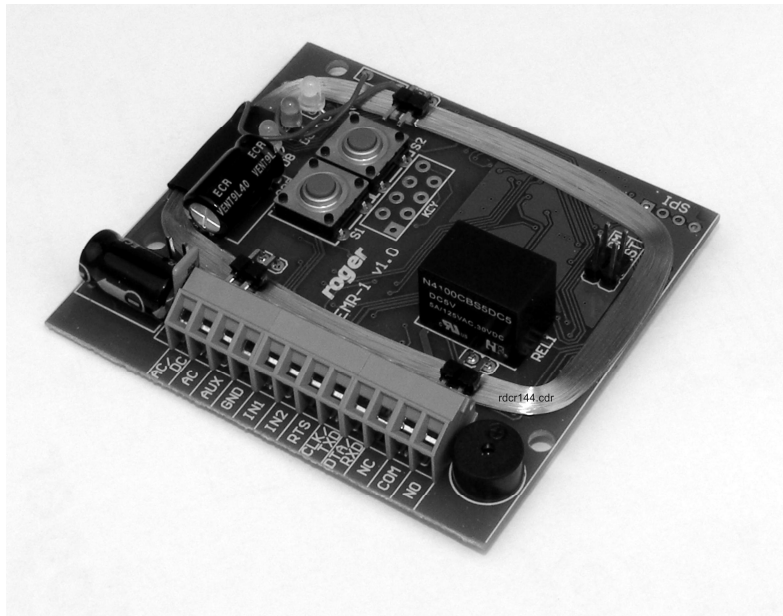


Roger Access Control System

EMR-1
Proximity Reader Module
Rev. B



Introduction

EMR-1 is an EM 125 KHz card reader module which can be installed in third party equipment or system. The EMR-1 is offered in three versions which have different firmware and functionality.

The manufacturer doesn't restrict potential installation scenarios for EMR-1 unless they are in accordance with technical specification of the unit. The EMR-1 is equipped with built-in internal proximity antenna and can be installed as it is without any additional antennas. Module itself has been protected from the moisture and can work in wide range of temperatures nevertheless it cannot work in location which doesn't provide adequate protection against water and other liquids.

Firmware

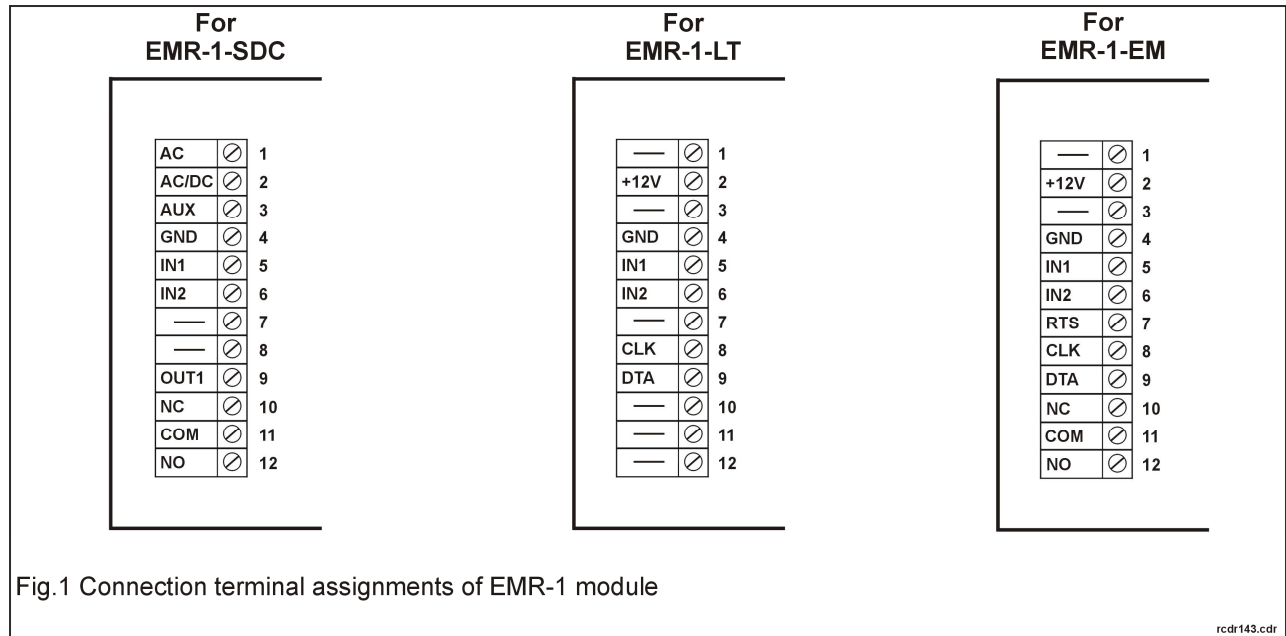
As mentioned above EMR-1 is offered in three firmware versions which are fully aligned with other Roger products.

EMR-1-SDC operates as standalone proximity lock SDC66. It can work only with EMKF-4 and EMC-10 proximity tags offered by Roger. The factory new unit is configured in such a way that in most cases no programming will be required. For operation and programming of the EMR-1-SDC the SDC66 manual can be used.

EMR-1-LT operates as access reader of PRTxxLT series (Roger) and must be connected to any type of access controller (or another host device) which accepts one from data output formats offered by the reader (e.g. Wigand, Magstripe etc.). For operation and programming of the EMR-1-LT the PRTxxLT general manual can be used.

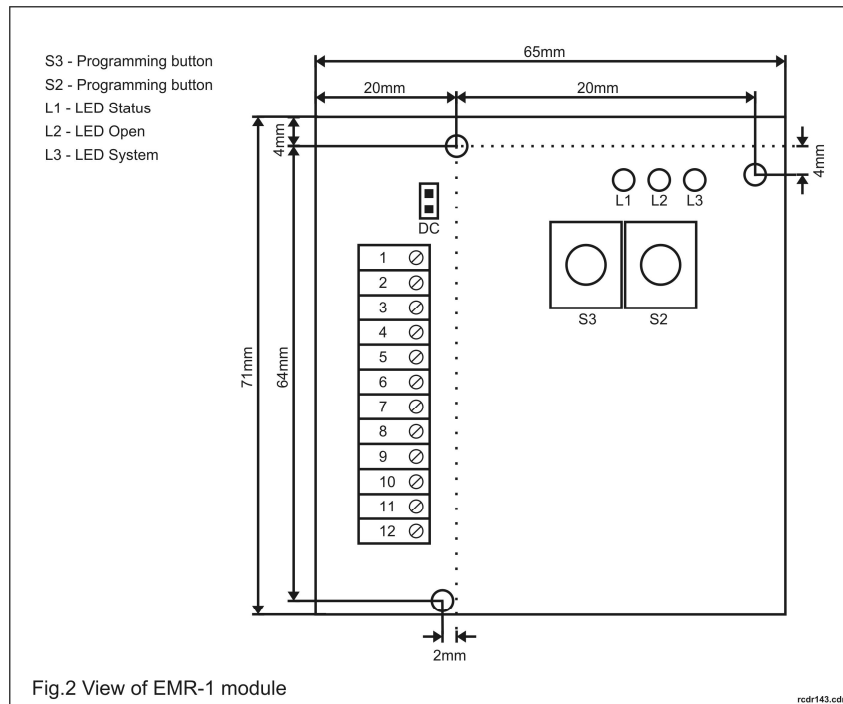
EMR-1-EM operates as access reader of PRTxxEM series (Roger) and can work in two modes : as a reader connected to any type of access controller (or another host device) or as a standalone access control unit. For operation and programming of the EMR-1-EM the PRTxxEM general manual can be used.

Note: Depending on EMR-1 firmware version the connection terminals of the unit have different functional assignments which are explained below.

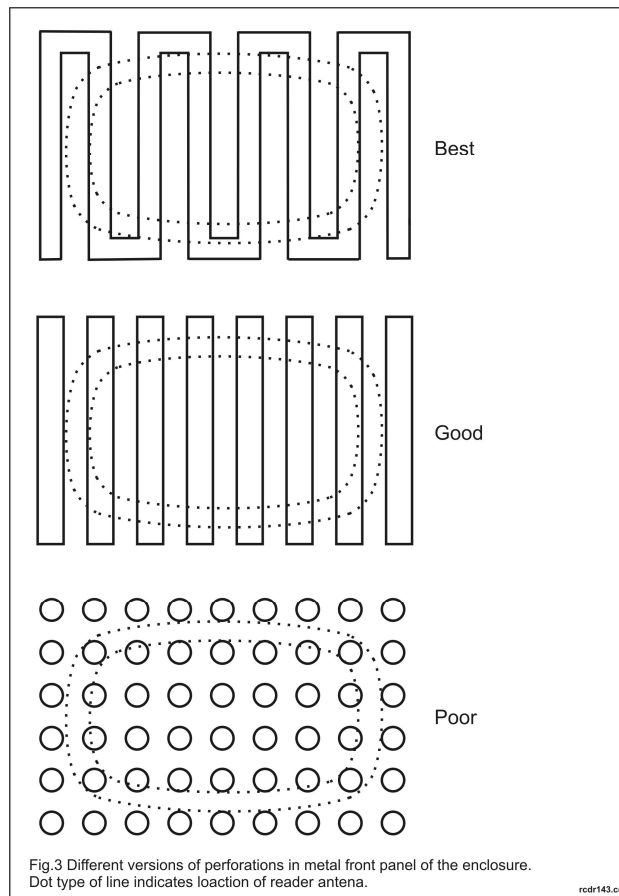


Installation

The EMR-1 has three holes which can be used to fit it to designated location (Fig.2). The additional distance spacers (included in set) should be used between module and supporting structure to which it is fixed to.



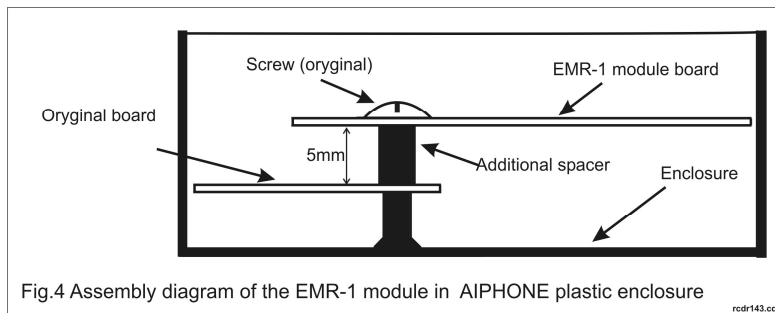
Generally, the EMR-1 module should be installed as close as possible to the front surface of the enclosure what guarantees the maximal reading distance. The enclosure above module should be made from the material which doesn't conduct electrical current (plastic, wood, carton, concrete etc.). It is also possible to install it beneath metal cover (front panel) however some kind of perforation is required to make possible magnetic field to flow through the enclosure. Below, there are presented some proposals of perforation (Fig.3) which can be used to enable card reading through metal panel however it must be taken into consideration that in each case card reading distance will be reduced. It is recommended to perform adequate tests which will evaluate EMR-1 performance in final location.



Note: The card reading distance can be also significantly affected by other electronics modules if they are close to the EMR-1 and produce electrical interferences strong enough to corrupt EMR-1 performance. Especially, switched mode power supply units can generate problems.

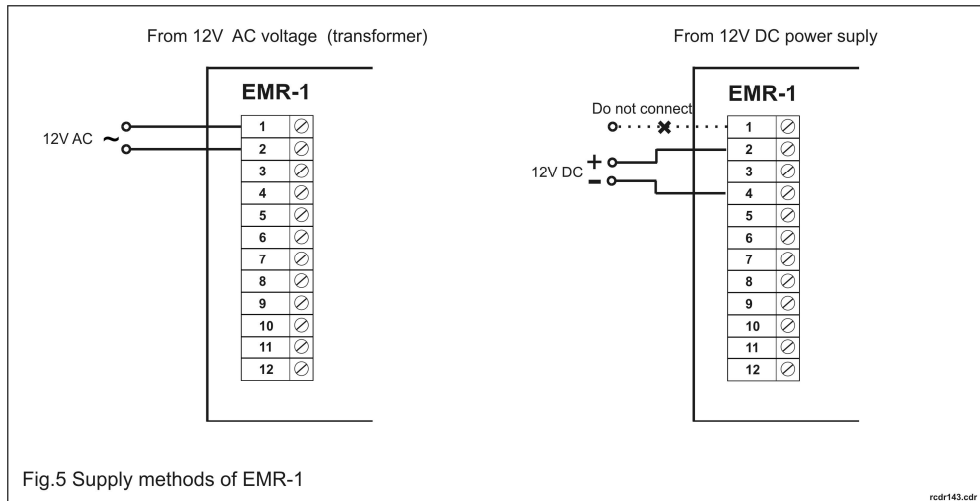
Installation In AIPHONE Speaker System

EMR-1 can be installed in AIPHONE speaker system module as explained in below figure (Fig.4):



Power supply

EMR-1 can be supplied either from 12VDC or 12VAC current. For supply details refer to figure presented below (Fig.5).



Factory Sets

EMR-1-SDC:

- EMR-1-SDC module
- Master card (Roger index: EMC-7), 1 pcs.
- Prox-key (Roger index: EMKF-4), 5 pcs.
- Distance spacers, 2 pcs.
- Installation guide

EMR-1-LT:

- EMR-1-LT module
- Distance spacers, 2 pcs.
- Installation guide

EMR-1-EM:

- EMR-1-EM module
- Distance spacers, 2 pcs.
- Installation guide

Technical Data		
Parameter	Value	Notes
Supply	12VAC or 12VDC	Acceptable 10..15V
Current consumption	50mA	Module only
Output load: OUT1 for EMR-1-SDC or CLK/DTA for EMR-1-LT	150mA	When active output shorts to GND

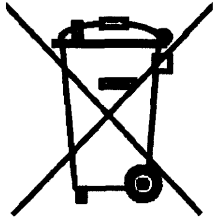
Output load for AUX on EMR-1-SDC	1A	The AUX output delivers +12V unswitched voltage which can be used to supply auxiliary equipment e.g. door lock
Reading distance	Up to 12 cm	Defined for ISO size test card in optimal position on the geometrical axes of reader antenna
Proximity tags	EM 125KHz (compatible with EM4100/4102)	The EMR-1-SDC operates solely with EMKF-4 and EMC-10 type of tags (from Roger)
Operation environment	Temp.: -25°C- +60°C, Rel. humidity: 10 to 95% (without condensation)	
Dimensions	65x71mm	
Approvals	CE	

Ordering

EMR-1-SDC	EMR-1 module preprogrammed with firmware functionally aligned with SDC66 proximity lock
EMR-1-LT	EMR-1 module preprogrammed with firmware functionally aligned with PRTxxLT series readers
EMR-1-EM	EMR-1 module preprogrammed with firmware functionally aligned with PRTxxEM series readers

Product History

Hardware	Firmware	Date	Description
v1.0	-		Initial version of the product



Such symbol on the product or its package means that the product should not be disposed together with other wastes, because it may cause negative effects to environment and humans health. User is responsible for delivering used equipment to the allotted locations for gathering used electrical and electronic devices. Detailed information on recycling can be found at relevant local authorities, in a disposing company or in a place, where the product was bought. Separate gathering and recycling of such wastes contributes to natural resources protection and is safe for humans health and for natural environment. The equipment's weight is shown in the guide.

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