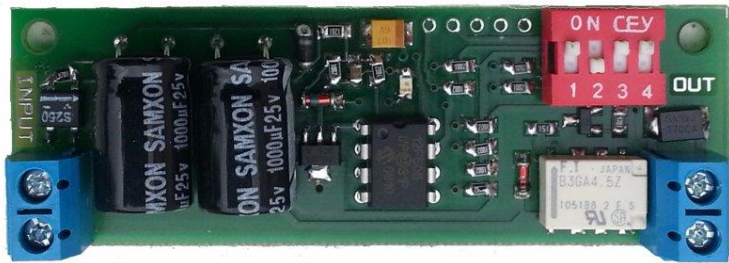# Code Switch

code relay for safe activate lock

Install manual

1   Features

Some communicators Alphatech equipped with the ability to switch lock with security.

The principle is the transmission of serial combination of DoorPhone to board COSW where the code is compared with the combination of the DIP switch. If they match, then activates the lock connected to the plate COSW.

This method prevents the possibility of breaking into buildings by simply bypassing the relay in the communicator (voltage connection or disconnection will not open the lock).

The transfer is secured by your own code, so the combination (4 bits) to the DIP switch does not transfer serial combination (transmitted code is longer).

If the door communicator is equipped with this function switches (eg Brave communicators have this function available on the first switch), then it is necessary to activate this feature. It is also necessary to set the appropriate codes in the door communicator on board COSW (DIP switch). Connected electric lock on board COSW then performs the same function as if it were connected directly (without security) only difference is the response time when switching is delayed by about 1 sec (transfer time serial code).

The code relay COSW can be connected in parallel to increase the number of switches, but can never be combined electric lock connection and parallel code relay!!

2   Install and connection

The connection is simple and consists in connecting the board COSW close to the opener, so that COSW and leads to the lock are not accessible outside the object (otherwise they would forfeit the security sense).

The wires (pair) for electric lock interrupt the wires leading to the door communicator is connected to the input COSW (INPUT) and leads to the lock is connected to the output (OUT).

LED on the plate COSW shows an input voltage (lock is activated) and flashing serial transmission combination. If no blinks so an error in the connection.

- Voltage for lock may be in the range 10V – 18V AC and 12V – 24V DC.
- Lead wire - length up to 100m, wire cross section is given by the lock used.
- Tested with 100m pair 0.5 mm2:
    - Electric lock standard (12V / 0,8 A) worked from 15V DC
    - Low-power electric lock (12V/250mA) worked throughout the defined range

Code relay

☑ 3#0 Use code relay   (lock is activate by serial code)

Commands for 1 impulse

3#1 Activate from pushbuttons (external code):   `1011`

3#2 Activate from telephone (internal code):   `1011`

Commands for 2 impulses

3#3 Activate from pushbuttons (external code):   `1011`

3#4 Activate from telephone (internal code):   `1011`

3#5 Activate from other mode of relay: `0000`

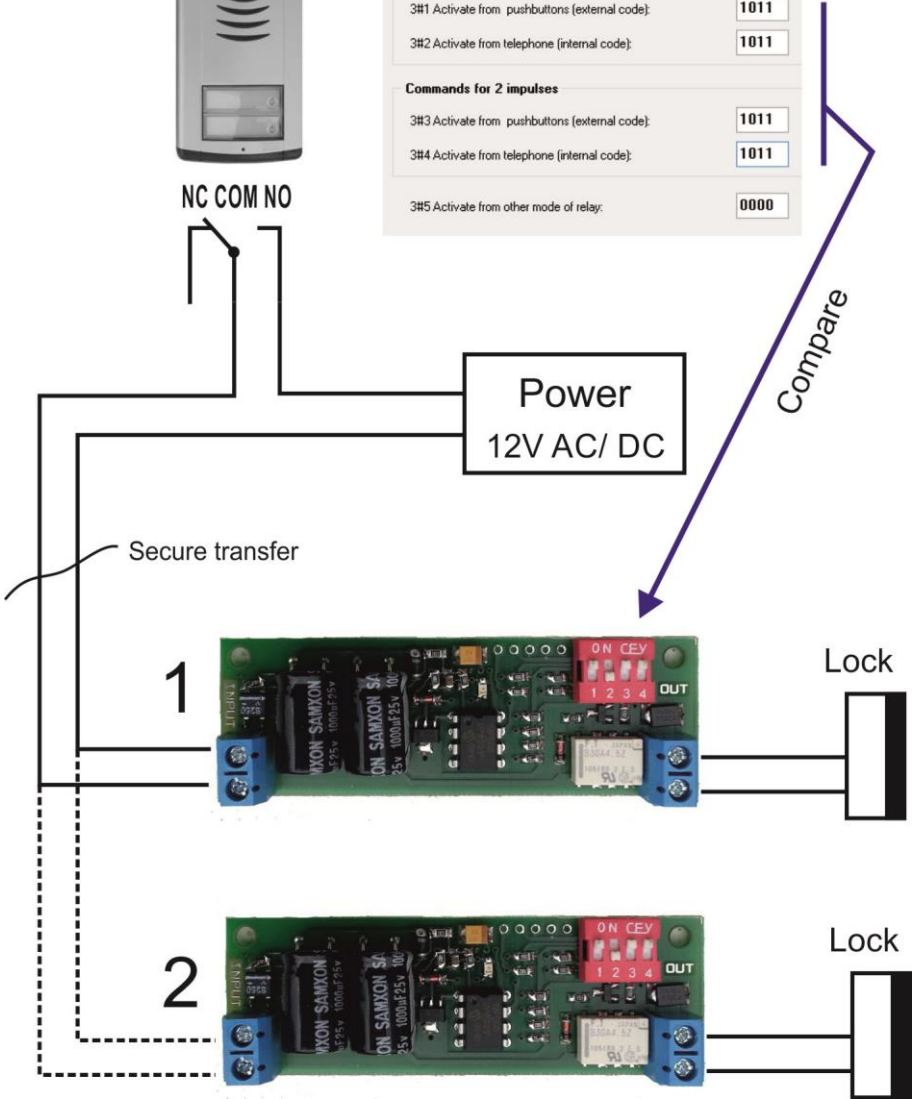NC COM NO

Compare

Power

12V AC/ DC

Secure transfer

1

Lock

2

Lock

Paralell connection:

On Output 1 switches for code relay can be connected two code switches COSW (see figure).

1. COSW 1 and COSW 2 has set same code on the DIP switch
- Lock connection must be low power (risk of overload relay in the unit)
- To calculate the loss on the same cable must be doubled consumption

2. COSW 1 a COSW 2 has set different code on the DIP switch
- connected locks are never closed simultaneously, so you can use a standard electric locks
- Codes for switching can be chosen differently
  - o on either one switch responds to the codes of the buttons and the other on code from phone
  - o or one of the switch control codes for one pulse and a second codes for two pulses

⚠ On cable "secure transfer" must not connect anything other than the inputs of boards COSW.

3 Electrical parameters

Input voltage	10V – 18V AC
	12V – 24V DC
Maximal current	1A AC / DC
Number of code combination	16
Dimensions	76 x 25,5 mm
Operating temperature	-20°C / +50°C