

Model: Unipi 1.1

**PLEASE RETAIN THIS DOCUMENT FOR FUTURE REFERENCE**
**CAUTION**

The unit can be powered only by a power source in compliance with the unit's specifications. Using unsuitable power supply can result in damage to the unit or connected devices. Unplug all power supplies and voltage sources before any manipulation with the unit – danger of electrical injury or component damage!

Do not use the controller in potentially explosive environments! The controller can be installed only by trained personnel with sufficient qualification. The unit can be installed only in a suitable environment following the product's technical specifications (indoor space with suitable temperature and humidity, waterproof distribution boxes, etc.).

All connected peripherals should comply with all standards and regulations relevant to the country and the intended use.

**Unipi 1.1 features**

<b>8× change-over relay</b>	250 V ~ / 30 V =; 10 A
<b>14× (12+2) digital input</b>	Galvanically isolated (5–24 V =) <i>Note: DI13 and DI14 are not accessible by default and require a custom connection. See the documentation for details.</i>
<b>2× analog input</b>	0–10 V =
<b>1× analog output</b>	0–10 V =
<b>1× 1-Wire port</b>	
<b>1× I2C port</b>	For mounting extension modules
<b>1× RTC (Real Time Clock) battery slot</b>	
<b>1× UART port</b>	For external serial communication
<b>Power supply</b>	5 V =, 5.5 × 2.1 DC connector
<b>RPI GPIO connector</b>	16-pin connector for unused RPI GPIO pins
<b>12 V =, 100 mA internal power supply</b>	For digital inputs


**Compliance information**

Unipi 1.1 complies with the requirements of EMC, LVD and RoHS regulations relevant for European Union states.


**WEEE Directive Statement for the European Union**

Unipi 1.1 cannot be disposed of as household waste. Different rules for handling electric waste may apply in other jurisdictions.



## First steps

### CAUTION

Before using the board, insert the CR2032 into the battery holder. Powering the board up without the battery may result in damage to the RTC module or other components of the board.

1. Make sure you have properly configured the power jumper – see **Power requirements**.
2. Screw in the plastic spacers to the Unipi board mounting holes.
3. Connect the provided flat cable to the Unipi board P5 header.
4. Attach your Raspberry Pi to the Unipi board with provided screws.
5. Connect the other end of the flat cable to your RPi (make sure it is not twisted).
6. Plug in the power supply.

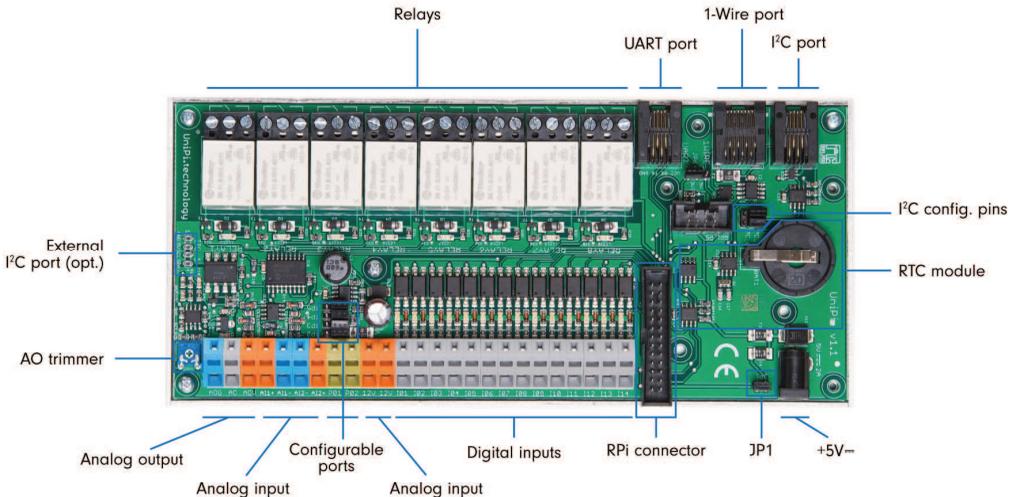
## Power supply instructions

Single power source (RPI and Unipi are powered from the same power source)	Dual power source (separate power sources for Unipi and RPi)
Jumper JP1 connected	Jumper JP1 disconnected
5 V – @2.5 A through the Unipi power connector	5 V – 1 A through the Raspberry Pi's micro-USB
Raspberry Pi power connector disconnected	5 V – 1.5 A through the Unipi power connector

Complete technical documentation can be downloaded at <https://kb.unipi.technology/>.

### Software

Unipi 1.1 unit is compatible with a variety of software. See our website for further details.



## Software

### MERVIS

Official software platform for programming Unipi units according to the IEC 61131-3 standard. Powerful, professional and a user-friendly tool. Detailed installation manual, tutorials and sample projects are available at <https://kb.unipi.technology/>.

### API

Thanks to the software openness of Unipi products, users have a wide choice of programming options for Unipi units (SysFS, Modbus TCP, web protocols and more). For further information visit <https://kb.unipi.technology/>.

