Roger Access Control System

MCX2 / MCX8 Installation Manual

Firmware version: 2.0.24 and newer

Hardware version: 2.0

Document version: Rev. D

CE

This document contains minimum information that is necessary for initial setup and installation of the device. The detailed description of configuration parameters and functionalities is specified in respective Operating Manual available at www.roger.pl.

INTRODUCTION

The expander is designed to operate in RACS 5 system as peripheral device connected to RS485 bus of MC16 access controller. Factory new device is configured with default settings including ID=100 address. Before connecting to MC16 controller, the device should be assigned with unoccupied address in range of 100-115. Programming of other parameters depends on the individual requirements and is not obligatory. Configuration of the expander with RogerVDM requires RUD-1 interface.
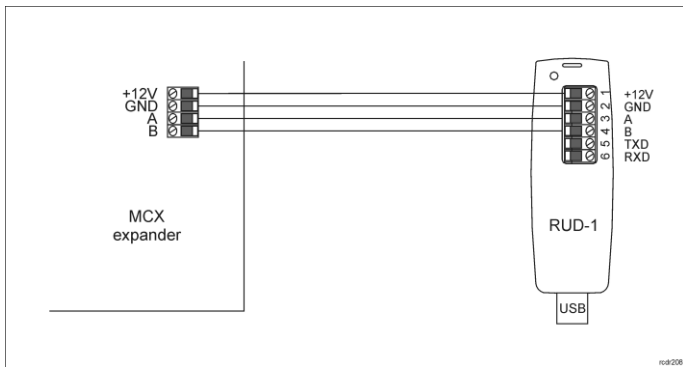
CONFIGURATION WITH ROGERVDM PROGRAM

Fig. 1 Connection of the expander to RUD-1 interface for configuration

Programming procedure with RogerVDM software:

1. Connect the device to RUD-1 interface (fig. 1) and connect the RUD-1 to computer's USB port.
2. Restart the device (press RESET button or switch power supply off and on).
3. Within 2-3 seconds place jumper on JP7 contacts (fig. 3 or fig. 4) and LED PWR will pulsate quickly.
4. Start RogerVDM program, select *MCX v2.x* device, *v2.0* firmware version, *RS485* communication channel and serial port with RUD-1 interface.
5. Click *Connect,* the program will establish connection and will automatically display *Configuration* tab.
6. Enter unoccupied RS485 address in range of 100-115 and other settings according to requirements of specific installation.
7. Click *Send to Device* to update the configuration of device.
8. Optionally make a backup by clicking *Send to File…* and saving settings to file on disk.
9. Remove jumper from JP7 contacts and disconnect device from RUD-1 interface.

FIRMWARE UPDATE

The update requires connection of expander to computer with RUD-1 interface (fig. 2) and starting RogerVDM software. The latest firmware file is available at www.roger.pl.

Firmware update procedure:

1. Connect the device to RUD-1 interface (fig. 1) and connect the RUD-1 to computer's USB port.
2. Place jumper on FDM contacts (fig. 3 or fig. 4).
3. Restart the device (press RESET button or switch power supply off and on).
4. Start RogerVDM program and in the top menu select *Tools* and then *Update firmware.*
5. In the opened window select device type, serial port with RUD-1 interface and path to firmware file (*.hex).
6. Click *Update* to start firmware upload with progress bar in the bottom.
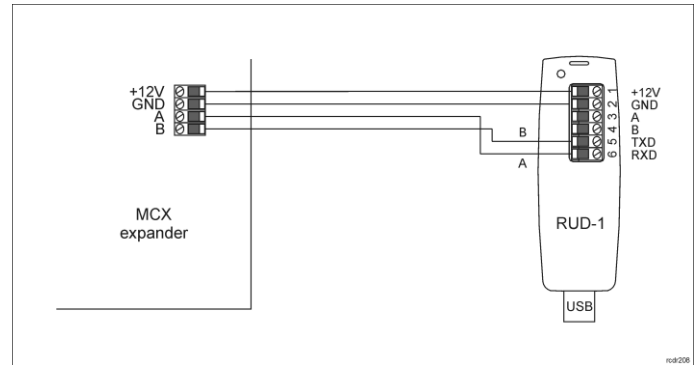7. When the update is finished, remove FDM jumper and restart the device.

Fig. 2 Connection of the expander to RUD-1 interface for firmware update
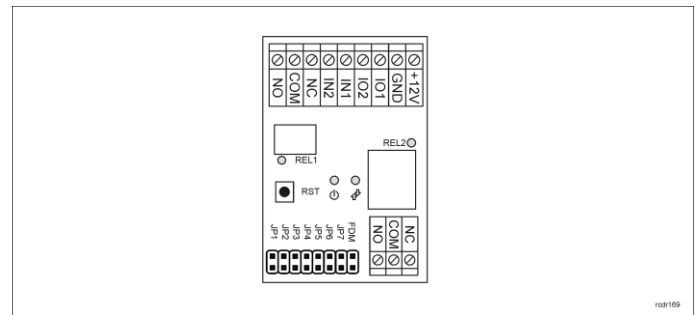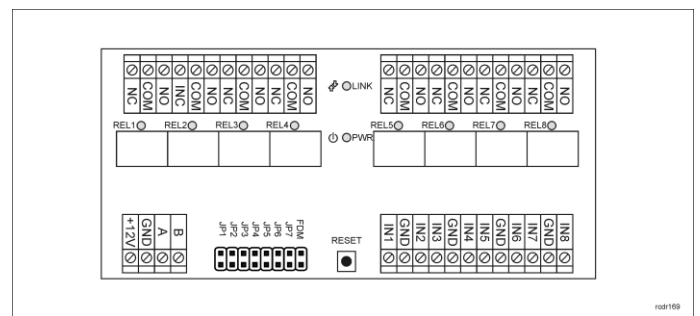
APPENDIX

Fig. 3 MCX2 expander

Fig. 4 MCX8 expander

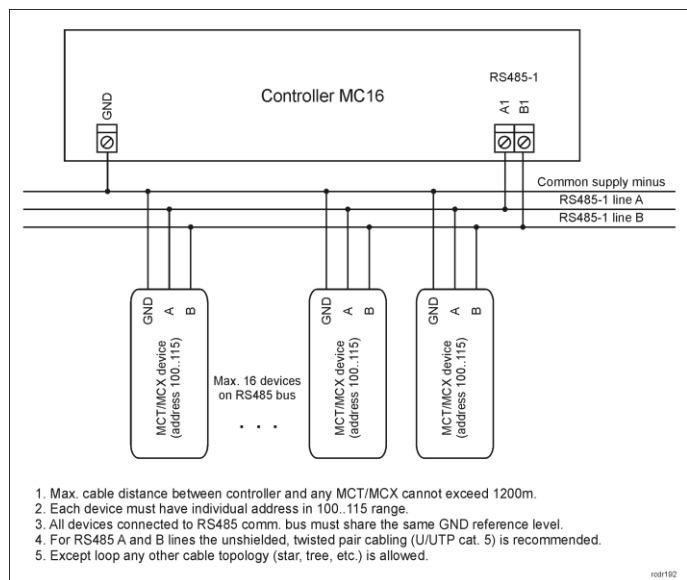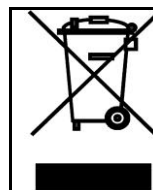| Table 1. Screw terminals	
Screw terminal	Description
+12V	12VDC power supply
GND	Ground
A	RS485 bus, line A
B	RS485 bus, line B
COM	RELx relay common terminal
NC	RELx relay output (NC)
NO	RELx relay output (NO)
IN1..IN8	IN1..IN8 input line

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Fig. 5 Connection of readers and expanders to MC16 access controller

Table 2. Specification

Supply voltage	Nominal 12VDC, min./max. range 10-15VDC
Current consumption (average)	30mA (when relays off)
Inputs	MCX2: Two (IN1, IN2) MCX8: Eight (IN1..IN8) parametric inputs internally connected to the power supply plus (+12V) through a 15kΩ resistor, approx. 3.5V triggering level when configured as NO or NC.

Relay outputs	MCX2: Two relay outputs
	    REL1: 30VDC/1,5A
	    REL2: 30VDC/5A
	MCX8: Eight relay outputs:
	    REL1..REL8: 30VDC/1.5A
	Each with single NO/NC contacts.

Distances	Up to 1200 m between controller and terminal (RS485)
IP Code	IP20
Environmental class (according to EN 50133-1)	Class I, indoor general conditions, temperature: +5°C to +40°C, relative humidity: 10 to 95% (no condensation)
Dimensions W x S x G	MCX2: 80 x 54 x 20 mm MCX8: 72 x 155 x 20 mm
Weight	MCX2: 50g MCX8: 115g
Certificates	CE

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