# MCRN4 RFID & QR Reader

PoE Ethernet • Wi-Fi • Serial

The ***MCRN4*** is a robust RFID reader with a clear ***OLED display*** and a durable housing. Designed for reliable and secure access control, it is suitable for a wide range of entry points and demanding environments. The OLED display provides easy-to-read status information and user prompts, ensuring intuitive operation and efficient access management. The ***MCRN4*** is an ideal solution for depots, logistics hubs, industrial facilities, and other locations requiring controlled and dependable access.

## Key features

- **Interfaces**
  PoE Ethernet, Wi-Fi, RS232 or RS485
- **RFID-Interface**
  MIFARE® Family DESFire, NTAG, I-CODE
  Optional 125KHz, HID, LEGIC...
- **Authentication**
  Secure element for protected key storage and device authentication
- **Integrated QR Code Scanner**
  Reads QR codes directly within the device
- **PoE Enabled Ethernet (IEEE802.3af)**
  Delivers power and data over a single connection for easy installation
- **Inputs & Outputs**
  Multiple inputs and outputs for external device control

## Ideal for

- Clubs & Fitness Studios
- Time and Attendance
- QR Code Check-in
- Access Control
- Event Management
- Parking Management

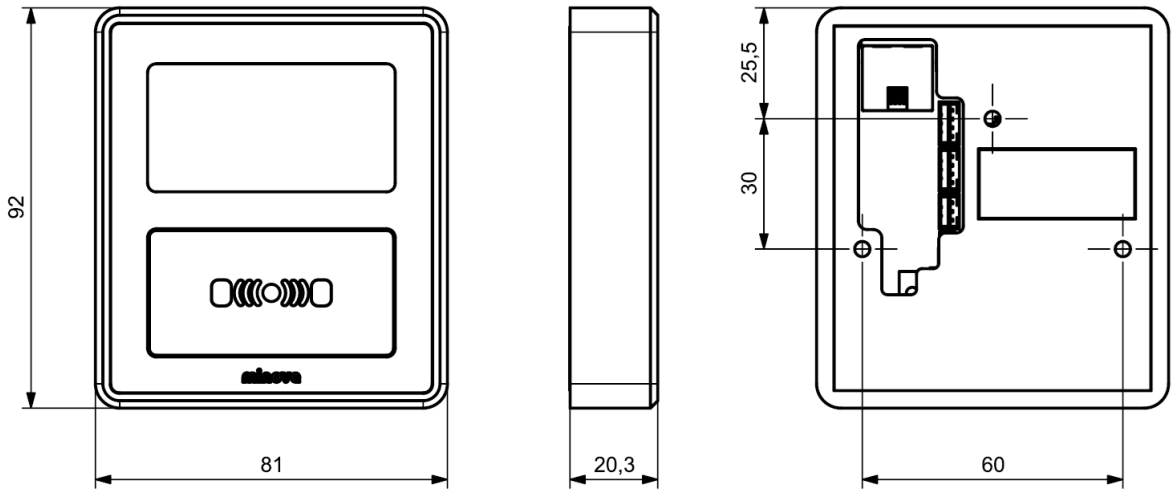
Access Systems · Logistik Supply chain · EV-Charger · Industrial Automation · Time Tracing · Healthcare · Shop PoS · Public Transport · Parking · ATM · Library · Home Automation · Telemetry Systems

# Technical Data

| | | |
|---|---|---|
| **Operating Frequency** | 13.56 MHz /HF RFID/NFC) | |
| **Dimensions** | 79X90X20mm | |
| **IP Protection** | Indoor use only | |
| **MTBF** | 500.000h | |
| **Interfaces** | Ethernet (PoE-Enabled)<br>Wi-Fi<br>RS232<br>RS485<br>2x Solid state relays (2A / 30V) | |
| **Supported Cards & Transponders** | MIFARE® Classic<br>MIFARE® Ultralight<br>MIFARE® DESFire<br>NTAG<br>I-Code<br>NFC Phones | |
| **Antenna** | Integrated | |
| **Display** | OLED 128x64 Pixels | |
| **Temperature** | -40°C to +70 °C | |
| **Relative Air Humidity** | 5% up to 95% (non-condensing) | |
| **Power Supply** | +12VDC or PoE | |
| **Current Consumption** | ~200 mA at +12V | |
| **Weight** | Plastic Encl.<br>Aluminum Encl. | 90g<br>150g |
| **Supported Standards** | ISO14443A/B<br>ISO15693 | |
| **Certifications** | Europe/UK | CE/RED |
| **Compliances** | Cyber Security<br><br>EMC<br><br><br><br>Environment | EN 18031-1<br><br>EN 301489<br>EN 55022<br>EN 300330<br>RED 2014/53/EU<br><br>RoHS Compliance<br>REACH 1907/2006 |
| **Device Photos** | | |

# Dimensions & Ports

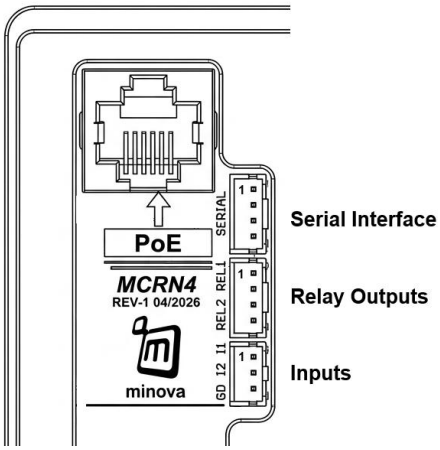
The following views illustrate the precise dimensions and physical layout of the **MCRN4 RFID & QR Reader** designed for seamless integration into various environments. All measurements are in millimeters. The housing is optimized for wall mounting and device integration, following standard industrial dimensions.



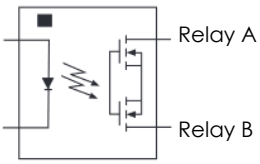

**Interface Ports**

| Pin | RS232/RS485 Port | Output Port | Input Port |
|---|---|---|---|
| **1** | GND | Relay 1A | Input 1 |
| **2** | RXD Serial Input or B | Relay 1B | Input 2 |
| **3** | TXD Serial Output or A | Relay 2A | GND |
| **4** | VIN (+12VDC) Input | Relay 2B | |

| Input Voltage Range | Value |
|---|---|
| **Minimum** | +7 VDC |
| **Nominal** | +12 VDC |
| **Maximum** | +58VDC |



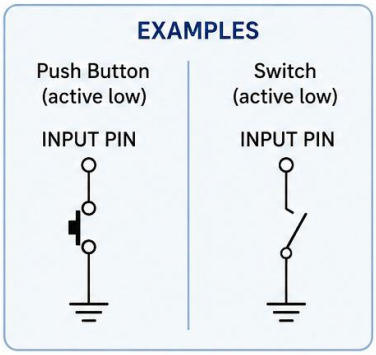

**Output ports**
The relays are single pole, normally open solid-state type




| Parameter | Rating | Units |
|---|---|---|
| **Blocking Voltage** | 30 | $V_P$ |
| **Load Current** | 1.2 | $A_{DC}$ |
| **On-Resistance (max)** | 0.25 | Ω |

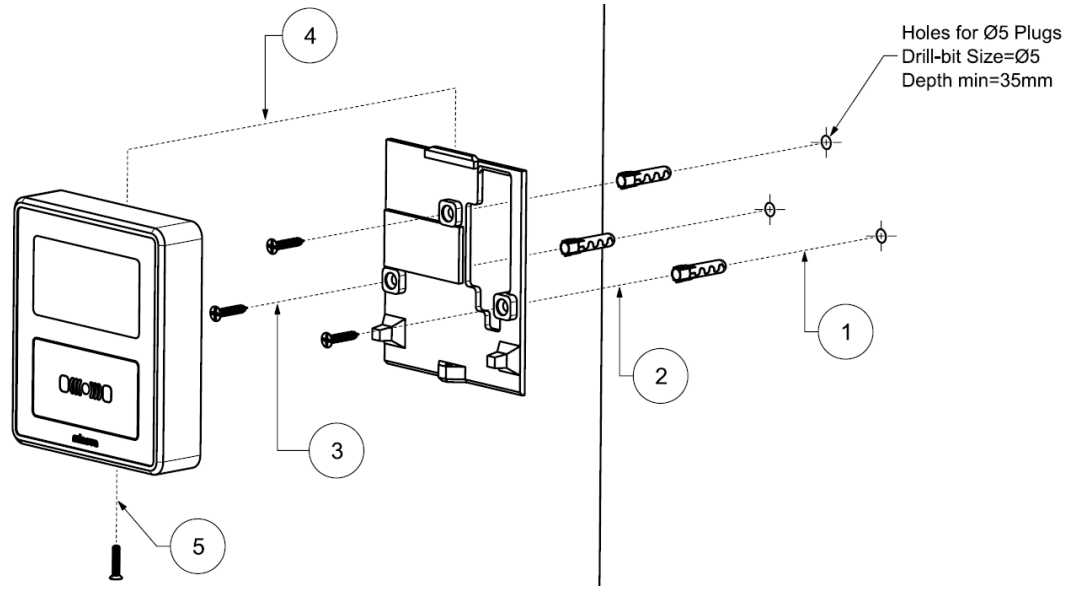
**Input ports (active low)**
Each input pin consists of a transistor input stage with an integrated pull-up resistor, suitable for push buttons or input switches activated by a low signal or by pulling the pin to ground.

**OPERATION**
- Input HIGH (open): Pull-up resistor keeps the pin at logic HIGH.
- Input LOW (switch closed / connected to GND): Transistor turns ON and pulls the pin to GND.



## Installation Guide

This picture explains how to install the reader on a wall.




1- Mark and drill three holes in the wall. Use a Ø5 mm drill bit and drill each hole to a depth of at least 35 mm.
2- Insert the three wall plugs into the drilled holes.
3- Secure the mounting plate to the wall using the three screws. Make sure the plate is upright and firmly attached.
4- Fit the device onto the mounting plate by hooking the top onto the plate first, then pressing the bottom into place.
5- Tighten the retaining screw at the bottom of the device to lock it onto the mounting plate.

## Ordering Codes

| Article Nr. | Ethernet | Wi-Fi | Relays | Inputs | Serial | QR Scanner | Enclosure |
|---|---|---|---|---|---|---|---|
| **MCRN4-1100** | PoE | ✓ | ✓ | ✓ | RS485* | | Aluminum |
| **MCRN4-1200** | PoE | ✓ | ✓ | ✓ | RS485* | ✓ | Aluminum |
| **MCRN4-1101** | PoE | ✓ | ✓ | ✓ | RS485* | | Plastic |
| **MCRN4-1201** | PoE | ✓ | ✓ | ✓ | RS485* | ✓ | Plastic |

* Optional RS232

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