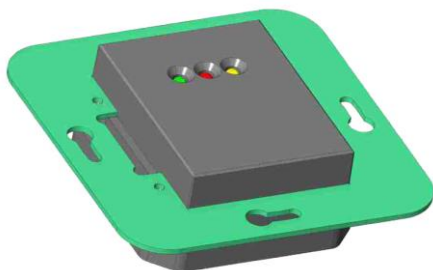


PL500 stand-alone access control system



PL500 access control system is a stand-alone contactless reader and control unit in the frequency range of 125 kHz. This reader supports the transponder types EM4x02 and Hitag 2 in Public Mode A.

The system has a 500 user memory.

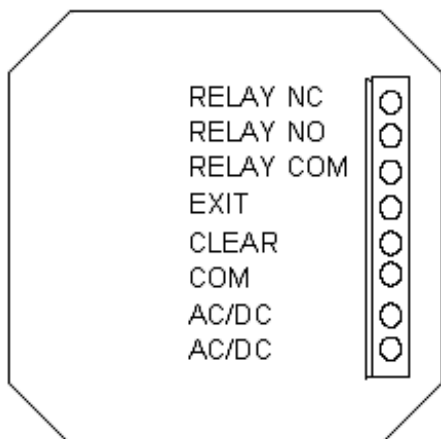
Memory and relay circuits are contained in a robust plastic housing allowing for simple installation. The minimum connection only requires AC or DC power and a door strike. Due to the fully potted housing, the reader can be installed both indoors and outdoors.

The reader is suitable for controlling access into a home or small business. When a valid tag is presented to the reader, the relay will either pulse or toggle. Three LEDs (RED, GREEN and YELLOW) indicate the current state of the relay during normal operation or are used to indicate different programming modes.

Specifications :

- Power supply : +10,2 to +13,6 VDC or 10 to 12 VAC
- Power consumption : Typ. 110mA
- Transmitting Radio Frequency : 125KHz
- Supported transponders : 40 bit read only transponders
EM4x01 family, HiTag2 Public Mode A, TEMIC e5550 and equivalent
- Typ. read range : Key tag with 20mm coil : 50 mm
ISO card with 50mm coil : 90 mm
- Indications : 3 LEDs (Green/Red/Yellow)
- Programming : Adding and deleting tags is done by simple use of a Master Tag.
The optional Tag Simulator / Programming Unit allows the programming (adding & deleting) of lost tags
- Relay operation mode : Pulse mode (the relay operates for a pre-set time for each valid tag read)
or Toggle mode (the relay state changes for each valid tag read)
- Relay contact ratings :
 - Maximum current 2,0 A @ 15VDC
1.2A @ 24VDC
0.6A @ 50VDC
 - Maximum ratings DC 30W 125 VDC
AC 62VA 250 VAC
- Connections : 8-way connector
- Weight : 90g
- Operating Temperature : -20°C ~ +60°C
- Mounting : installation into a 55 mm switchbox
- Dimensions : 48 x 48 x 37 mm (dimensions mounting plate : 71 x 71 x 1,2 mm)
- Housing : ABS plastic – fully potted IP65

Connections :



The table below details the function of each connection:

PIN	Function
RELAY NC	Voltage free normally closed contact of the 1A relay
RELAY NO	Voltage free normally open contact of the 1A relay
RELAY COM	Voltage free common contact of the 1A relay
EXIT	Connect normally open exit push button between EXIT and COM
CLEAR	Connect between CLEAR and COM to clear memory after power up
COM	0V connection for EXIT and CLEAR
AC/DC	Power: 10.2-13.6V DC or 10-12V AC
AC/DC	Power: 10.2-13.6V DC or 10-12V AC

Operation :

Normal Operation

The PL500 has two modes of operation: Toggle or Pulse. When a valid tag is presented to the reader the relay and LEDs will operate as follows:

Toggle Mode

This mode is typically required for setting and unsetting an intruder alarm system. On power-up the YELLOW and RED leds will be on and the relay will be OFF (NC shorted to COM). On presenting a valid tag to the reader, the relay will switch ON (NO shorted to COM), the GREEN led will turn on and the RED led will turn off. The next time a valid tag is presented to the reader, the relay will switch OFF, the RED led will turn on and the GREEN led will turn off. The next time a valid tag is presented, the relay will switch on again, and so on.

Pulse Mode

This mode is typically required in access control applications. On power-up the YELLOW led will be on and the relay will be off (NC shorted to COM). When a valid tag is read the relay will operate for the programmed Relay Pulse time (between 1 and 60 seconds). While the relay is on, the GREEN led will be on. When the relay switches off the GREEN led will turn off again.

An invalid tag will cause the RED led to come on for 2 seconds.

Programming

The Master Tag is the first tag presented to the PL500 when it is in the Add Master state. All programming is done by using this Master Tag.

To select a program function:

Make successive reads of the Master Tag (each read must be no more than 2 seconds apart).

Each read of the Master Tag sets the PL500 to a new programming function.

Add Master Tag

The first time the reader is powered up it will be in the Add Master Tag state. This state is indicated by all leds flashing in sync. The Master tag is the first tag presented to the PL500 when it is in the Add Master Tag state. On accepting the master tag the PL500 will pulse the GREEN led for 3 seconds and then go into normal mode (Relay off, YELLOW led on). The Master tag is required to program the PL500.

Add Tags

To select this function:

1. Read the Master Tag once.
2. The GREEN led will light.
3. Wait for the GREEN led to start flashing.

The PL500 is now in the ADD state. In this state every tag that is presented to the reader will be stored in the system memory. A maximum of 500 tags may be stored. Tags can also be added by using the Tag Simulator. Once all the required tags have been presented, read the Master Tag to return to the normal mode.

Delete Tags

To remove a tag from the system, that tag must be available or the Tag Simulator must be used. If these are not available, the system memory must be cleared and all valid tags re-added.

To select this function:

1. Read the Master Tag twice with a time between reads of less than 2 seconds.
2. The RED led will light.
3. Wait for the RED led to start flashing.

The PL500 is now in the DELETE state.

In this state every tag that is presented to the reader will be deleted from the system memory. Tags can also be deleted by using the optional Tag Simulator. Once the tag or a group of tags have been deleted, read the Master Tag to return to the normal mode.

Clear Memory

To delete all the tags from the memory including the Master Tag and Strike time, place the unit in the CLEAR MEMORY state.

1. Read the Master Tag three times with a time between reads of less than 2 seconds.
2. The GREEN and RED leds will light.
3. Wait for the GREEN and RED leds to start flashing.

The PL500 is now in the CLEAR MEMORY state. Now present any tag except the Master Tag to the reader and all memory will be cleared. Alternatively, read the Master Tag to abort this function.

Once the memory is cleared all leds will flash to indicate that the memory is empty and the reader will be in the Add Master Tag state.

Time Adjust

This function sets the relay operating time when a valid card is read or the exit push button is pressed.

To select this function:

1. Read the Master Tag 4 times with a time between reads of less than 2 seconds.
2. All the leds will go off.
3. Wait for the YELLOW led to start blinking (0.25 seconds on, 0.75seconds off). The PL500 is now in the TIME ADJUST state and each blink of the leds equates to 1 second of relay operation time. When the correct time has passed present the Master Tag to stop the blinking. The relay time will be stored in memory and the reader will return to normal mode. The maximum relay pulse time allowed is 60 seconds. To set the relay operation to toggle mode allow the number of blinks to exceed 60. On the 61st blink the reader will set the relay operation mode to Toggle and the reader will return to normal mode.

Declaration of Conformity :

ProxTech International bvba hereby confirms that the product PL500 is in accordance with the essential demands and other relevant stipulations of the directive 1999/5/EG.

A copy of the Declaration of Conformity can be obtained upon simple request by e-mail on info@proxtech.com.