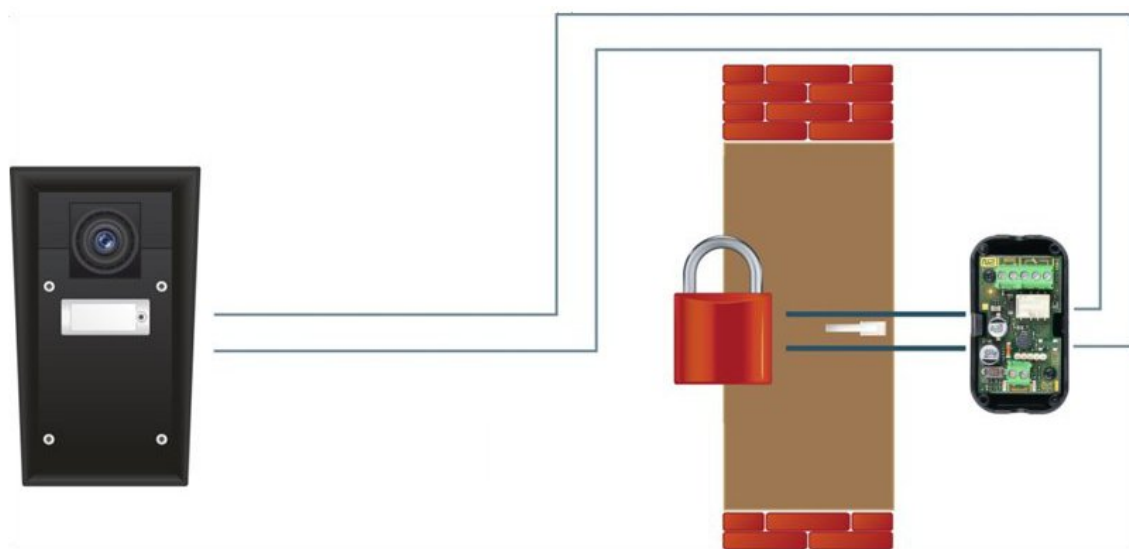


## 2N® Helios IP Security Relay – what it is and how to use it with 2N® Helios IP intercom?

The 2N® Helios IP Security Relay is designed for any 2N® Helios IP intercom model with firmware versions 1.15 and higher. It significantly enhances security of the connected electric lock because it prevents the lock from opening by forced intercom tampering.

### Function:

The 2N® Helios IP Security Relay is a small device installed between 2N® Helios IP intercom which is placed outside the secured area and the electric lock installed inside the secured area. The interconnection scheme is shown in the picture below:



The 2N® Helios IP Security Relay includes a relay that can only be activated if the valid opening code is received from the intercom.

### Specifications:

- Passive switch: NO and NC contacts, up to 30V/1A AC/DC
- Active switch output: typically 8 – 13 V DC depending on power supply (adapter: input voltage minus 0.6V), max 700mA
- Dimensions: 56x31x24mm
- Weight: 20g

### Installation:

Install the 2N® Helios IP Security Relay onto a two-wire cable between the intercom and the electric lock inside the area in order to be secured (typically behind the door). The device is powered and controlled via this two-wire cable and so it can be added to an existing installation. Thanks to its compact dimensions the device can be installed into a standard mounting box.

### Settings for the Helios IP Vario:

The settings are the same as described below, but in addition you need to change the jumpers on the

configuration connector on the PCB to position normally OPEN and Lock Power Supply settings can be set either external or internal. Then, after setting of the Security mode, the relay is powered and works correctly. These jumper settings are described in the [2.3 Electric Installation](#)

## Connection:

**Note:** Keep in mind the polarity (see the picture below)

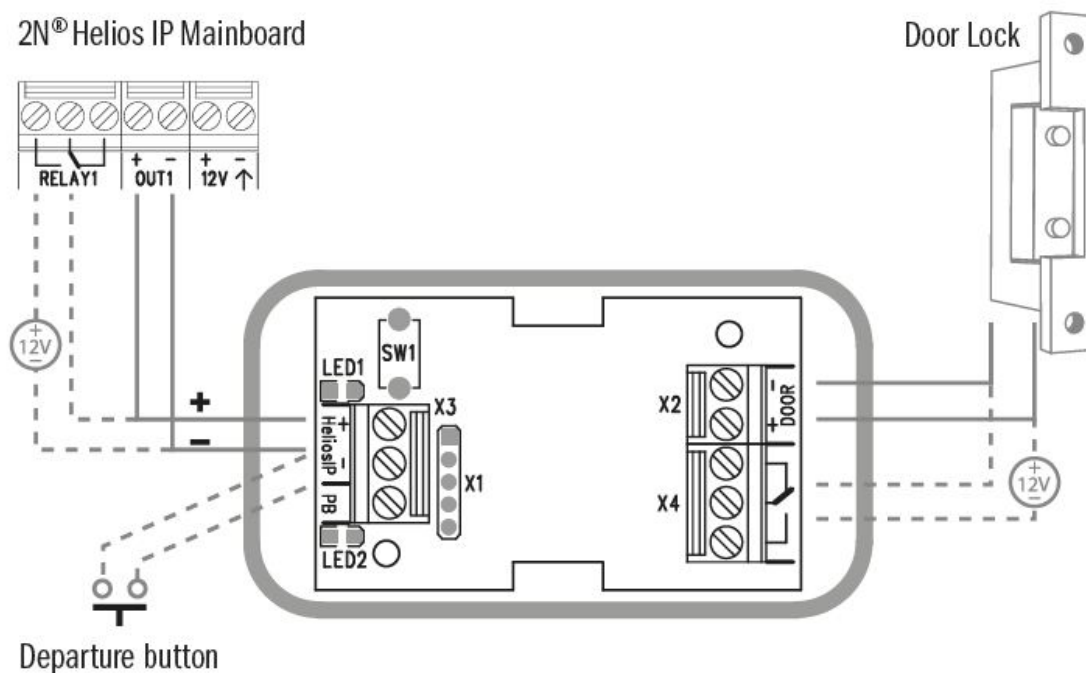
Connect the 2N<sup>®</sup> Helios IP Security Relay to the intercom as follows:

- To the intercom active output (OUT1 or OUT2) , or
- To the intercom relay output with a 12 V DC serial external power supply.

Connect the electric lock to the 2N<sup>®</sup> Helios IP Security Relay output as follows:

- To the active 12V/700mA DC output, or
- To the relay output with a serial external power supply.

The device also supports a Departure button (you can use our own 2N<sup>®</sup> Helios IP Departure button – order number is 9159013) connected between the "PB" and "– HeliosIP" terminals. When you press the departure button, you will activate the output for 5 seconds.



## Status signalling:

There are two LED diodes placed in the 2N<sup>®</sup> Helios IP Security Relay. In the table below you can find what does it mean if these diodes blink, shine or are off.

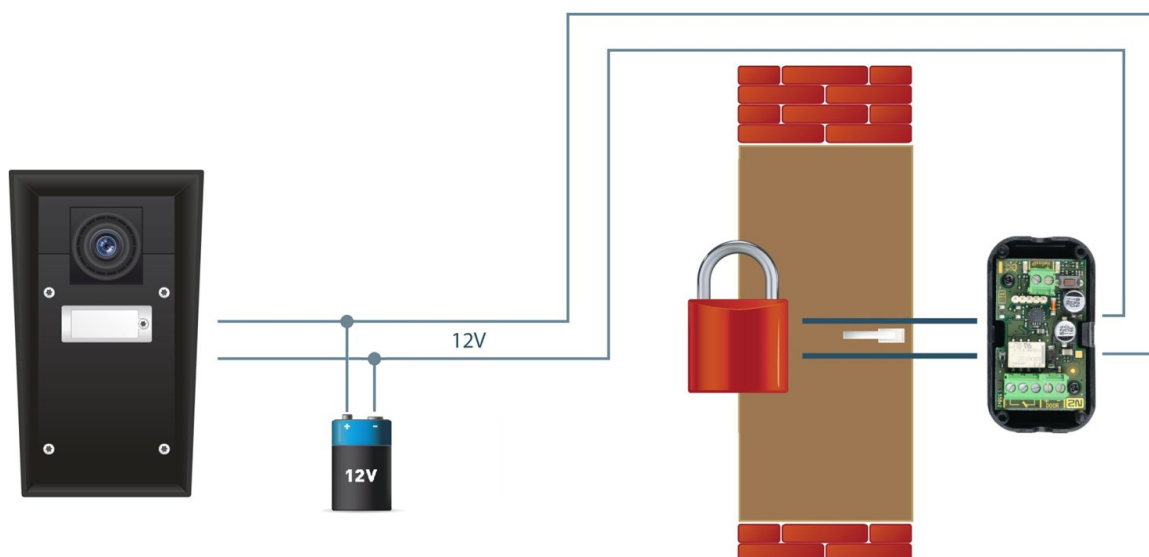
Green LED	Red LED	Status
blinking	off	Operational mode
on	off	Activated output
blinking	blinking	Programming mode – waiting for initialisation
off	blinking	Error – wrong code received

Note: "Green LED" from the table corresponds to "LED1" in the picture above. "Red LED" corresponds to "LED2".

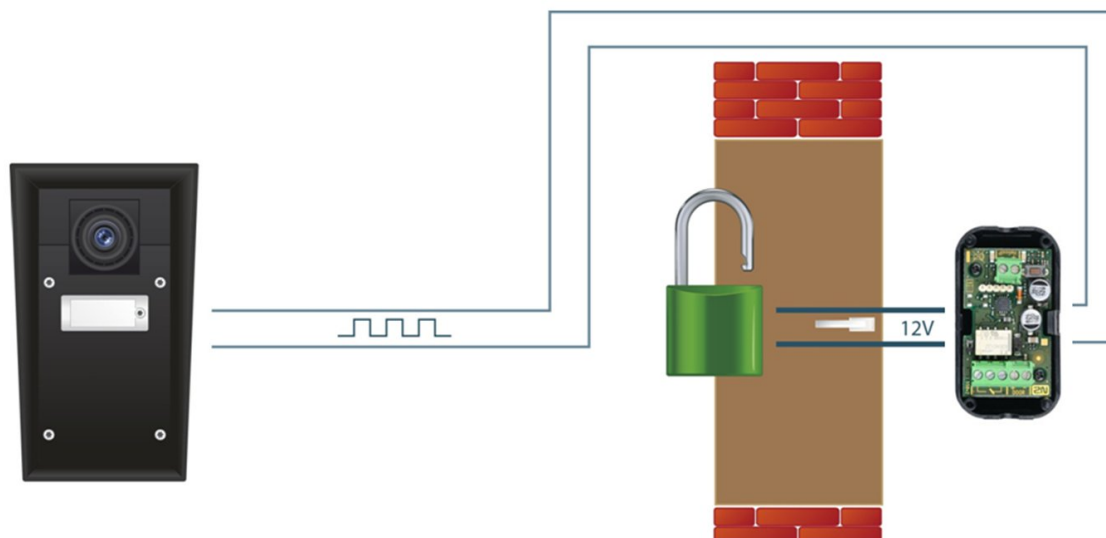
## Configuration:

1. Connect the 2N<sup>®</sup> Helios IP Security Relay to the properly set intercom switch output - this is described below in the chapter "How to configure 2N<sup>®</sup> Helios IP intercom". Make sure that one LED at least on the 2N<sup>®</sup> Helios IP Security Relay is on or blinks.
2. Press and hold the 2N<sup>®</sup> Helios IP Security Relay reset button (SW1 in the picture above) for 5 seconds to put the device in the programming mode (both the red and green LEDs blink).
3. Activate the intercom switch by using the keypad, telephone, etc. The first code sent from the intercom will be stored in the memory and considered valid. After code initialization, the 2N<sup>®</sup> Helios IP Security Relay will pass into the operational mode (the green LED blinks).

After these steps you can be sure that nobody will be able to open the door with 12V battery placed between 2N<sup>®</sup> Helios IP intercom and security relay as shown in the picture below.




Security relay is programmed in a such way that it needs to receive special signal (code for door opening) and only after that it activates the output (active or passive) to which is connected the electrical lock. Without this specific signal you will never open the door.



## How to configure 2N<sup>®</sup> Helios IP intercom – FW version 2.5 and older

Configuration of 2N<sup>®</sup> Helios IP intercom is very simple. Go to section "Basic settings – Switch 1" and verify that this switch is enabled. Then you have to choose appropriate "Output relay" to which is 2N<sup>®</sup> Helios IP Security Relay connected and set "Output type" to "Security" mode. After that you can also specify codes that will activate the switch as is shown in the picture below.

Please change your password. Weak password in use!



### Switch 1

**Information**

**Basic Settings**

- Phone book
- Profiles
- Switch 1**
- Switch 2
- Switch 3
- Switch 4

**Advanced Settings**

Card reader

Tools

**Switch settings**

Switch enabled: ☒ Yes

Time profile: [not used]

Switch mode: Monostable

Switch-on duration: 5 s

Sound signalization: User sound

Display info: Door opened

Output relay: Relay 1

Output type: Security

Synchronize with: None

Synchronization delay: 0 s

Activate by call: No

Quick dial button: None

**External command**

Switch-on command:

Switch-off command:

**Switch codes**

	Code	Access	Time profile
1:	00	Full	[not used]
2:	111	Full	[not used]
3:		Full	[not used]
4:		Full	[not used]
5:		Full	[not used]
6:		Full	[not used]
7:		Full	[not used]
8:		Full	[not used]
9:		Full	[not used]
10:		Full	[not used]


**Switch code options**

Enable ON/OFF mode: No

## How to configure 2N<sup>®</sup> Helios IP intercom – FW version 2.6 and higher

Configuration of 2N<sup>®</sup> Helios IP intercom is similar as described above. Go to section "Hardware – Switches – Switch 1" and verify that this switch is enabled. Then you have to choose appropriate "Controlled Output" to which is 2N<sup>®</sup> Helios IP Security Relay connected and set "Output type" to "Security" mode. Finally specify codes that will activate the switch as is shown in the picture below.

2N Helios IP Vario CZ | EN Logout

Hardware 

Switches ! >

Speaker

Microphone

Camera

Keyboard

Display

Card Reader

Switch 1 ! Switch 2 Switch 3 Switch 4 Advanced

☒ Switch Enabled

Basic Settings ▾

Switch Mode Monostable ▾

Switch-On Duration 5 [s]

Time Profile [not used] ▾

Output Settings ▾

Controlled Output Relay 1 ▾

Output Type Security ▾

Switch Codes ▾

CODE

1 00 Keypad +

2 111 Keypad + DTMF [not used] ▾

ACCESSIBILITY

If you use the 2N<sup>®</sup> 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<sup>®</sup> Helios IP Security Relay module using a specific pulse sequence.

Apply !!!

More product information:  
[Door & Security Intercoms \(Official Website 2N\)](http://wiki.2n.cz)