

Roger Access Control System

RM-2DR/RM-2DR-BRD Relay Module

Operating Manual

Hardware version: 1.0

Document version: Rev. D



1. DESCRIPTION AND SPECIFICATION

The relay module is available in two versions: in enclosure dedicated to installation on DIN 35mm rail (RM-2DR) and as electronic module (RM-2DR-BRD). Both versions are functionally identical. The RM-2DR includes two relays with transistor type triggering circuit. The module is usually used to enable switching of greater power by means of 12VDC output line and/or for electrical separation between output line and load point (e.g. door lock, siren etc.). Practical example of RM-2DR application in RACS 4 system consists in on connection of RM-2DR input (e.g. IN1) with transistor output (e.g. IO1) of the controller. As a result, the controller can switch 230VAC/5A relay at RM-2DR by means of its transistor output (15VDC/1A). RM-2DR module can be used with all Roger controllers and the module is so universal that it can be also used with third party systems and devices.

Table 1.Specification		
Rated supply voltage	Nominal 12VDC, min./max. range 10-15VDC	
Current consumption	max 65mA	
Relay max load	230VAC/5A and also 30VDC/5A	
High trigger threshold	>5V	
Low trigger threshold	<4V	
Environmental conditions	-25C..+60C, humidity 10-95% (without condensation)	
Dimensions (H x W x D)	RM-2DR	85 x 62 x 73 mm
	RM-2DR-BRD	80 x 54 mm
Weight	RM-2DR	115g
	RM-2DR-BRD	50g
Certificates	CE	

2. INSTALLATION

2.1 Terminals and connection diagram

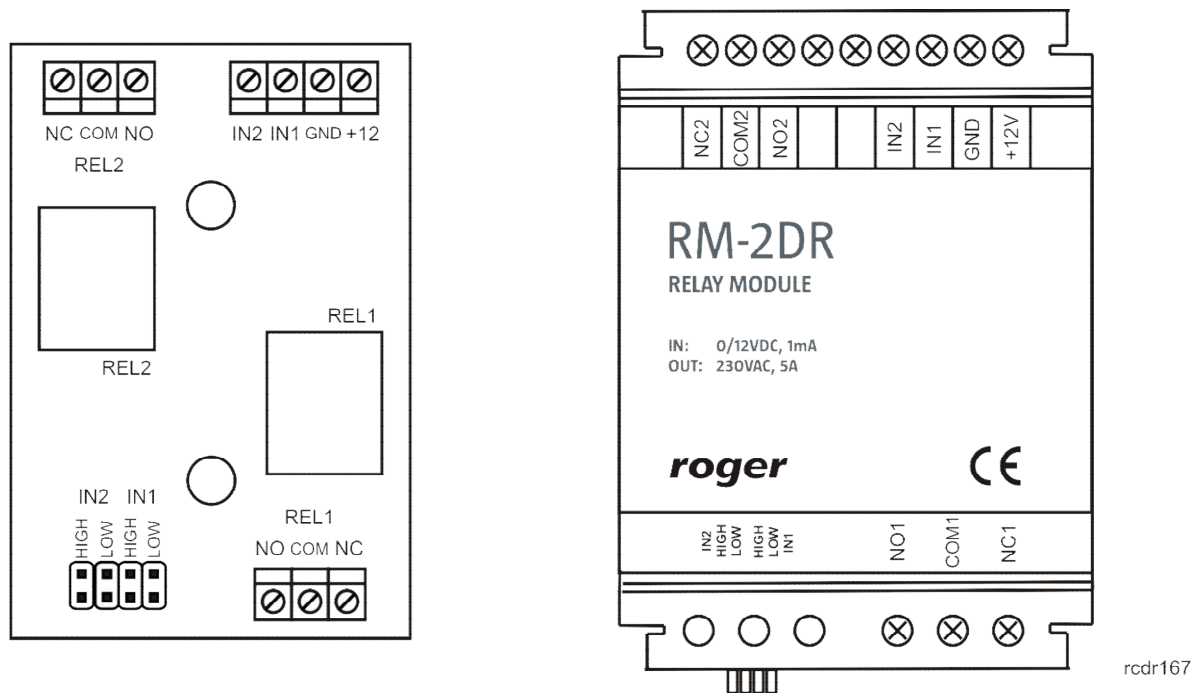


Fig. 1 RM-2DR-BRD (electronic module) and RM-2DR (DIN 35 mm rail enclosure)

Table 2. RM-2DR terminals					
Terminal		Description	Terminal		Description
REL1	NC	Relay NC terminal	GND		Ground
	COM	Relay common terminal	+12V		12VDC power supply
	NO	Relay NO terminal	REL2	NC	Relay NC terminal
IN2	Input line	COM		Relay common terminal	
IN1	Input line	NO		Relay NO terminal	

In fig. 2 there is shown typical connection of RM-2DR module and PR402DR controller. Such connection enables control of total 4 relays by PR402DR controller. In the example, PR402DR is supplied from 18VAC and RM-2DR is supplied from AUX terminal, but other power supply configurations are available including parallel 12VDC power supply to both module and controller.

Note: It is recommended to connect all devices within RACS 4 system to common ground (GND).

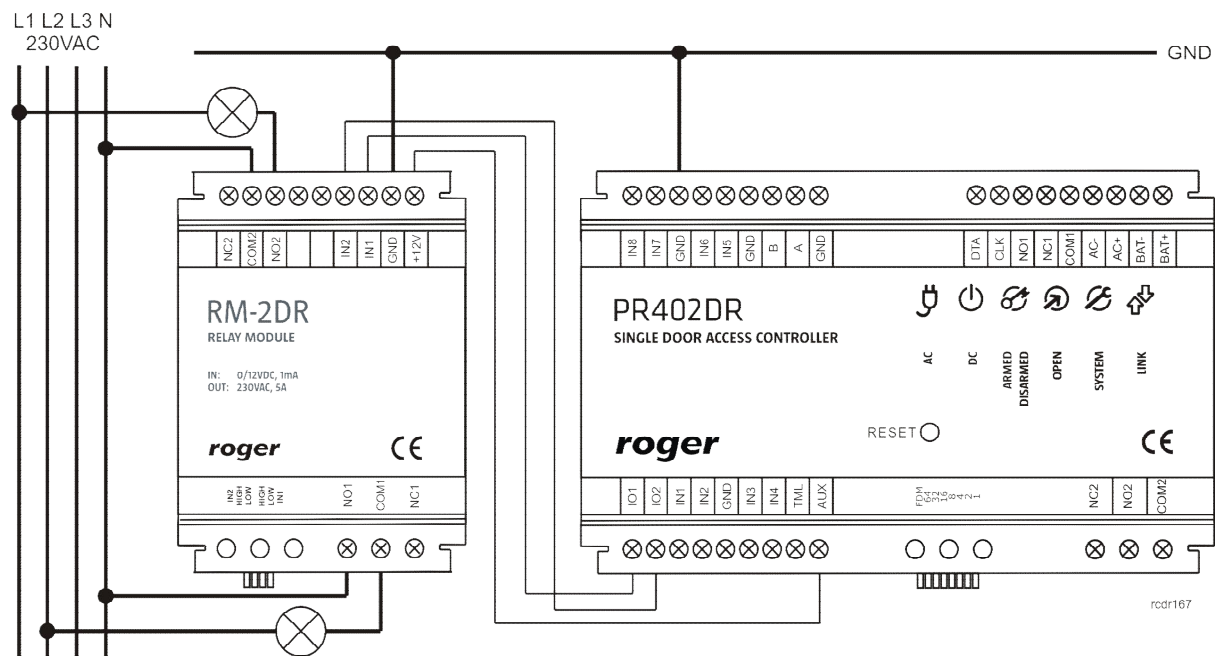


Fig. 2 Typical connection diagram of RM2-DR module and PR402DR controller

Both versions of RM-2DR module are not adapted to outdoor operation and it is installer responsibility to apply proper method and location for module installation. Both versions are adapted to mounting on DIN 35mm rail, but RM-2DR-BRD module can also be installed on flat surface by means of included nylon studs. In case of such installation it is necessary to apply pad, which could isolate the module from base. Such requirement is particularly critical, if any relay is used for switching 230VAC. Dimensions of isolation pads should be greater than module contour (by at least 5mm at each side). The installation of RM-2DR module must be executed in accordance with valid safety rules.

Note: In case of operation with 230VAC, any installation works can be executed only by qualified and certified personnel.

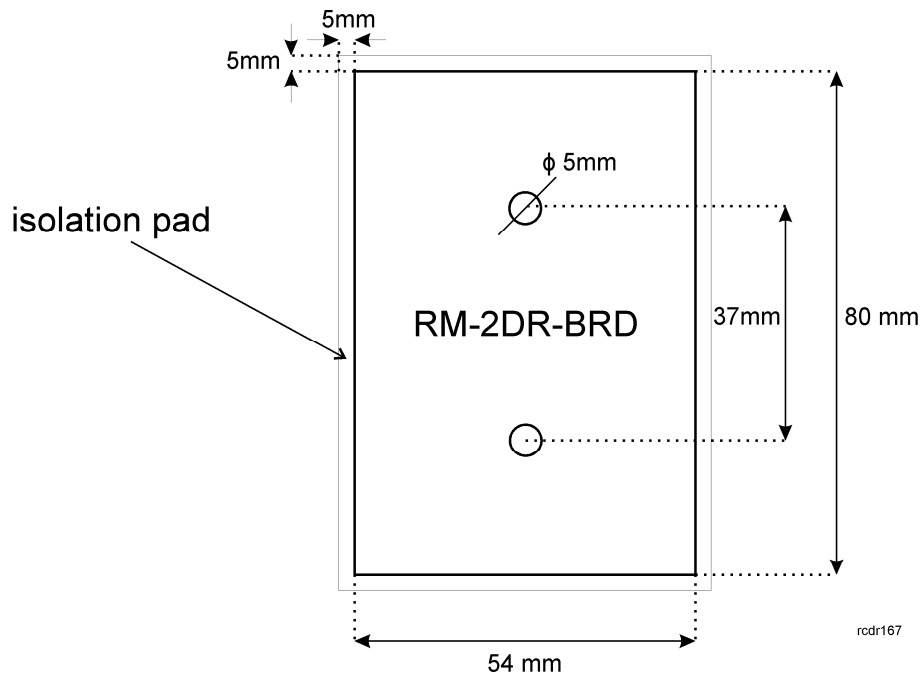


Fig. 3 The arrangement of installation holes in RM-2DR-BRD module

3. CONFIGURATION

Both versions of RM-2DR module are equipped with contacts and jumpers. They can be used to select triggering method for input lines of the module. The inputs can be triggered by high or low voltage. The arrangement of contacts is shown in fig. 4

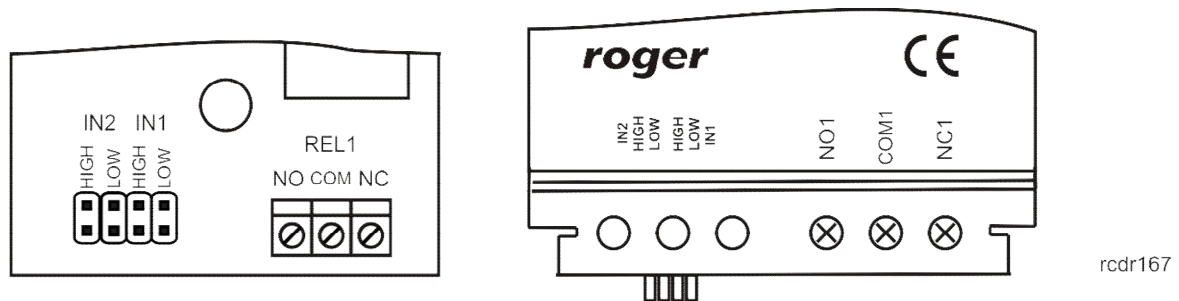
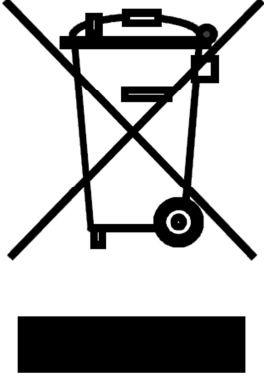


Fig. 4 The arrangement of contacts and jumpers

4. ORDERING INFORMATION

Table 3. Ordering information	
Product	Description
RM-2DR	Relay module in enclosure adapted to installation on DIN 35mm rail
RM-2DR-BRD	Electronic module of RM-2DR without any enclosure

	<p>This symbol placed on a product or packaging indicates that the product should not be disposed of with other wastes as this may have a negative impact on the environment and health. The user is obliged to deliver equipment to the designated collection points of electric and electronic waste. For detailed information on recycling, contact your local authorities, waste disposal company or point of purchase. Separate collection and recycling of this type of waste contributes to the protection of the natural resources and is safe to health and the environment. Weight of the equipment is specified in the document.</p>
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