



ALPHA
Tech



ALPHATECH TECHNOLOGIES s.r.o.

DOOR ENTRY - DOOR INTERCOM SOLUTIONS

A-VarioBell Door Entry Phone

Part of VarioBell family – analog, GSM and SIP VoIP audio – video systems

www.alphatechtechnologies.cz

Made in Czech Republic, EU





A-VarioBell Door Entry Phone system

Flexible analog door intercom

Member of VarioBell family – choose analog, GSM or SIP VoIP solution according to your requirements





A-VarioBell Door Entry Phone system

Flexible analog door intercom

Variety of choice – from 1 up to 87 call buttons, keypad and more





A-VarioBell Door Entry Phone system

Flexible analog door intercom – choose your preferred configuration



A-VarioBell Door Entry Phone system

Flexible analog door intercom – use keypad both for dialling call numbers and access control





A-VarioBell Door Entry Phone system

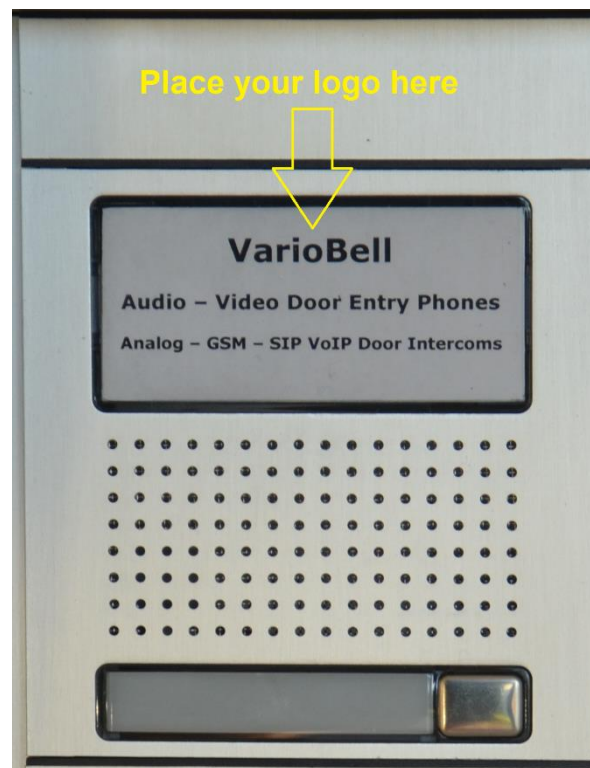
Flexible analog door intercom – use call buttons both for calling users and for access control





A-VarioBell Door Entry Phone system

Flexible analog door intercom - OEM ready for your own projects



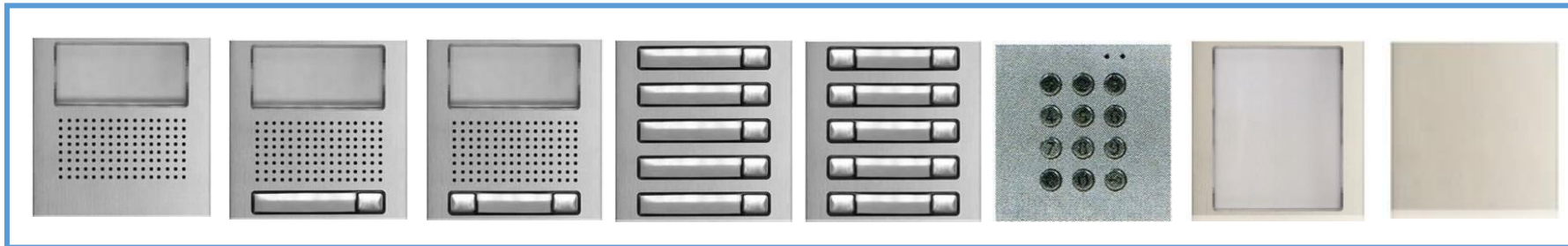
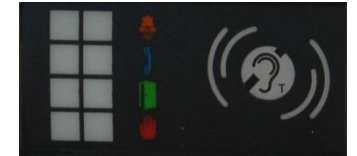


A-VarioBell analogue door entry phone



Modular, therefore ready for your variable needs

- 1 to 87 call buttons
 - First 10 call buttons can be used for entering door access code
- Numerical dialling/access code keypad, keypad does not limit number of call buttons
 - Up to 99 users via speed-dial 2-digit numbers stored in memory
 - Up to maximum capacity of phone system (PBX) by dialling extension numbers
 - From 10 up to 36 access codes depending on settings
- Main modules with info window or window with status LEDs
 - Hearing impaired friendly system – optional audio-induction loop for speaker



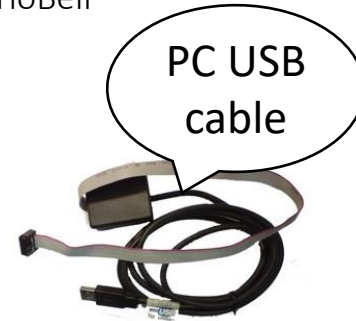
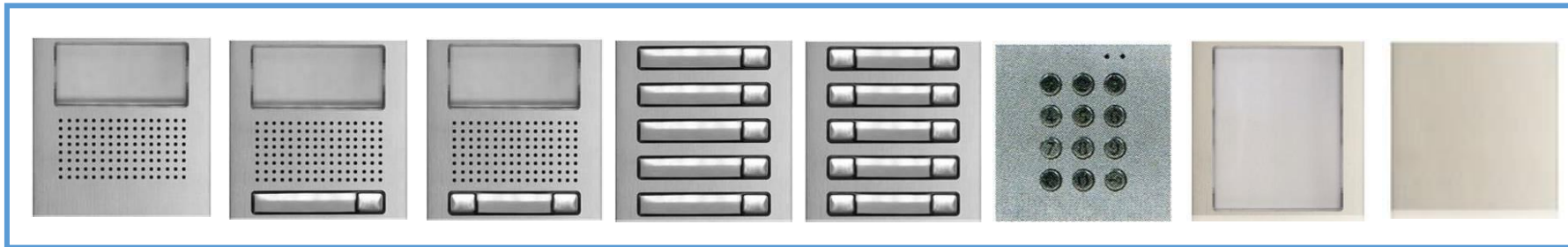
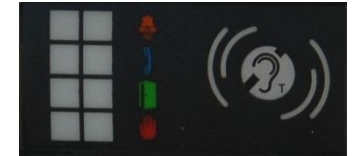


A-VarioBell analogue door entry phone



Analogue, therefore fully compatible system

- Connection via analogue line, PSTN, land line
 - Powered from analogue line only
- Compatible with any telephone system (PBX) with analogue ports
- Easy remote programming via DTMF or locally via PC or DTFM
- Universal call button and keypad modules for analogue, GSM and SIP VoIP VarioBell doorphones



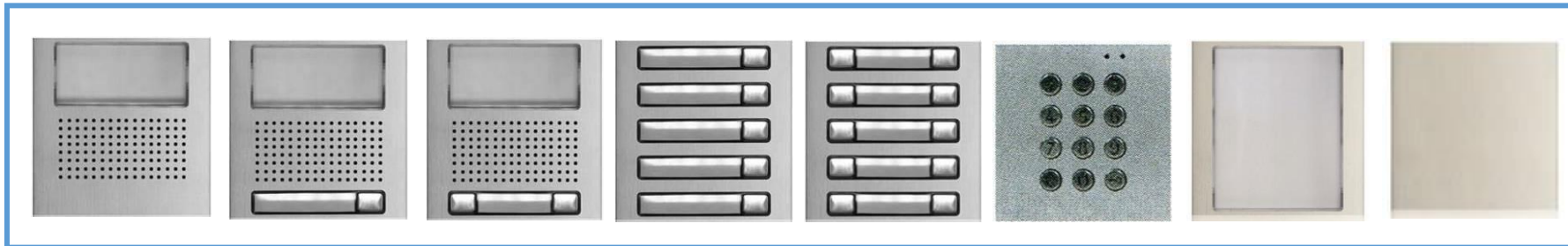
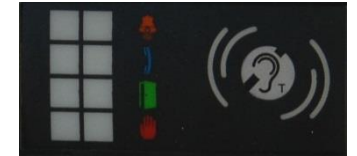


A-VarioBell analogue door entry phone



Remotely accessible, therefore easy to control system

- Remote opening of door / gate
- Activate the relay contacts via DTMF
 - From your analogue desk phone (extension line of PBX)
 - From your mobile phone





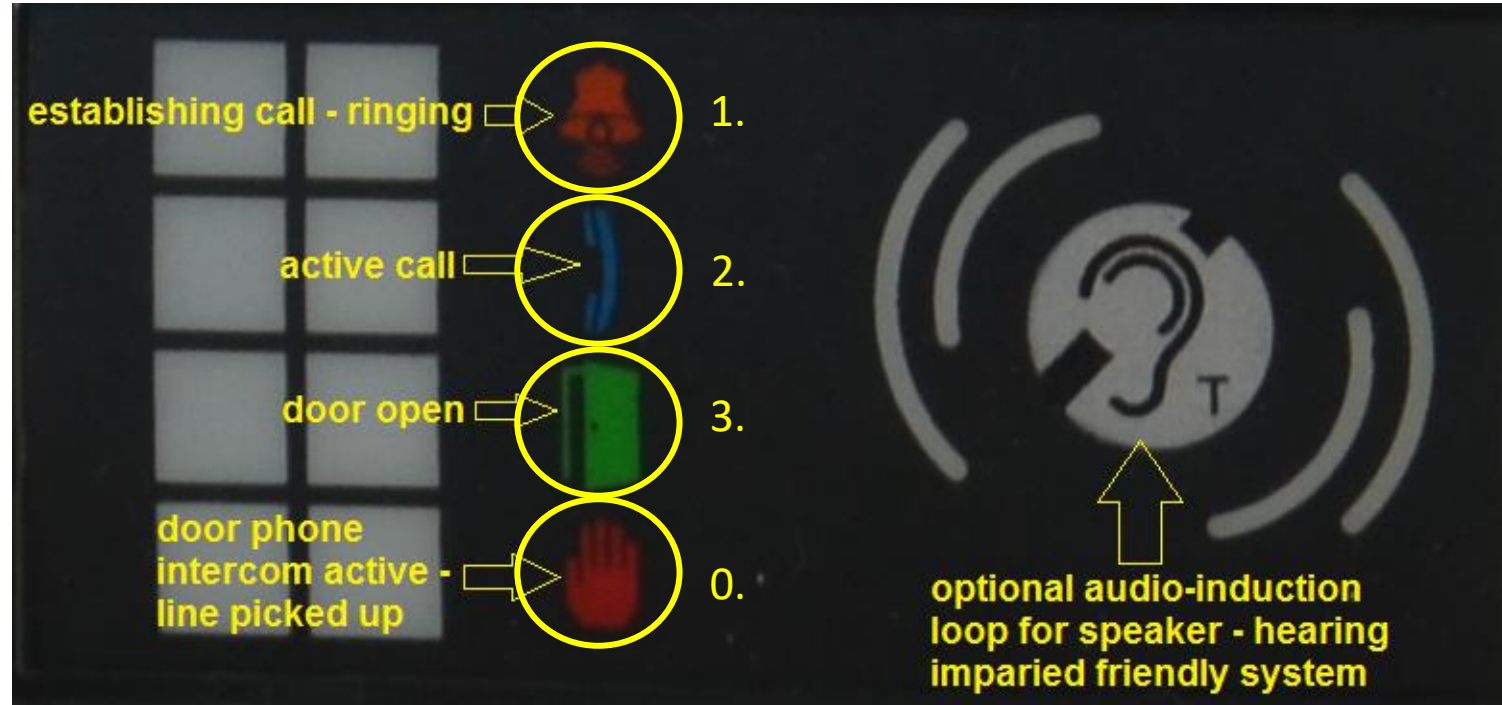
A-VarioBell analogue door entry phone

1. ringing 2. active call 3. door open



0. doorphone is active













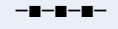









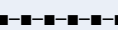


- LEDs label
 - Part of each main module
- Acoustic sound signallization of status
 - Analog by beeping sounds
 - Optionally for projects by voice messages
 - Optional add-on voice module required
 - GSM by voice messages
 - IP by voice messages
- LEDs label with optional hearing impaired loop
 - Status LEDs window – call in progress (ringing), call active, door open, doorphone active (line is picked up)
 - Hearing impaired friendly system – optional audio-induction loop for speaker



Acoustic signallization

Acoustic signallization of status

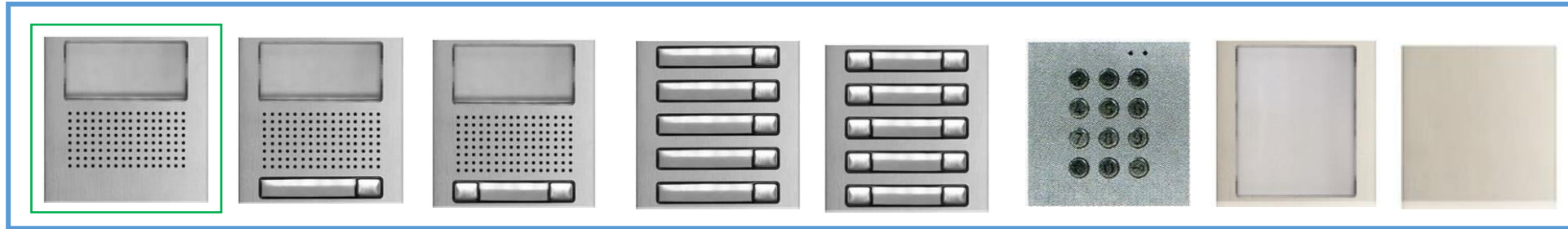
- by beeping sounds
- sounds can be turned off in several levels
 - Optionally for projects only
 - signallization by voice messages
 - optional add-on voice module required

Status	Play Tone	Tones	Tone frequency
Pick up line type 1			980-1333-1650
Disconnection of line type 1 (hang up type 1)			1650-1333-980
Pick up line type 2			800-1067-1200-1333
Disconnection of line type 2 (hang up type 2)			1333-1200-1067-800
Confirmation of command from the phone			800
Ticking during a call			
Notice about the end of a call			1333
Relay switch signal			Modulated
Entry into programming from the phone			980-1067-1180
Programming from the phone			Modulated
Parameter confirmation			800
Entry into programming from the PC			980-1067-1180
Line connection (Reset)			1850-1067-1850
Error (generally something is not right)			800
Empty memory (no number is programmed)			1300-2100





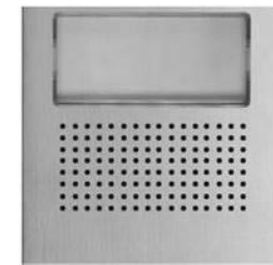
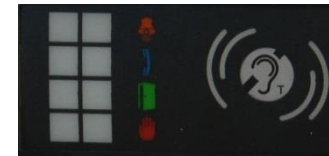
A-VarioBell analogue door entry phone



- A-VarioBell modules

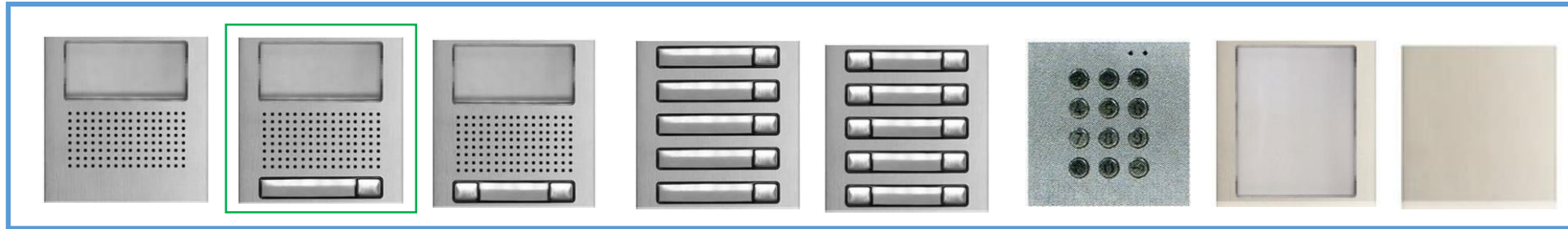
- N1000/AL AUDIO Analog

- Ordering code: 11881000A
- Module external dimensions: 100(w) x 100(h) mm
- Analogue main module, audio with MIC and SPK, 0 buttons, small info window / status LEDs window
- 1.8mm thick alluminium, info window made of polycarbonate. Call button with stainless steel cover
- Powered from analogue line only or if powered from an external power supply 12VAC / 12VDC, status LEDs indicate actual state of doorphone
- User can decide if he wants to use info window (e.g. house number or company name label) or status LEDs window. Four colour LEDs (yellow, blue, green and red) are a standard part of the main module
- Both empty black label for info window, where the user can place his own label and status LEDs label are included.
 - User can decide what type of label (house number label or LEDs label) to use or he can change it later
- Status LEDs window – call in progress (ringing), call active, door open, doorphone active (line is picked up)
 - Hearing impaired friendly system – optional audio-induction loop for speaker





A-VarioBell analogue door entry phone



- A-VarioBell modules

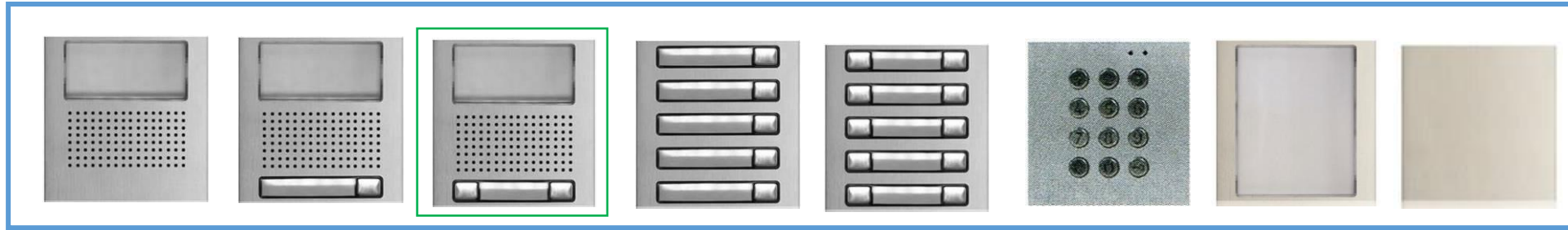
- N1110/AL AUDIO Analog

- Ordering code: 11881010A
- Module external dimensions: 100(w) x 100(h) mm
- Steady illumination at the door panel through white leds
- Analogue main module, audio with MIC and SPK, 1 call button, small info window / status LEDs window
- Powered from analogue line only. If powered from an external power supply, call button label is illuminated and status LEDs indicate actual state of doorphone
- 1.8mm thick alluminium, info window made of polycarbonate. Call button with stainless steel cover
- User can decide if he wants to use info window (e.g. house number or company name label) or status LEDs window. Four colour LEDs (yellow, blue, green and red) are a standard part of the main module
- Both empty black label for info window, where the user can place his own label and status LEDs label are included.
 - User can decide what type of label (house number label or LEDs label) to use or he can change it later
- Status LEDs window – call in progress (ringing), call active, door open, doorphone active (line is picked up)
 - Hearing impaired friendly system – optional audio-induction loop for speaker





A-VarioBell analogue door entry phone



- A-VarioBell modules

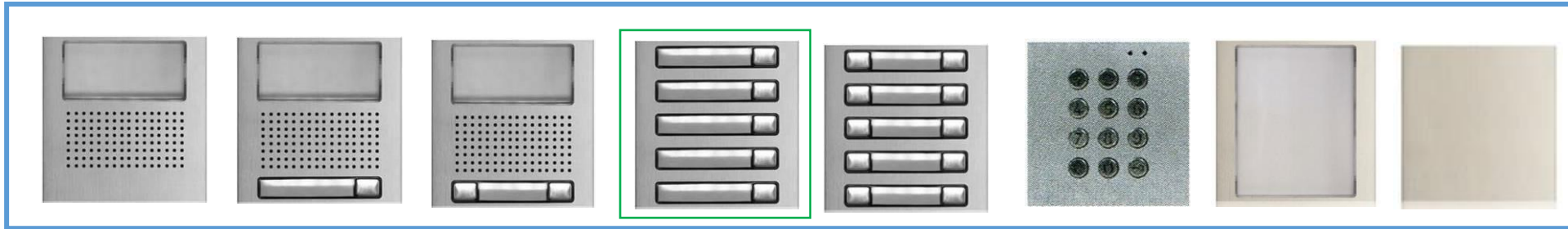
- N1220/AL AUDIO Analog

- Ordering code: 11881220A
 - Module external dimensions: 100(w) x 100(h) mm
 - Steady illumination at the door panel through white leds
 - Analogue main module, audio with MIC and SPK, 2 call buttons, small info window / status LEDs window
 - Powered from analogue line only. If powered from an external power supply, call buttons label is illuminated and status LEDs indicate actual state of doorphone
 - 1.8mm thick alluminium, info window made of polycarbonate. Call buttons with stainless steel cover
 - User can decide if he wants to use info window (e.g. house number or company name label) or status LEDs window. Four colour LEDs (yellow, blue, green and red) are a standard part of the main module
 - Both empty black label for info window, where the user can place his own label and status LEDs label are included
 - User can decide what type of label (house number label or LEDs label) to use or he can change it later
 - Status LEDs window – call in progress (ringing), call active, door open, doorphone active (line is picked up)
 - Hearing impaired friendly system – optional audio-induction loop for speaker





A-VarioBell analogue door entry phone

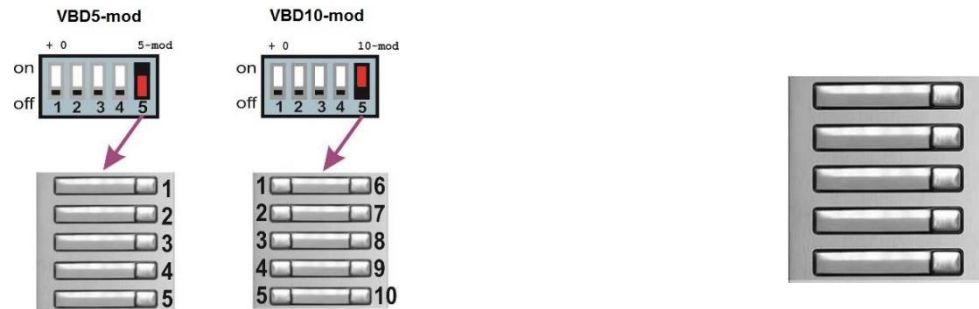


- A-VarioBell modules

- N3150/AL C MOD

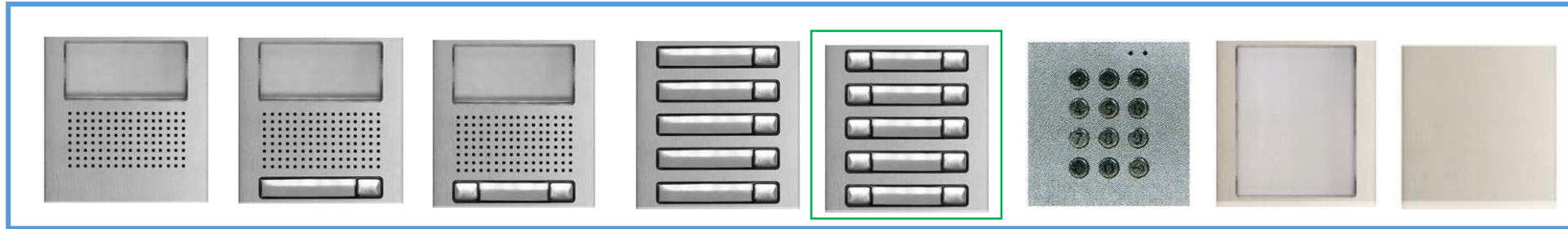
- Ordering code: 11883150C

- Call buttons module, 5 single call buttons, illuminated call button labels if external power supply is used
 - 1.8mm thick aluminium, call buttons with stainless steel cover
 - Steady illumination at the door panel through white leds
 - Easy system of numbering individual call buttons, settings by DIP switch
 - Up to 85 call buttons via C buttons module, maximum 87 call buttons with the main module
 - Universal call buttons module which can be used with analogue, GSM and SIP VoIP VarioBell doorphones
 - Module external dimensions: 100(w) x 100(h) mm



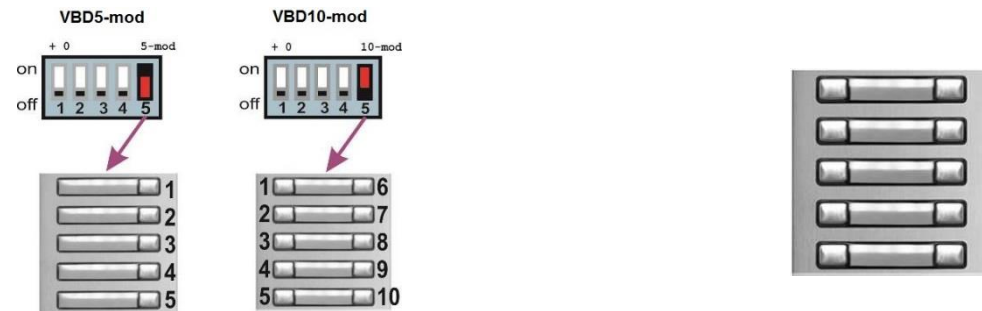


A-VarioBell analogue door entry phone



- A-VarioBell modules

- N3210/AL C MOD
- Ordering code: 11883210C

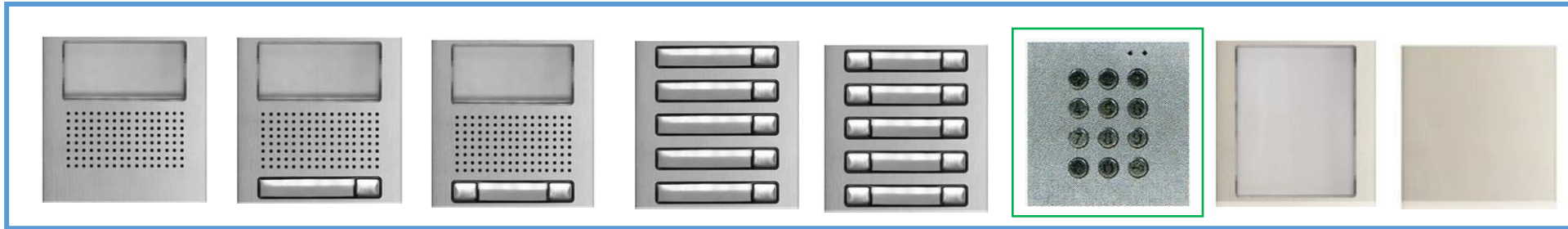


- Call buttons module, 10 call buttons (2x 5 call buttons), illuminated call button labels if external power supply is used
- Module external dimensions: 100(w) x 100(h) mm
- Steady illumination at the door panel through white leds
- 1.8mm thick aluminium, call buttons with stainless steel cover
- Easy system of numbering individual call buttons, settings by DIP switch
- Up to 85 call buttons via C buttons module, maximum 87 call buttons with the main module
- Universal call buttons module which can be used with analogue, GSM and SIP VoIP VarioBell doorphones



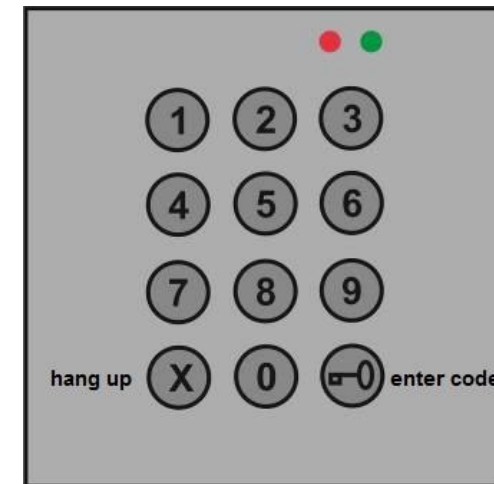


A-VarioBell analogue door entry phone



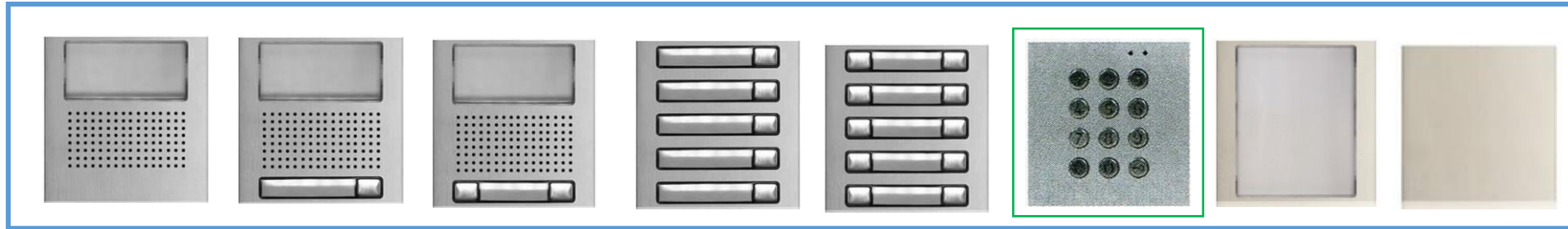
- A-VarioBell modules

- N3301AL ALPHA
- Ordering code: **11883301A**
- Module external dimensions: 100(w) x 100(h) mm
 - Keypad module – dialling or access code
 - illuminated buttons if external power supply is used
 - 1.8mm thick alluminium, call buttons with stainless steel cover
 - Direct dialling of phone numbers, maximum 24 digits
 - Dialling numbers from memory of doorphone (01-99), just a 2-digit short dial
 - Keypad saves extra call buttons, you can dial 2-digit speed dials from memory
 - Dial numbers from memory of doorphone directly, max. 99 numbers for day mode and 99 numbers for night mode





A-VarioBell analogue door entry phone

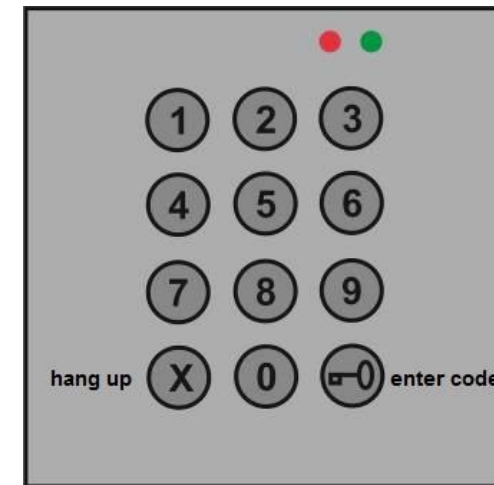


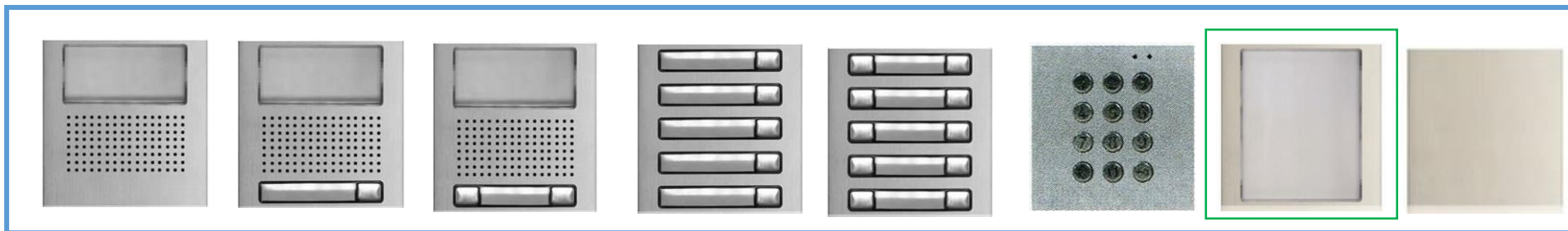
- A-VarioBell modules

- N3301 ALPHA

- Ordering code: **11883301A**

- No special setup for keypad – automatic detection
 - Just connect keypad anywhere via supplied flat cable
- Keypad module – during the active call you can dial DTMF
- Cancel (hang up) button for cancellation and key button for entering an access code
 - From 10 up to 36 access codes depending on settings (day and night mode, day/night mode, etc.)
- Universal keypad module which can be used with analogue, GSM and SIP VoIP VarioBell doorphones





- A-VarioBell modules

- N3002/AL

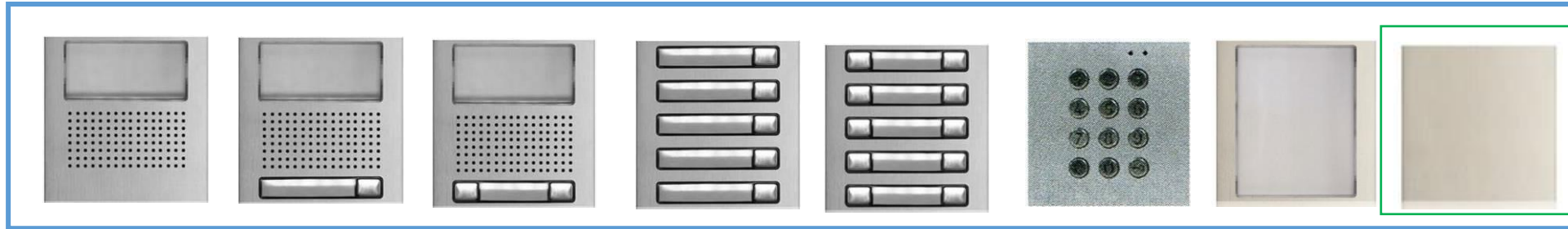
- Ordering code: 11883002

- Module external dimensions: 100(w) x 100(h) mm
 - Name / House number module
 - info window made of polycarbonate
 - Combine it with dialling keypad
 - Create a list of speed-dial extensions to call users





A-VarioBell analogue door entry phone



- A-VarioBell modules

- N3000/AL

- Ordering code: 11883000

- Module external dimensions: 100(w) x 100(h) mm

- Blind module

- Fill out empty space for planned expansion of the system

- Later on, you can replace it by any call button module, keypad module or house number module

- 1.8mm thick alluminium

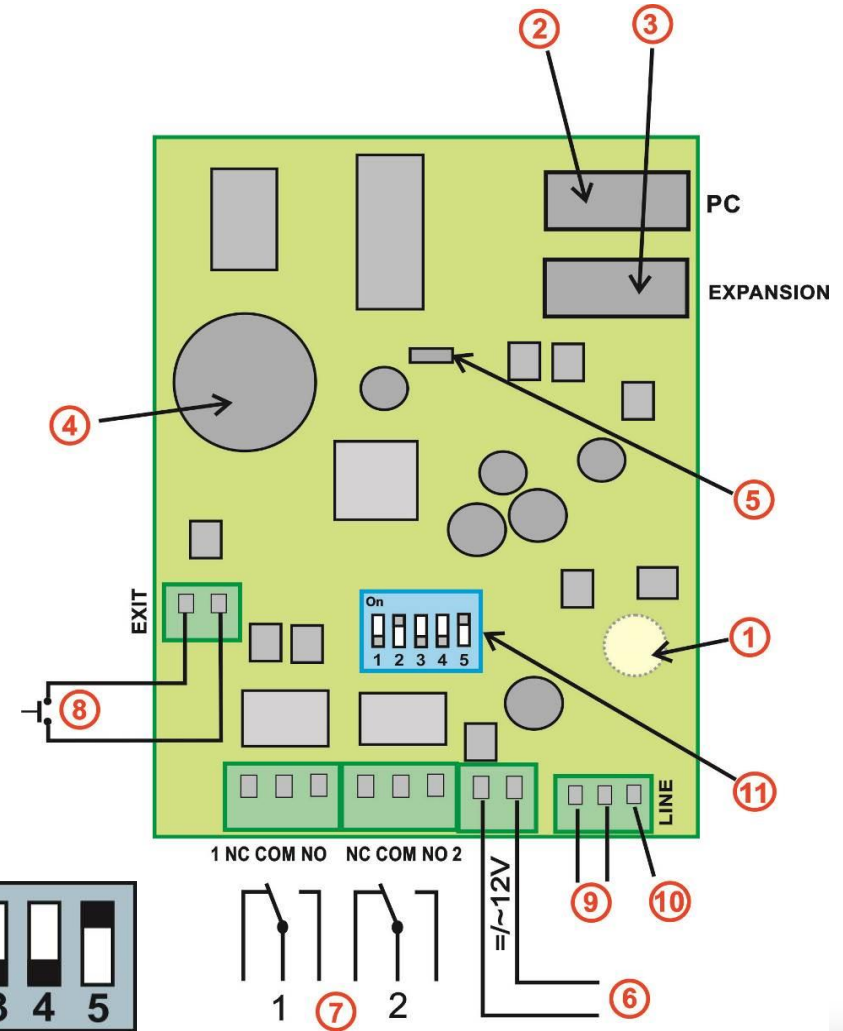




A-VarioBell analogue door entry phone

Description on the main board (PCB of the main module with 0, 1 or 2 call buttons)

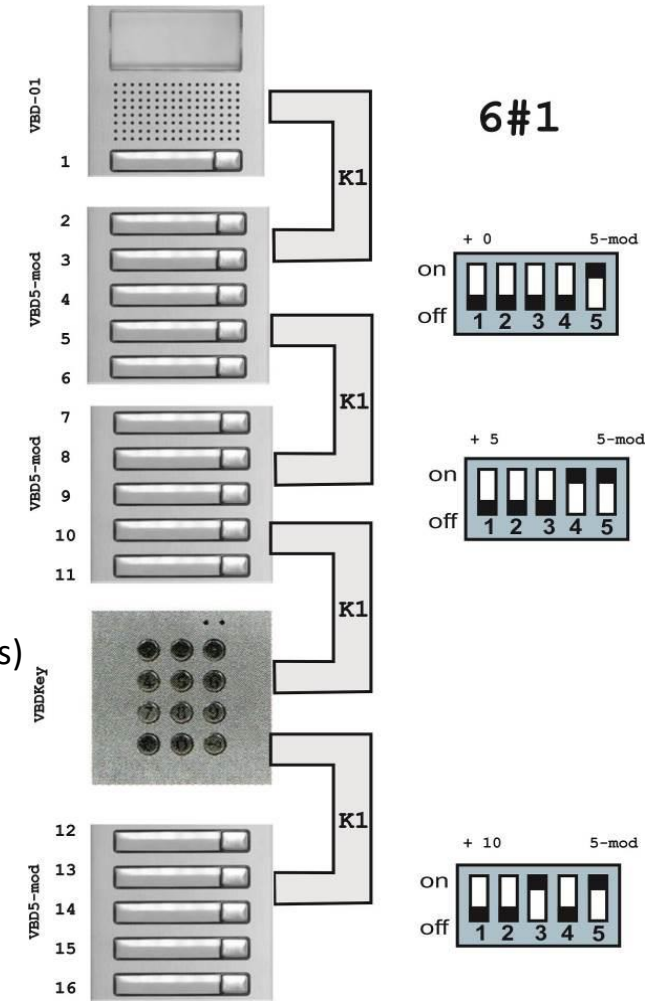
1. Microphone (placed in plastic cover, output at bottom of the board)
2. PC connection connector via USB cable
3. BUS connector for connection of extending modules and keypad
4. ACCU battery for RTC (real time clock chip)
5. Speaker – output at bottom of the board. At top of the board there is a connector for connection of an external speaker
6. 12V AC/DC power supply for:
 - relays control
 - board heating
 - name cards lighting/illumination
 - external powering of the door phone (DIP 3 and 4)
 - exit button circuit
 - LED signalling on the front panel
7. Relays – these are galvanically isolated switchable contacts, max. 48V, max. 1,5A
 At relay 1 there is available a special function of so called „code relay“ (COSW – CodeSwitch) for safe use of relay 1
8. Exit button – it works in a circuit of a current loop.
 The length of connected wires to this button can be up 500m. Functionality condition = 12V power on the screw (see point 6 above)
9. Analog phone line (it does not depend on polarity)
10. Grounding – connection for grounding against static electricity – protection of the door phone electronics and also of the PBX
11. DIP switch:
 - 1 = Service – used when password is forgotten
 Incoming call is going directly to programming mode where you can setup a new password. (do not forget to return it back to off position)
 - 2 = heating – activate integrated board heating
 - 3 = external power supply
 - 4 = External power supply – switching always 3 and 4 simultaneously. Powering is used from screw 12V (6) and there are 2 reasons for its use:
 - using relay in mode 7 or 8 - permanent relay close/open is possible with external powering only. Do not forget to set parameter 64
 - connection of the door phone to PBX extension which has troubles with current consumption after PBX start (usually Siemens PBX).
 - 5 = name cards lighting/illumination (switch ON/OFF LED lighting/illumination for name cards)



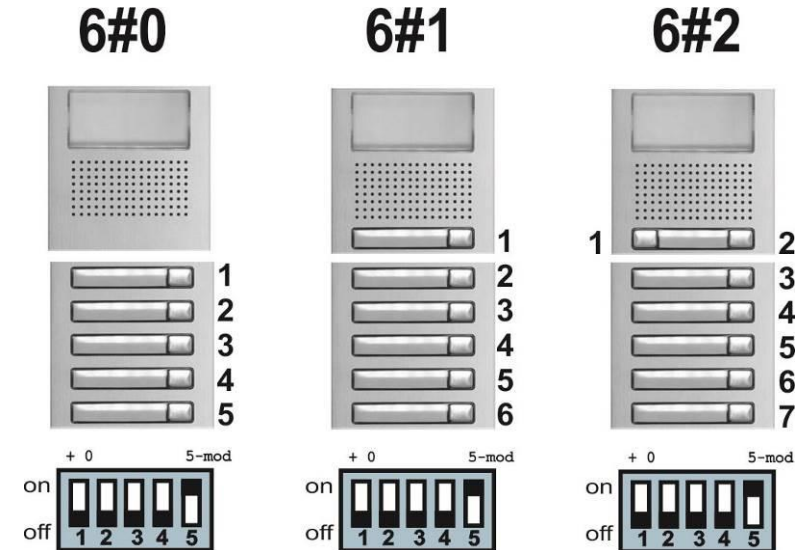


A-VarioBell analogue door entry phone

- A-VarioBell example of HW configuration
 - First call button on the main module
 - The main module uses programmable parameters
 - For example:
 - 6#1 (i.e. 6# = 1), it means the main module uses a single call button
 - Expansion modules are connected via supplied flat cables
 - Keypad module can be connected anywhere
 - Keypad position has no influence on functionality
 - Keypad is detected automatically
 - Keypad can be used for entering access codes or dialling extensions (numbers)
 - Numbering plan of call button modules
 - Set by correct setting of the DIP switch on the module



- A-VarioBell examples of HW configurations
 - Zero, one or two call buttons on the main module
 - The main module uses programmable parameters
 - For example:
 - 6#0 (i.e. 6# = 0), it means the main module does not use any call buttons
 - 6#1 (i.e. 6# = 1), it means the main module uses a single call button
 - 6#2 (i.e. 6# = 2), it means the main module uses two call buttons
 - Numbering plan of call button modules
 - Set by correct setting of the DIP switch on the module
 - Expansion modules are connected via supplied flat cables





A-VarioBell analogue door entry phone



- A-VarioBell flush mounting boxes for installation into the wall

- NCEV-90CS
- Ordering code: 11880902
 - Flush mounting installation box for 1 module
 - Embedding box for 1 vertical module
 - Dimensions: 99(w) x 136(h) x 40(d) mm
 - Assembling set for 1 module N6001/AL required





- A-VarioBell flush mounting boxes for installation into the wall

- NCEV-90C

- Ordering code: 11880900

- Flush mounting installation box for 2 modules

- Embedding box for 2 vertical modules
- Dimensions: 99(w) x 236(h) x 40(d) mm
- Assembling set for 2 modules N6002/AL required





A-VarioBell analogue door entry phone



- A-VarioBell frames – assembling sets, used with flush and surface boxes

- N6001/AL
- Ordering code: 11880601
 - Assembling set for 1 module
 - For 1 vertical module
 - Includes lateral profiles, fixing and design frames and closing heads
 - Aluminium





- A-VarioBell frames – assembling sets, used with flush and surface boxes

- N6002/AL
- Ordering code: 11880602
 - Assembling set for 2 modules
 - For 2 vertical modules
 - Includes lateral profiles, fixing and design frames and closing heads
 - Aluminium





A-VarioBell analogue door entry phone



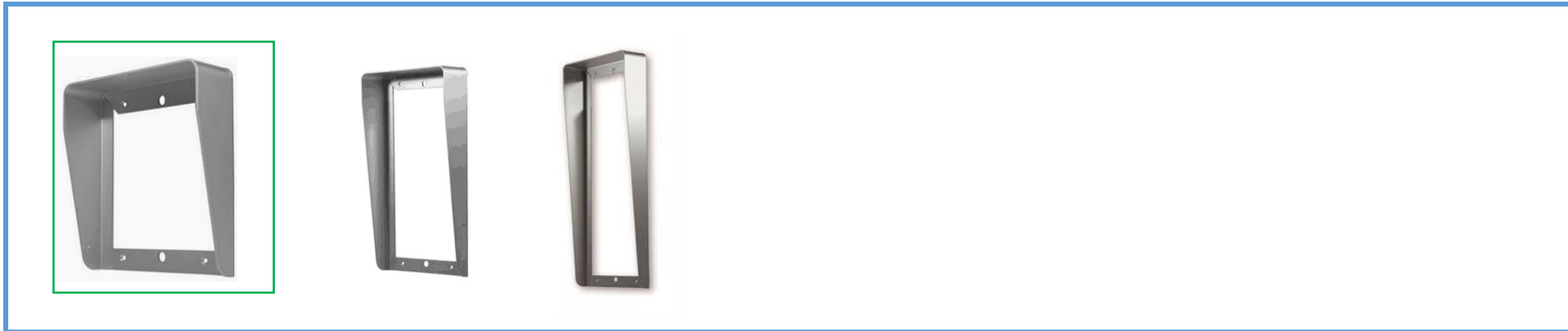
- A-VarioBell frames – assembling sets, used with flush and surface boxes

- N6003/AL
- Ordering code: 11880603
 - Assembling set for 3 modules
 - For 3 vertical modules
 - Includes lateral profiles, fixing and design frames and closing heads
 - Aluminium





A-VarioBell analogue door entry phone



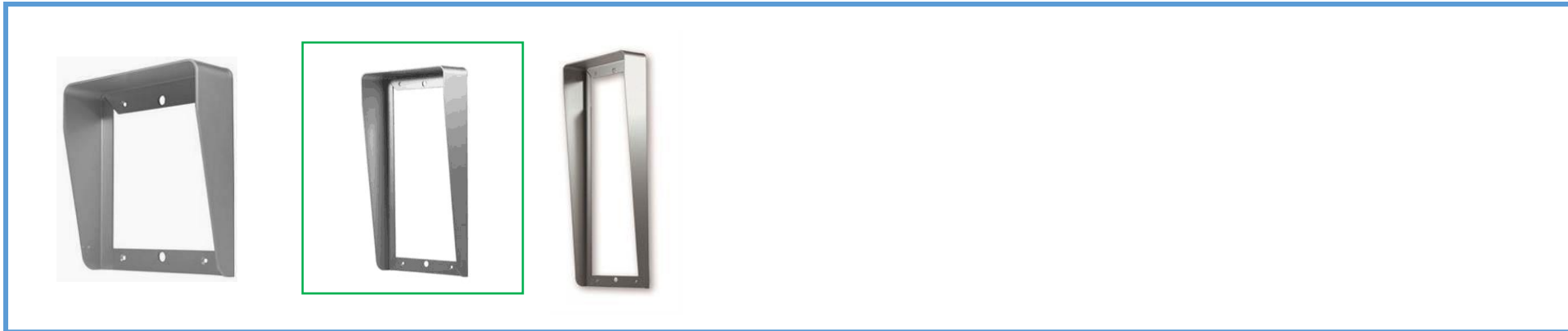
- A-VarioBell rain shields – rain hoods for flush mounting installations

- N711/AL
- Ordering code: 11880711
 - Rain shield for 1 module
 - Rain shield for 1(H) x 1(W)
 - Aluminium
 - Dimensions: 134(w) x 156(h) x 40(d) mm





A-VarioBell analogue door entry phone



- A-VarioBell rain shields – rain hoods for flush mounting installations

- N721/AL
- Ordering code: 11880721
 - Rain shield for 2 modules
 - Rain shield for 2(H) x 1(W)
 - Aluminium
 - Dimensions: 134(w) x 258(h) x 40(d) mm





A-VarioBell analogue door entry phone



- A-VarioBell rain shields – rain hoods for flush mounting installations

- N731/AL
- Ordering code: 11880731
 - Rain shield for 3 modules
 - Rain shield for 3(H) x 1(W)
 - Aluminium
 - Dimensions: 134(w) x 361(h) x 40(d) mm





- A-VarioBell surface mounting boxes with integrated rain shields

- N871/AL
- Ordering code: 11880871
 - Surface box with integrated rain shield for 1(H) x 1(W)
 - Aluminium
 - No embedding box required
 - Dimensions: 134(w) x 156(h) x 80(d) mm





A-VarioBell analogue door entry phone



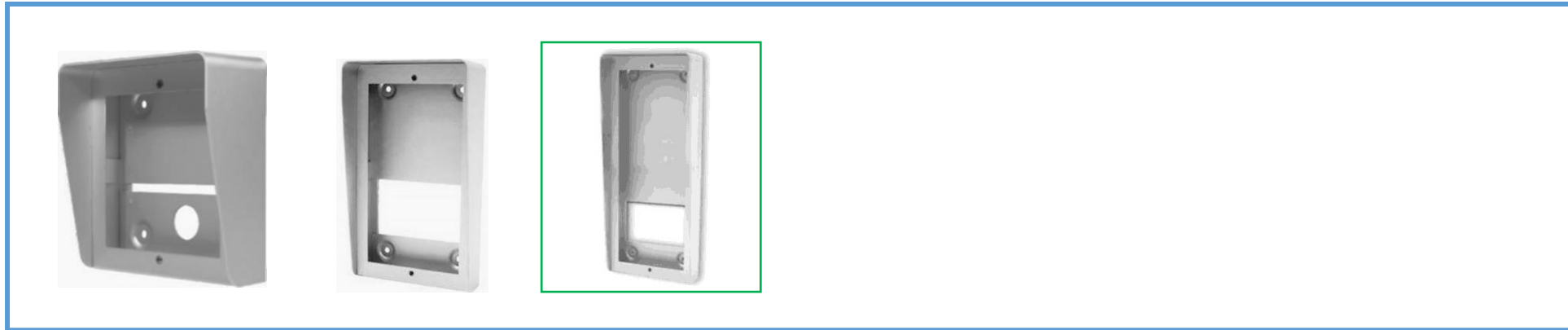
- A-VarioBell surface mounting boxes with integrated rain shields

- N872/AL
- Ordering code: 11880872
 - Surface box with integrated rain shield for 2(H) x 1(W)
 - Aluminium
 - No embedding box required
 - Dimensions: 134(w) x 258.5(h) x 80(d) mm



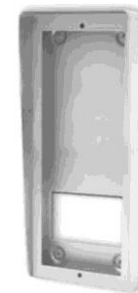


A-VarioBell analogue door entry phone



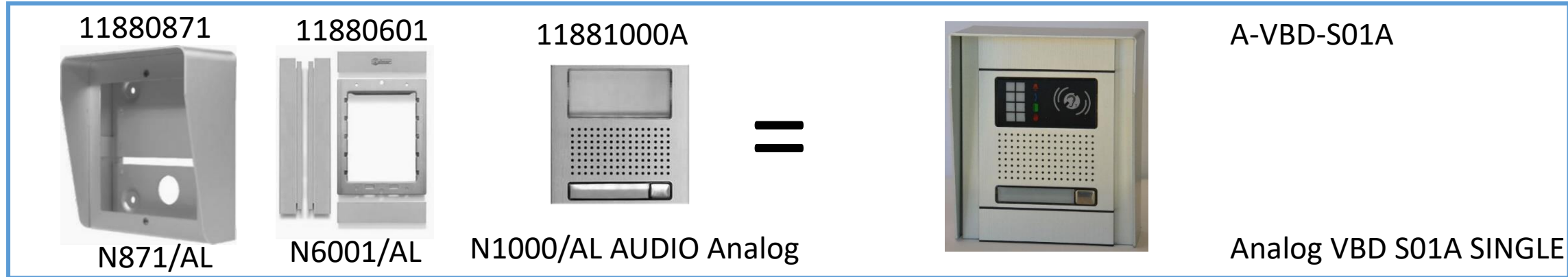
- A-VarioBell surface mounting boxes with integrated rain shields

- N873/AL
- Ordering code: 11880873
 - Surface box with integrated rain shield for 3(H) x 1(W)
 - Aluminium
 - No embedding box required
 - Dimensions: 134(w) x 361(h) x 80(d) mm



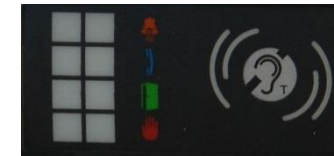


A-VarioBell analogue door entry phone



- A-VarioBell example configuration

- one call button, assembling set, surface mounted box with rain hood
 - empty black label and LEDs label are included
 - audio-induction loop for speaker is optional



- Analog VBD S01A SINGLE (= N871/AL + N6001/AL + N1000/AL AUDIO Analog)

- Ordering code: A-VBD-S01A (= 11880871 + 11880601 + 11881000A)
 - Surface box dimensions: 134(w) x 156(h) x 80(d) mm





A-VarioBell analogue door entry phone

Mounting/assembly process:

Description of flush mounting into the wall, which is more complicated:

A Prepare mounting holes in the wall

Recommended height is at around 160cm from the ground

Dimension of holes for flush mounting boxes depends on required number of modules

We mention dimensions for 1, 2 and 3 modules (basic mounting boxes)

Bigger sets with more than 3 modules are completed by combining basic mounting boxes (under or next to each other)

B Prepare the flush mounting box for cables and mutual connection of flush mounting boxes

C Fix the flush mounting box into the prepared hole inside the wall

D Insert modules into the fixing frame (fixing frame is a part of assembly set)

E Insert spring to the bottom part of the flush mounting box

F Insert fixing frame into the spring in the flush mounting box

G Install the fixing frame to the flush mounting box with 4 screws (screws are supplied – part of delivery)

H Complete the design frame (part of assembly set) – firstly use screws to assemble the side rails with the bottom part

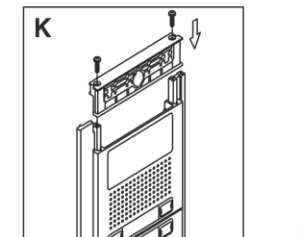
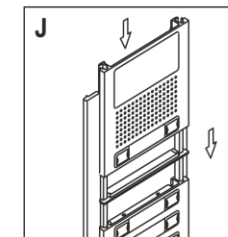
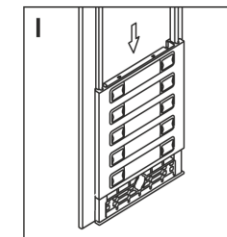
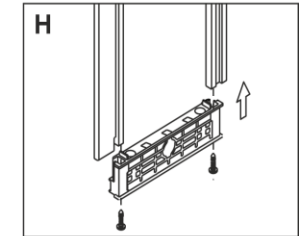
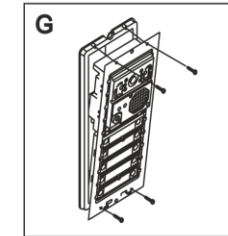
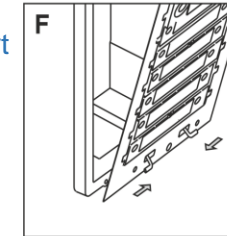
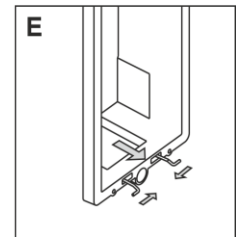
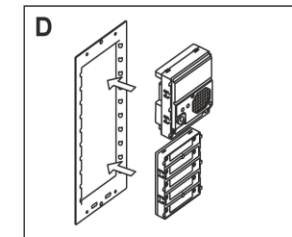
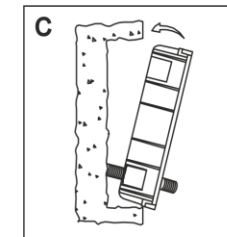
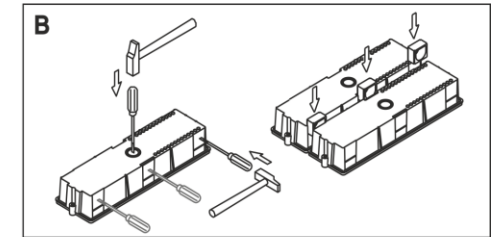
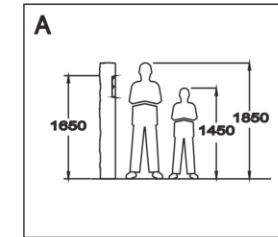
I Insert the front panels into the design frame according to the individual modules used in the configuration

J The last module (the module on the top) slides into the design frame

K In the end use screws to assemble the top part to the design frame (into the side rails)

L Such a completed set as shown on pictures H+I+J+K is ready for installation into the flush mounting box

M The last step is to insert covers on the design frame



Modules	1	2	3
Height mm	140	257	374
Width mm	125	125	125
Depth mm	56	56	56



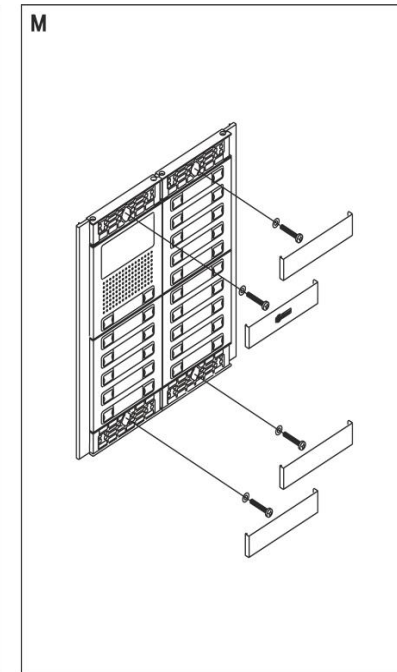
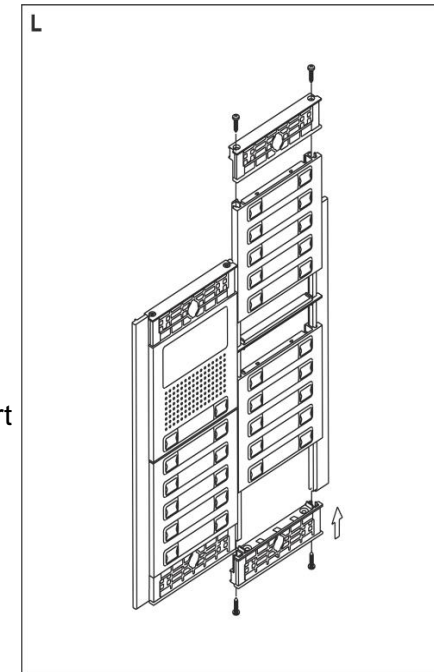


A-VarioBell analogue door entry phone

Mounting/assembly process:

Description of flush mounting into the wall, which is more complicated:

- A Prepare mounting holes in the wall
Recommended height is at around 160cm from the ground
Dimension of holes for flush mounting boxes depends on required number of modules
We mention dimensions for 1, 2 and 3 modules (basic mounting boxes)
Bigger sets with more than 3 modules are completed by combining basic mounting boxes (under or next to each other)
- B Prepare the flush mounting box for cables and mutual connection of flush mounting boxes
- C Fix the flush mounting box into the prepared hole inside the wall
- D Insert modules into the fixing frame (fixing frame is a part of assembly set)
- E Insert spring to the bottom part of the flush mounting box
- F Insert fixing frame into the spring in the flush mounting box
- G Install the fixing frame to the flush mounting box with 4 screws (screws are supplied – part of delivery)
- H Complete the design frame (part of assembly set) – firstly use screws to assemble the side rails with the bottom part
- I Insert the front panels into the design frame according to the individual modules used in the configuration
- J The last module (the module on the top) slides into the design frame
- K In the end use screws to assemble the top part to the design frame (into the side rails)
- L Such a completed set as shown on pictures H+I+J+K is ready for installation into the flush mounting box
- M The last step is to insert covers on the design frame



Modules	1	2	3
Height mm	140	257	374
Width mm	125	125	125
Depth mm	56	56	56





A-VarioBell analogue door entry phone

item	Dimension HxWxD [mm]			
	1 module	2 modules	3 modules	2 x 3 modules
Module	100 x 100			
Flush mounting box into the wall	136x99x56	244x99x56	328x99x56	-
Fixing frame (part of assembly set)	173x128	256x128	358x128	-
Design frame (part of assembly set)	278x200	430x200	512x200	512x334
Rain shield for flush mounting	156x134x40	258x134x40	361x134x40	361x234x40
Surface mounting box	156x134x80	258x134x80	361x134x80	361x234x80

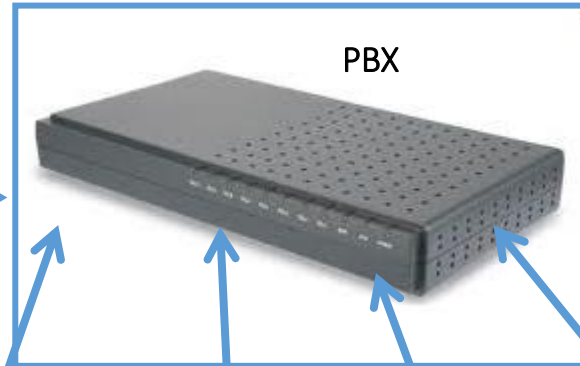




A-VarioBell analogue door entry phone



analog phone line



PBX



The A-VarioBell can be connected to the phone line of telephone system (PBX) as well as to the standard analog phone (PSTN, land line).



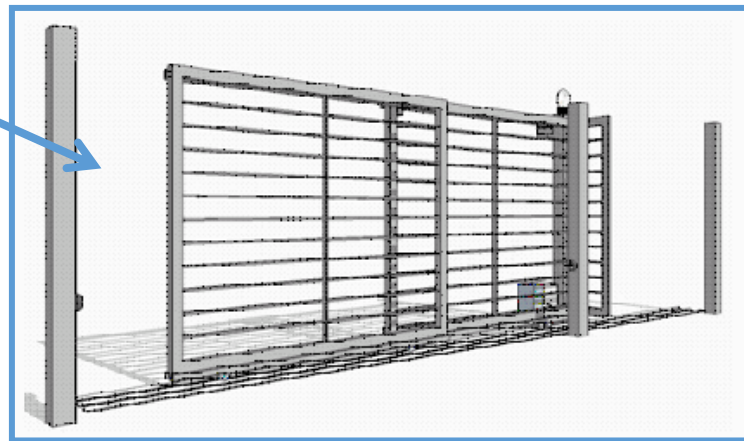
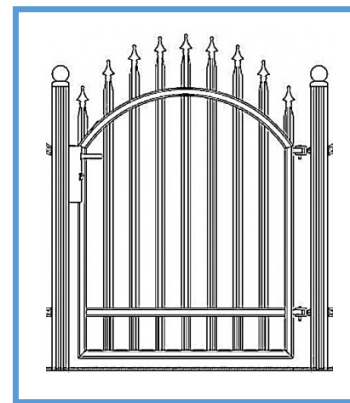


A-VarioBell analogue door entry phone

2 relays / 8 modes for gates, doors etc.



Call buttons or keypad can be used for a code lock



Controlling relay during active call via DTMF

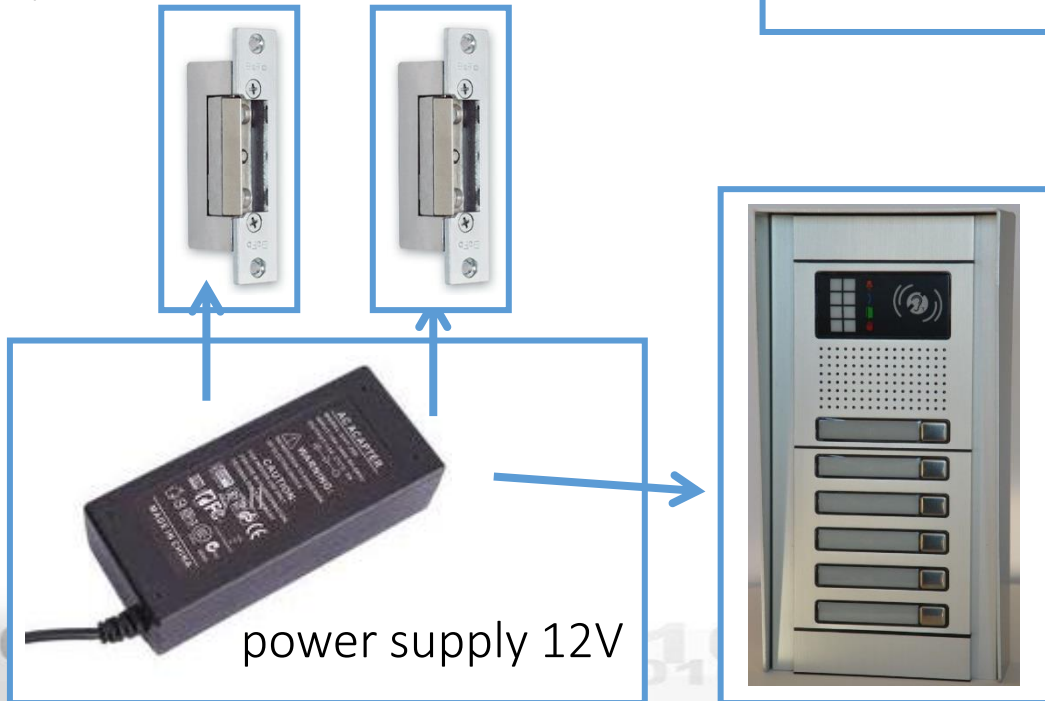
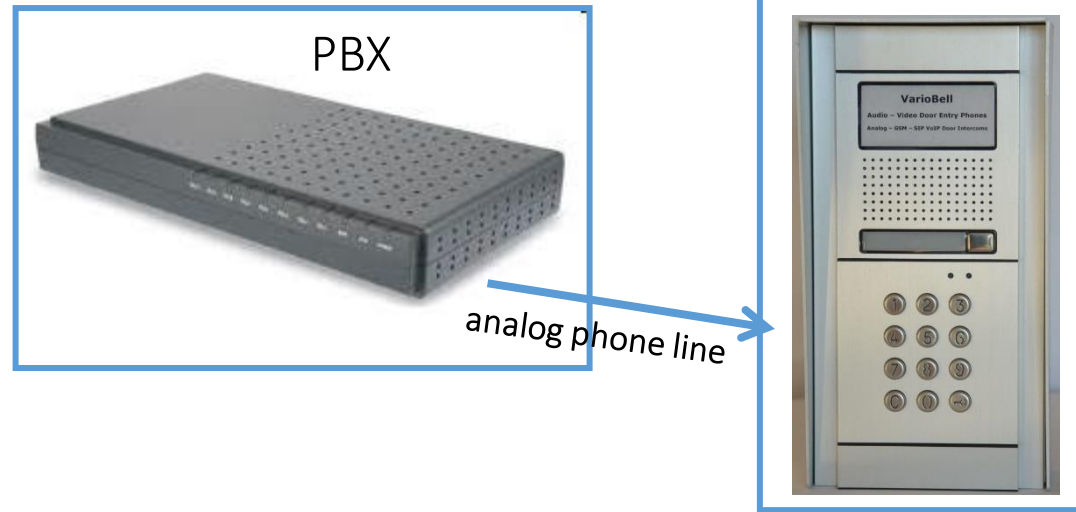
Optional security relay function „COSW-CodeSwitch“ for the first relay. When using this function it is not possible just by connecting or disconnecting the power supply to activate the lock and open the door or gate. Activation is performed only when there is a compliance of serial information transmitted between the A-VarioBell and the optional COSW board.





A-VarioBell analogue door entry phone

The A-VarioBell behaves as a regular analog phone – it is powered from the telephone line and does not require external power.

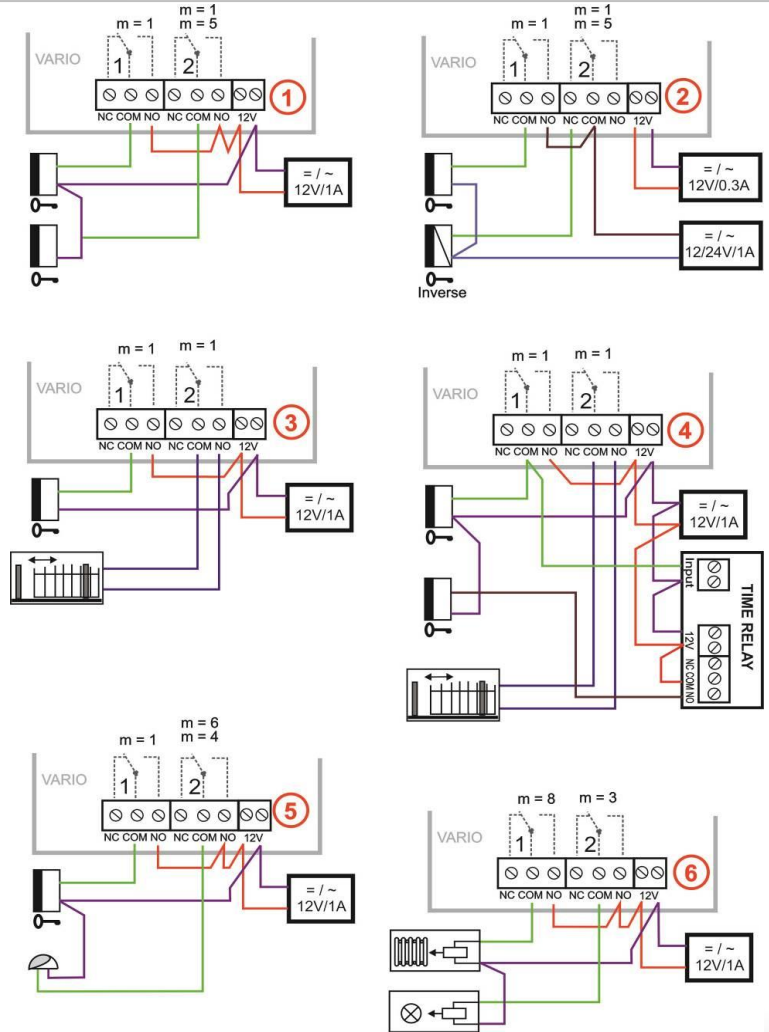
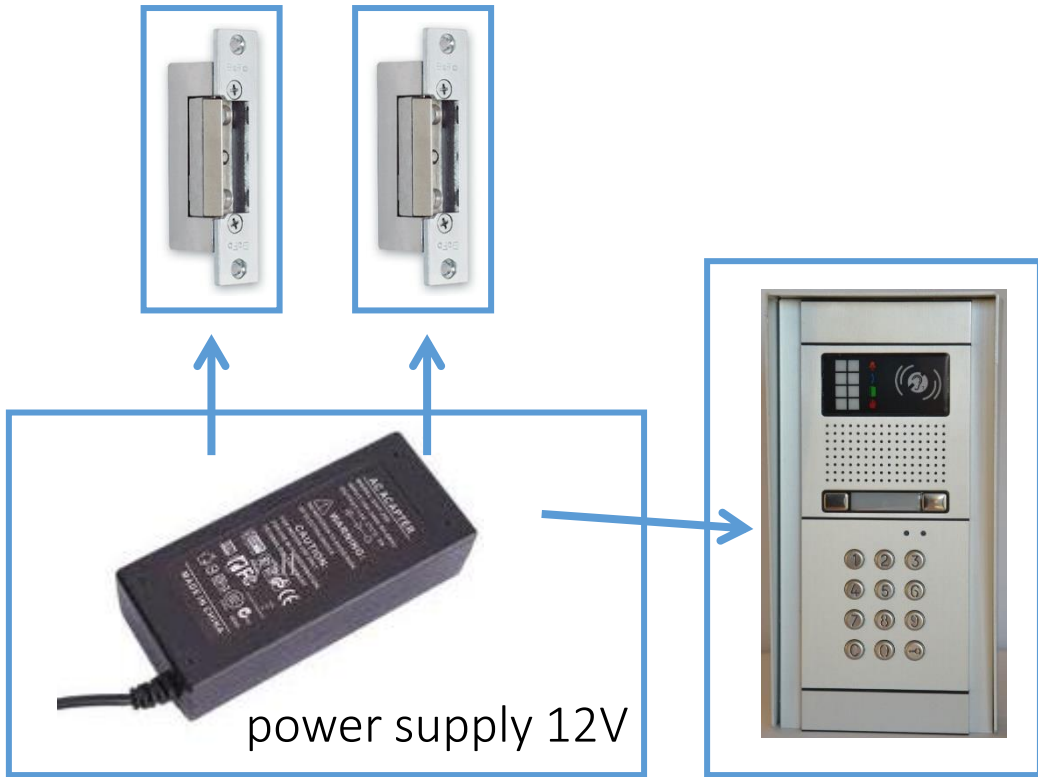


When using electric locks, the A-VarioBell requires an external power supply. In this case the A-VarioBell is powered from this source - it does not need permanent voltage on the telephone line.



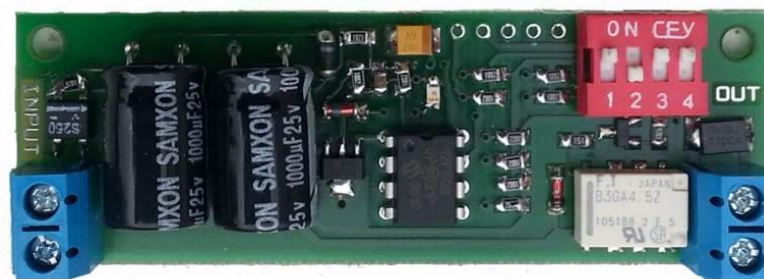
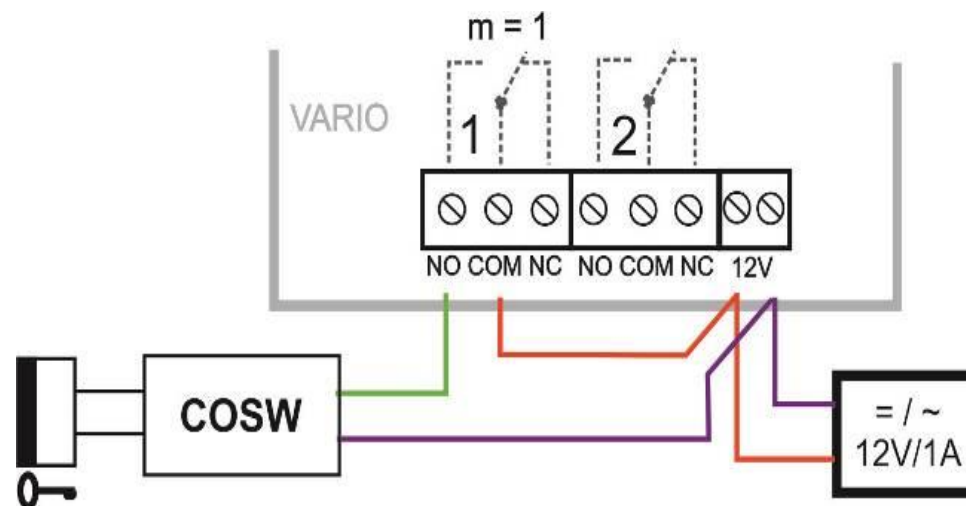
A-VarioBell analogue door entry phone

The A-VarioBell example connections of relay contacts



The A-VarioBell secure connection of the 1st relay contact

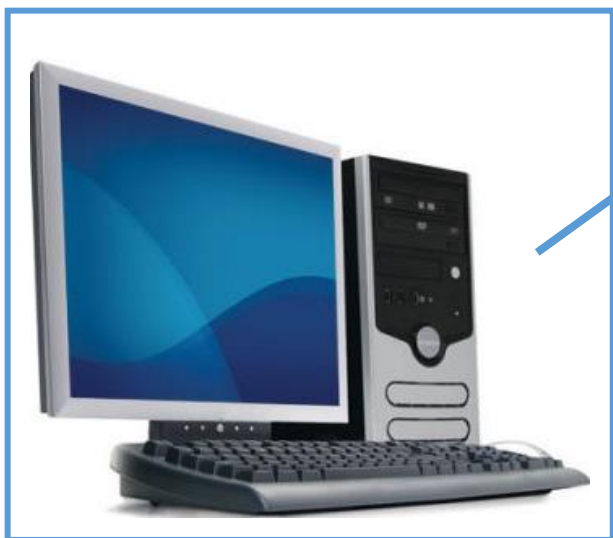
Optional security relay function „COSW-CodeSwitch“ for the first relay. When using this function it is not possible just by connecting or disconnecting the power supply to activate the lock and open the door or gate. Activation is performed only when there is a compliance of serial information transmitted between the A-VarioBell and the COSW board (optional item).





A-VarioBell analogue door entry phone

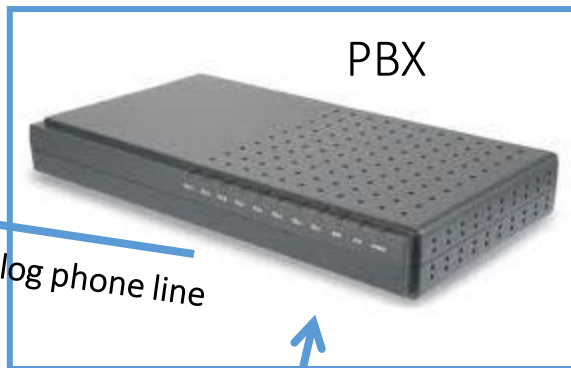
All parameters of the A-VarioBell can be configured:



USB cable



By program from PC



PBX

analog phone line



During a call via DTMF dialling





VarioBell family

Analog - GSM - SIP VoIP audio-video

Maximum variability – minimum stock requirements - choose analog, GSM or IP main modules only, all other modules and parts are the same for all 3 systems

