

# Roger Access Control System 5

Application note no. 028

Document version: Rev. E

## License plate recognition cameras

Note: This document refers to RACS v5.4 (VISO 1.4.2 or higher)

### Introduction

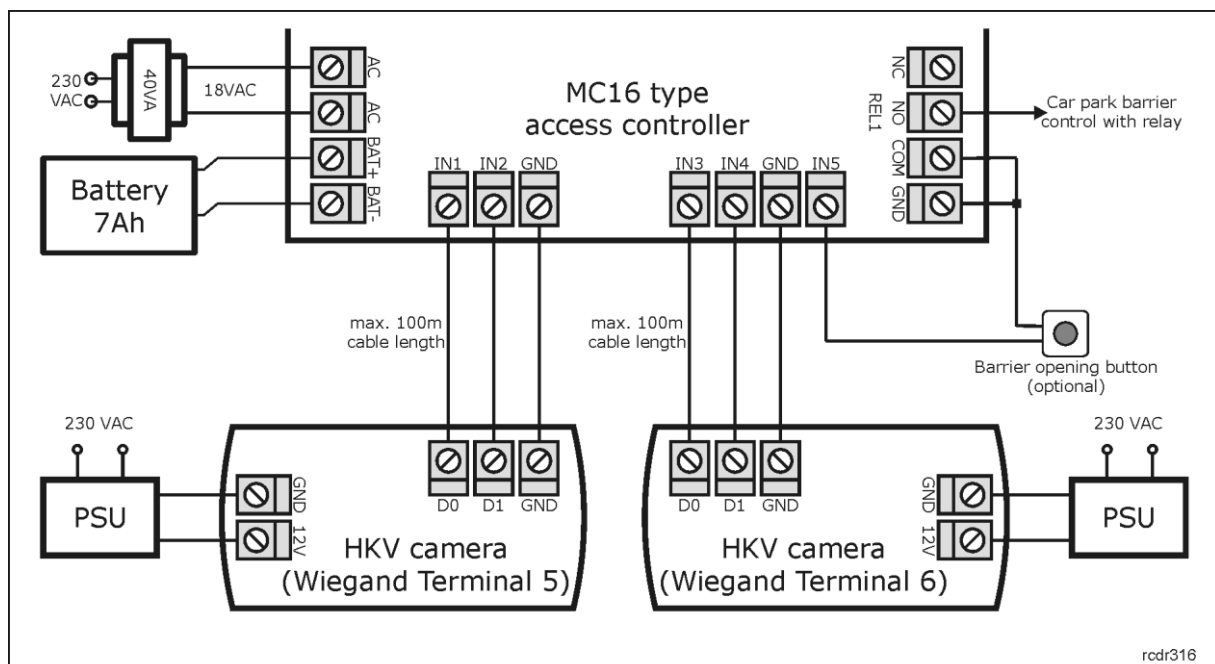
RACS 5 system enables automatic access granting e.g. at car parks by recognition of vehicle license plates (LPR). The integration was developed with DS-2CD4A26FWD-IZSWG/P and DS-2CD7A26G0/P-IZSWG cameras which can be applied if they are equipped with adequate firmware. Cameras can be connected to all types of MC16 controllers but most commonly MC16-PAC and MC16-AZC devices are applied for that purpose.

### Integration with HIK Vision LPR camera

HIK Vision LPR cameras with Wiegand interface can be connected as Wiegand terminals to MC16 access controller. Their installation and configuration must be done according to HIK Vision manuals. In the example below it is assumed that two cameras are connected to the controller, one at the entry and the other at the exit of car park.

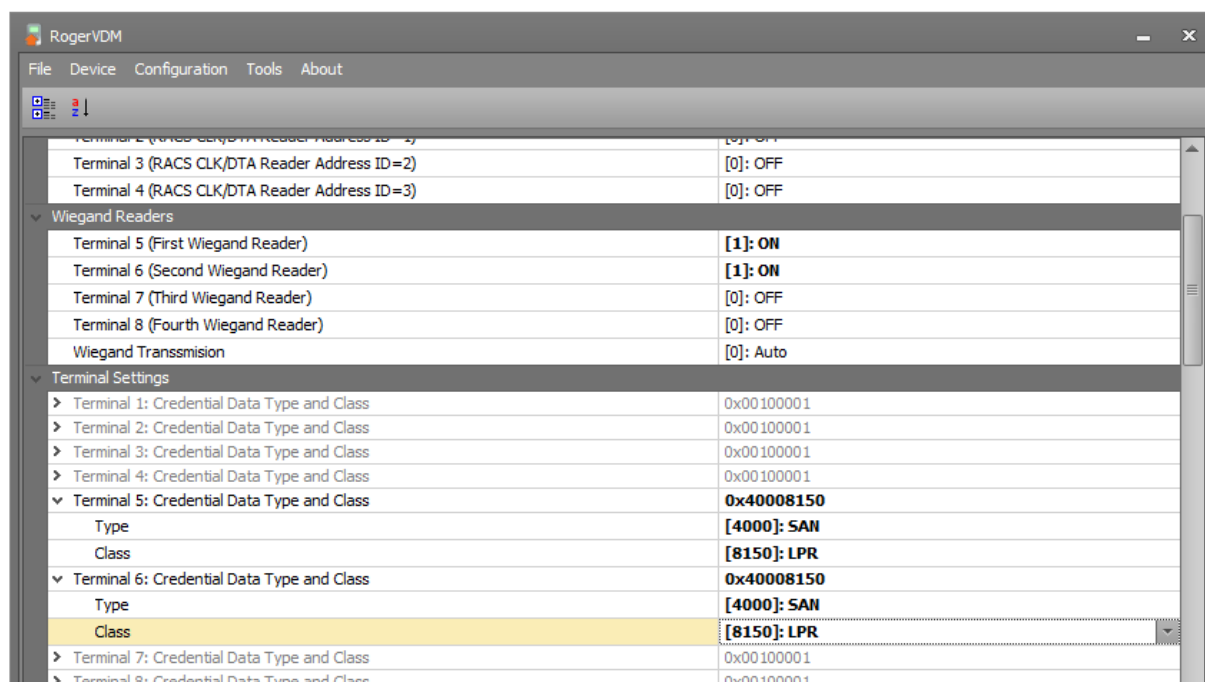
### Installation and configuration of access control at car park barrier with LPR cameras

- Install MC16-RAW-KIT with MC16-AZC license for single door or MC16-PAC-KIT-1 as in figure below. The communication between controller and cameras is provided with Wiegand interface.

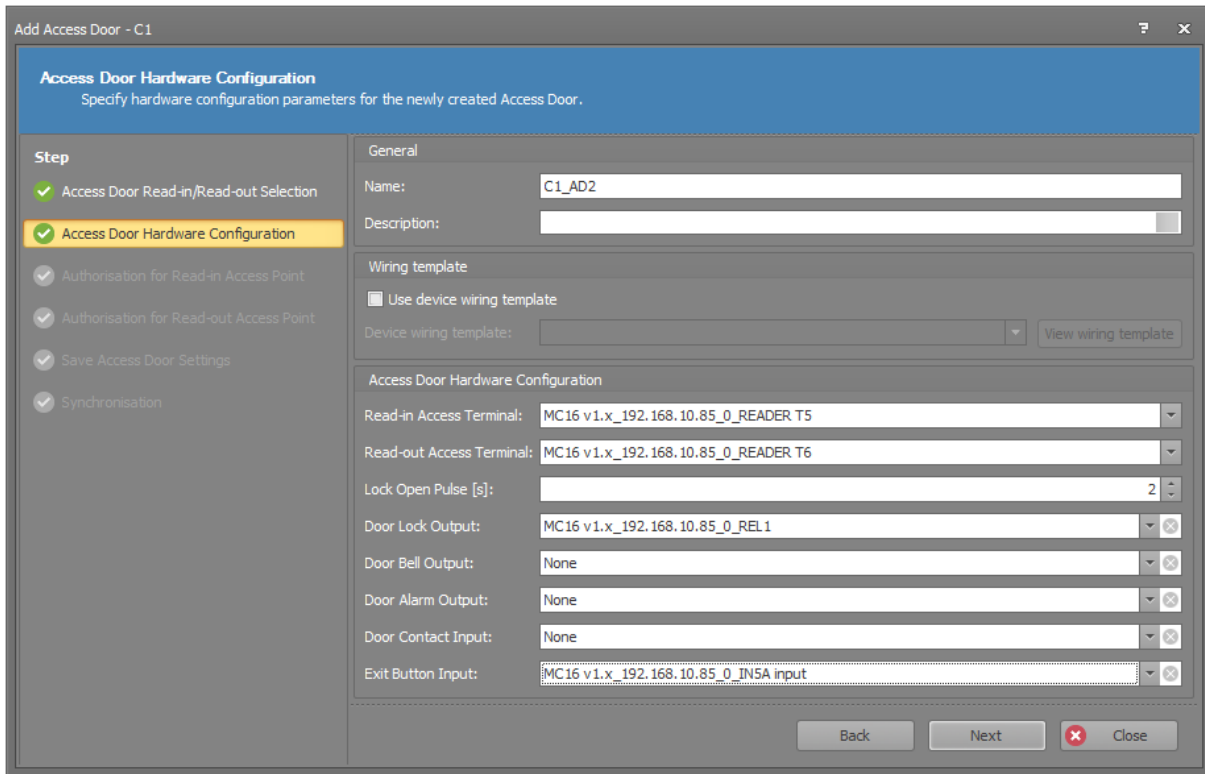


- Install cameras, connect with them using web browser and enable vehicle detection.

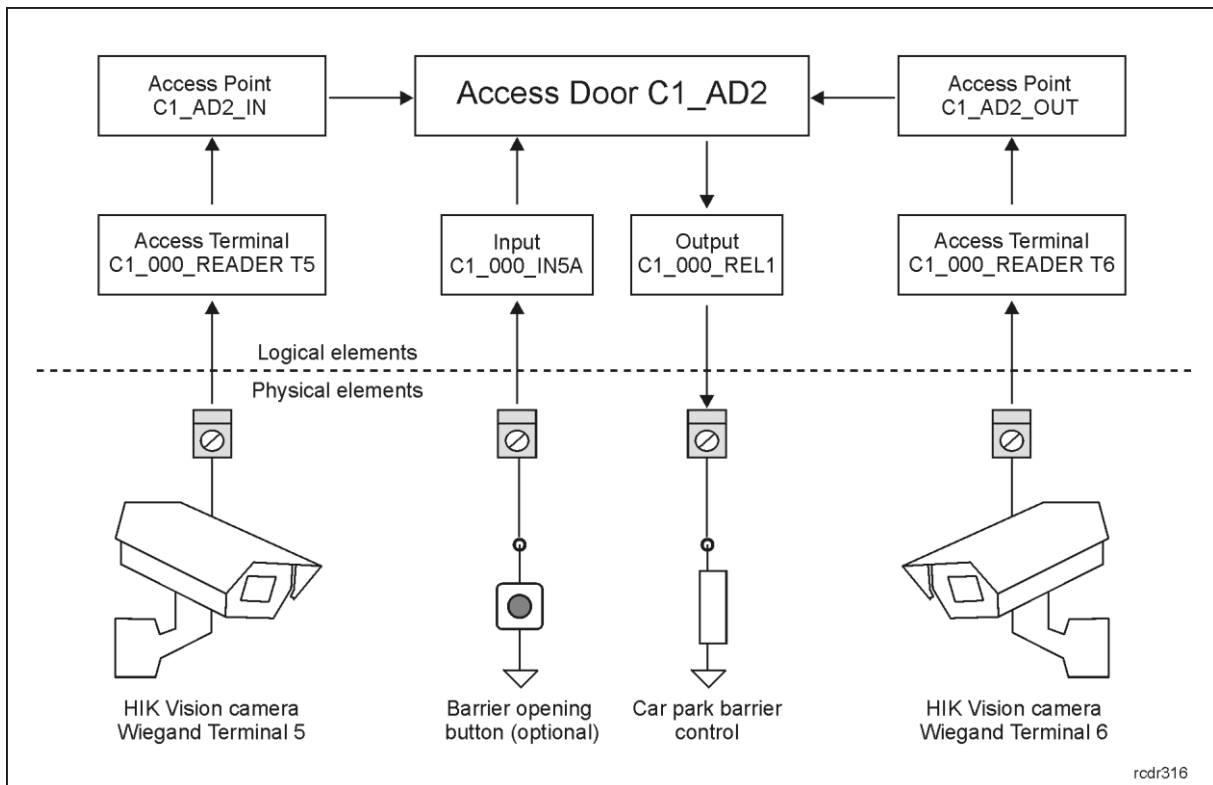
- Start RogerVDM software, establish connection with MC16 controller and configure such parameters as communication key and IP address.
- In the next step enable Wiegand Terminal 5 and Terminal 6 in order to reserve IN1/IN2 and IN3/IN4 inputs on controller's board for communication with both cameras. Up to 4 cameras can be connected directly to controller and even more can be connected indirectly through MCX402DR-BRD expanders. Additionally define terminal type and class as in figure below and upload your configuration to controller.



- Start VISO software, create database, configure RACS 5 services and use *Add Access controller Wizard* to establish connection with MC16 controller according to AN006 Application node.
- In the top menu of VISO software select *Wizards* tab and then *Add Access Door Wizard* to configure the portal with car park barrier.
- In the opened window select *Read-in and Read-out* option as the barrier shall be controlled at the entry and exit.
- Select *Reader T5* from MC16 level as *Read-in Access Terminal* and *Reader T6* from MC16 level as *Read-out Access Terminal*.
- Select *REL1* output as *Door Lock Output* and optionally select *IN5A* input as *Exit Button Input*.

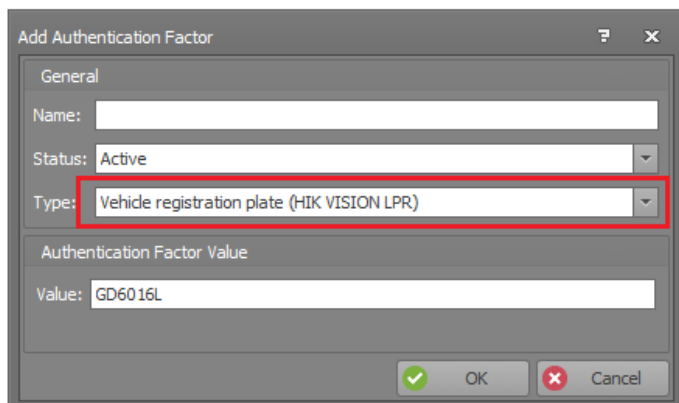


- In the next windows proceed according to AN006 Application note in order to create Authorisations for further use and to save logical object for car park barrier. The resulting connections between logical object are shown in figure below.



## Configuration of users and their Authentication Factors (number plates) for access control

The most convenient way to configure the access for users and their vehicles is to use *Add Person Online* wizard. The procedure of user enrolment is the same as the one described in AN006 Application note. The only difference is in Authentication Factor as it will be Vehicle registration plate instead of proximity card or PIN.



The screenshot shows a dialog box titled "Add Authentication Factor". It has a "General" tab. The "Name" field is empty. The "Status" dropdown is set to "Active". The "Type" dropdown is highlighted with a red box and set to "Vehicle registration plate (HIK VISION LPR)". Below this, the "Authentication Factor Value" section has a "Value" field containing "GD6016L". At the bottom, there are "OK" and "Cancel" buttons.

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Note: It might happen that camera does not read the whole registration plate for particular vehicle. In such situation it is recommended to verify what camera reads using Real-time LPR Results module which is available when the camera is configured via web browser.

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Alternatively vehicle with its number plate can be assigned as Authentication Factor not to Access Credential of a user as described above but to Access User Asset which then can be assigned to user or be assigned with Authorisation(s). In certain situations such arrangement may be more transparent for management and company vehicles can be more conveniently reassigned to various users. *Access User Assets* command is available when *Configuration* option is selected in the top menu of VISO program.

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