



Wiegand Events software module

Application Note

rev. 1.1

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CONTENTS

| | |
|------------------------------------|---|
| 1. Introduction..... | 3 |
| 1.1. Features and limitations..... | 3 |
| 2. Adding new records..... | 4 |
| 2.1. "Add new card" | 4 |
| 2.2. "Cards/users list" | 4 |

Document versions

| Version | Date | Brief description of the changes introduced |
|---------|------------|---|
| 1.01 | 28.05.2025 | Added description of new functio Anti-PassBack from v5.75 |
| 1.00 | 23.08.2024 | Initial version of the document |

Legend:



The text contains additional and useful information that explains specific situations and features.



The text contains information of essential importance which you must get to know well!

1. Introduction

In this special version of the firmware, we have added a software module - "Wiegand Events", which allows you to define the start of a macro upon receiving a specific code (chip/card) from a reader through the Wiegand inputs. In this way, you can implement an "access control" type controller.

1.1. Features and limitations

The software module supports setting up to 170 pcs. chips (codes). Only Wiegand 26/34 data formats (code up to 32 bits) are supported.

When entering the chips, there is NO check for duplicate codes. This will not break the functionality of the module, but only the first entry encountered (ie the one that comes first in the list) will be processed.

When a record is deleted, its space remains free. Adding a new entry takes the free slots in ascending order; if there are none – it is added at the end of the list.

Username is a maximum of 15 characters. This information is for internal use only, not sent over MQTT.

When updating the firmware, all saved codes are deleted!

2. Adding new records

Access to 'Wiegand Events' (only if the model contains the Wiegand protocol read hardware inputs) is via the 'Automation' menu.

There are two tabs available - "Add new card" and "Cards/users list".

The screenshot shows the 'Automation' menu selected in the top navigation bar. Below the menu, there are two tabs: 'Add new card (Refresh)' and 'Cards/users list (Purge all)'. The 'Add new card' tab is active, showing a form with fields for ID (1228180), User (User), Input 1 (None), Input 2 (None), and an Anti-PB checkbox. The 'Cards/users list' tab is also visible, showing a list of three cards with their respective IDs, users, and input settings. The list is paginated with links 1 and 2.

2.1. "Add new card"

In this section, a new card/chip is set with its ID. The code of the last chip read appears automatically in the ID field. To update with the new code readed - select the "Refresh" link.

Add the required name in "User" (the field is self-descriptive, there is no other function) and set which macros to run when receiving this code on the corresponding Wiegand input (Input 1 / 2). Depending on the model, they may see a different number of "Input" fields for setting.

The "Anti-PB" checkbox activates the "Anti-PassBack" function for the given chip/code – in this case, the pair of Wiegand inputs work as an "entry-exit" set (since v5.75). After a restart (and every time the card list is edited), the macros are launched on either input until the code is detected. After that, however, the macros are launched only when alternately passing through the inputs (re-reading a code on the same input is ignored).

The data is saved with the "Add new" button.

2.2. "Cards/users list"

In this part of the page, all entered codes/users/macros are listed sequentially. You can change "User" and "Input 1/2" for each entry, but you cannot change the chip code (ID). If the ID in question is no longer needed, you can delete it from the list with the "Del" button.

The "Purge all" link deletes all records from non-volatile memory. 10 records are displayed on one page. In case you have more, links to go to the individual pages will be visualized (1 2 3 ...).

In the "Misc/Event Log" menu, you can check which macros were started by 'Wiegand Events' - for them, the 'Event source' field will say 'Wiegand'.