

# MCR08M RFID Terminal

MCR08M R 1.4  
Feb. 02, 2025

## Key Features

Type	RFID/NFC Terminal
IP Protection	IP65
Frequency	13.56 MHz
Interface	RS485/RS232/Wi-Fi or Ethernet
Standards	ISO14443A/B, ISO15693
Supported Cards & Transponders	MIFARE® Family NTAG I-Code
Antenna	Internal
Display	Capacitive Touch



## 1 ELECTRICAL

SYMBOL	PARAMETER	MIN	TYP	MAX	UNIT
VIN	Input charge voltage $V_{in}$	+8	+12	+36	V
IN	Input current ( $V_{in}=+12V$ )	-	300	-	mA
VR	Maximum Reverse Voltage	-	40	-	V
RS485-VOD	Differential Output ( $R_L=54\Omega$ )	+1.5	+2	+3.3	V
RS485-A/B	Input Voltages	-8V	-	+13	V
RS485-A/B	Output Voltages	-	+3.3	-	V
RS232 Receiver	Input Voltages	-30	-	+30	V
RS232 Transmitter	Output Voltages	$\pm 5$	$\pm 5.2$	-	V
TA	Ambient Temperature Range	-20	-	+70	°C
MTBF		500.000h			

## 2 FEATURES

- RS485/RS232
- Wi-Fi/Ethernet or optional LTE variant
- 4.3" TFT color LCD
- 480x272 pixel IPS
- Capacitive touch screen
- Full NFC support
- FTP client for synchronization
- 16 MB memory
- Buzzer and real time clock
- Waterproof design (optional sealing)
- +8V to +36V DC charge supply
- -20 to +80 °C ambient Temperature

## 3 DIMENSIONS



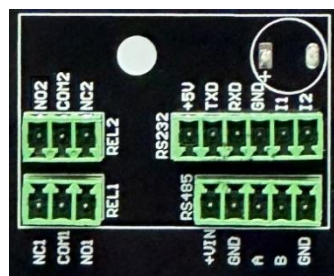
## 4 SERIAL VARIANT CONNECTOR PINOUT

Connector	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
RS485	+VIN (+12V)	GND	A	B	GND	
RS232	Input 2	Input 1	GND	RX in	TX out	+5V Out
Relay 1	NC	COM	NO			
Relay 2	NC	COM	NO			

The inputs are optically isolated and active low (triggered by pulling them to the GND).

The relay outputs are dry contact and max. **1.5A/24VDC**.

**COM:** Common  
**NC:** Normally closed  
**NO:** Normally open



Articel Nr:	Variant
MCR08M-1100	RS232/RS485/Wi-Fi
MCR08M-1400	+LTE
MCR08M-1600	+QR Scanner
MCR08M-1610	+Ethernet (cable out)

## 5 ETHERNET VARIANT CONNECTOR PINOUT

Connector	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
RS485	+VIN (+12V)	GND	A	B	GND
Relay 1	+12V On/Off	GND			
Relay 2	+12V On/Off	GND			

Relay outputs are switching +12V on/off.

Articel Nr:	Variant
MCR08M-1100E	Ethernet RS485/Wi-Fi
MCR08M-1400E	+LTE
MCR08M-1600E	+QR Scanner



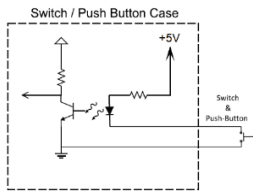
## 6 MOUNTING

The wall mount part (wall mount kit) should be fixed onto the wall by drilling the required holes. To install the reader on the kit, insert first the upper nuts, pull the reader slightly downwards, then insert the lower nuts and finally pull the reader completely down. Optionally, you can drive the screw CCW to fix the reader.

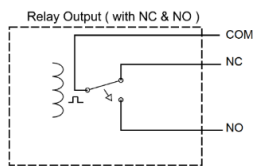


## 7 INPUTS & OUTPUTS

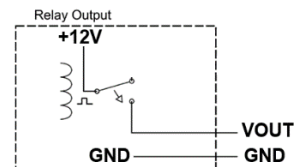
Input and relay circuitries are as below.



Inputs



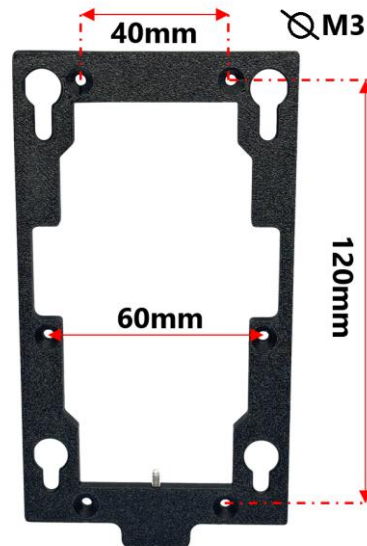
Relay Outputs



Ethernet Variant opt.

## 8 WALL MOUNT REFERENCE

We recommend using 3mm countersunk head screws.



## 9 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 B 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.