



# MCRN7 Outdoor Terminal

PoE-Ethernet, Embedded Linux, RFID, QR-Code

The **MCRN7** is our cutting-edge RFID terminal, designed to redefine access control and time management solutions. Equipped with a powerful RFID card reader, QR scanner, TFT display with capacitive touch screen and advanced connectivity options including PoE-Ethernet and Wi-Fi, this terminal is built for versatility.

## Key features

- 3.5" TFT Touch-Display**  
 Equipped with a capacitive touchscreen for smooth and responsive operation
- RFID-Interface**  
 MIFARE® Family DESFire, NTAG, I-CODE  
 Optional 125KHz, HID, Legic...
- Dual Speakers**  
 Integrated stereo speakers for clear voice and audio feedback
- Wi-Fi Connectivity (2.4 GHz / 5 GHz)**  
 Reliable Wi-Fi connection for flexible installation
- Integrated QR-Code Scanner**  
 Reads QR codes directly within the device, enabling quick data capture without extra hardware
- PoE-Enabled Ethernet**  
 Delivers power and data over a single connection for easy installation
- Waterproof**  
 The device is IP65-rated, making it dust-tight and waterproof for outdoor use
- Developer friendly**  
 Run your own applications on our embedded Linux system, based on Ubuntu OS, with full SDK support

## Ideal for

- Clubs & Fitness Studios
- Time and Attendance
- Access Control
- Event 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

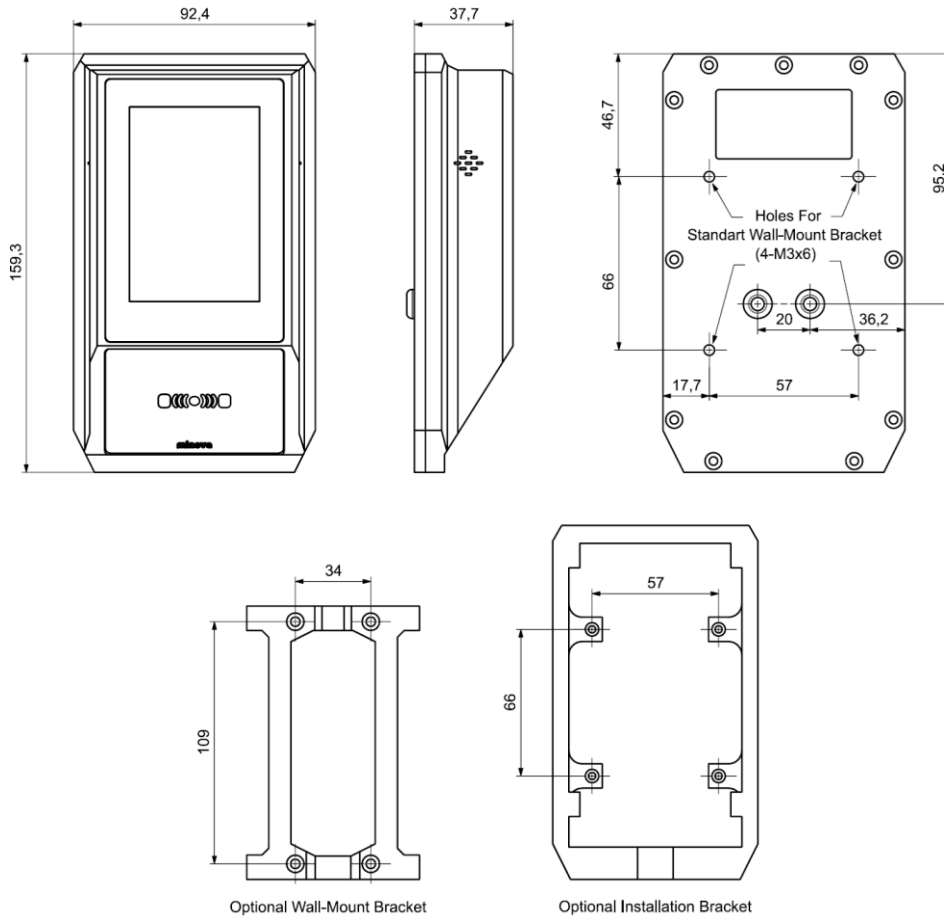
<b>Operating Frequency</b>	13.56 MHz	
<b>Platform Linux OS</b>	iMX.6ULL 528 MHz CPU, 512 MB RAM, 4 GB	
<b>Dimensions</b>	159x84,4x37,7	
<b>IP Protection</b>	IP65	
<b>Colors</b>	Black, gray and optional other colors	
<b>MTBF</b>	500.000h	
<b>Interfaces</b>	PoE-Ethernet Wi-Fi (2.4G & 5G) 2x Relay outputs Optional 2x optocoupler inputs Optional RS232 and RS485 interfaces	
<b>Supported Cards &amp; Transponders</b>	MIFARE®-Family NTAG, I-Code Optional 125KHz, HID or Legic	
<b>Antenna</b>	Integrated	
<b>Display</b>	3.5" TFT Color LCD 320x480 pixels IPS with capacitive touch	
<b>Temperature</b>	-20°C to +70 °C	
<b>Relative Air Humidity</b>	5% up to 95% (non-condensing)	
<b>Power Supply</b>	+8V to +48V DC +12V DC nominal	
<b>Current Consumption</b>	~650mA @12VDC	
<b>Weight</b>	250 g	
<b>Supported Standards</b>	ISO14443A/B ISO15693	
<b>Certifications</b>	USA Europe/UK	FCC 47 CFR Part 15 (in progress) CE/RED
<b>Compliances</b>	Cyber Security	EN 18031-1
	EMC	EN 301489 EN 55022 EN 300330 RED 2014/53/EU
	Environment	RoHS Compliance REACH 1907/2006

### Device Photos





## Dimensions and Ports

The following views illustrate the precise dimensions and physical layout of the **MCRN7 RFID & QR Terminal** 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.



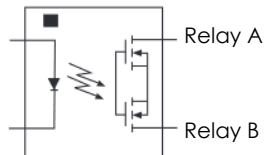
### Interface Ports

Cable	Type	RS485 Port
1	Ethernet	
2	Relay	 <ul style="list-style-type: none"> <li><span style="color: brown;">—</span> Brown [RELAY1]</li> <li><span style="color: yellow;">—</span> Yellow [RELAY1]</li> <li><span style="color: green;">—</span> Green [RELAY2]</li> <li><span style="color: white;">—</span> White [RELAY2]</li> </ul>
3	Optional other interfaces	Inputs, USB, RS232 or RS485



#### Output port

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

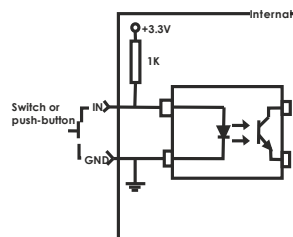


Parameter	Rating	Units
<b>Blocking Voltage</b>	30	V <sub>P</sub>
<b>Load Current</b>	1.2	A <sub>DC</sub>
<b>On-Resistance (max)</b>	0.25	Ω



#### Input port

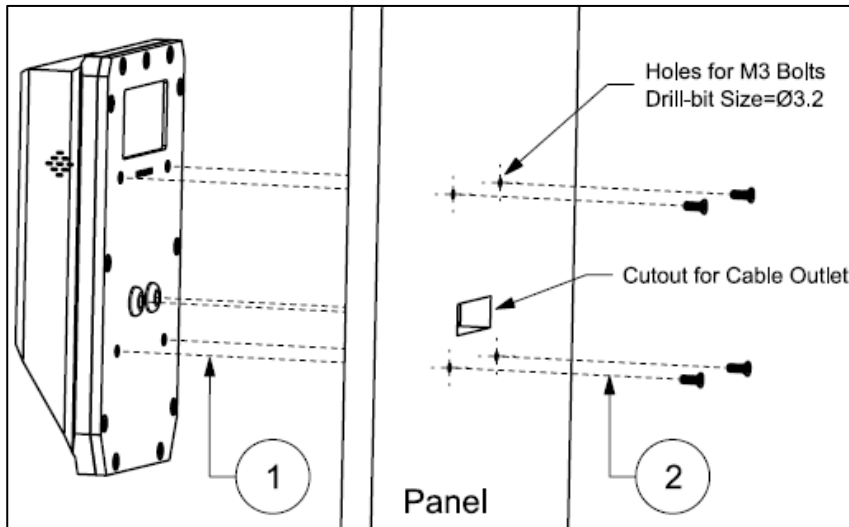
Each input pin consists of a phototransistor optically coupled to an infrared LED, suitable for pushbuttons or input-switches activated by a low signal or by pulling the pin to ground



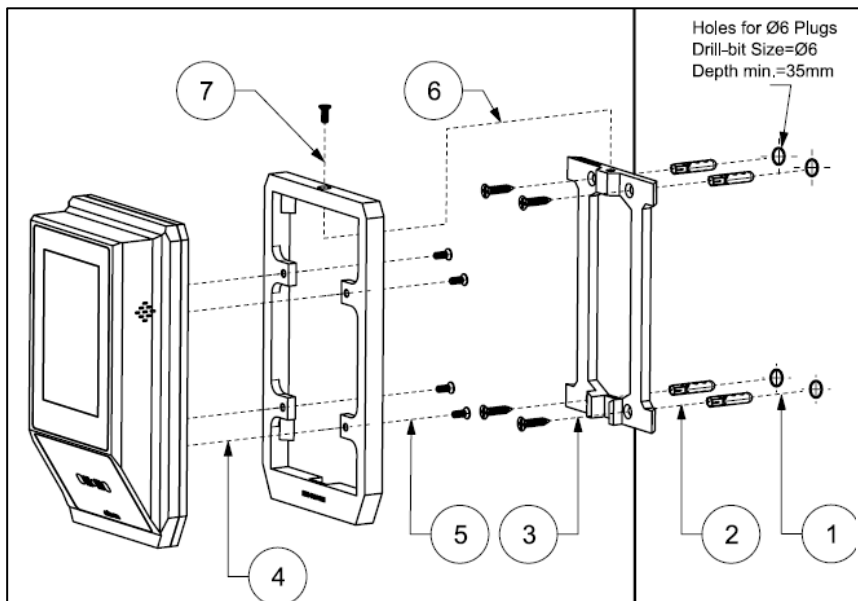
## Mounting Installation instructions

These pictures show how to install the device using either the panel-mount or wall-mount option.

### Panel Mount



### Surface Mount Kit



## Ordering Codes

Article Nr.	Ethernet	Power Supply	Relays	Inputs	RS232	RS485	QR-reader
MCRN7-2100	Passive-PoE	+12V	✓	Opt.	Opt.	Opt.	
MCRN7-2200	Passive-PoE	+12V	✓	Opt.	Opt.	Opt.	✓
MCRN7-2110	PoE	PoE	✓				

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