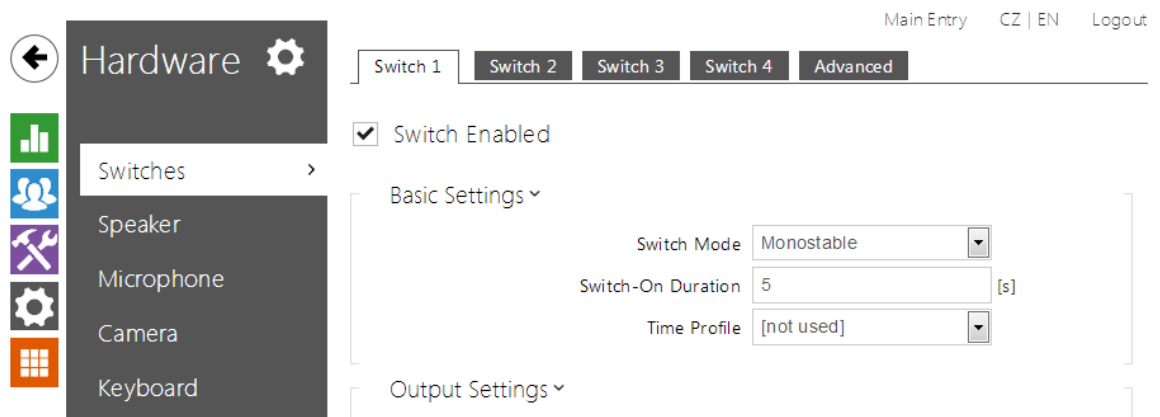


# 5.3.1 Switches



Switches provide a very flexible and efficient control of such intercom peripherals as electric door locks, lighting, additional ringing signalling, and so on. **2N Helios IP** allows you to configure up to 4 (depending on model types) independent all-purpose switches.

### A switch can be activated:

- by entering the valid code via the intercom numeric keypad or receiving a DTMF sequence during a call.
- by tapping a valid RFID card on the reader.
- with a predefined delay after another switch activation.
- by an incoming or outgoing call 1).
- by pressing a quick dial button 1).
- by receiving the HTTP command from another LAN device 1).
- via Automation using the Action.ActivateSwitch action.

Switch activation can be blocked by an appropriately selected time profile if necessary.

### If a switch is active, you can:

- activate any logical output of the intercom (relay, power output).
- activate the output to which the **2N® Helios IP Security Relay** module is connected.
- send an HTTP command to another device.

The switch can work in the monostable or bistable mode. The switch is switched off after a timeout in the monostable mode, and switched on with the first activation and off with the next activation in the bistable mode.

**The switch signals its state:**

- by a programmable beep or a predefined user sound.
- by a LED indicator if available in the intercom model.
- by an open-door icon on the display if available in the intercom model.

## List of Parameters

### Switch Enabled

- **Switch enabled** – enable/disable the switch globally. When disabled, the switch cannot be activated by any of the available codes (including user switch codes), by a call or quick dial button.

Basic Settings ▾

Switch Mode	<input type="text" value="Monostable"/>	▾
Switch-On Duration	<input type="text" value="1"/>	[s]
Time Profile	<input type="text" value="[not used]"/>	▾
Distinguish on/off codes	<input type="checkbox"/>	

- **Switch mode** – set the monostable/bistable mode for the switch. The switch is switched off after a timeout in the monostable mode, and switched on with the first activation and off with the next activation in the bistable mode.
- **Switch-on duration** – set the switch-on time for a monostable switch. This value is not applied in the bistable mode.
- **Time profile** – assign the switch a time profile to enable switch-on. If the time profile is inactive, the switch cannot be activated by a code, call or quick dial button.
- **Distinguish on/off codes** - set a switch code mode in which odd codes (1, 3 ....) are used for switch activation and even codes (2, 4 ...) are for switch deactivation. This mode can only be used if the switch is set to the bistable mode.

#### Note

- Switch time profiles are available with the Gold or Enhanced Integration licence only.

## Output Settings ▾



Controlled Output	Relay 1	▾
Output Type	Normal	▾

- **Controlled output** – assign an electric output to the switch. Choose one of the available intercom outputs: relay, power output, extender output. If you select **None**, the switch will not control any electric output but can control external equipment via HTTP commands.
- **Output type** – if you use the **2N® Helios IP Security Relay** module, set the output type to **Security**. In the **Security** mode, the output works in the inverse mode, i.e. remains closed and controls the **2N® Helios IP Security Relay** module using a specific pulse sequence. If you use the inverse mode (i.e. the door is locked when voltage is applied), set the **inverse** output type.

### Note

- **2N® Helios IP Vario** – be sure to set the internal power supply and switching relay on the configuration connector.
- **2N® Helios IP Force** – the security relay is connected to the DOOR + and - terminals.

## Switch Codes ▾

	CODE		ACCESSIBILITY		TIME PROFILE
1	123 		Keypad + DTMF	▾	[not used] ▾
2	123 		Keypad + DTMF	▾	[not used] ▾
3			Keypad + DTMF	▾	[not used] ▾

The table above includes a list of universal codes that help you activate switches from the phone or intercom keypad. Up to 10 universal codes can be defined for each switch (depending on the particular intercom model).

- **Code** – enter a numeric code for the switch. The code must include 2 characters at least but we recommend you to use four characters at least to make the code accessible from the intercom numeric keypad. Codes 00 and 11 can't be entered from numeric keypad. Code is confirmed with \*. Code length up to 16 characters.
- **Accessibility** – block the switch activation code entering from the intercom numeric keypad or your phone.
- **Time profile** – assign a time profile to the switch code to control its validity.

### Extended Activation ▾

Activation by Call	Disabled ▾
Activation by Quick Dial Button	[not used] ▾
Activation by Time Profile	[not used] ▾

- **Activation by call** – enable switch activation by an incoming or outgoing call, for example. During an outgoing call the switch is activated after SIP message 180 Ringing is received. The called party confirms ringing by this message. The switch is active during the whole call in the bistable mode, and activated by the call beginning and deactivated after the predefined switch-on duration in the monostable mode.
- **Activation by quick dial button** – assign a quick dial button to the switch. The switch is activated whenever the button is pressed.
- **Activation by time profile** – activate the switch by a pre-defined time profile. The switch will remain active as long as the assigned time profile is active.

#### Note

- Activation by a quick dial button is available with the Gold or Enhanced Integration licence only.

### State Signalling ▾

Sound Signalling	Long beep ▾
Display Info	Door opened ▾

- **Sound signalling** – set the sound signalling type for switch activation. Choose the Short beep, Long beep (during the whole activation) or a User sound (refer to the User Sounds subsection).
- **Display info** – enable/disable signalling of an activated switch on the display.

### Synchronisation ▾

Synchronise with	[not used] ▾
Synchronisation Delay	0 [s]

- **Synchronise with** – set switch synchronisation to enable automatic switch activation after another switch activation with a predefined delay. Define the delay in the **Synchronisation delay** parameter
- **Synchronisation delay** – set the time interval between synchronised activations of two switches. The parameter will not be applied if the **Synchronise** function is disabled.

## HTTP Commands ▾

Switch-On Command

Switch-Off Command

### Note

- The HTTP command sending is available with the Gold or Enhanced Integration licence only .

- **Command sent upon activation** – set the command to be sent to the external device (WEB relay, e.g.) upon switch activation. The command is sent via the HTTP (GET request) and must be as follows: `http://ip_address/path`. E.g.: `http://192.168.1.50/relay1=on`.
- **Command sent upon deactivation** – set the command to be sent to the external device (WEB relay, e.g.) upon switch deactivation. The command is sent via the HTTP (GET request) and must be as follows: `http://ip_address/path`. E.g.: `http://192.168.1.50/relay1=off`

### Tip

In case of use external relay **part no.: 9137410E** are used next HTTP commands:

- **To turn on the switch** - `http://ip_address/state.xml?relayState=1` (e.g.: `http://192.168.1.10/state.xml?relayState=1`)
- **To turn on for pre-defined time (default value is 1.5 s)** - `http://ip_address/state.xml?relayState=2` (e.g.: `http://192.168.1.10/state.xml?relayState=2`)
- **To turn off** - `http://ip_address/state.xml?relayState=0` (e.g.: `http://192.168.1.10/state.xml?relayState=0`)

In case of use external relay **part no.: 9137411E** are used next HTTP commands (Symbol X should be replaced with a number of the desired switch):

- **To turn on the switch** - `http://ip_address/state.xml?relayXState=1` (e.g.: `http://192.168.1.10/state.xml?relay1State=1`)
- **To turn on for pre-defined time (default value is 1.5 s)** - `http://ip_address/state.xml?relayXState=2` (e.g.: `http://192.168.1.10/state.xml?relay1State=2`)
- **To turn off** - `http://ip_address/state.xml?relayXState=0` (e.g.: `http://192.168.1.10/state.xml?relay1State=0`)

Advanced Settings ▾

Legacy Switch Code

- **Legacy switch code** – enable the option to activate the **first-listed switch code** from the phone without being confirmed with \*. When this box is checked, first code does not require confirmation by \*. This setting does not apply to other switch codes listed and to numeric keypad code activation, those must be always confirmed by \*. The Legacy switch code helps you keep back compatibility with earlier 2N intercom models.

 **Note**

- The switch time profiles are available with the Gold or Enhanced Integration licence only.