

## MOD - 29

### Temperature Monitoring System And Not Just - for Nettemp and Raspberry Pi



Dedicated for software:

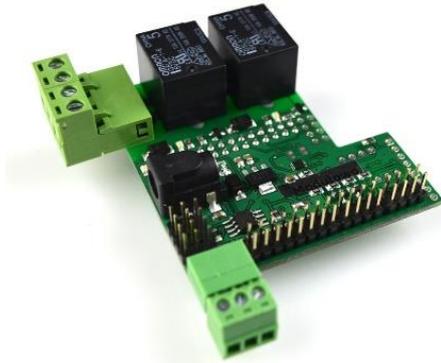
**NETTEMP** ([techfreak.pl/nettemp](http://techfreak.pl/nettemp))

In cooperation with:

**TECH**  
freak.pl

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*The Nettemp System is used to monitor the temperature and other parameters and present the results in the form of statistics on the server's website built on Raspberry Pi or another platform based on Linux as well as provide control. It has a user interface for easy configuration of sensors, parameter setting and measurement monitoring.*

**Note! This module is designed for system Nettemp (Software Page: [techfreak.pl/nettemp](http://techfreak.pl/nettemp)). The software is available on GitHub.**

This module has an I2C/1-Wire (DS2482) converter to which the DS18B20 temperature sensors can be connected with the use of two or three wires. The converter supports up to 8 sensors. The temperature sensors can also be connected to GPIO4. I2C, UART and SPI Interfaces are available as well. The module has 2 built-in GPIO-controlled relays. Due to the level of Raspberry Pi's operating voltage, which is 3.3 V, logic level converters are built-in (TXB0102 and BSS138 transistors). As a result, one I2C and UART connector can be used to connect additional units operating at a voltage of +5V (**Note!** Connectors that support +5V are indicated in the manual; not all connectors support +5V). The available interfaces can be used to connect, for example, the LCD module (controlled by I2C), DHT11, DHT22, HTU21D humidity sensors, TSL2561 lighting sensor or pressure sensors. The SPI connector can be used to connect an nRF24L01 radio module. **The 1-Wire bus enables the connection of multiple sensors to a single line, which means that there is no need to connect wires to each individual sensor.** The module has a built-in +5V voltage regulator and a DC connector for additional supply, max. +12V; it may also require the installation of a small radiator for the voltage regulator. In addition, the DC connector has a built-in Polymer Fuse with a value of 750mA (which is resettable, so you can just disconnect the power supply to make it work properly again).

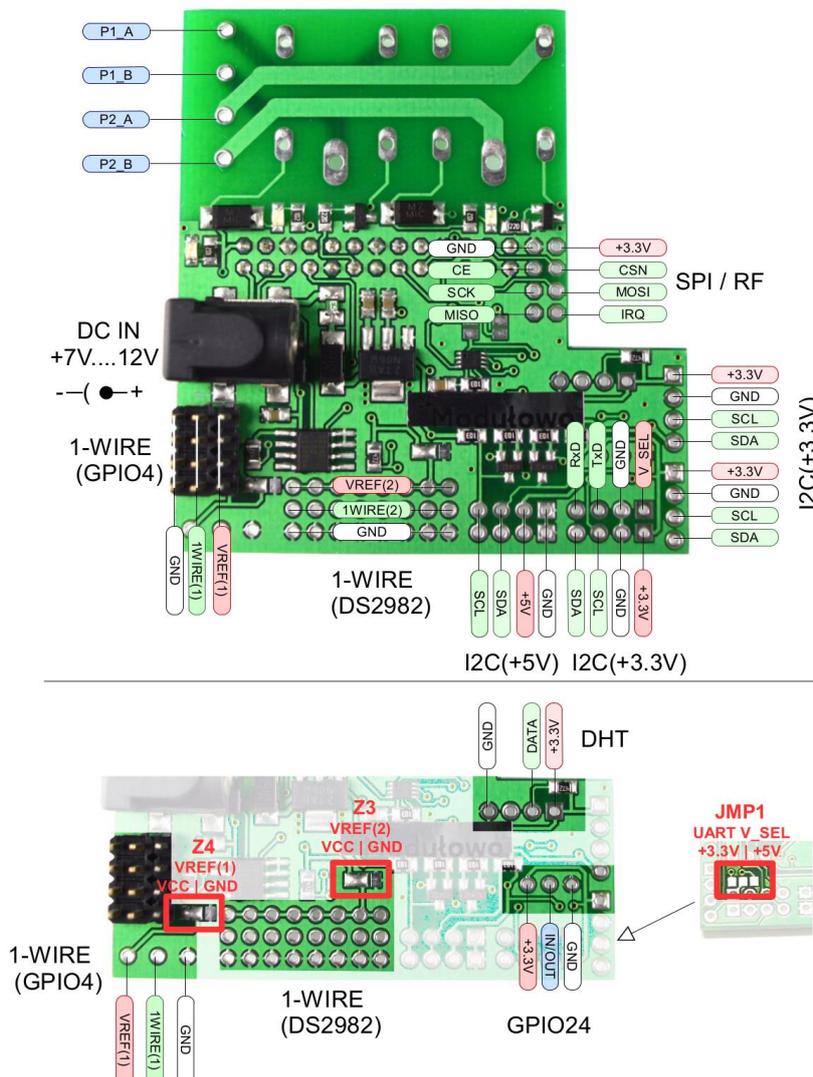
## Your list of modules

Each module has a unique serial number. Go to [www.modulowo.com/list](http://www.modulowo.com/list), enter the serial number and add the module to your list. This will allow quick access to the documentation and software.

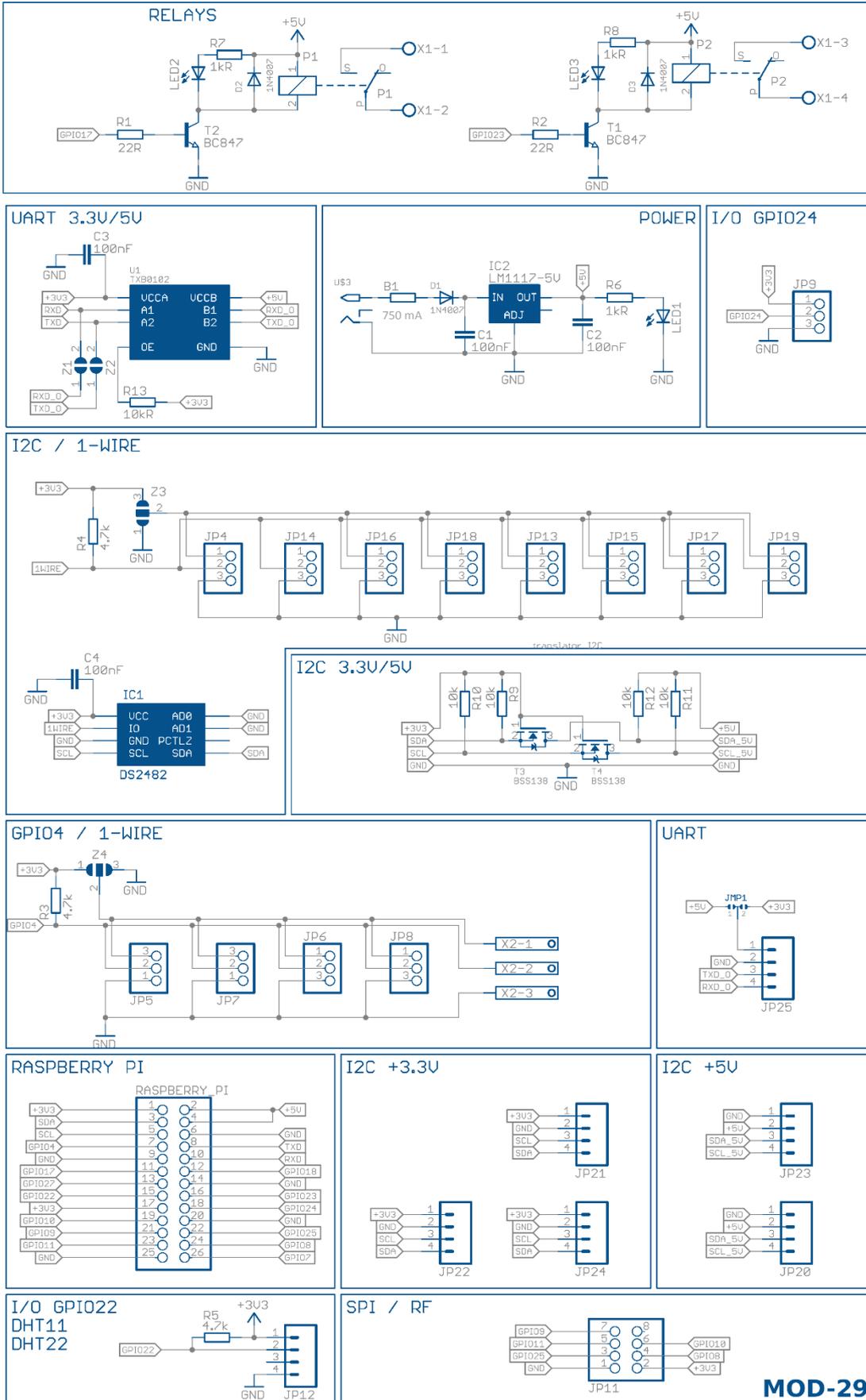
Specifications:

<b>Code and Product Name</b>	<b>MOD-29 Temperature Monitoring System And Not Just – for Nettemp and Raspberry Pi</b>
<b>Integrated Circuit</b>	DS2482, TXB0102, LM1117-5.0
<b>Protection</b>	Polymer Fuse 750mA for DC Connector
<b>Input Pins</b>	Raspberry Pi Connector
<b>Output Pins</b>	I2C, SPI, UART, 1-Wire
<b>Power</b>	from Raspberry Pi, additional power supply from DC Connector: +7 to +12V
<b>LED Indication</b>	yes
<b>Dimensions</b>	64 mm x 58 mm
<b>Configuration</b>	Vref for 1-Wire, VCC for GPIO24 pin
<b>Additional Information</b>	built-in + 5V stabiliser  For safety reasons , we recommend that you connect to the relay voltage of max. + 12V  additional sensors can be connected , for example: temperature and humidity DHT11, DHT22, HTU21D , lighting TSL2561 or pressure

Pinouts:



### Schematic:



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