



PSO2 access system application

It uses a setup similar to the front door. The PSO-TINY-B remote reader will be installed on each floor near the elevator control panel and one M4RM-PSO2 access system will be located in the elevator machine room. Identification occurs with placement of the chip, causing the relay to actuate and unlocking the control mechanism on each floor. The elevator can be called after that. The advantage of this combination is its price and easier programming. The disadvantage is all the control mechanisms are unlocked at the same time.

Controlling the choice of floors in the elevator cabin

This setup is used for a greater combination of access rights for choosing floors. The elevator cabin uses an access system with the PSO-RE8 expansion module, which has eight output relays. With this module, it is possible to manage eight presets. The PSO-RE8 module can be connected to the PS02, thereby expanding the application to include another eight presets. Altogether up to 16 presets can be controlled with one access system.

Setup for controlling the choice of floors in the elevator

Setup for controlling the choice of floors in the elevator

PSO-RE8 expansion module

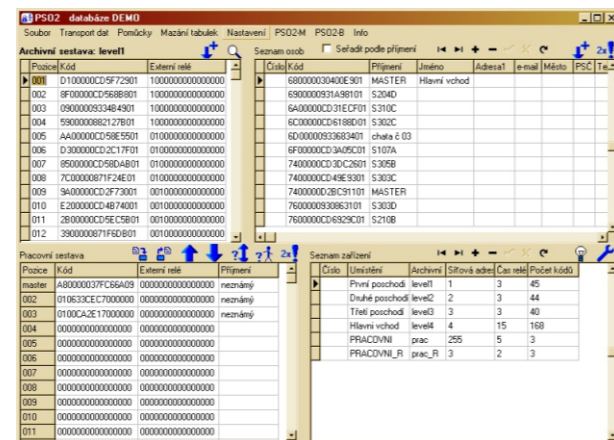
Optional: PSO-B memory access with memory card

Modules with the PS02 can be placed in the machine room with the PSO-TINY-B remote reader built into the cabin. In this case the access system must be the PS02-M4RM type designation.

The principle of access rights consists of setting up the appropriate relays to the correct chip code. Until now, permissions could be set up without software and PCs thanks to master keys. When using the PSO-RE8 expansion module, this setup cannot be completed without PSO software. For the application shown, control of the elevator for all users is always through a chip. This means that people whose clients do not have a chip must go down for them all the way to the entrance – the safest mode of operation. This limitation can deter several clients interested in leasing space in the building. To do away with this limitation, the principle of the flip-flop relay circuit must be used to make these choices available: There are several options to make this happen. The simplest is to use a programmable time-relay which, according to the setup, unblocks the presets at a given time. The disadvantage is the fixed settings, which greatly reduces building security. Another often used option is connecting a bistable relay to the PSO-RES output relay. The placement of the chip actuates the appropriate relay which, according to the setup, makes the bistable circuit flip flop and remain in its state until the next pulse PSO-RE8 comes. This means that the person with the chip determines when and how long it takes to unblock the presets for the given floor. Flip-flop can also be set up using the PSO2 function. The settings for flip-flop is possible for all relays in connection with the PSO-RE8 and they cannot be programmed so that some relays will be time-actuated and others for flip-flop. Another PSO2, including the reader slot, would have to be used for flip-flop.

Users rights and settings from the PC

The image in the middle of the page is an example of setting up user rights. The color bands represent access possibilities for individually colored-coded areas. Users rights are set up either manually or by using the PSO2 software. The image shows four basic tables. All people to have the chip can be entered in the list of personnel. Instead of surnames, the door number, for example, or its name can be used. The table is intended for recording the chip code.



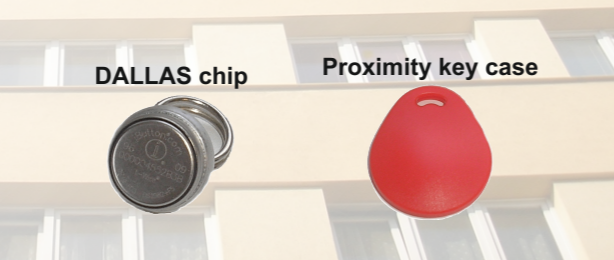
All access control systems in the building are in the table showing the lists of equipment, including network addresses, time relays, archived files of recorded chip codes, and the total number of persons. Here in this table, communication with the access system is actuated.

The working configuration is the basic table for storing the chip codes in PSO2 and for setting up external relays of the PSO-RE8 expansion modules. From this working configuration, data is sent with codes to the access system. These data can also be read.

The archived configuration is used for archiving data set up in the working configuration.

With this program, data from the events memory can also be read and used for various purposes.

The possibilities of access system combinations and their applications are not completely exhausted in the diagram. With this access system we can unlock and lock the electronic security system. This system is also used in company installations for recording the dispersment of meals. The access system can be used to open the garage door under the building.



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PSO2 access system application

Access control system application for an apartment building

The PS02 access system is used in apartment buildings in conjunction with taking the elevator down to the basement. The inhabitants of the building use the chip to unlock the basement button on the control panel in the elevator cab in order to go down to the basement with the elevator. Other persons who do not have the chip with access rights cannot proceed in like manner. The PS02 is used for the identification and control of Dallas Touch Memory™ contact chips or contactless cards or Proximity 125kHz key chains.

This most widely used application can be extended to open the front door of the house, controlled access to common areas such as the pram room, bike room, cleaning rooms, boiler rooms or heat exchangers, non-residential leased spaces, etc. All these applications can be set up and controlled from one designated place through a PC and networking. Up to 32 units of PS02 can be connected to the network.

The figure shows the application of access systems in a building with floors for non-residential spaces in addition to residential floors. The optimal configuration of the access system is based on how the PS02 is connected to the PC. It is not assumed that programming will take place without using a computer. More than 30 chip codes in PS02 are usually stored in apartment buildings. Changes in user rights might not be simple without organizing the chip codes. Connecting to the PS02 is possible using two methods directly from the COM port to the PC via RS232 or the RS485/RS232 converter.

The setup can be performed at the RS232 connection (PS02 is marked with the digit "2" PS02-M2_) only up to two meters from the device and always individually – connection cannot be made to the network. When using a laptop, the RS232 converter will of course have to be connected to a USB for this application. Communication via the RS232 is suitable for the simple PSO2 application, e.g. blocking going down with the elevator to the basement or entrance doors, where frequent changes in access rights are not expected to be implemented.

When connecting with the RS485 (the PS02 is marked with the digit "4" PS02-M4_), the setup can be performed from one place through a network that can be up to 1200 meters. This application is suitable for a larger number of PS02 access systems. For connecting to the PSO2 network, the RS485/RS232 converter (COM) or RS485/USB must be used. Connection to the PS02 network can be led to the office manager or to a flat, or it can be placed in any designated "secret" place under a lockable door.

Software PS02

A PS02 service program is available for managing data and setting up the PS02. Setting up the access rights of people for individual locations can be done using this program. Data organization proceeds according to the list of names of people or apartment numbers or office and list of PS02 access systems. The service program allows diagnostics

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to be performed on access systems, allows checks of the PS02 network, manual flip-flopping of the relay, i.e. opening a door or permitting use of the elevator without needing the chip for service purposes and special cases (moving, evacuation, etc.). With this program, all the necessary PS02 settings can be carried out. The program is available for free on our website.

Communication and programming

Software PSO2

RS485/RS232 (COM) converter or RS485/USB

The following section describes individual applications as shown. The apartment building diagram shows PS02 access systems being used with communications across the RS485 network. The identification media consist of DALLAS chips. The PS02 network is led to the apartment manager's unit and connected to the PC.

Front door

For installing an electric door opener, the PS02-M4RM access system with the PSO-TINY-B remote reader is used. The setup is designed to increase the protection of equipment from intentional damage and also to use the existing home telephone wiring. The PS02 is located in the switchboard cabinet designed for the common areas of the house, which can usually be found in the basement. The home phone unit is mostly used in the switchboard with a relay for opening the door to the apartment. The remote reader is placed in a hidden location near the front door and connected to the reader slot located at the door from the outside and with access system in the switchboard. The switchboard also contains the power source for all PS02 equipment installed outside the elevator.

The configuration for controlling the front door

The PSO-TINY-B remote reader

Electric lock for the door

PSO2-M4RM access system

Optional: PSO-B access memory with memory card

Each PS02 access control system can be used with PSO-B memory access, which is employed to record the use of the access control system. When and at what time a specific chip card was placed can be read in the record. The memory helps perform checks, resolves disputes and theft, or itemizes costs for household applications. The configuration for controlling the entrance door is usable for any other electrically-operated door, i.e. the front door, see the picture.

Controlling the elevator call system

With the access system, the elevator call button can be blocked and in so doing prevent undesirable persons such as vandals from entering the elevator cabin.

The configuration for controlling the elevator call system

PSO2-M4RM access system

Optional: PSO-B access memory with memory card

The configuration is applied for each call system separately. For this feature you can use a different PSO2 combination. But it has changed access rights.

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