MCR02L / MCR05L contactless MIFARE® card reader

Applications

Payment systems,
Access control systems,
Card formating and manufacturing.

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)

DC Power Connector
2.2 mm DC Power Plug Fem.

Key Features

- 128x64 Mono Color LCD
- ISO14443A/B Contactless Interface
- Buzzer Support
- LEDs for Visual Indication
- USB 2.0 Full Speed Interface
- 1xRS232 Communication
- 1xRS485 Communication
- 2xRelay Output
- 4xDigital Opto-Isolated Input
- 10Mbps Ethernet Connectivity
- Up to 8M internal Flash
- RTC with Battery
- GPRS Connectivity Support with GT1 Series
- Supplied with Frame Mount or Enclosure

Connector Pinouts

1 GND
2 INPUT X3
3 INPUT X1
4 5V Out
5 INPUT X2
6 INPUT X0

1 DC IN
2 GND
3 ROLE 1 NO
4 GND
5 RS232 TX or RS485 A
6 ROLE 2 NO or NC (Preset)
7 ROLE 2 COM
8 ROLE 1 NC
9 ROLE1 COM
10 RS232 RX or RS485 B

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

Description

MCR02L-E series contactless card readers are MIFARE® standard devices with all read-write capabilities with graphical LCD screen and Ethernet connection.

Device can query a mifare cards unique ID from a remote database connected web server with built in HTTP web service client functions and can retrieve LCD texts, audible alert commands or relay output commands as a response from the web service.

MCR unit can operate online or offline. For offline mode, device operate using blacklist and whitelist files. All transactions are stored in log file which is transferred to server via FTP when device goes online.

Device is capable of downloading all parameter files and firmware updates via FTP. Field firmware updates are done quite easily by placing the file to a proper FTP server and adjusting clients to server parameters.

MCR unit has two distinct relay outputs to control turnstiles, slide doors, barriers etc.

Web service integration support is available upon request. Device has outstanding performance for not only local network operations, instead, internet based distributed usage is encouraged.

MiFinder software is available for setting and reading all the parameters of any number of units connected to local area network. MiFinder discovers devices via UDP without any prior knowledge of IP or MAC addresses. MCR units may get alias naming with MiFinder which makes management easier with large number of readers in buildings or campuses.
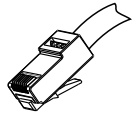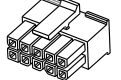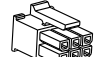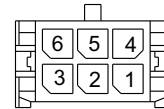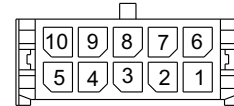
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Dimensions (mm)

45,80 mm

22,54 mm

6,40 mm
LCD tickness

Ø2,70 mm

78,00 mm

63,70 mm

51,50 mm
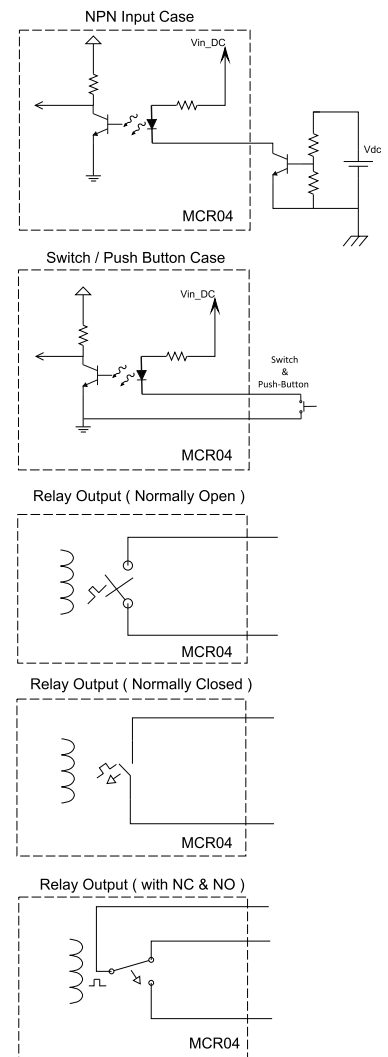
77,40 mm

70,10 mm

97,50 mm
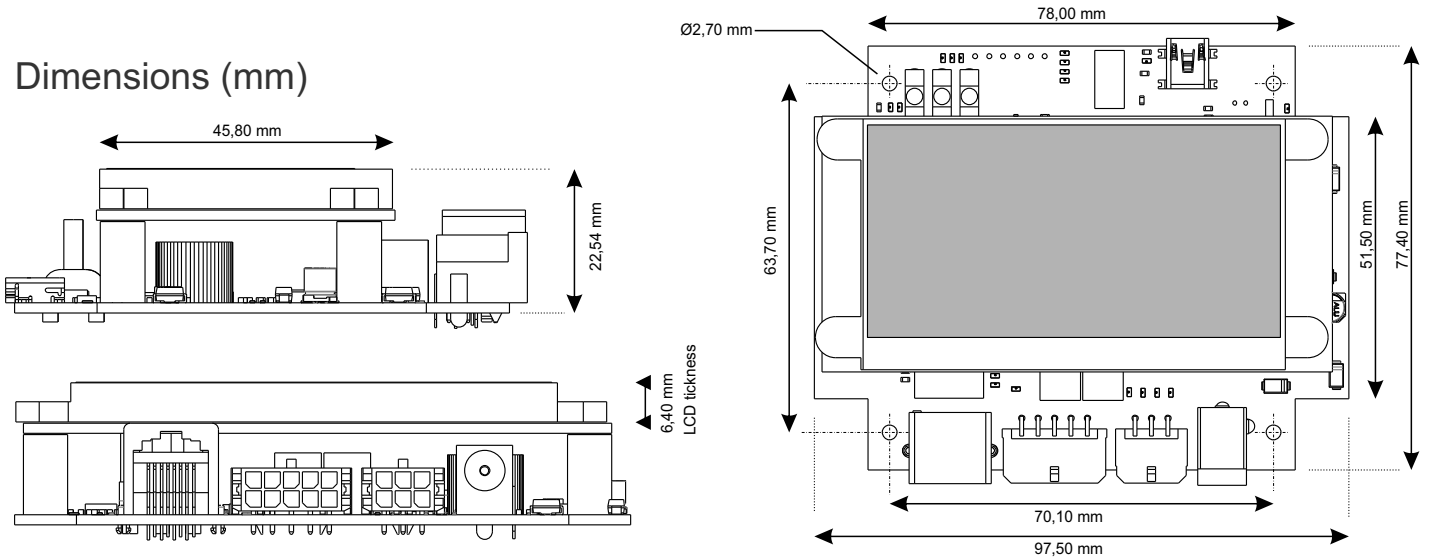
Technical Specs

- MIFARE® ISO14443A, Classic, Plus and Ultralight Contactless Cards Read/Write
- Graphical LCD Screen, 128 x 64 Pixels Resolution
- White LED Backlight Blue LCD
- 6-35V DC Operation
- Power Over Ethernet PoE Capability   (Only With PoE Injector Hardware)
- ARM Cortex High Performance CPU 50MHz 32 Bit
- 1MB internal Flash E2prom
- Buzzer Audible Tones
- 0-10 cm contactless card read/write distance (5cm for MCR02)
- Communications Options
    - USB 2.0 Port (Client)
    - Ethernet 10BaseT Communications (With Power Over Ethernet)
    - RS232 Port (300-115200 Baud)
    - RS485 Port (300-115200 Baud)
- Outputs
    - Relay Outputs (1.5A Dry Contact)
- Opto-isolated inputs
- USB Powered When Connected to Host
- Offline Operation with Flash E2PROM
- Etherhet Specs.
    - Ethernet 10BaseT
    - Internal TCP/IP Stack
    - TCP/IP Client-Server Connections
    - DHCP dynamic IP or Static IP
    - UDP and Ping Support
    - Configurable over Local Network
- -40 °C … +85 °C Industrial Operating Temperature

Ordering Info

MCRXX X-XXX-OEM

U : USB Port
E : Ethernet Port
R3 : RS232 Port
R4 : RS485 Port

A : Without LCD
L : With LCD

RL : Relay (2 for double)

02 : Short Reading Distance (4-5 cm)
05 : Extended Reading Distance (8-10cm)

Input / Output Schematics

NPN Input Case

Vin_DC

Vdc

MCR04

Switch / Push Button Case

Vin_DC

Switch
&
Push-Button

MCR04

Relay Output (Normally Open)

MCR04

Relay Output (Normally Closed)

MCR04

Relay Output (with NC & NO)

MCR04