

# MCRN2 RFID Outdoor Reader

RS485/RS232, Wi-Fi



The **MCRN2 RFID reader** is a versatile and reliable device, designed for applications requiring serial and USB interfaces. It supports baud rates of up to 230k, ensuring fast and efficient communication. The reader operates within a wide voltage range and can be integrated into +12V or +24V systems, making it suitable for various industrial environments. Its robust design and flexible connectivity options make the MCRN2 an ideal choice for both simple and complex RFID systems. The powerful internal antenna can read cards/tags up to 80mm away, and the USB interface can optionally run in Keyboard Emulation mode.

## Key features

- Waterproof Design**  
 This Device is suitable for outdoor use (IP65)
- Transponders**  
 MIFARE® DESFire/Plus, Classic, Ultralight NTAG, I-Code, NFC-enabled smartphones
- LED**  
 Tricolor RGB LED indicator
- Interfaces**  
 RS232, RS485 or optional Wi-Fi Interfaces
- Wide power input range**  
**+7V to +60V** DC (nominal +12V)
- Security**  
 AES-128 encryption and secure key storage

## Ideal for

- Access Control Systems
- Public transporting ticketing
- Parking and logistics management
- EV-Charging station
- Industrial automation
- Vending machines and POS Systems



Access Systems



Logistik Supply chain



EV-Charger



Industrial Automation



Time Tracing



Healthcare



Shop PoS



Public Transport



Parking



ATM



Library




Home Automation

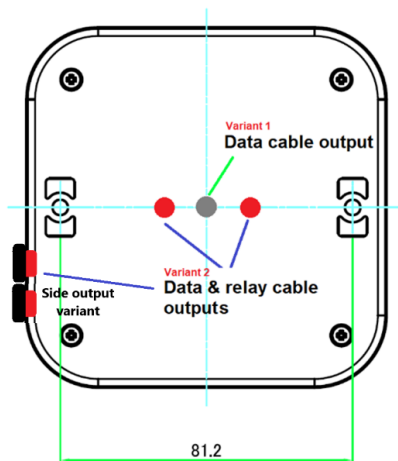
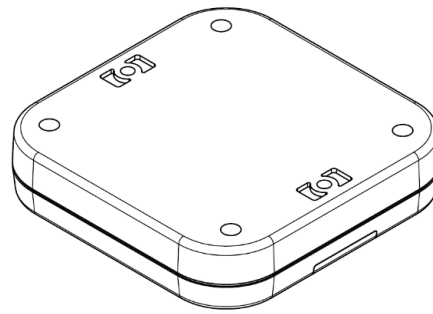
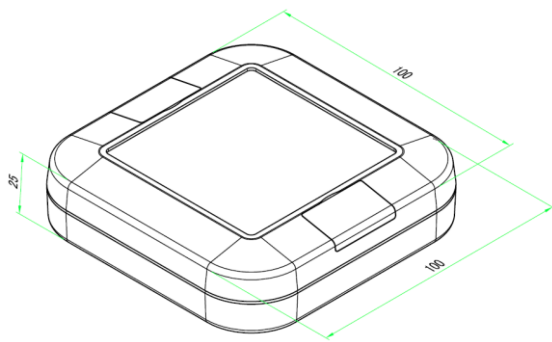


Telemetry Systems

## Technical Data

<b>Operating Frequency</b>	13.56 MHz	
<b>Dimensions</b>	100X100X25mm	
<b>MTBF</b>	500.000h	
<b>Interfaces</b>	RS232 RS485 (Optional) Wi-Fi / BLE	
<b>Supported Cards &amp; Transponders</b>	MIFARE® Classic MIFARE® Ultralight MIFARE® DESFire NTAG I-Code NFC Phones	
<b>Antenna</b>	Integrated	
<b>LED</b>	RGB LED indicator for status feedback	
<b>Temperature</b>	-30°C to +85 °C	
<b>Relative Air Humidity</b>	5% up to 95% (non-condensing)	
<b>Power Supply</b>	+7V to +60V DC	
<b>Current Consumption</b>	~50-100 mA at +12V	
<b>Weight</b>	200 g	
<b>GPIOs</b>	2x GPIOs	
<b>Security</b>	AES-128 encryption, secure key storage	
<b>Supported Standards</b>	ISO14443A/B ISO15693	
<b>Certifications</b>	USA Europe/UK	FCC 47 CFR Part 15 CE/RED
<b>Compliances</b>	EMC  Environment	EN 301489 EN 55022 EN 300330 RED 2014/53/EU  RoHS Compliance REACH 1907/2006
<b>Device Photos</b>		

## Dimension



Wall Mount Bracket 10mm/20mm(optional)

## Cable Pinout

Cable Pin	RS232 Pinout	RS485 Pinout	Relay Cable
White	GND - Ground	GND	Relay 2
Green	RX Data Input	B	Relay 2
Yellow	TX Data Output	A	Relay 1
Brown	+VIN (+12/24/48 VDC)	+VIN (+12/24/48 VDC)	Relay 1

## Ordering Codes

Article Nr.	Waterproof	RS232	RS485	Relay	Wi-Fi	Output Type
MCRN2-1230S MCRN2-1230R	IP65	1			* opt.	Side Rear
MCRN2-1220S MCRN2-1220R	IP65	1		2	* opt.	Side Rear
MCRN2-1240S MCRN2-1240R	IP65		1		* opt.	Side Rear
MCRN2-1250S MCRN2-1250R	IP65		1	2	* opt.	Side Rear
MCRN2-WM10						Wall Mount Bracket H=10mm
MCRN2-WM20						Wall Mount Bracket H=20mm

\* Wi-Fi interface can be enabled on request by firmware update.

\* Standard cable length is 2m. For different lengths, please specify on order.

## FCC Regulatory Conformance

### Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated at a minimum distance of 20cm between the radiator and your body.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to **which the receiver is connected.**
- Consult the dealer or an experienced radio/TV technician for help.**

#### FCC Part 15.19 Warning Statement- (Required for all Part 15 devices)

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

#### FCC Part 15.21 Warning Statement-

NOTE: THE **GRANTEE** IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

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