I'm not a bot

Peacefair pzem-051 manual

Peacefair pzem-021. Peacefair pzem-022 manual. Peacefair pzem-051.

The PZEM-004T requires no calibration, as it comes factory-calibrated. It can be paired with a Sonoff Basic for an accurate clamp-on energy monitor. The necessary components include: Sonoff Basic PZEM-004T 1k resistor (for modification) Resistor enclosure Power cable Before connecting the PZEM-004T to the Sonoff Basic, ensure Tasmota is installed and functioning on the latter device. Hardware connections involve modifying the RX optocoupler series resistor in the PZEM-004T for proper functionality. This can be achieved by soldering a 1k resistor between VDD (5V/3.3V) terminal and the RX opto terminal, according to specific placement instructions based on the device version. The serial interface of the Sonoff Basic should be connected to that of the PZEM-004T. If using 5V from the Sonoff for the PZEM TTL port, an additional resistor mod is required, but using 3.3V is recommended for simplicity. In terms of power supply, cut the cable in two and connect the input wires to both devices, routing one output wire through the PZEM-004T core before connecting it to the Sonoff Basic output. Software configuration involves setting up GPIOs for hardware serial connection, taking note that using specified connections works across cores due to Tasmota's hardware serial feature. However, if other GPIOs are used, software serial emulation is required, which has limitations on older core versions. The device template for the PZEM-004T prior to V3 is {"NAME":"HW-655 PZEM","GPIO":[0,62,0,63,0,0,0,0,0,0,0,0,0],"FLAG":0,"BASE":1}, and for V3 it is {"NAME":"HW-655 PZEM","GPIO":[0,62,0,98,0,0,0,0,0,0,0,0,0],"FLAG":0,"BASE":1}. Use pins other than the default hardware serial GPIO (01 & 03) for TASMOTA to emulate a serial interface using software serial. Connect the serial interface of the HW-655 with the serial interface of the PZEM-004T. To configure the GPIO's for hardware serial connection, use the module template provided. If you use the connections as shown, communication works in all cores due to TASMOTA using hardware serial. However, if you want to use other GPIOs for communication, TASMOTA will emulate a serial interface using software serial. This feature requires a core version of 2.4.2 or greater and does not work with core 2.3.0 due to insufficient RAM. Parts needed: * Wemos D1 Mini * PZEM-004T * 1kOhm Resistor (optional) * Enclosure * 5V buck converter power supply * I2C 1602 LCD Display * Mains Power cable * Mammuth Clamps Preparation: * Compile your own Tasmota firmware as none of the pre-compiled binaries have support for display and PZEM module. * Set up your preferred IDE and enable custom settings. Tasmota Parameter Configuration: * Use I2CScan to detect your device address. * Set the I2C address using DeviceAddress XXX (where XXX is the decimal converted address found). * Set TelePeriod 10 for display refresh every 10 seconds. * Set DisplayModel 1 and DisplayMode 0. * Add a Rule to display values: Rule1 ON Tele-ENERGY#Power DO DisplayText [z] [x1y0]%value%W ENDON ON Tele-ENERGY#Today DO DisplayText [x8y0]%value%Wh ENDON ON Tele-ENERGY#Voltage DO DisplayText [x1y1]%value%V ENDON ON Tele-ENERGY#Current DO DisplayText [x8y1]%value%A ENDON Remember to enable the rule. Power Factor Overload Alarm Function: * Automatic alarm threshold detection with flashing backlight and power indication * Preset power alarm threshold setting function for customized alerts Reset Energy Function: * Key-controlled energy reset process: 1. Long press key for 5 seconds to flash energy value, then release. 2. Short press key again to clear energy value and exit reset mode. 3. Inactive after 5 seconds; if no operation, the energy value is not cleared. Set Power Alarm Threshold Function: * Key-controlled threshold setting process: 1. Long press key until "SET CLR" displays on LCD screen, then release. 2. Short press key to increment current power alarm value; switch digit positions automatically after 3 seconds of inactivity. 3. After setting, long press key for over 5 seconds to store and exit. Specifications: * Operating voltage: 80-260VAC * Test voltage: 80-260VAC * Rated power: 100A/22000W * Operating frequency: 45-65Hz * Measurement accuracy: 1.0 grade Display format: * Power: 0-22kW, displayed in 10 increments (e.g., 1.00-9.99W for