p> <p><input type="checkbox"/> 49</p> <p><input type="checkbox"/> 50</p> <p><input type="checkbox"/> 51</p> <p><input type="checkbox"/> 52</p>	<p>+ 45      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 48</p> <p><input type="checkbox"/> 49</p> <p><input type="checkbox"/> 50</p> <p><input type="checkbox"/> 51</p> <p><input type="checkbox"/> 52</p>	<p><input type="checkbox"/> 53</p> <p><input type="checkbox"/> 54</p> <p><input type="checkbox"/> 55</p> <p><input type="checkbox"/> 56</p> <p><input type="checkbox"/> 57</p>
<p>+ 50      5-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 53</p> <p><input type="checkbox"/> 54</p> <p><input type="checkbox"/> 55</p> <p><input type="checkbox"/> 56</p> <p><input type="checkbox"/> 57</p>	<p>+ 50      10-mod</p> <p>on </p> <p>off </p>	<p><input type="checkbox"/> 53</p> <p><input type="checkbox"/> 54</p> <p><input type="checkbox"/> 55</p> <p><input type="checkbox"/> 56</p> <p><input type="checkbox"/> 57</p>	<p><input type="checkbox"/> 58</p> <p><input type="checkbox"/> 59</p> <p><input type="checkbox"/> 60</p> <p><input type="checkbox"/> 61</p> <p><input type="checkbox"/> 62</p>





The numbering of the modules is shown in the figure above, in the left part there are modules with 5 call buttons VBD5-mod and in the right part there are modules with 10 call buttons VBD10-mod (5 double call buttons).


The call buttons module with the required numbering can be found in the figure above. On the left side there is the correct DIP switch combination (**E6**), which you must set on the specific call buttons module.

 Pro správnou definici počtu tlačítek (počet položek v telefonním seznamu) je třeba v nastavení Vrátník nastavit počet připojených tlačítek

 Číslování je nezávislé na pořadí propojení modulů kabely K1

 Pokud do systému připojíte dva tlačítkové moduly se stejným nastavením DIP přepínače, tak se nic nestane, ale oba tyto moduly budou mít stejné čísla tlačítek a tudíž stejnou funkci.

 Pro modul klávesnice je třeba nastavit v nastavení Vrátníka přítomnost klávesnice (telefonní seznam se rozšíří na 999 položek)

 Pokud do systému připojíte dvě klávesnice, tak budou obě funkční a budou mít stejnou funkci.

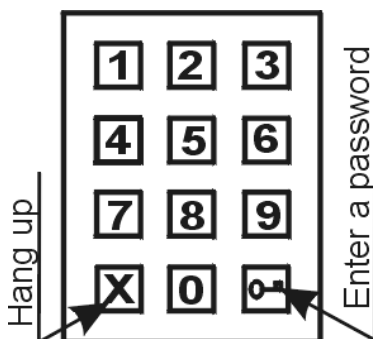
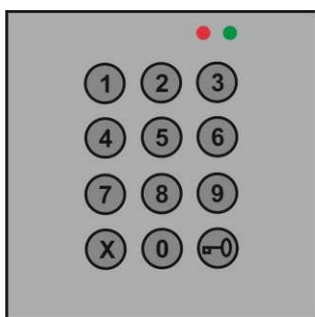
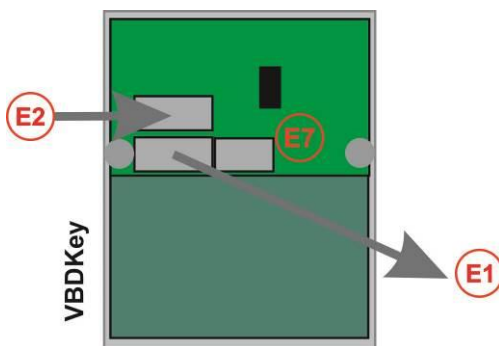




## 1.6 Připojení klávesnice VBDKey


Modul klávesnice se připojuje plochým kabelem stejně jako moduly VBD10(5)-mod

Propojení se provádí pomocí plochých kabelů K1 případně kabelu K0. (E1) je připojení směrem k základnímu modulu, (E2) je připojení následujícího tlačítkového modulu.

Konektor (E7) se u této verze IP-VarioBell nepoužívá.



**Volba** se zadává postupným zmačknutím tlačítek s číslicemi, pro zadání hesla se jako první musí zmačknout symbol klíče , pro zavěšení se kdykoli zmačkne  a vrátiny zavěsí, nebo zruší proces zadávání čísel (Cancel).

**Zámek na kód** lze zadávat jak klávesnice po zmačknutí symbolu , tak i zmačknutím kombinace z prvních deseti tlačítek (tlačítka 1- 10, kde tlačítka 10 = v kódu 0)

Klávesnice má dva základní režimy vytáčení telefonních čísel.

- Přímá volba telefonních čísel – na klávesnici se volí čísla jako na telefonu
- Volba z paměti vrátného – na klávesnici se volí pouze jedno, dvomístné nebo trojmístné číslo = adresa paměti (1- 999). Tento způsob šetří připojená tlačítka, pro více účastníků je výhodnější použít několik tlačítek přímé volby a klávesnici v režimu volby čísel z paměti než vytvářet obrovskou sestavu tlačítkových panelů.

*Poznámka:* tlačítka 1 na základním panelu adresuje stejnou paměť telefonních čísel jako volba na klávesnici 1 – ve vrátném je pouze 999 pamětí a každá položka telefonního seznamu může obsahovat až 5 telefonních čísel. (tj. max. 4995 telefonních čísel)

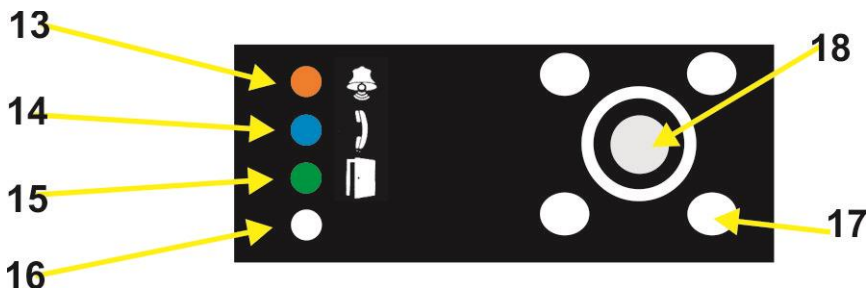


Pro modul klávesnice je třeba nastavit na stránce Vrátník přítomnost připojené klávesnice



Pokud do systému připojíte dvě klávesnice, tak budou obě funkční a budou mít stejnou funkci.

## 1.7 Signalizace na předním panelu základního modulu

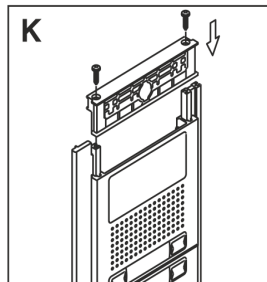
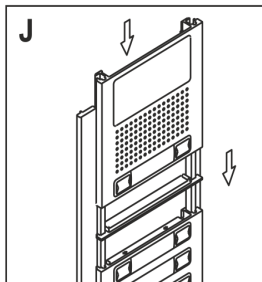
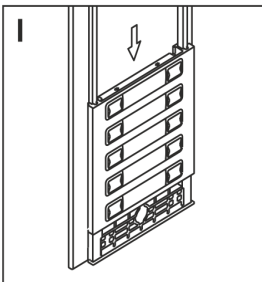
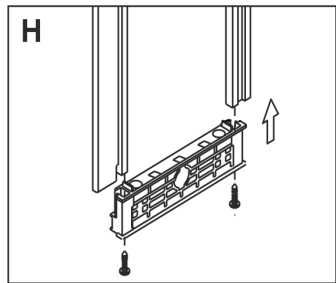
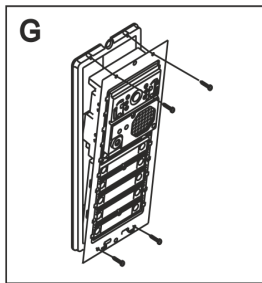
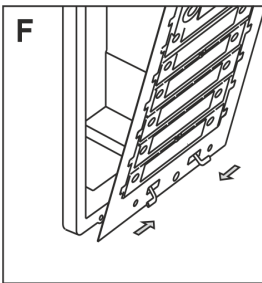
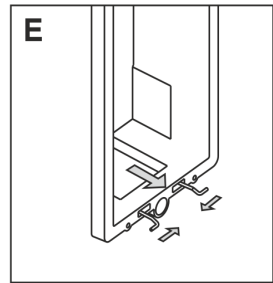
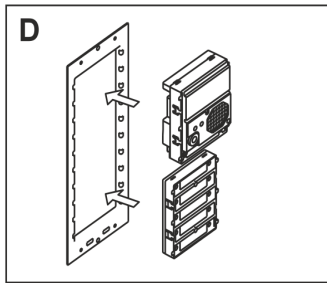
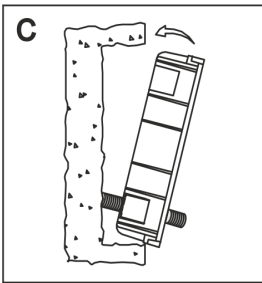
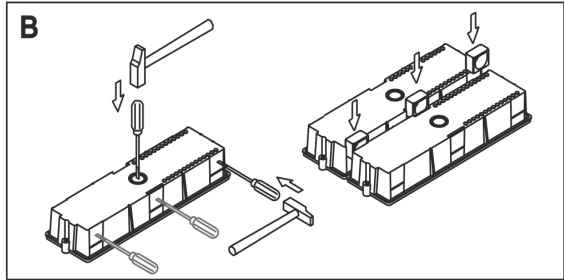
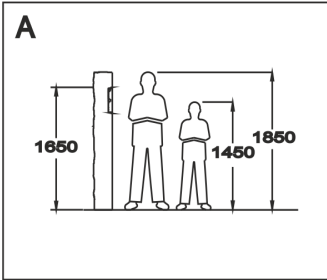


Mechanika IP-VarioBell umožňuje v okénku základního modulu signalizovat stav vrátného. Toho se zpravidla využívá pro neslyšící návštěvníky.

- Symbol zvonek **(13)** žlutá LED svítí v době, kdy vrátný vyzvání nebo navazuje a ukončuje spojení (Navazuji spojení).
- Symbol telefon **(14)** modrá LED svítí v době, kdy je navázané spojení a lze hovořit (Hovor).
- Symbol dveře **(15)** zelená LED svítí po dobu aktivace alespoň jednoho ze dvou spínačů (Otevření dveří).
- Symbol ruka **(16)** zde je umístěn snímač okolního osvětlení pro automacké rozsvícení podsvícení vizitek a přisvícení kamery.
- Bílé LED **(17)** pro osvětlení prostoru před kamerou (pouze u modelů s kamerou)
- **(18)** objektiv barevné kamery u modelu vybaveného kamerou

## 2 Instalace

### 2.1 Montáž

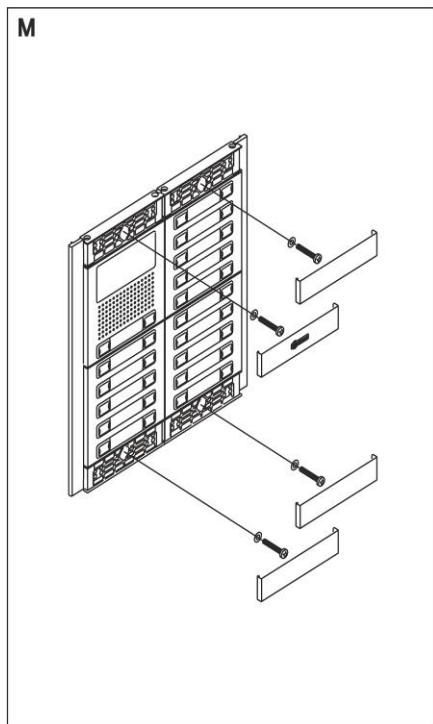
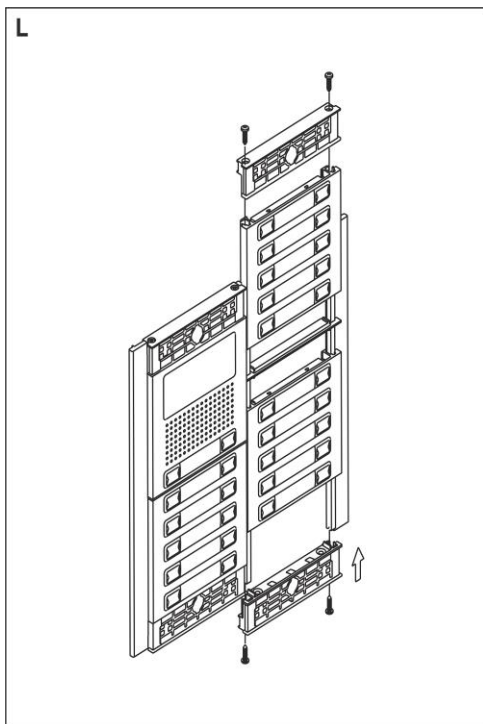


## **Postup montáže:**

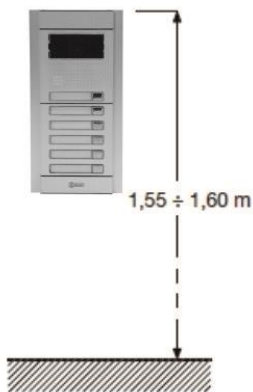
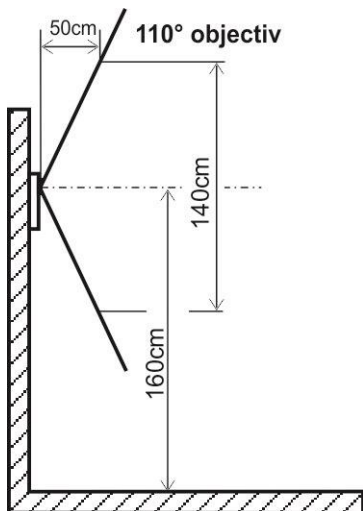
- A. Příprava montážního otvoru ve zdi – doporučená výška je kolem 160cm od země. Rozměr otvoru záleží na počtu modulů a zde jsou orientačně uvedeny rozměry pro 1, 2 a 3 moduly (základní montážní krabice). Pro větší sestavy se celek skládá z těchto montážních krabic řazením vedle sebe a pod sebou.

Modulů	1	2	3
Výška mm	140	257	374
Šířka mm	125	125	125
Hloubka mm	56	56	56

- B. Příprava montážní krabice pro přívodní kabel a pro vzájemné propojení montážních krabic
- C. Osazení montážní krabice (krabic) do otvoru ve zdi
- D. Zasazení jednotlivých modulů do upevňovacího rámečku
- E. Osazení pružiny do spodní části mechanické krabice
- F. Uchycení upevňovacího rámečku do pružiny v montážní krabici
- G. Montáž upevňovacího rámečku k montážní krabici pomocí 4 šroubů (součást mechaniky)
- H. Složení lemovacího rámečku – nejprve sešroubovat bočnice se spodní částí
- I. Do lemovacího rámečku zasunout přední panely jednotlivých modulů
- J. Poslední modul (ten nejvíce nahoře) se zasune do lemovacího rámečku
- K. Nakonec se zašroubuje horní část lemovacího rámečku k bočnicím
- L. To celé znovu je jako celek na tomto obrázku (H+I+J+K) pro další sestavu do vedlejší montážní krabice
- M. Nakonec se na lemovací rámeček osadí krytky



Umístění IP-VarioBell na zdi

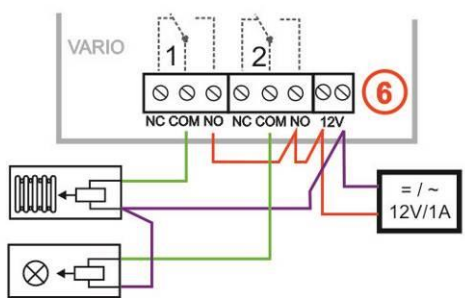
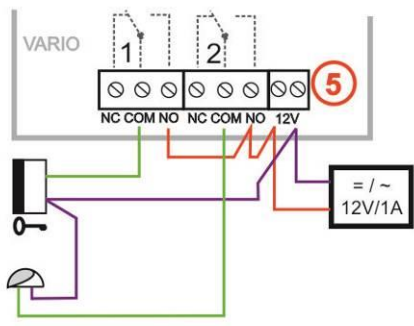
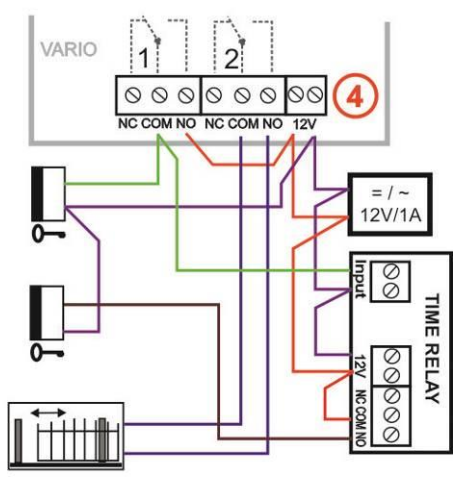
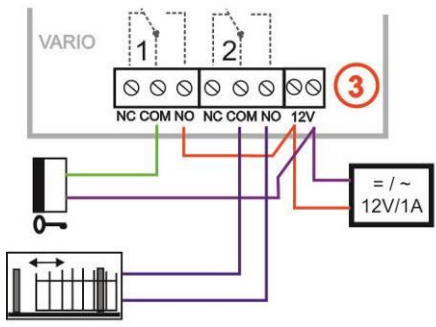
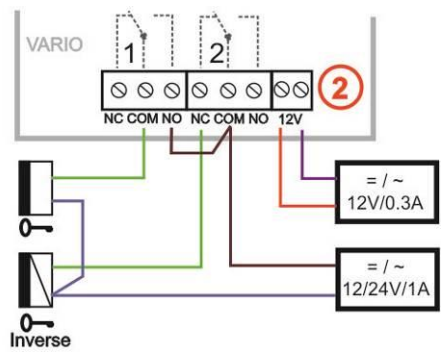
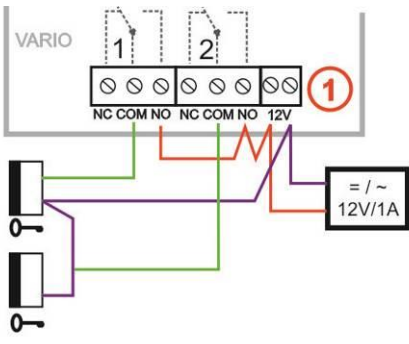


## 2.2 Zapojení spínačů

**Příklady zapojení spínačů** jsou na následující stránce, nejsou to zdaleka všechny možnosti zapojení a připojení spínačů, ale dávají návod, jak zapojit jednotlivé obvody (červené kroužky s čísly = čísla příkladů).

1. Základní zapojení - 2 elektrické zámky a možnost ovládat dvoje dveře nezávisle (režim spínače 1 a 2 je monostabilní) toto schéma platí i postupné otevírání dveří. Toto zapojení je nejčastější, jeden společný zdroj napájí vrátný IP-VarioBell a oba elektrické zámky. Proudové zatížení zdroje záleží zvláště na použitých elektrických zámcích. Standardní zámek má proudový odběr 0,6A – 1,0A, dále je nutno vzít v úvahu, zda je možnost, že sepnou oba spínače elektrických zámků současně. Pokud ne, tak vyhoví zdroj 1A pokud je možnost současného sepnutí, tak volte raději zdroj 2A. Pokud použijete nízko odběrové zámky, tak zdroj 1A je plně vyhovující.
2. Dva zdroje - možnost využít nezávisle dva napájecí zdroje, jeden pro IP-VarioBell a druhý pro elektrické zámky. Elektrický zámek 2 je zapojen inverzně (požární únikové dveře).
3. Kombinace dveří s elektrickým zámkem a pojezdové brány v oplocení.
4. Rozšíření předchozího příkladu na dvoje dveře s postupným otvíráním (tato funkce se nastavuje v TimeRelay - externí modul)
5. Kombinace elektrického zámku a přidavného zvonku. Spínač přidavného zvonku může být v režimu sepnutí spínače od hovoru (reaguje na všechna tlačítka) nebo sepnutí spínače od vybraného tlačítka, pak spínač reaguje pouze na jedno vybrané tlačítko.
6. Spínání osvětlení (např. cesta k budově) spínačem 1 (nastavení sepnutí spínače od hovoru) . Spínač 2 - řízení např. topení podle týdenního plánu – tabulka časových profilů synchronizuje vybraný spínač. Pozor! je nutno použít stykač (IP-VarioBell **nesmí** spínat 230V!).

Příklady na obrázku jsou principiální.



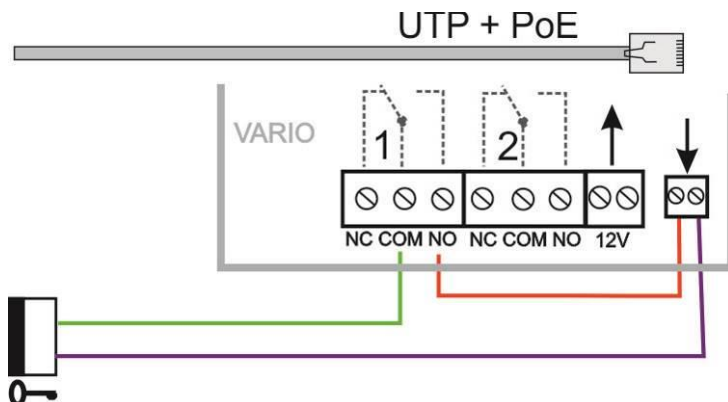
## 2.2.1 PoE napájení

IP-VarioBell je vybaven obvodem pro napájení po UTP kabelu – PoE. Pokud máte síťový switch vybaven napájením PoE, nebo vlastníte napáječ PoE (krabička velikosti síťového adaptéru vložená do přívodu UTP kabelu - podle normy IEEE802.3af), tak již pro funkci vrátného nepotřebujete napájení 12V.

Pokud používáte elektrický zámek pro otevření dveří, tak musíte pro napájení zámku použít napájecí zdroj (pouze v obvodu s kontakty relé), nebo použít nízko odběrový zámek a pak pro napájení zámku použít výstupní svorku „12V output“ (svorka označená na obrázku základní desky „12“). Při napájení PoE je zde 12V/300mA k dispozici.

Pozor, je třeba zaručit, aby nemohly být aktivní oba elektrické zámky zároveň.

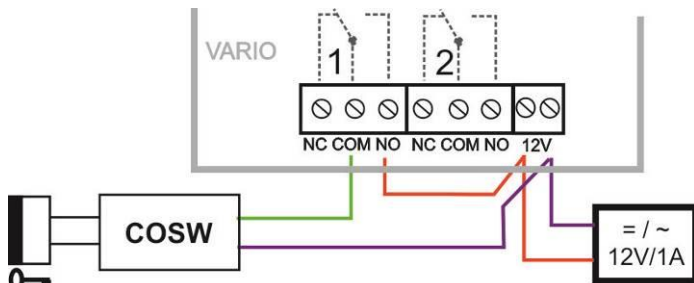
Toho lze dosáhnout např. Synchronizací spínačů a nastavit postupné otevírání dveří (nastavení je popsáno dále v kapitole nastavení spínačů)





## 2.2.2 Kódové relé (COSW)

Pro spínač je dostupná funkce kódového relé (**COSW-CodeSwitch**). Slouží především k zabezpečení přenosu informace o sepnutí elektrického zámku. Při použití této funkce není možné připojením nebo odpojením napětí na přívody k zámku tento zámek aktivovat. Aktivace se provede pouze při shodě sériové informace přenášené mezi IP-VarioBell a deskou kódového relé.



V IP-VarioBell lze nastavit Security kód provýstup pro aktivaci kódového relé.

Kódová informace je 8 bitů, ale zadání kódu jsou 4 bity se zabezpečením 4 bity, což je celkem 8 bitů. Prakticky to probíhá tak, že po aktivaci spínače se nejprve přenáší sériový kód a pokud souhlasí, tak kódové relé připojí elektrický zámek.

**!** Kódové relé lze spojovat paralelně a tím rozšířit počet spínačů, ale nikdy nelze kombinovat připojení elektrického zámku a kódového relé paralelně!!

## 2.2.3 Použití dveřních snímačů – odchodové tlačítko

**Dveřní snímače** mohou být připojeny k vrátnému IP-VarioBell maximálně dva. Slouží ke zpětnému přenosu informace o zavřených dveřích. Tato informace je zobrazena na úvodní obrazovce (pod obrázkem z kamery) a také se přenáší do aplikací UDVguard. Další možností je využít SNMP.

Dveřní snímač je buď součástí elektrického zámku, nebo je to běžný magnetický kontakt používaný v zabezpečovací technice. Připojuje se jako **NC** spínač na svorkovnici (**7**) – stejně jako magnetický kontakt od Alarmu (dveře zavřené = sepnuto).

Vstupy pro dveřní snímače lze využít také jako **odchodové tlačítka**. V nastavení IP-VarioBell lze vybrat, který spínač tento vstup ovládá. Prakticky ke vstupu se připojí tlačítko NO a při stisknutí sepne spínač v monostabilním režimu na dobu sepnutí spínače.

### **2.2.4 Mikro SD karta**

Karta mikroSD slouží k uložení uživatelských zvukových souborů a v budoucnu bude možnost ukládání fotografií, videa, audia na MikroSD kartu jako záznamník.

Pokud zvolíte uživatelský tón a karta mikroSD nebude zasunuta ve vrátném, tak se použijí tóny základní signalizace.



**SD kartu nikdy nevysunujte během zapnutého vrátného!**

## 3 Service of IP VarioBell

### 3.1 Signalling overview

The door entry IP VarioBell signalling acoustically stages which occurs during operation. Further signalling is by 2 colour LED (placed right under black plexi). Acoustical signalling for each status mentioned in bellow table might be switched off or might be used default tones “beeping” or recorded user sound.

Status	Tone	LED
Call start	Adjustable / user programmable	Žlutá
Call end	Adjustable / user programmable	zhasne
Call not possible (busy)	Adjustable / user programmable	Žlutá
Confirmation of code insert	Adjustable / user programmable	Modrá
End of call notification	Adjustable / user programmable	Modrá
<b>Rlay closing</b>	Adjustable / user programmable	<b>Zelená *</b>
Error	Adjustable / user programmable	-
Button press	Adjustable / user programmable	-
<b>Call establishing</b>	-	<b>Žlutá</b>
<b>Call in progress - talk</b>	-	<b>Modrá</b>
Service mode (start boot)		Modrá
Linux start		Žlutá
Rescue WEB start		Žlutá- modrá bliká

\* - indication needs active acoustic signalling of appropriate relay

### 3.2 Visitor at door

Visitor at door is person who wants enter inside the building.

#### 3.2.1 Button press – outgoing call

Outgoing call is call from door entry (start by visitor). After door entry dial is ringit phone inside the building.

Door entry buttons have name cards with names and functions of people inside the building. The visitor press appropriate button and door entry start calling imediately (button is not first digit of code keylock) or delayed (time between button press) .The door entry dial preprogrammed number . Dialling number is different according setting in phone book:

1. Phone book position for selected button must be permitted
2. Must be fill min. 1 from 5 phone numbers (or IP addresses in P2P mode)
3. At filled phone number is active time plan in appropriate time or no plan is selected.

When is filled up more numbers then selection of phone number is up time plan and next are numbers dial in order (1 – 2 ... 5) or numbers might be dial simultaneously and which is picked up first it has the talk.

Both versions of dialling might be combinated. For example is possible call to 1. and 2. Phone number simultaneously. When call is not picked up until certain time then number 3 is dialled.

Repeated button press might have following functions:

- Nothing happen
- Dial again
- Call is ended

Since version 3.0.38 is in guard IP VarioBell new property that upon arrival "SIP Ringing" or the "Session progress" will not pass audio, but lets local bell ringing. But the video link (if offered by the counterparty in the SDP). Thus, it is possible with a suitable videophone (eg. Grandstream GXV3275 - "Preview" button) to see who is standing at the door, and accordingly it let in the building or not, without having heard anything from IP VarioBell.

### **3.2.2 Button press – code lock**

Door entry IP VarioBell buttons have feature of code lock. By progressive buttons press you can activate appropriate relay. The codes for this feature are either shared by all subscribers (relays setting) as same as individual (each subscriber has in phone book own private access code).

Caution: code might be done from available buttons only (for example model IP IP VarioBell has available 1 or 1 and 2)

When button number is first digit o any code then dialling from this button is delayed about "time between button press" for code evaluation.

It is also necessary mention feature relay closing by press of selected button (for example for function bell activation). This feature programmable in relays petting.

### **3.2.3 Call**

Door entry IP VarioBell has adaptive ECHO canceller. The Echo dissappear usually within first 5 seconds of call. The call is then full duplex. The end of call happen:

- Called party hang up
- Call duration time is over (when is setup)
- By button press(when is setup)

### 3.3 Visitor inside building

By person inside building is person who is in communication with door entry IP VarioBell.

#### 3.3.1 Outgoing call

Outgoing call is call from door entry (start by visitor). After door entry dial is ringit phone inside the building. When call is picked up you can talk to visitor at door and by code dialling you can activate relay. Door entry sends 10sec before call end notification about time limit of call and by dial character (\* / #) you can prolong the call. By phone hang up the call is ended.



***All transmission ways of info about button press are available (for example code to activate relay) – either in “RTP channel – RFC2833” or in “SIP info” and “inband DTMF”.***

#### 3.3.2 Incoming call

Incoming call is call to door entry (start by person inside building). After dial of extension number or IP adress where is connected door entry IP VarioBell the door entry is ringing and after preprogrammed number of rings picks up the call. You can talk. Possibilities are the same as outgoing call (activate relay, prolong the call etc.).

### 3.4 Video

At models with camera is possible received video as follow:

- IP phone with LCD display
- PC – WEB browser
- PC with programm UDVguard ([www.alphatechtechnologies.cz](http://www.alphatechtechnologies.cz))
- PC with general programm for video watching (for example VLC)
- Android device (smart phone, tablet) UDVguard (Google Play)
- Apple device (smart phone, tablet) UDVguard (iTunes)

**Video formats:** JPG, MJPG, H.263, H.264

**Video for WEB:**

**Internet Explorer, Mozilla, Opera, Firefox...** - (set of JPG pictures - Port 80) it is used repeated http request „IPaddress/video.jpg“

**programm PopUp** (UDVguard) - (MJPEG stream - Port 80) is used http request „IPaddress/video.mjpg“ (sometimes is reload necessary to run). This video is more fluent and has less network strain.

**Stream video for IP phones:**

H.263 and H264 is established by IP VarioBell door entry and IPvideo phone over SIP/SDP protocol on standard SIP port. The video (as same as sound) then runs by RTP protokol on ports agreed over SIP (usually 9078).

rtsp request „rtsp://IPaddress/video.264“

or rtsp request „rtsp://IPaddress/video.263

**Video parametres:**

JPG Pictures are created in IP modul and for all transmit protocols are the same .The Size (resolution) of video is selected in "Video setting" on WEB. Maximal resolution is defined by USB camera type and mostly is 640x480 Stream H.263 knows CIF resolution (352x288). It means bigger JPEG is cut and smaller framed.

Frequency (1-15 picture./sec) JPG Picture is selected in "Video setting" on WEB.

Frequency MJPG and Stream H.263 coming from camera. It is used every second and reset is between 7-15 pictures/sec. Higher resolution brings decrease of Pictures/ sec. (limited by processor efficiency)

**Ports:**

Port **80** for http (WEB pages even JPG / MJPG video on them)

Port **5060** for SIP

Ports RTP with oposite party communicates over SIP. Usually Port **7078** suggested for audio and Port **9078** for video

Port **554** video( H264 and H263) provided by door entry (server) protocol RTSP

## 4 Parametres programming

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Parametres programming is performed by ordinary WEB browser.  
(Caution! version of IE V7 and lower are not supported).

### 4.1 WEB interface access

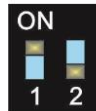
For successful display of WEB interface of IP VarioBell door entry we go through some details.

**Field length** - names, titles, codes, passwords have fix length **40 characters**.  
- URL and etc. have max length **255 characters**

#### 4.1.1 What you should know

In doorphone IP VarioBell is a double DIP switch. Individual switches should be in the positions shown.

- 1 – on
- 2 – off



Meaning of each switches:

1. Always position **on**, this switch is only used in the manufacture or repair service.
2. If the position **on** at power (or reset) so in doorphone is set the default IP address 192.168.1.250 and uses the default style. The name is *admin* and the password is *1234*. To see the video is the name *video* and password *1234* (if required). **The operating position is off.**

**Warning:** If you get into a situation that you do not know the IP address set in IP VarioBell or have forgotten your password, so there is reason to use the **DIP2** switch, switch it to the **ON** position and restart IP VarioBell. Then you change the settings eg. Passwords or network settings. Remember to switch DIP2 into operating position **DIP2 = off** and click save and restart. After rebooting, IP VarioBell is now all set according to the changes.

You should also dedicate attention into which PC network you are connected. Default door entry IP address is 192.168.1.250.

When is your PC in network setup also on segment 192.168.1.xxx then might caused a problem in network just by same IP address etc. 192.168.1.250.

In this case we recommend temporarily disconnect device from network.

When your PC is setup to different network segment than 192.168.1.xxx two possibilities are available:

1. In PC you have system Windows 7 or 8, then you can setup „network setting“ – „Protocol IP version 4“ – „Property“ – specify“ and here add IP address in PC segment of door entry for example. 192.168.1.10

2. Generally in PC setup you program temporarily own IP address. In PC door entry segment for example 192.168.1.10. After change of door entry IP address you have return setting in PC back.

Then you can setup parameters of door entry including IP address and after restart of IP VarioBell door entry you can login to door entry WEB page on new IP address.

### 4.1.2 Login

In your WEB browser write IP address of IP VarioBell door entry in default it is **192.168.1.250**. you can see picture from camera as bellow – „home screen with video“



Under picture from camera (at models without camera is empty frame only) are on the left buttons **Stop** – to stop video and **Start** for run video again. On the right is description **Setup** – after click on it will be display request for login data.

Write username and password. Username is always „**admin**“ and password is „**1234**“ (adjustable in settings). (To see the video is the name „**video**“ and password „**1234**“ - if required).



You enter now to first setting page of door entry IP VarioBell. On this page is display „Current status“. All necessary data about door entry status are here.

## 4.2 Current status

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IP BOLD

**Current status**

- Network setting
- Basic settings
- Extended settings
- Service
- Video camera

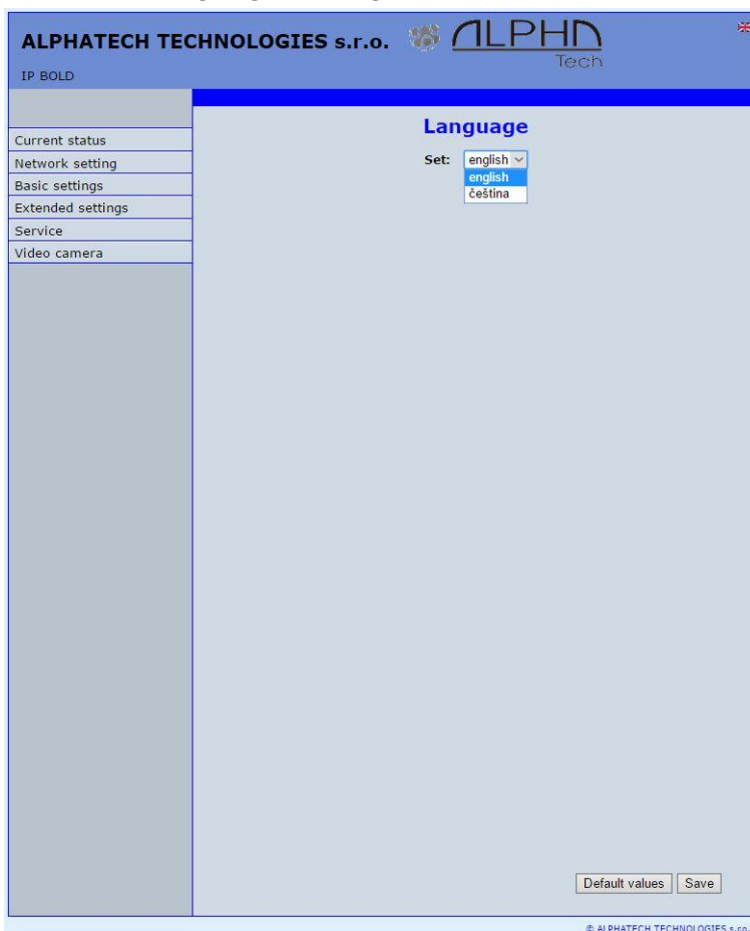
**Status**

<b>Display name</b>	IP DoorPhone
<b>Firmware version</b>	3.4.15
<b>Buttons count</b>	4
<b>Keyboard connected</b>	Yes
<b>Camera connected</b>	Yes
<b>SD card size</b>	
<b>Card free space</b>	
<b>Customization</b>	Alphatech Technologies
<b>MAC address</b>	00:56:34:00:14:38
<b>Actual time</b>	
<b>Running time</b>	0d 1h 49m
<b>Setup via DHCP</b>	No
<b>IP address</b>	192.168.1.250
<b>Network mask</b>	255.255.255.0
<b>Network gateway</b>	192.168.1.200
<b>DNS server</b>	78.41.19.2 78.41.19.3
<b>SIP mode</b>	SIP server
<b>Registration status</b>	Successful
<b>SIP server</b>	192.168.1.80
<b>Call active</b>	No
<b>Call duration</b>	0:00
<b>Calls count</b>	0
<b>Calls missed</b>	0

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Current status display basic data about IP VarioBell door entry status. It displays Firmware version, door entry model, options connection (camera), SD card, MAC addresses, current time, network setting, door entry mode (P2P or SIP server), registration status and small calls statistic.

## 4.2.1 Language settings



After language selection please don't forget click on „Save changes“.


On the right top corner is display flag of current used language in whole WEB interface. After click on flag accessible language will be displayed. After language selection please don't forget click on „Save changes“ otherwise language selection wont be performed.

## 4.3 IP network setting

### 4.3.1 IP Network setting

Network settings you find in menu „Network setting“. You can select using of fix IP adress or dynamically assigned by using DHCP.

#### Configuration of fix IP adress:

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Tech

IP BOLD

Current status

Network setting

Network

SIP parameters

Web server

Basic settings

Extended settings

Service

Video camera

### Network

**Setup via DHCP:**

**IP address:**

**Network mask:**

**Network gateway:**

**DNS server 1:**

**DNS server 2:**

**NAT policy:**

**NAT address:**

**STUN address:**

After performing of required changes please don't forget click on „Save and restart“.

**Setup via DHCP** - ON / OFF using DHCP assignment of IP addresses

**IP address, Network mask** – IP address setting, mask. In case of emergency please contact your network administrator

**Network gateway** – Router IP address (Internet connection)

**DNS server 1 and 2** – IP addresses of primary and secondary domain server

**NAT policy** - there is the choice of what kind of translate IP addresses used

**NAT address** - used for network traffic through the router (modifies transcription of the original or destination IP address)

**STUN address** - the IP address of the STUN server (see. page. 7)

## DHCP configuration:

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IP BOLD

Current status

Network setting

Network

SIP parameters

Web server

Basic settings

Extended settings

Service

Video camera

### Network

Setup via DHCP:

IP address:

Network mask:

Network gateway:

DNS server 1:

DNS server 2:

NAT policy:

NAT address:

STUN address:

Default values Save and restart

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After performing of required changes please don't forget click on „Save and restart“.

**DHCP** – by mark of this checkbox as same as saving and restart will be assigned to door entry IP VarioBell - IP address by DHCP.

**NAT policy** - there is the choice of what kind of translate IP addresses used

**NAT address** - used for network traffic through the router (modifies transcription of the original or destination IP address)

**STUN address** - the IP address of the STUN server (see. page. 7)

**Important:** if you use DHCP setting then DHCP assign IP address to door entry automatically and network administrator will assure your current IP address to be able watch video in WEB browser. Therefore this dynamically assigned IP address might be changed due for example power failure we recommend use dooe entry IP VarioBell with fix IP adress.

### 4.3.2 SIP setting

The door entry IP VarioBell might operates in 2 basic **SIP modes**. It is either **SIP server** – door entry registration is performed to SIP server and then you call to phone numbers assigned by SIP server or **Peer to Peer (P2P)** – door entry call exact IP adress and SIP server services can't be used.

#### Mode SIP server

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IP BOLD

**SIP parameters**

**SIP mode:** SIP server

**Display name:** IP DoorPhone

**SIP User Agent:** IP BOLD

**Account:** 250

**Auth. Id:** 250

**Password:** \*\*\*

**Send register:**

**Registration server:** 192.168.1.80

**Port:** 5060

**Expiration [sec]:** 600

**Registrare after restart:**

**SIP server:** 192.168.1.80

**Port:** 5060

**Outbound proxy:**

**Port:** 5060

**SIP Transport:** TCP & UDP

**Provisional code:** 180 Ringing

**Enable Symmetric RTP:**

Registration successful

Default values Save

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After performing of required changes please don't forget click on „Save“.

**Display name** - name by which is device presented in network (for example will display as door entry name in programm UDV panel, UDVguard)

**SIP User Agent** – for easy inastallation is possible use the SIP user agent. The syntax of this string is not defined, but a common practise is „device name + version“.

**Account** - unit name in SIP protocol (usually line number or name without diacritics)

**Auth.ID** - name for SIP server registration

**Password** - password for SIP server registration

**Send register** – when registration is necessary (mostly yes) then this parameter must be used

**Registration server** - IP address or server name of registration server (in most systems and installations is enough to insert IP address). Registration is performed on this server. When you don't mark send registration then don't fill *Registration server and IP address of SIP server write to Proxy server*.

**Port** - SIP port is usually 5060 or 5061

**Expiration[sec]** – expiration of SIP server registration (period of registration request repeated sending)

**Register after restart** – when you mark then always during restart will be unregistered

**SIP server** - IP address or server name. Over this server connection is made. When is not filled then connection makes on *Registration server* (but you must mark *Send registration*)

**Port** - SIP port is usually 5060 or 5061

**Outbound proxy** - IP address or proxy name where is determined where will be sends door entry requests. If outbound proxy is setup will be INVITE request sends to outbound proxy address. Outbound proxy is used due NAT. When is not used don't fill up.

**Port** - SIP port is usually 5060 or 5061

**SIP Transport** - TCP or UDP, or automatic selection

**Provisional code** – determine if during ringing will be sends SIP code „180 Ringing“ or „183 Session progress“

**Enable symmetric RTP** - by mark is ON. It means that door entry will not send by itself audio to RTP called party, but wait for called party to send RTP. After sends data to same address:port from which message arrived. It is trick used for bridging NAT

Registration status display on page as visible on picture.

## Peer to Peer mode (P2P)

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IP BOLD

Current status

Network setting

Network

SIP parameters

Web server

Basic settings

Extended settings

Service

Video camera

### SIP parameters

**SIP mode:** Peer-to-peer ▾

**Display name:** IP DoorPhone

**SIP User Agent:** IP BOLD

**Account:** 250

**Auth. Id:**

**Password:**

**Send register:**

**Registration server:**

**Port:** 5060

**Expiration [sec]:** 600

**Register after restart:**

**SIP server:**

**Port:** 5060

**Outbound proxy:**

**Port:** 5060

**SIP Transport:** TCP & UDP ▾

**Provisional code:** 180 Ringing ▾

**Enable Symmetric RTP:**

Default values Save

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After performing of changes please don't forget click on „Save changes“.

**Display name** – name by which is device presented in network (for example will display as door entry name in programmes UDV panel, UDVguard)

**SIP User Agent** – for easy inastallation is possible use the SIP user agent. The syntax of this string is not defined, but a common practise is „device name + version“.

**Account** - unit name in SIP protocol (usually line number), it is recommended to keep filled.

**Outbound proxy** - IP adress or proxy name where is determine where will be sends door entry requests. If outbound proxy is setup will be

INVITE request sends to outbound proxy address. Outbound proxy is used due NAT. When is not used don't fill up.

**Port** - SIP port is usually 5060 or 5061

**SIP Transport** - TCP or UDP, or automatic selection

**Provisional code** - determine if during ringing will be sends SIP code „180 Ringing“ or „183 Session progress“

**Enable symmetric RTP** - by mark is ON. It means that door entry will not sends by itself audio to RTP called party, but wait for called party to send RTP. After sends data to same address:port from which message arrived. It is trick used for bridging NAT.



In active mode - P2P is possible to operate device, which require for their function registration at the SIP server. This option will use new SIP phones, which generally do not support P2P mode, as well as applications for iOS - Apple.

The principle of setting SIP phones and UDV guard, UDV Panel with IP VarioBell:

1. Mode of phone is SIP server registration is IP address IP VarioBell (registration or SIP server = IP address IP VarioBell)
2. Name and password is the line number (we choose a numbering plan so that each number occurred in the network only once, then for each device, fill in name and password to register with this number).

Example:

- IP address of IP VarioBell is 192.68.1.250 and the name (page SIP parameters) is **250**
- The IP address of SIP phone 1 is 192.168.1.200, fill in the registration here - SIP server = 192.168.1.250 and name = password = **230**
- The IP address of SIP phone 2 is 192.168.1.201, fill in the registration here - SIP server = 192.168.1.250 and name = password = **231**

Call to SIP Phone 1 is **230**, calls to SIP phone 2 is **231** and calls to IP VarioBell is **250**



### 4.3.3 WEB server

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IP BOLD

Current status

Network setting

Network

SIP parameters

Web server

Basic settings

Extended settings

Service

Video camera

### Web server

Web interface TCP port: 80

Service password: \_\_\_\_\_

Retype password: \_\_\_\_\_

Video on start page:

Protect video by password:

Video password: \_\_\_\_\_

Default values Save and restart

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After performing of changes please don't forget click on „Save and restart“.

**WEB interface TCP port** - possibility of change usual TCP port 80 to other (security reasons)

**Service password / Retype password** – inserting of new access password (instead default password **1234**) – length max.40 characters (name for access is **admin**)

**Video on start page** – Video ON/OFF on home page of WEB interface (mainly from security reasons. When video is OFF it is accessible after login with password only).

**Protect video by password** – further protection is secure access by password to <http://ipaddress/video.jpeg> (camera picture). **CAUTION! this option caused non working video on SNOM phones !**

**Video password** – inserting of new video access password (instead default password **1234**) – length max.40 characters (name for video access is **video**)

**Enable telnet** – available only for special customization.

possibility ON / OFF access from telnet (name: root, pass: 8765). Use telnet is not recommended, in practice, this possibility has caused a lot of problems. Damage Doorphone IP VarioBell unprofessional intervention via Telnet warranty will be void Doorphone IP VarioBell.

## 4.4 Basic setting

In this part are setup user and most often changed parametres.

### 4.4.1 Phone book

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IP BOLD

Number: 2

### Phonebook

<b>Title:</b>	Mr. Brown
<b>Email:</b>	brown@email.eu
<b>Enabled:</b>	<input checked="" type="checkbox"/>
<b>1. call number:</b>	180
<b>Timetable:</b>	None
<b>Calling:</b>	Group start
<b>2. call number:</b>	229
<b>Timetable:</b>	None
<b>Calling:</b>	With previous
<b>3. call number:</b>	210
<b>Timetable:</b>	None
<b>Calling:</b>	Group end
<b>4. call number:</b>	200
<b>Timetable:</b>	None
<b>Calling:</b>	Sequential
<b>5. call number:</b>	
<b>Timetable:</b>	None
<b>Calling:</b>	Sequential
<b>External code for relay 1:</b>	
<b>External code for relay 2:</b>	
<b>External code for relay 3:</b>	
<b>External code for relay 4:</b>	

Default values Save

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After performing of changes please don't forget click on „Save“.

The phone book contents 999 subscribers. For first 99 subscribers agree subscriber number with button number. In this version of door entry – IP VarioBell is max = 87 button. Therefore first 87 subscribers are most important.

**Position number in phone book is selected at top bar by click on appropriate numeral.** It is possible also listed by 10 (</>) or go to exact position (all by selection in first – highlighted – row).

Every position of phone book allows insert up to 5 phone numbers with possibility to join some of them (or all) into group and call group of phone numbers simultaneously.

**Title** – This text has informative character only. In case of display using will be name shown in list selection.

**Email** - to this email will be sent Info about missed calls with picture or video in case of model (C) or with records (in case of recorder activation). Necessary is setup Emailu – via follow.

**Enabled** – Item of phone book (also function of appropriate button) is working hen is permitted only (marked). It has a sense for pensions, hotels etc....)

**1. call number** – is phone number with highest priority. It is call as first (when is used progressive dial mode). 1. Phone number will be dialled with compliance to selected time plan only.

**Time table** – when is not selected then 1 number is allways active. Usage of 1 phone number might be limited by time plan.

**Calling** - allows create groups – via follow.

**2. call number** – is phone number which is dial as second (when is used progressive dial mode). 2nd phone number will be dialled with compliance to selected time plan and when is filled only.

**Time table** – when is not selected then 2 number is allways active. Usage of 2nd phone number might be limited by time plan

**Calling** - allows create groups – via follow.

**3. call number** – is phone number which is dial as thirth (when is used progressive dial mode). 3th phone number will be dialled with compliance to selected time plan and when is filled only.

**Time table** – when is not selected then 3th number is allways active. Usage of 3th phone number might be limited by time plan

**Calling** - allows create groups – via follow.

**4. call number** – is phone number which is dial as fourth (when is used progressive dial mode). 4th phone number will be dialled with compliance to selected time plan and when is filled only.

**Time table** – when is not selected then 4th number is allways active. Usage of 4th phone number might be limited by time plan

**Calling** - allows create groups – via follow.

**5. call number-** is phone number which is dial as fifth (when is used progressive dial mode). 5th phone number will be dialled with compliance to selected time plan and when is filled only.

**Time table** – when is not selected then 5th number is allways active. Usage of 5th phone number might be limited by time plan

**Calling** - allows create groups – via follow.

**External code for relay 1,2,3,4** – here insert private codes for code lock. The code lock might be completed from door entry buttons (mean

according buttons 1 – 2 in this model). Each subscriber has one code for every relay.

### **Calling – description**

The group means that 2 or more phone numbers creates group and those Numbers are dialled simultaneously (all are ringing together). Who from dialled Subscribers pick up first can talk and ringing to other subscribers in group Will be ended.

**Individually** – this phone number is dialled individually. This not in group with any other number.

**Group start** – first phone number in group call

**In group with previous** – phone number in group. This not first and also not last.

**Group end** – phone number is last from the group

By this setting you can create for every subscriber up 2 groups or groups with 5 numbers and make groups combination with individual phone numbers.

EXAMPLE:      first phone number rings to operator – „Individually“  
                         Second phone number is „Group start“  
                         Thirth and fourth phone number is „in group with previous“  
                         Fifth phone number is „Group end“

– Those four phone numbers ringing in office together where are picked up by other subscribers when operator is busy. In offices phones start ringing after adjustable time.

## 4.4.2 Relays

ALPHATECH TECHNOLOGIES s.r.o.

IP BOLD
Number: 1 2 3 4

Current status

Network setting

Basic settings

Phonebook

Relay

Door sensors

Setting SNMP

Timetable

Time setting

E-mail

Extended settings

Service

Video camera

### Relay

**Enabled:**

**Timetable:**

**Relay mode:**

**Delay time [sec]:**

**Run time [sec]:**

**Source:**

**Synchronize delay [sec]:**

**Active on call:**

**Blocking by:**

**Acoustic tone:**

**Active by HTTP:**

**Security output code:**

**Direct ON button:**

**RC command at relay ON:**

**RC command at relay OFF:**

	Code	Source	On	Off	Timetable
1.	<input type="text" value="55"/>	<input type="text" value="DTMF"/>	<input type="text" value="On"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
2.	<input type="text" value="11221"/>	<input type="text" value="Button"/>	<input type="text" value="On"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
3.	<input type="text" value=""/>	<input type="text" value="Button"/>	<input type="text" value="Off"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
4.	<input type="text" value=""/>	<input type="text" value="Button"/>	<input type="text" value="Off"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
5.	<input type="text" value=""/>	<input type="text" value="Button"/>	<input type="text" value="Off"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
6.	<input type="text" value=""/>	<input type="text" value="Button"/>	<input type="text" value="Off"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
7.	<input type="text" value=""/>	<input type="text" value="Button"/>	<input type="text" value="Off"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
8.	<input type="text" value=""/>	<input type="text" value="Button"/>	<input type="text" value="Off"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
9.	<input type="text" value=""/>	<input type="text" value="Button"/>	<input type="text" value="Off"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
10.	<input type="text" value=""/>	<input type="text" value="Button"/>	<input type="text" value="Off"/>	<input type="text" value="None"/>	<input type="text" value="None"/>

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After performing of changes please don't forget click on „Save“.

In relays setting are accessible 4 relays. The relays 1 and 2 is output of relays contacts directly in IP VarioBell door entry. Next 2 relays (3 and 4) is possible use for remote relays (IP relays via follow) or as virtual relay usefull for synchronization to allows creation of more difficult functions of relays. **The relay selection is perform by click to relay number in top highlighted row** – similiary as in phone book.

**Enabled** – relay function might be eliminated, thus eliminating the synchronization signal for the other relays. Meaning is for example when you want temporarily prevent certain door opening. Then instead of all codes cancellation and their repeated programming simply prohibit this relay. After time out you can easily return relay

with all codes to original function. When such status repeats regularly (for example school) you can use time plan.

**Time table** – defines time period when relay is working and when not. For example is shop operation time, school, etc..

#### **Relay mode -**

**monostable** – by code is closed and after preprogrammed timeout is open. Using for electrical lock switching, sliding gates control, button press signalling etc... (for control codes setting you must insert „ON” (via follow)

**bistable** – by code is closed and stay closed till moment of open by other code. For this purpose is beside control codes possibility select „ON” for closing and „OFF” for open. (via follow)

**Delay time** – is time, between closing code evaluation and relay closing. It has no influence for open code which is performed immediately. Closing time is calculated from real relay closing. Using is for example: *progressive door opening, we setup same closing code for both relays, by this delay is monitored walking time from first to second doors.* This feature is adjustable by synchronization as well. By synchronization delay are available individual codes for each doors control.

**Run time** – relay closing time in monostable mode (time of electrical lock opening)

#### **Source -**

Synchronize from time table 1 - 10 - it is selected time plan for relay and 2 options are available:

Monostable, then always when setup time period in time plan is suitable and time plan is active is perform closing for preprogrammed closing time.

Bistable, then always when setup time period in time plan is suitable and time plan is active the relay is closed and out of those conditions is open.

Synchronize with relay 1 – 4 – relay closing starts closing of the same or other relay. Example for usage is sliding gate control, where by partly opening you can create passage – door substitution. For this mode relay must close for 1 sec in 2 times in sequence. Where period between closing is created passage. (for example 6sec). *The setting make that for relay 1 select monostable mode with time closing 1 sec, synchronization with relay 1 and synchronization delay 7 sec.* In case you need setup situation that for one code (55) relay 1 close 2 pulses in sequence – passage creation and by second code (56) gate will be closed then use not connected relay 4 for synchronization. *Setting of relay 1 is monostable, closing time 1 sec, synchronization with relay 4 and synchronization delay 7 sec. Codes for relay 1 closing are 55 and 56. The relay 4 we setup as monostable, closing time 1 sec, closing code 55.*

By synchronization you can create different closing combination.

**Synchronize delay** – time between synchronization start and its evaluation.

Usage for example in more relays closing combination for one code

**Active on call** – options are

none (calling has no influence for relay status)

incoming call – relay closed during incoming call. The monostable for preprogrammed time. The bistable permanently for all call duration.

outgoing call – relay closed during outgoing call. The monostable for preprogrammed time. The bistable permanently for all call duration.

Both call – relay closed during every call. The monostable for preprogrammed time. The bistable permanently for all call duration.

**Blocking by:** the selection for blocking is the door sensor inputs (1 + 2). As a result of the blocking function, the corresponding inputs must be activated in the door sensor settings (page. 61). The function of the switch is blocked by the state of the input of the selected door sensor. They are used for security doors - if they are not closed, they can not be opened, or a two-door function can be modeled in one input where the second door can only be opened after the first door is closed - security input eg to the ATM. [Input blocks the switch by disconnecting - eg a magnetic switch as for Electronic Security Systems].

Another use is, for example, the possibility of blocking the opening of the lock by the state of the security system - the security is active = the door can not be opened, it is deactivated = the door can be opened.

**Acoustic tone** – In case of need you can simulate relay closing by sound signal. This feature is usefull mainly in monostable mode in case of PoE feeding of low consumption electrical lock by DC power supply. This sound simulates typical buzzing of electrical lock. Further option is record voice message to SD card for blind people with information about electrical lock opening.

This option has yet another hidden meaning, the LED on the front panel when you turn the acoustic signal indicates the switch is activated lights red + green.

**Activate by protocol HTTP** – relay status is possible change by sending HTTP request (GET request) to IP adress of door entry. To get working this feature you must permit by parametr relay control by HTTP. Request for door entry must be in following format (you can test by variol web browser):

command relay switch:

IPaddress / relay\_control? R = on where r = number of relays 1-4

E.g. [http://192.168.1.250/relay\\_control?1=on](http://192.168.1.250/relay_control?1=on) - switches on relay 1 (doorphone to the default IP address)

command to releasing relay:

IPaddress / relay\_control? R = off where r = number of relays 1-4



E.g. [http://192.168.1.250/relay\\_control?1=off](http://192.168.1.250/relay_control?1=off) - switches off relay 1 (doorphone to the default IP address). Releasing the relay is important in the bistable switch mode.

**Security output code** – relay output is close/open in default. This static status is dangerous in case of unauthorised enter for example by door entry damaged and short circuit wires of power supply and electrical lock. Defence is using module COSW which you connect to electrical lock wires – closest to electrical lock. For relay closing is sends in such connection pulses set and when setup code at COSW match with code of this parametr relay is closed.

**Caution** – ***do not fill code when electrical lock without COSW is connected. It can damage relay in door entry IP VarioBell!***

**Direct ON button** – when you fill up button number then this number will work as **departure button** only. Eventually might be used relay output for control of mechanical bell. During button press is relay activated in monostable mode for closing time. If in the phonebook filled for this button telephone number then be combined with relay closing with calling telephone number.

**RC command at relay ON** – Enable setup command sends to external device (for example WEB relay) during relay closing. Command is sending by protokol HTTP (GET request). The command must be in format [http://ip\\_address/command](http://ip_address/command). Specific command, refer to the manufacturer's documentation WEB relay.

**RC command at relay OFF-** Enable setup command sends to external device (for example WEB relay) during relay opening. Command is sending by protocol HTTP (GET request). The command must be in format [http://ip\\_address/command](http://ip_address/command). Specific command, refer to the manufacturer's documentation WEB relay.

**Codes for relay control** – here is 10 basic central codes for relay. Moreover every subscriber in phone book has his own private code for relay control (code keylock from buttons). Those 10 codes might be assigned as codes from buttons (code keylock) or by phone (DTMF). Further is possible assign feature relay closing/opening (ON/OFF). The Code validity is discriminated by time according selected time plan.

**Examples:**

1. Closing switch 1 from the phone (DTMF) – on the picture is filled with code 55 without any time limit, closing the switch is activated by dialing 55 from phone
2. Closing switch 1 from buttons – on the picture is filled with code 11221 with time limitation (open time), closing the switch is activated by pressing a sequence of buttons 11221 on IP VarioBell

## Practical examples of switch settings:

1. Locking the door lock:  
 Phone code: 55  
 Button code: 121  
 Schedule - time table 1 = work:  
 Locking time: 5sec (run time)

Timetable name:

	Active	Interval 1	Interval 2	Interval 3
Sun:	Yes	-	-	-
Mon:	Yes	8:00 -15:00	-	-
Tue:	Yes	8:00 -15:00	-	-
Wed:	Yes	8:00 -15:00	-	-
Thu:	Yes	8:00 -18:00	-	-
Fri:	Yes	8:00 -13:00	-	-
Sat:	Yes	-	-	-

Code for activation:   
 Code for deactivation:

Active:  Yes  
 Switch

a) Codes are active all the time

Enabled:

Timetable:

Relay mode:

Delay time [sec]:

Run time [sec]:

Source:

Synchronize delay [sec]:

Active on call:

Blocking by:

Acoustic tone:

Active by HTTP:

Security output code:

Direct ON button:

RC command at relay ON:

RC command at relay OFF:

Code	Source	On	Timetable
1. 55	DTMF	On	None
2. 121	Button	On	None
3.	Button	Off	None

b) The code from the buttons is limited by the "work"

Code	Source	On	Timetable
1. 55	DTMF	On	None
2. 121	Button	On	2 work
3.	Button	Off	None

c) The function of the entire switch is limited by the "work"

Enabled:

Timetable:

Relay mode:

Delay time [sec]:

*Note: The time schedule restrictions can be changed operatively with codes 11 and 10 (see schedule settings- time table). To shorten the time interval - to leave the company prematurely. E.g. on Monday you want to leave at 14am but the interval is set to 8: 00-15: 00. You will use code 10 at 14:00. It is also possible to extend working hours on Friday by dialing code 11 after 13:00. But*

then you must not forget to dial code 10 when you actually leave. These codes are of course selected from your phone, in conjunction with the door Communicator

2. Switch 1 switches 2 pulses per command:

Set the same code as in the previous example.

Relay switching time: 1sec

Time between impulses: 6sec (1sec of relay switching from 7sec synchronization delay)

Note: Switch 1 synchronizes with itself.

Enabled:	<input checked="" type="checkbox"/>
Timetable:	None
Relay mode:	Monostable
Delay time [sec]:	0
Run time [sec]:	1
Source:	Relay 1
Synchronize delay [sec]:	7
Active on call:	Ignore
Blocking by:	

3. Automatic gradually switching on switches 1 and next switch 2 on one command - the door behind

This is actually a combination of two previous cases:

Switch 1 is set according to example 1 and switch 2 is set according to example 2.

Note: Switch 2 is synchronized with switch 1.

The code for switch 1 control automatically activates switch 2 for 7 seconds.

The codes for switch 2 control only switch 2.

4. The switch is permanently switched on during a call in time limited by the "work"

Enabled:	<input checked="" type="checkbox"/>
Timetable:	2 work
Relay mode:	Bistable
Delay time [sec]:	0
Run time [sec]:	5
Source:	
Synchronize delay [sec]:	0
Active on call:	Both
Blocking by:	

Note: In the "Activate on call" setting, you can choose whether the switch is switched on every time you make a call, or only when you receive a call or just when you make an outgoing call.

- The switch switches according to the time schedule (closed for a certain period of time by the weekly timetable "work = time table 1")

Enabled:	<input checked="" type="checkbox"/>
Timetable:	None
Relay mode:	Bistable
Delay time [sec]:	0
Run time [sec]:	5
Source:	Timetable 1
Synchronize delay [sec]:	0
Active on call:	Ignore
Blocking by:	
Acoustic tone:	None

*Note: The relay is closed at set intervals, outside of these intervals relay is open. E.g. on Monday from 8:00 to 15:00 is relay closed.*

- The switch is blocked by the door sensor 2 (door opening condition) only at a time specified in time table "work"

Enabled:	<input checked="" type="checkbox"/>
Timetable:	2 work
Relay mode:	Monostable
Delay time [sec]:	0
Run time [sec]:	2
Source:	
Synchronize delay [sec]:	0
Active on call:	Ignore
Blocking by:	Door sensor 2
Acoustic tone:	None

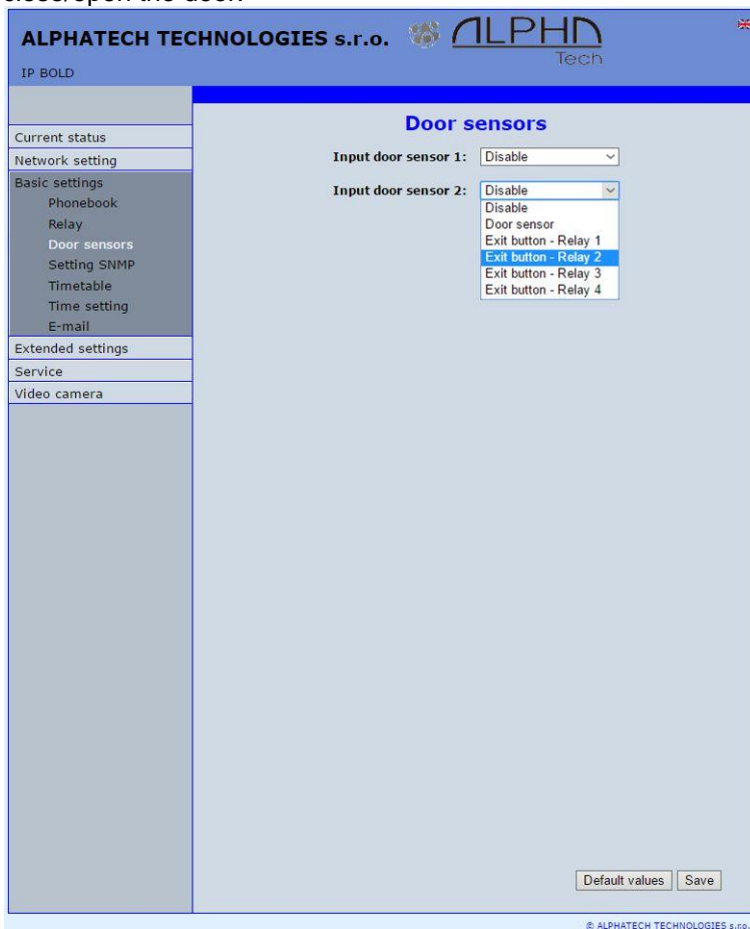
*Note: If switch 1 is set as illustrated, switch 1 can only be switched on at intervals given by the "work" time schedule and only when the door sensor input is connected (door contact closed)*



**Caution:** When changing the switch setting (eg. switching from bistable mode to monostable), it is recommended to restart the doorphone to initialize the switch according to the last setting!

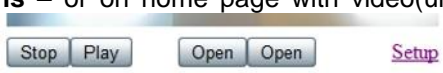
### 4.4.3 Door sensors

Door sensors are special functions of door entry IP VarioBell which is optional. It is HW option which is different according button number of each model – inputs for door sensors. There is created information in the system about close/open the door.



After performing of changes please don't forget click on „Save“.

**Input door sensor 1 / 2** Door sensor or disable – by permission is activated transmission of Info about open / close the door. This Info is display ether on this page – **Now is** – or on home page with video(under video frame will be display frames with this Info. Further is transmitted to programm UDVguard and UDV panel and as last is possible use it in SNMP.



**Input door sensor 1 / 2 Exit button – relay 1-4** – because the use of door sensors not found so wide usage, so these can be used as two inputs to the function Exit button. When the input connections (short) so activates the corresponding relay (switch monostabil) .

#### 4.4.4 Setting SNMP

Remote management – SNMP is internet protokol designed for network management. It allows progressive data collection for network management purposes and its following evaluation.

The screenshot shows the 'Setting SNMP' configuration page in the ALPHATECH TECHNOLOGIES s.r.o. web interface. The page has a blue header with the company logo and name. Below the header, there is a sidebar on the left with navigation options: 'Current status', 'Network setting', 'Basic settings' (with sub-items: Phonebook, Relay, Door sensors, Setting SNMP, Timetable, Time setting, E-mail), 'Extended settings', 'Service', and 'Video camera'. The main content area is titled 'Setting SNMP' and contains the following configuration options:

- Enable SNMP:**
- Community:**
- Admin address:**
- Variables in MIB tree:**
  - Startup:**
  - Open sensor:**
  - Sensor open timeout:**
  - Open sensor for too long:**
  - Entered invalid keycode:**
  - Open relay:**

At the bottom right of the configuration area, there are two buttons: 'Default values' and 'Save'. The footer of the page contains the copyright notice: '© ALPHATECH TECHNOLOGIES s.r.o.'.

After performing of changes please don't forget click on „Save“.

**Enable SNMP** – by mark you activate remote management (SNMP)

**Community** – here is necessary select exact user of SNMP

**Admin address** – setup IP adress or domain name of server where are sent information according defined setting

**Variables in MIB tree** – is designed for identification of none sense numeral chain OID. OID is numeral identifier which definitely identify every value in SNMP communication. OID is created by number sequence separand by dot. Every dot represent exact level of tree structure into which are OID mapped. The numeral identification in range of each undertree is not Unixe that is why OID is sent allways as whole unit.

### 4.4.5 Time profiles

ALPHATECH TECHNOLOGIES s.r.o. ALPHATECH Tech

IP BOLD

Number: 2 3 4 5 6 7 8 9 10

**Timetable**

Timetable name:

	Active	Interval 1	Interval 2	Interval 3
Sun:	<input type="text" value="No"/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>
Mon:	<input type="text" value="Yes"/>	<input type="text" value="8:00 - 16:00"/>	<input type="text" value=""/>	<input type="text" value=""/>
Tue:	<input type="text" value="Yes"/>	<input type="text" value="8:00 - 16:00"/>	<input type="text" value=""/>	<input type="text" value=""/>
Wed:	<input type="text" value="Yes"/>	<input type="text" value="8:00 - 16:00"/>	<input type="text" value=""/>	<input type="text" value=""/>
Thu:	<input type="text" value="Yes"/>	<input type="text" value="8:00 - 18:00"/>	<input type="text" value=""/>	<input type="text" value=""/>
Fri:	<input type="text" value="Yes"/>	<input type="text" value="8:00 - 14:00"/>	<input type="text" value=""/>	<input type="text" value=""/>
Sat:	<input type="text" value="No"/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>

Code for activation:

Code for deactivation:

Active:  No  Switch

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After performing of changes please don't forget click on „Save“.

In time profiles setting is available 10 profiles. **Profile selection is perform by click in top highlighted row** – similiary as in phone book.

**Timetable name** – for easy orientation you can named every profile.

**Period setting table** – profile is active when current time match with setup periods. Every day might have up to 3 active periods. Further is

possible deactivate whole day (first item on the row select „Active“ – Yes/No) . In example on the picture it is Saturday or whole day setup on active – in example it is Sunday. To use correctly this feature is necessary to setup correct time in the unit (via Date and time setting)

**Code for activation / deactivation**– immediate switching status profile by using DTMF. If you switch the time profile, then change it takes to meet the closest in time profile changes (according to the times in the table) or switch to another state using DTMF.

**Active** – display current profile status

**Switch** – by click you change profile status

#### 4.4.6 Date and time setting

ALPHATECH TECHNOLOGIES s.r.o. ALPHATECH Tech

IP BOLD

Current status

Network setting

Basic settings

- Phonebook
- Relay
- Door sensors
- Setting SNMP
- Timetable
- Time setting**
- E-mail

Extended settings

Service

Video camera

### Time setting

Time zone: Prague

Network time server: \*

Daylight saving time: Enable

Actual time: 14:31

Default values Save

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After performing of changes please don't forget click on „Save“.

**Time zone** – selection of installation time zone



**Network time server** – IP address or domain name of NTP server. When you don't know then by inserted \* will IP VarioBell find NTP server automatically according own selection. Condition is setup in network setting start gate and DNS.

**Daylight saving time** – permission to switch daylight time

**Actual time**– for control is display present time in IP VarioBell

## 4.4.7 E-mail

When you want inform subscriber about missed calls from door entry you can setup IP VarioBell to sent out email after every missed call. You can setup own subject and text of email. When you have door entry with camera you can automatically add to email one or more pictures from camera. ( Pictures are taken during ringing)

Door entry sends emails to all subscribers who have in phone book preprogrammed valid email adress. When parametr E-mail in phone book is not filled then emails are sent to preprogrammed default email adress.

After performing of changes please don't forget click on „Save“.

**Enable** – it activates email sending

**SMTP server (adress)** - SMTP server adress where emails will be sent

**SMTP port** – adjust in case of none standard SMTP server setting only. SMTP port is setup usually on value 25, but better is use port 587.

SMTP, there are three systems:

- Port 25 not allow encrypted - it is marked as obsolete, insufficient safety
- Port 465, not a domain hosting - is labeled as not recommended at
- Port **587**, has no maladies previous two, is currently the only **recommended variant**

**SMTP account** – when SMTP server requires authorization then must be in this field mentioned name for registration to server. In opposite case leave field empty.

**SMTP password** – password for registration to SMTP server.

**Message from**– sender e-mail mentioned in sent email.

**Default message to** – door entry send emails to adress mentioned in phone book at appropriate subscriber. When you leave this field empty then email is sent to default email which you setup in this field. When receiver is not mentioned in phone book as same as default email field the email is not sent. This e-mail is designed also for function control – **Send control message** – when you want verify correct functionality of emails sending then this control message is sent to this email.

**Send timeout** – Setup max time for which door entry try to deliver email to inaccessible SMTP server

**Attach pictures** – enable send attachment with one or more Picture taken during ringing.

**Pictures count** – setup Pictures number which will be attached to email.

**Picture interval** – setup time between each pictures

**Message subject** – setup subject of sending email message

**Message body** – enable correct contents of sending message. You can insert to text special alternative symbols for user name, date and time for door entry identification. Those alternative symbols will be substitute by actual value before email sending. Via follow table of alternative symbols:

\$Device\$ = door entry identification

\$Date\$ = current date

\$Time\$ = current time

\$User\$ = name of dialled subscriber

\$DialNumber\$ = dialled phone number

\$User\$ = name of SMTP subscriber

**Send test message** – when you want verify correct functionality of email sending then control message will be sent to default email

## 4.5 Extended setting

This part is designed for system setting which are done once during installation or when are problems with device kompatibility.

### 4.5.1 DoorPhone

ALPHATECH TECHNOLOGIES s.r.o. ALPHD Tech

IP BOLD

Current status

Network setting

Basic settings

Extended settings

DoorPhone

Audio

Audio codecs

Video

Video codecs

Streaming

Service

Video camera

### DoorPhone

Ringing timeout [sec]: 30

Maximum call duration [sec]: 120

Prolongation key: \* - Asterisk -

Reject all incoming calls:

Ringing cycles count: 1

Same key pressed again: Cancel call -

Another key pressed: Dial -

Active button by HTTP:

Dialing timeout [sec]: 2

DTMF dialing timeout [sec]: 2

Keyboard mode: Choice number from memory -

Camera light: During a night call -

Light intensity [%]: 100

Labels light: At night -

Light intensity [%]: 100

Daylight lower threshold: 250

Daylight upper threshold: 300

IP VarioBell:

Expansion buttons count: 5

Keyboard connected:

Default values Save

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After performing of changes please don't forget click on „Save“.

**Ringng timeout** – time for which is ringing. When is setup more numbers as same as progressive ringing then after this time ringing is ended on first phone number (IP address in P2P) and starts ringing on second. It is time until which subscriber must pick up. When is not next number to call then email is sent either to email adress mentioned in phone book or to default email (E-mail setting). Setting range is 5 to 300sec (6min.) caution: it might happen that ringing time will not be limited but it is limited by time parametres of SIP protocol and it is

usually 2-5min (according SIP device setting). You can record message to SD card during this time and simultaneously send email.

**Maximum call duration** – when call is picked up timer for call duration limit is activated. When you insert empty, then there is no limit. The 10sec before call end you hear tone after which you can dial character for call prolongation and by this prolong the call about same time period.

**Prolongation key** – options are \* or # and usage is described in „Maximal call duration”

**Reject all incoming calls** - Check to disable any incoming calls. For example, when using a public IP address, the SIP doorphone tries to call several hundred IT robots per hour and blocking the proper doorphone function.

**Ringng cycles count**– this option enable repeating of call (or progressive call). In phone book is for example filled first and second phone number and not create group. When come condition for first number:

- ringing time is out
- phone number is busy
- subscriber is not reachable / registrated in network

Then second number is dialled. When the same conditions come true and ringing cycles are setup 2 the whole cycle is repeated one more time.

**Same key pressed again** – when you press again the same button then you setup door entry behaviour. Options are:

- call is hang up
- call is repeated
- nothing happen

**Another button is pressed** - if you press a different key during a call than you originally pressed, the doorphone behavior is selected:

- dial the telephone number at the currently pressed button
- ignore and nothing happens

**Active button by HTTP** – if checked, so is possible use http request for remote activation button (like as press the button. This feature is for easy check the installation IP VarioBell.

**Example:**

http:// IPaddress /button\_control?btn=1 - remote activate button 1

http:// IPaddress /button\_control?btn=27 - remote activate button 27


**Dialling timeout** – this time concern buttons (keypad) and it is deciding for correct code inserting. When space between button press is longer than this time the cod eis not correctly evaluated . Situation:

- code keylock provides correct code evaluation
- number dial from keypad –dial end resolution

This time simultaneously prolong dial time at buttons which are initial numbers of codes.

**DTMF dialling timeout** – this time concerns incoming calls from telephones and it is deciding for correct code inserting. The principle is the same as previous parametr but it concerns codes from telephone.

**Keyboard mode** – models TK only – **memory number dial** means that you press 1-3 digit code on keypad which determined position in phone book (1-999). The door entry process the call same way as you pressed button on door entry (1-999). **Direct phone numbers dial** means that you dial numbers by keypad as on ordinary phone.

When you have in numbers dial space longer than **maximal number inserting time** then door entry calls. When you want in mode P2P call to IP adress then „.” in IP adress is substitute by .

**Camera light** – wideangle camera has possibility of extra lighting when light conditions are not acceptable. The lighting provils by white LEDs (unfortunately infra LED cant be used but advantage is fully colour picture). The door entry has dark sensor and you have following options of lighting:

- OFF, LEDs will never light
- during conversation, LEDs are allways lighting during call independently on surrounding light conditions
- in the night, LEDs are lighting according surrounding light conditions independently on call
- during night call, Led svítí pouze při hovoru a podle okolního osvětlení

**Light intensity** – here you setup LEDs light intensity

**Labels light** – name card might be backlighted by 3 ways:

- OFF, name cards will never be back lighted
- in the night, backlighting depends on surrounding light
- name card is permanently back lighted

**Light intensity** - here you setup backlight intensity

**Daylight lower treshold** – settings sensitivity ambient light sensor, the lower limit of the window comparator (range 1-1021)

**Daylight upper treshold** - setting sensitivity ambient light sensor, the upper limit of window comparator (range 1-1021)

**ATTENTION** The lower limit must always be less than the upper limit, as the difference between the two values is the hysteresis (recommended to maintain approximately 50)

## IP VarioBell

**Počet tlačítek na základním modulu** – základní modul má buď jedno, nebo dvě tlačítka, tímto nastavením zajistíte, že vždy bude číslování tlačítek odpovídat skutečnosti

**Počet rozšiřujících tlačítek** – zde se zadává počet tlačítek rozšiřujících modulů. Toto číslo je součet tlačítek připojených na základní modul. Základní modul má žádné, 1 nebo 2 tlačítka. Podle připojených rozšiřujících modulů se vyplní počet tlačítek (5-85). V telefonním seznamu se pak vytvoří příslušný

počet položek (počet tlačítek = počet položek telefonního seznamu = počet tlačítek na základním modulu + počet rozšiřujících tlačítek).

**Klávesnice připojena** – zde je nutno zaškrtnout v případě připojení klávesnice. Nezáleží na pořadí modulu. Po zaškrtnutí se v telefonním seznamu vytvoří maximum (999) položek pro využití adresování položek telefonního seznamu z klávesnice.

#### 4.5.2 Audio setting

ALPHATECH TECHNOLOGIES s.r.o. ALPHATECH Tech

IP BOLD

Current status

Network setting

Basic settings

Extended settings

- DoorPhone
- Audio**
- Audio codecs
- Video
- Video codecs
- Streaming

Service

Video camera

### Audio

Speaker volume: 0 dB

Microphone gain: 0 dB

Echo limiter threshold: 25

Echo limiter attenuation: -36 dB

Echo limiter samples: 2000

Acoustic tone on button pressed: User defined

Acoustic tone on call start: Default

Acoustic tone on remote ringing: Default

Acoustic tone before call end: Default

Acoustic tone on call end: Default

Acoustic tone on error: Default

Acoustic tone on remote busy: Default

Acoustic tone on unknown number: Default

Acoustic tone on valid code entry: Default

Acoustic tones volume: 0 dB

Relay running tone volume: 0 dB

Default values Save

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After performing of changes please don't forget click on „Save“.

**Speaker volume + Microphone gain** – amplification setting

**ECHO limiter** – it is designed for Echo cancellation which is created by distortion of loud signal. During standard door entry call is working automatic adaptive echo canceller which cancel the echo after cca 3 seconds of talk and call is full duplex. The setting is : High intensity signals coming from phone to speaker of door entry are distorted and

automatic echo canceller cant process them. This level of **threshold** you setup (in %). How much should be reduced signal returning through microphone input is adjusted by **attenuation**. Delay of returning signal is adjustable by **samples** amount.

**Tone** – here you select acoustical signalling of different door entry status.

Options are: - None, this status will not be signalling

- default, simple signalling in default setting

- user, this is recorded signalling by user ( SD card) -via. Service

**Volume** – loudness signalling adjustment

### 4.5.3 Audio codecs

The screenshot shows the web interface for ALPHATECH TECHNOLOGIES s.r.o. The page title is "Audio codecs". On the left, there is a navigation menu with the following items: Current status, Network setting, Basic settings, Extended settings (with sub-items: DoorPhone, Audio, Audio codecs, Video, Video codecs, Streaming), Service, and Video camera. The main content area contains the following configuration options:

- Priority 1: G711µ
- Priority 2: G711a
- Priority 3: \*\*\*\*\*
- Priority 4: \*\*\*\*\*
- Priority 5: \*\*\*\*\*
- Jitter compensation [msec]: 100

At the bottom right of the main content area, there are two buttons: "Default values" and "Save".

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After performing of changes please don't forget click on „Save“.

**Priority** – setting of codecs priority for usage. Some audio codecs requires payable license (for example G729) – codec permission you perform in Servis – license management.

**Jitter compensation** - jitter means fluctuation of packet delay during network running

## 4.5.4 Video setting



ALPHATECH TECHNOLOGIES S.r.l.o. ALPH Tech

IP BOLD

Current status

Network setting

Basic settings

Extended settings

- DoorPhone
- Audio
- Audio codecs
- Video
- Video codecs
- Streaming

Service

Video camera

### Video

Image size: 320 × 240

Quality: Optimal

Brightness: [Slider]

Contrast: [Slider]

Colour: [Slider]

Hue: [Slider]

Auto white balance: [Slider]

Gamma: [Slider]

Power line frequency: 50 Hz

White balance: [Slider]

Sharpness: [Slider]

Auto exposure: Software Mode

Exposure: [Slider]

Default values Save

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After performing of changes please don't forget click on „Save“.

**Image size**– image size selection. Stream H.263 knows just CIF resolution (352x288) so bigger image is cut and smaller image is framed

**Images per second** – this setting concern mainly image transmission to WEB browser. For H.263(4) is flow control flexibly according processor and network workload and it is in range 5-15 pictures/sec. Maximal flow is possible rejected by choice Low – Optimal – Full.

**Further setting** is standard image parametres petting and reset is immediately visible in Windows screen.

**Auto exposure** - a choice between three balancing exposure image.

1. Manual mode – you set the exposure manually using the slider Exposure at the bottom

2. Aperture priority mode – automatic exposure is adjusted by the camera module
3. Software mode – exposure calculates and sets the software in IP VarioBell



Before adjusting image parameters, it is recommended to use the first Default values..

#### **4.5.5 Video watching (PopUp programm)**

The door entry video records by USB WEB camera. The camera image sends either like JPEG pictures set to WEB browser (first page on door entry IP adress) or door entry sends stream video in coding H.263 and H.264. This streaming video you can watch for example on IP phone with LCD display.

Further very popular video watching is using PopUp programm UDVpanel for Windows. This programm including user guide you can download for free on <http://www.alphatech.cz/program-udv-guard.html>. Except showing video has programm following features:

- During call is automatically activated from Windows bar to front and show image from door entry IP VarioBell. When call is ended it is minimalize again.
- Enable activate both door entry relays by click – door opening
- Enable acoustical connection with door entry IP VarioBell – when door entry calls to PC adress with installed and running programm then you can receive call through sound card in PC. By click to DoorPhone button in programm you can call to door entry IP VarioBell – **CAUTION** PC sound card ECHO canceller setting !!
- Programm might be installed to max.100 computers in network. When is active door entry IP VarioBell connection then all computers have maximalized Windows with video from door entry. In programm you setup door entry IP adress . Then you can operate more door entries in one network. You assign setup „nameplate“ to appropriate door entry to determine programmes to door entries. The „nameplate“ is display in header of UDVpanel programm.
- UDV Panel operates in P2P mode as same as SIP server registration ( SIP client) .

For Android operating system you can download programm UDVguard on Google Play for free.

For iOS (Apple) operating system you can download programm UDVguard on AppleStore for free.

## 4.5.6 Video codecs

ALPHATECH TECHNOLOGIES s.r.o. ALPHD Tech

IP BOLD

**Video codecs**

Video codec priority 1: H263 ▾  
Video codec priority 2: H264 ▾

Yealink phone compatibility:   
Snom phone compatibility:

Default values Save

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After changes performing please don't forget click on „Save“.

**Priority** – setting of codecs priority for usage .

**Compatibility** – Due some of VOIP phones producers specialities you have to use in certain cases extra setting:

Yealink – phonesYealink

SNOM – it is script sending for showing JPEG video. It is unique for SNOM phones

## 4.5.7 Streaming

ALPHATECH TECHNOLOGIES s.r.o. ALPHD Tech

IP BOLD

Current status

Network setting

Basic settings

Extended settings

DoorPhone

Audio

Audio codecs

Video

Video codecs

Streaming

Service

Video camera

### Streaming

Enable streaming:

Permitted client:

Stream media:

Multicast address:

JPEG image quality:

Default values Save

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After changes performing please don't forget click on „Save“.

**Enable streaming** – permitted / prohibited to provide video (H.263 and H264) by door entry IP VarioBell (server) protocol RTSP on port 554. To receive such video you need some standard stream video players (IP TV or for example Grandstream, MPlayer, VLC etc...). This video running permanently. It is not depending on calls.

**Permitted client** – when is not filled up then video might be watch by anybody. When is filled then video is limited just for this IP adress

**Stream media** – selection of what will be transmitted from RTSP server:

- video
- audio
- video and audio (now not implemented, we prepare)

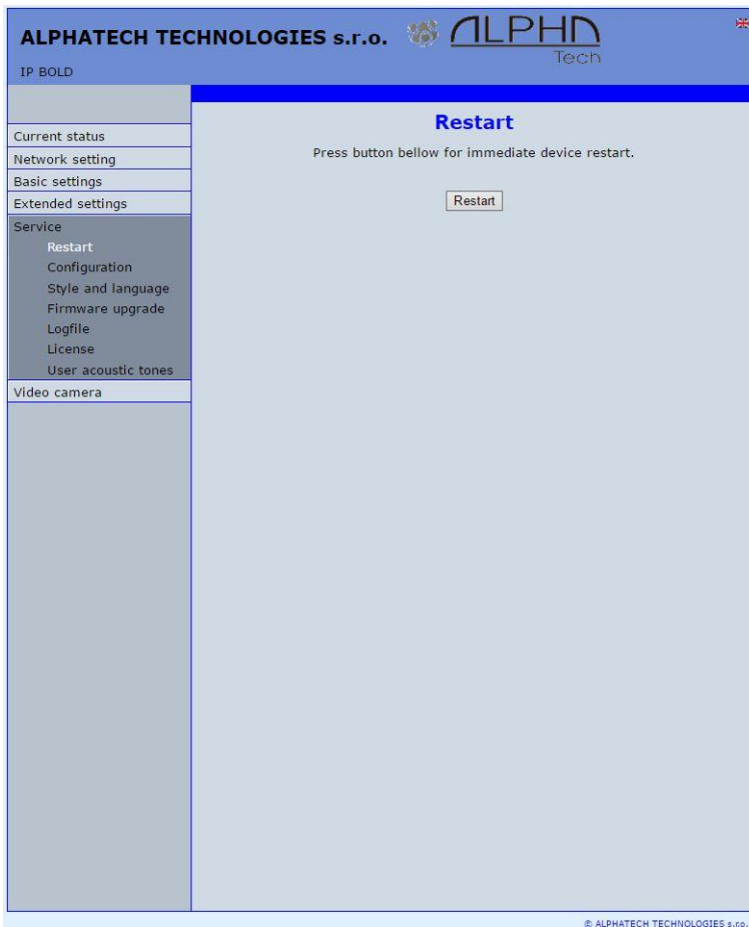
**Multicast address** – by inserting IP address you permit sending RTP packets to selected multicasting address.

**JPEG image quality** – you insert percentage of video coding quality

## 4.6 Service

This part contents service functions.

### 4.6.1 Restart



By click on „Restart“ button you make door entry reset.

## 4.6.2 Configuration

ALPHATECH TECHNOLOGIES s.r.o. ALPHD Tech

IP BOLD

Configuration

Save configuration: [Make](#)

Load configuration:

Load phonebook:

Load network and SIP:

Load others:  [Make](#)

Clear phonebook:

Default network and SIP:

Default others:  [Make](#)

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The door entry IP VarioBell allows saving of current setting to PC or other repository. From this saved file you can later restore this setting in a few levels – for example phone book only. It helps for example during installation of door entry in more entries to the building.

**Save configuration** – after click to „Make” button will be offered where you can save the file

**Load configuration** – by click to empty button will be offered file selection. Further is necessary select if phone book, network setting, SIP and other parametres have to be loaded. By click to „Make” button is loaded door entry petting from the file.

**Default (factory) setting** – is selectable in more levels:

**Clear phone book** – erase complete phone book into default (all 999 possible items)




**Default network and SIP** – make default setting of network (IP address 192.168.1.250) and erase SIP setting

**Default Others** – all remains parameters put to factory setting

By click to „Make” will be done required setting/erasing door entry parameters.

### 4.6.3 Language and style

ALPHATECH TECHNOLOGIES s.r.o.  ALPHATECH Tech

IP BOLD

**Style and language**

Load style file:  [Make](#)

Load logo file:  [Make](#)

Clean languages:

Load language file:  [Make](#)

Save language file: [Make](#)

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**Load Style file** – by click to empty button select the file and by click to „Make” is style file (symbols and colours setting) loaded /\*.html/.

File with customization use from firmware V3.4.2 on this place for change the style (design) of WEB pages in doorphone IP VarioBell /\*.custom/.

**Load logo file** – by click to empty field select the file and by click to „Make” is logo file. Logo file is standard picture /JPG or GIF or BMP or PNG/ with dimension about 200 x 100 px and name **logo.\*** .



To create new language we recommend following steps. Firstly make export of language file (language version of exported file is simultaneously selected language ( flag in right top corner). Rename this file to new language and open in text editor (PSPad is recommended because file has rows ended by LF only and no CR+LF as usual). Character set select UTF8 and make translation. **Translation:** There is displayed a bit of the language file. Translates only the red marked part (**texts**), the rest must be left unchanged, otherwise violates file structure.

```
...
#sip parametry
SIP_TIT="SIP parameters"
SIP_MODE="SIP mode"
SIP_MODE_P2P="Peer-to-peer"
SIP_MODE_SRV="SIP server"
...
```

Save finished file (file name is language and no extension) and import to door entry. The flag will be assigned to language file automatically according row for example. SYS\_FLAG="gb" for Great Britain. Country code examples (flag codes) are mentioned in bellow table:

CZ	Czech republic	NL	Holand
GB	Great britain	IT	Italy
SK	Slovakia	DE	Germany
ES	Spain	PL	Poland
FR	France	HU	Hungary
GR	Greece	PT	Portugal

Further codes are according directive ISO-3166-1 alpha-2

Code examples of most often used languages:

Cs	czech	nl	Dutch
En	english	it	Italian
Sk	slovak	de	German
Es	spanish	pl	Polish
Fr	french	hu	hungarian
el	greek	pt	portuguese

Further language codes are according directive ISO 639-1

## 4.6.5 Firmware upgrade

The screenshot shows a web browser window with the following elements:

- Header: ALPHATECH TECHNOLOGIES s.r.o. and ALPHD Tech logo.
- Page Title: IP BOLD
- Left Navigation Menu:
  - Current status
  - Network setting
  - Basic settings
  - Extended settings
  - Service
    - Restart
    - Configuration
    - Style and language
    - Firmware upgrade (highlighted)
    - Logfile
    - License
    - User acoustic tones
  - Video camera
- Main Content Area:
  - Section: Firmware upgrade
  - Firmware version: 3.4.1
  - Choose firmware file:
  - A large empty rectangular box for file selection.
  - Save button at the bottom right.
- Footer: © ALPHATECH TECHNOLOGIES s.r.o.

**Firmware version** – display present firmware version in door entry IP VarioBell

**Choose firmware file** – by click to empty field select file with firmware (for example apt.firmware it is not file \*.zip, but already unzip file – on website are firmware files packed to archive \*.zip)

In Windows is display proces so firmware upgrade. When from any reason (power failure, network disconnection etc..) firmware upgrade is not finished then you find backup WEB interface for repeating of firmware upgrade.

If you have any problem so is possible by switch of DIP 2 switch to position on and restart on adress 192.168.1.250 you find backup WEB interface for repeating of firmware upgrade. Name is *admin* and password is *1234*. After, do **not forget** move back **DIP switch 2 to position OFF !**.



After firmware upgrade you must make restart of doorphone IP VarioBell.

## 4.6.6 Logfile

**Start enhanced log** – it is OFF in default to save processor efficiency. When you switch it ON then are save into internal memory detail information about door entry operation. It is very helpfull to solve different problems ( compatibility etc..).

**Download log file** – after activation of enhanced log perform action which doesnt work correctly and immediatelly after performing click on button „Make”. You save like this record of extended log file into file which you send to [www.alphatechtechnologies.cz](http://www.alphatechtechnologies.cz) for further analyses (see procedure. below).

**Show call log** - in new WEB interface window are online display information about making calls.



**Syslog server** – IP adress or server name of syslog server where will be sent records about IP VarioBell door entry operation (do not forget setup NTP server for setting of internal door entry clocks otherwise records will be saved with incorrect date and time)



The procedure to download Enhanced LOG file. Really send by e-mail LOG downloaded file, do not send copies of screens, videos, etc.

1. Turn on enhanced LOG (click Start). Before this step, it is recommended to restart the IP VarioBell
2. Perform the action that you are interested in, where you have the problem
3. Immediately download the LOG file uploaded to your PC
4. This file be attached to e-mail a brief description of the problem and send (email contacts on [www.alphatechtechnologies.cz](http://www.alphatechtechnologies.cz))

## 4.6.7 License

ALPHATECH TECHNOLOGIES s.r.o.  ALPHATECH Tech 

IP BOLD

**License**

Some features of IP communicators are available only after entering a valid license key.

Codec G729:

The license is not valid.

Service

- Restart
- Configuration
- Style and language
- Firmware upgrade
- Logfile
- License
- User acoustic tones

Video camera



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This page allows extend door entry features about payable functions via licenses. For example audio codec G729.

After payment you receive license number by email

License validity shows if license is working correctly. The license code is connected to MAC number of door entry.

## 4.6.8 Sound files

ALPHATECH TECHNOLOGIES s.r.o.  **ALPHD**  
Tech 

IP BOLD

- Current status
- Network setting
- Basic settings
- Extended settings
- Service
  - Restart
  - Configuration
  - Style and language
  - Firmware upgrade
  - Logfile
  - License
  - User acoustic tones**
- Video camera

### User acoustic tones

Acoustic tone on button pressed:   
[Save](#) [Clear](#) [Play](#)

Acoustic tone on call start:   
[Save](#) [Clear](#) [Play](#)

Acoustic tone on remote ringing:   
[Save](#) [Clear](#) [Play](#)

Acoustic tone before call end:   
[Save](#) [Clear](#) [Play](#)

Acoustic tone on call end:   
[Save](#) [Clear](#) [Play](#)

Acoustic tone on error:   
[Save](#) [Clear](#) [Play](#)

Acoustic tone on remote busy:   
[Save](#) [Clear](#) [Play](#)

Acoustic tone on unknown number:   
[Save](#) [Clear](#) [Play](#)

Acoustic tone on valid code entry:   
[Save](#) [Clear](#) [Play](#)

Acoustic tone during relay run:   
[Save](#) [Clear](#) [Play](#)

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This page is designed for recording own (user) sounds signalling. By click on „Play“ will be played currently active sound file (selection is performed on page „Audio setting“ eventually sound of relay closing on page „Relays“).

***Attention files are recorded on a microSD card!***

**Audio files: WAV – 8Kbit – mono – 16bit PCM**



## 5 Technical parameters

### 5.1 Electrical parameters

Parametr	Value	conditions
Interface	Ethernet 10BaseT, 100BaseTx	
VoIP protocol	SIP 2.0 defined RFC3261	
Default IP address	192.168.1.250	
Audio	G.711u, G.711a, G.726-32b, GSM, G722, G729 (optional)	
Band range	300Hz – 3400 Hz	
Echo supression	Automatical	
Output power	Class D, 1W/8ohm, 94dB/1kHz/1m/1%	
Video	série JPEG, MJPG, stream H.263, H.264	
Resolution	Max. 640 x 480	
Camera angle	120deg H x 110deg. V	
Power supply - adapter	12V <sub>DC</sub> ± 2V , 12V <sub>AC</sub> ± 1V	
- or PoE	IEEE802.3af Altern. A + B	
Max. consumption	300mA	12Vss
Max. switching voltage by relays	48V	when I < 1A
Max. switching current by relays	2A	when U < 30 V
Temperature range	- 20 to + 80°C	

### 5.2 Mechanical dimensions

Druh položky	rozměry VxŠxH [mm]			
	1 modul	2 moduly	3 moduly	2 x 3 moduly
Každý modul	100 x 100			
Montážní krabice	136x99x56	244x99x56	328x99x56	-
Lemovací rámeček	173x128	256x128	358x128	-
Krycí rámeček	178x130	281x130	383x130	383x230
Stříška	165x142x45	268x142x45	370x142x45	370x242x45
Kryt proti dešti KPD	165x142x80	268x142x80	370x142x80	370x242x80

Water proof and antivandal resistance of all models is IP44

## 5.3 Video parametres

**Video formats:** JPG, MJPG, H.263, H.264

**Video for WEB:**

**Internet Explorer, Mozilla, Opera, Firefox...** - (set of JPG pictures - Port 80) it is used repeated http request „IPAddress/video.jpg“

**programm PopUp (UDVguard)** - (MJPEG stream - Port 80) is used http request „IPAddress/video.mjpg“ (sometimes is reload necessary to run). This video is more fluent and has less network strain.

**Stream video for IP phones:**

H.263 and H264 is established by IP VarioBell door entry and IPvideo phone over SIP/SDP protocol on standard SIP port. The video (as same as sound) then runs by RTP protokol on ports agreed over SIP (usually 9078).

rtsp request „rtsp://IPAddress/video.264“

or rtsp request „rtsp://IPAddress/video.263“

**Video parametres:**

JPG Pictures are created in IP modul and for all transmit protocols are the same. The Size (resolution) of video is selected in "Video setting" on WEB. Maximal resolution is defined by USB camera type and mostly is 640x480 Stream H.263 knows CIF resolution (352x288). It means bigger JPEG is cut and smaller framed.

Frequency (1-15 picture./sec) JPG Picture is selected in "Video setting" on WEB as Low – Optimal - Full.

Frequency MJPG and Stream H.263 coming from camera. It is used every second and reset is between 7-15 pictures/sec. Higher resolution brings decrease of Pictures/ sec. (limited by processor efficiency)

**Ports:**

Port **80** for http (WEB pages even JPG / MJPG video on them)

Port **5060** for SIP

Ports RTP with oposite party communicates over SIP. Usually Port **7078** suggested for audio and Port **9078** for video

Port **554** video( H264 and H263) provided by door entry (server) protocol RTSP

**Audio files:** WAV – 8Kbit – mono – 16bit PCM

**Setup:** Default IP adress 192.168.1.250  
name: admin / password: 1234

**Video:** name: video / password: 1234 (if required).

### 5.3.1 Requests

#### VIDEO:

JPG - [http:// IPaddress /video.jpg](http://IPaddress/video.jpg)  
MJPEG - [http:// IPaddress /video.mjpg](http://IPaddress/video.mjpg)  
H.263 - [rtsp:// IPaddress /video.263](rtsp://IPaddress/video.263)  
H.264 - [rtsp:// IPaddress /video.264](rtsp://IPaddress/video.264)

#### RELAYS:

[http:// IPaddress /relay\\_control?1=on](http://IPaddress/relay_control?1=on)  
[http:// IPaddress /relay\\_control?1=off](http://IPaddress/relay_control?1=off)

[http:// IPaddress /relay\\_control?2=on](http://IPaddress/relay_control?2=on)  
[http:// IPaddress /relay\\_control?2=off](http://IPaddress/relay_control?2=off)

[http:// IPaddress /relay\\_control?3=on](http://IPaddress/relay_control?3=on)  
[http:// IPaddress /relay\\_control?3=off](http://IPaddress/relay_control?3=off)

[http:// IPaddress /relay\\_control?4=on](http://IPaddress/relay_control?4=on)  
[http:// IPaddress /relay\\_control?4=off](http://IPaddress/relay_control?4=off)

#### BUTTONS:

[http:// IPaddress /button\\_control?btn=1](http://IPaddress/button_control?btn=1) - remote activate btn 1  
[http:// IPaddress /button\\_control?btn=27](http://IPaddress/button_control?btn=27) - remote activate btn 27

#### Door sensors:

question:

<http://IPaddress/senstat>

answer:

1<sup>st</sup> row is sensor 1

2<sup>nd</sup> row is sensor 2

1=active (connected = close)

0=nonactive (disconnected = open)

X=disable (sensor is not used)



**Guarantee conditions:**

The product was shop-checked. The producer guarantees that this product will keep the features described in these operating instructions in the course of guarantee provided that the user will be handled with it as described in the operating manual. Particularly the warranty does not cover damage from improper intervention via **Telnet**. The guarantee will be extended by period of possible guarantee repair.

When claiming in guarantee period please contact your dealer. The producer only will make the guarantee repairs. Attach the description of claim reason, proof of purchase and your exact address to the product.

**The guarantee does not include:**

- mechanical, thermal, chemical and other damages caused by user's activities
- defects caused by natural disasters
- defects caused by repair or changes carried out by user or other unauthorized person
- willful damage of product
- incorrect use of product caused by other use than specified in operating manual (e.g. installation, programming, improper use of **Telnet**)
- damages caused during product transport to customer and from supplier

Producer:
Dealer:
Date of sale:



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