minova RFID technology

MCRN7 RFID Outdoor Terminal with QR-Code Reader

MCRN7 R 1.1
June 2, 2025

Key Features

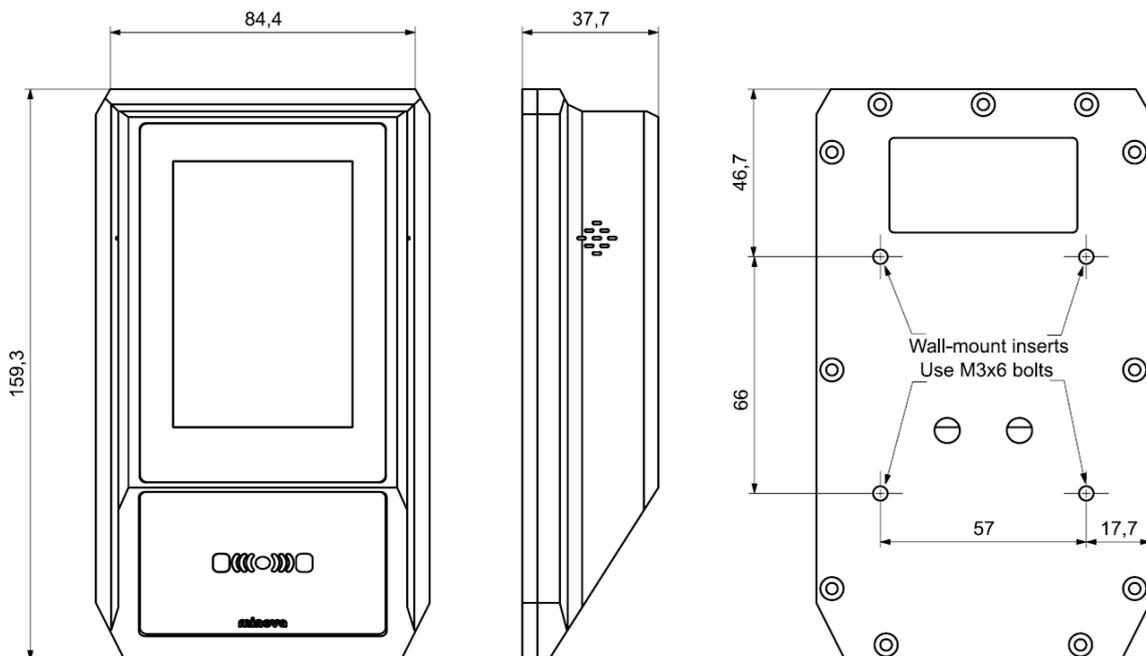| System	Embedded Linux
IP Protection	IP65
Frequency	13.56 MHz
Interface	PoE-Ethernet, Wi-Fi 6
Standards	ISO14443A/B, ISO15693
Supported Cards & Transponders	MIFARE® Family NTAG I-Code
Colors	Black or Gray
Display	3.5" Capacitive Touch

ELECTRICAL

SYMBOL	PARAMETER	MIN	TYP	MAX	UNIT
VIN	Input supply voltage Vin	+8	+12	+48	V
IN	Input current (VIN=+12V)	-	650	-	mA
VR	Maximum Reverse Voltage	-	+48	-	V
RS485-VOD	Differential Output	+1.5	+2	+3.3	V
RS485-A/B	Input Voltages	-8V	-	+13	V
RS485-A/B	Output Voltages	-	+3.3	-	V
RS232 RX	Input Voltages	-30		+30	V
RS232 TX	Output Voltages	±5	±5.2	-	V
TA	Ambient Temperature	-20	-	+70	°C
MTBF		500.000h			

FEATURES

- 528MHz i.MX CPU, 512MB RAM, 4GB Flash
- PoE-Enabled Ethernet 10/100MB
- Wi-Fi 6 2.4G & 5G
- RS485/RS232 interface
- USB host and device interface
- +8V to +48V DC power supply
- +12V DC nominal

- 3.5" TFT color LCD
- 320x480 pixel IPS with capacitive touch
- QR-Code reader 1D/2D
- Dual speakers
- 2x Relay outputs
- 2x Optocoupler inputs
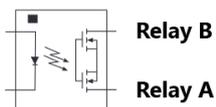- -20 to +70 ºC ambient temperature

DIMENSIONS

84,4

37,7

159,3

46,7

66

Wall-mount inserts
Use M3x6 bolts

57   17,7

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DETAILS

Optional Wall-Mount Kit

Interface Ports

Cable	Type	Pinout
1	Ethernet	
2	Relay	Brown **[RELAY1]** / Yellow **[RELAY1]** / Green **[RELAY2]** / White **[RELAY2]**
3	Optional other interfaces	Inputs, USB, RS232 or RS485

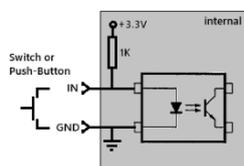**Relay Port:** The relays are single pole, normally open solid-state type.

Relay output

Relay B

Relay A

Relay Ratings

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

Input Port: Each input pin consists of a phototransistor optically coupled to an infrared LED, suitable for push-buttons or input switches activated by a low signal or by pulling the pin to ground.

Input Circuitry

ORDERING CODES

Ordering Code	Ethernet	Power Supply	Relays	Inputs	RS232	RS485	QR-Reader	Waterproof
MCRN7-2100	Passive-PoE	+12V	✓	opt.	opt.	opt.		✓
MCRN7-2200	Passive-PoE	+12V	✓	opt.	opt.	opt.	✓	✓
MCRN7-2110	PoE	PoE	✓					✓

RoHS compliant CE

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