

Electric output - How to set electrical outputs on 2N® IP Intercoms

What are electrical outputs good for?

Electrical outputs are connectors on electronics of 2N® IP Intercoms where you can connect door lock, alarm system, home automation system, signalling light etc. Basically anything that can be controlled by electrical signal.

What electrical outputs are available?

Generally there are two types:

- Active output - two connectors, either gives no voltage, or it provides voltage. The voltage is from 8 to 14V DC, and can provide up to 700mA current, depending on which intercom. Details about electrical outputs are always mentioned in technical parameters in Installation manual, which is available for each intercom separately. They are also listed below.
- Relay (passive) output - three connectors, NO normally open, C common, NC normally closed. Two of these three should be used. Always connect the C, and either NO (circuit is disconnected by default) or NC (circuit is connected by default).

What are the switches in the configuration of 2N® IP Intercom?

In terminology of the 2N® IP Intercoms, we use Switch as a subject in settings which represents a set of parameters. Switch says what is the PIN code, time profile, which electrical output and some other parameters. You always have four switches, no matter how many actual electrical outputs are on that particular intercom. This makes possible to have multiple switches linked to one electrical output. You can thus set two different sets of settings for our output.

Examples on using two switches with one electrical output, for example intercom with keypad controlling shop front door:

- PIN code 1234* opens the door for 5 seconds, so an employee can walk in. Manager of the day has a different code 4321* which triggers the door to be open, until they are closed again with code 4322*. That means, employee can get into the building, but only manager can open the shop in the morning and close it in the evening.
- The employees code 1234* from above can be limited by a time profile to work one hour before opening hours and one hour after shop hours. Manager would use a different code for opening of the door for himself, which would work 24/7.

What if I need more settings? For more complicated scenarios, control of more outputs etc, we recommend using the Automation scripts.

What are the options of particular intercom types

2N® IP Verso

Number of switches: 4

Number of electrical outputs: 1 active output and 1 relay on main unit, 2 relays on each I/O module. Maximum of 29 additional I/O modules.

- Relay: NO/NC contact, up to 30 V / 1 A AC/DC
- Active output: 8 up to 12 V DC depending on power supply (PoE: 10 V; adaptor: power supply voltage minus 2 V), max 400 mA

2N® IP Vario

Number of switches: 4

Number of electrical outputs: 1 output on main unit, alternatively active or relay (select by jumpers), one more relay on additional switch, two more relays on card reader module

- Relay: NO and NC contacts, up to 30 V / 1 A AC/DC
- Active output: 10 up to 14 V DC depending on power supply (PoE: approx. 14 V; adaptor: same voltage as

power supply), max 700 mA

2N® IP Force and Safety

Number of switches: 4

Number of electrical outputs: 1 active output and 1 relay on main unit, 2 relays on additional switch or card reader

- Relay: NO and NC contacts, up to 30 V / 1 A AC/DC
- Active output: 9 up to 13 V DC depending on power supply (PoE: 9 V; adaptor: power supply voltage minus 1 V), max 700 mA

2N® IP Uni

Number of switches: 1

Number of electrical outputs: 1 active output and 1 relay, not separately controlled

- Relay: NO and NC contacts, up to 30 V / 1 A AC/DC
- Active output: 8 up to 12 V DC depending on power supply (PoE: 9 V; adaptor: power supply voltage minus 2 V), max 500 mA

2N® IP Audio Kit and Video Kit

Number of switches: 4

Number of electrical outputs: 2 active outputs and 1 relay

- Relay: NO and NC contacts, up to 30 V / 1 A DC or 125 V / 0.3 A AC
- Active output: PoE: 10 V; adaptor: power supply voltage minus 2 V, maximum 11V, max 400 mA

2N® IP Base

Number of switches: 2

Number of electrical outputs: 1 active output and 1 relay on main unit

- Relay: NO/NC contact, up to 30 V / 1 A AC/DC
- Active switch output: 8 up to 12 V DC depending on power supply (PoE: 10 V; adaptor: power supply voltage minus 2 V), max 400 mA

2N® LTE Verso

Number of switches: 4

Number of electrical outputs: 1 active output and 1 relay on main unit, 2 relays on each I/O module. Maximum of 29 additional I/O modules.

- Relay: NO/NC contact, up to 30 V / 1 A AC/DC
- Active output: 8 up to 12 V DC depending on power supply (PoE: 10 V; adaptor: power supply voltage minus 2 V), max 400 mA

More product information:

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