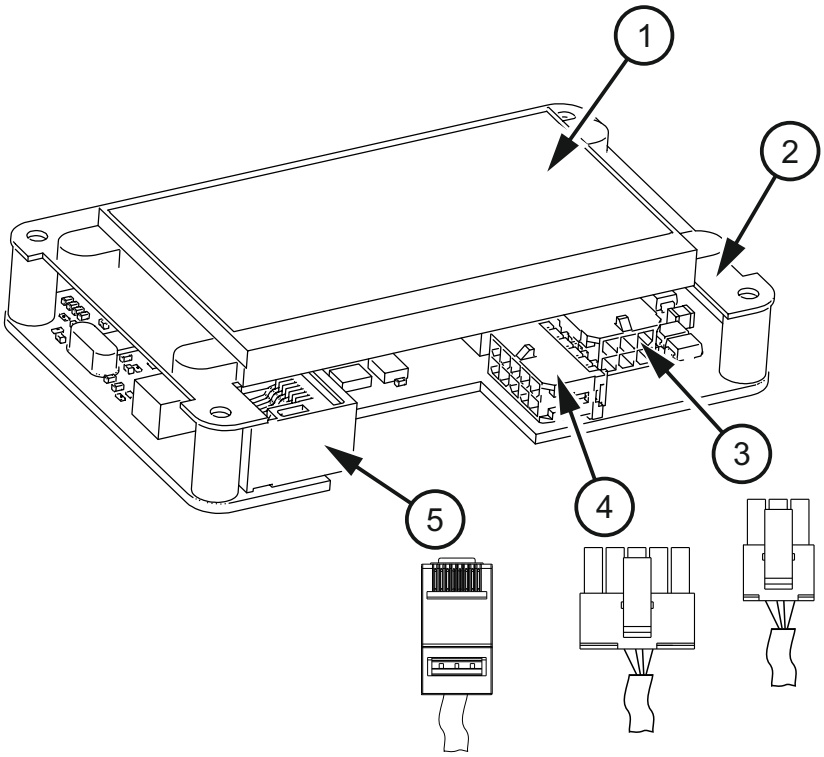
DOC NR 150323001 V1.0

MCR04 contactless MIFARE® card reader



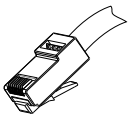
Applications

Cashless Payment Systems
Access Control Systems
Time and Attendance Systems
Ticket Vending Machines (TVM)
Turnstile Gates
Parking Meters
Telemetry Systems
Programmer for Card Issuing Systems

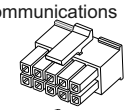
Connectors

MCR family may have four types of connectors based on configuration.

Ethernet Connector
Standard UTP Modular Plug



P1 Connector for Outputs and Communications
Molex Micro-Fit 3.0 (5x2)

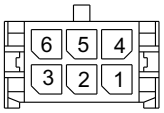


P2 Connector for Inputs
Molex Micro-Fit 3.0 (3x2)

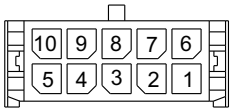
Parts & Connections

1. LCD
2. Antenna
3. Digital Inputs Connector
4. Relay & Power & Comm. Connector
5. Ethernet (Network) Connector

Connector Pinouts



1 GND
2 INPUT X3
3 INPUT X1
4 5V or Vin DC Output (Selectable)
5 INPUT X2
6 INPUT X0



1 RS232 RX or RS485 B
2 RS232 TX or RS485 A
3 RELAY 1 NC
4 RELAY1 NO
5 RELAY1 COM
6 GND
7 GND IN (POWER)
8 DC IN (POWER)
9 RELAY2 COM
10 RELAY2 NO or NC (Selectable)

Description

MCR04 is a high performance and flexible ISO 14443-A OEM contactless smart card reader terminal supporting read-write capabilities. The reader is designed for easy integration in different cashless payment and access control systems, such as turnstile gates, time and attendance systems, add value machines and ticket vending machines.

The terminal is based on the 13.56 MHz contactless technology and is fully compatible with the entire MIFARE® family, as well as supporting ISO14443A contactless standart. The terminal comes with an ethernet connectivity and has extensive software support package that is optimized for easy integration.

MCR04 terminals meet the demand for secure and high speed transactions, providing system integrators and solution providers a reliable contactless smart card terminal that can easily be interfaced with different cashless payment and acces control applications. The terminal is also available with RS485 and RS232 interface.

MCR04 ethernet based terminals can run in different modes. One of common usage is that upon RFID card detected by the reader, it will send a GET request to the web server and requesting the page such as request.php. The server responses with standart HTTP reply to the reader to control relay, LCD or buzzer.

MCR04 ethernet based terminals can operate online or offline. For offline mode, terminal can be operated using blacklist or whitelist. Transactions are stored in log file which is transferred to server when device goes online. The terminal is capable of downloading all parameter files and updating the firmware over the network.

MCR04 unit has two distinct relay outputs and optional 4 digital inputs to control turnstiles, slide doors, barriers etc.

miFinder software is available for setting and reading all the parameters of any number of units connected to local area network.

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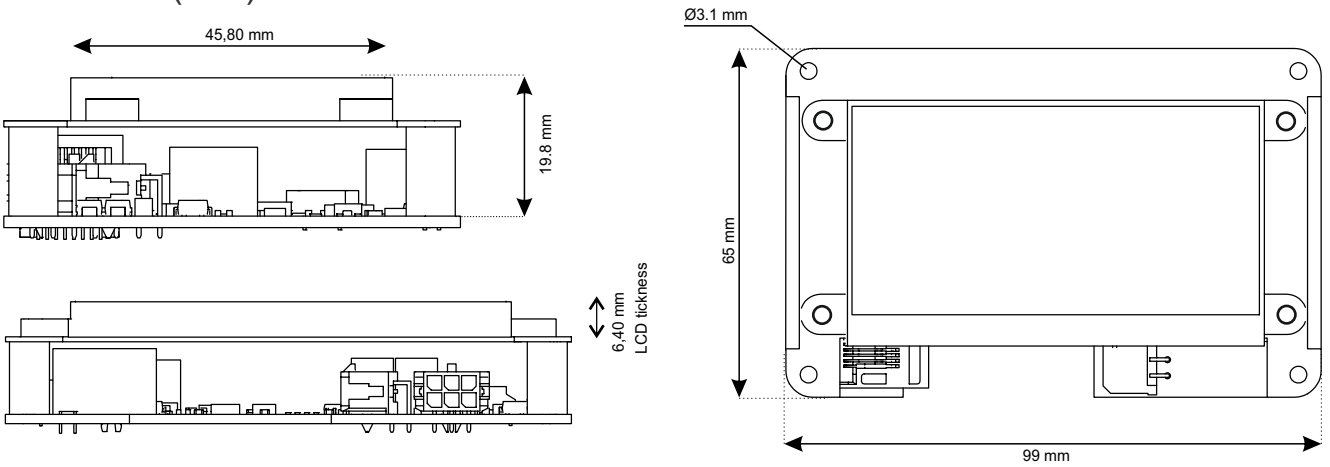
MCR04 contactless MIFARE® card reader

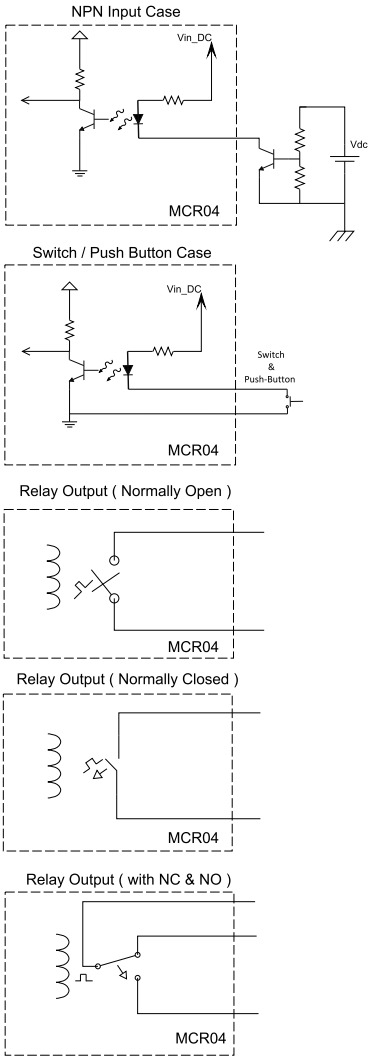
Dimensions (mm)



Technical Specifications

- MIFARE® ISO14443A, Classic, Plus and Ultralight Contactless Cards Read/Write
- Graphical LCD Screen, 128 x 64 dots Resolution
- LCD with white LED Backlight & Blue Color Background
- 6-35V DC Operation
- Power Over Ethernet PoE Capability (Only with PoE Injector Hardware)
- 32-bit ARM Cortex High Performance CPU
- 1MB internal Flash E2prom
- Buzzer Audible Tones
- Depending on the token up to 5 cm contactless card read/write operating range
- Communications:
  - Ethernet 10BaseT Communications
  - RS232 Port (300-115200 Baud)
  - RS485 Port (300-115200 Baud)
- Inputs & Outputs (See Schematic Section For Details)
  - 2xRelay Outputs (1.5A Dry Contact)
  - 4xOpto-isolated digital inputs
- Offline Operation with Flash E2PROM
- Built-in Real Time Clock (RTC) with Battery Back-up
- Ethernet:
  - Ethernet 10BaseT
  - Global Unique MAC Address
  - Integrated TCP/IP Stack
  - TCP/IP Client-Server Connections
  - UDP Support
  - DHCP or Static IP Operation
  - ICMP Ping Support
  - Configurable over Local Network with miFinder Software
- -40 °C … +85 °C Industrial Operating Temperature

Input / Output Schematics



Ordering Information

MCR<u>XX</u> <u>X</u>-<u>XXX</u>-OEM

- XXX: U : USB Port; E : Ethernet Port; R3 : RS232 Port; R4 : RS485 Port; RL : Relay (2 for dual Relay)
- X: A : Without LCD; L : With LCD
- XX: 04 : Family Code

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

RoHS

CE

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