Creasol DomBus & DomESP1

Home automation systems - Domoticz

Domoticz: the complete free open source home automation system

Creasol DomBus1

3/4 relay outputs, 6 inputs, 1 AC input

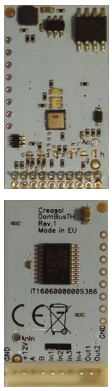
One or multiple DomBus devices can be connected through a **RS485 serial bus**

Designed for **low power consumption**, uses a switching mode regulator and **optimized management of relay current**.

Low power consumption: DomBus1 can be supplied from 5 to 25Vdc, and power consumption is really low: at 12V, for example, **3mA in standby, 9.5mA with 1 relay ON, 16mA with 2 relays ON (0.2 Watt)**, 23mA with 3 relays ON.

Plug & Play: connect DomBus to Domoticz via RS485 bus, and **all I/O of the board will be immediately available in the Domoticz Switches panel**! Also, all I/Os are easy configurable through its description, in Domoticz panel.

Creasol DomBusTH



Module that should be installed on a blank cover.

Temperature + Humidity calibrated sensor

3 LEDs: white, red, green

4 inputs, fully configurable as digital, analog, buzzer, low current digital_output

2 open-collector outputs, with 40V 50mA capability, that can control external relays for blinds, curtains, lights, ...

1 analog input to monitor Vbus voltage

Applications:

Home/office alarm system: controls hundreds of magnetic contact sensors and PIRs. Send notifications by Telegram, emails and SMS.

Automatically activates **Controlled Mechanical Ventilation** when needed (CO_2 or humidity) and **stops it in case of external pollution (particulates)**.

Controls **heating and cooling system**, optimizing the energy consumption using the most energy from photovoltaic.

Measure the produced/consumed current from the energy meter, and automatically activates radiators/dryers or other appliances in case of **photovoltaic power surplus**.

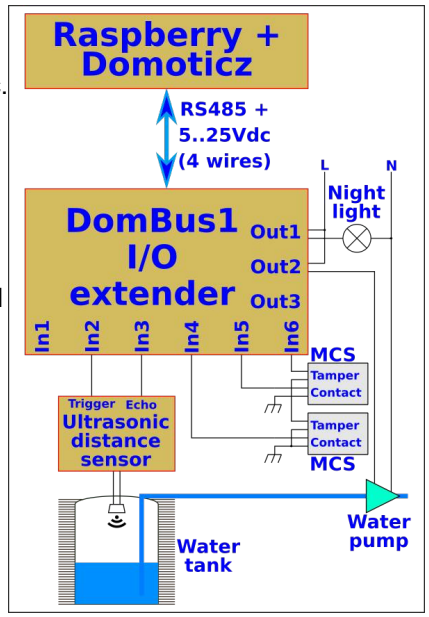
Controls **lights and outputs by pushbuttons, switches and smartphone.**

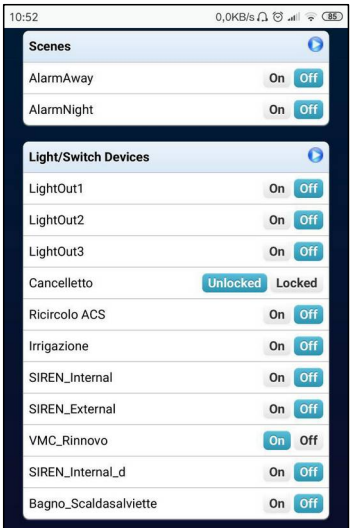
Automatically **turns on the external lights after sunset and turns off before sunrise**.

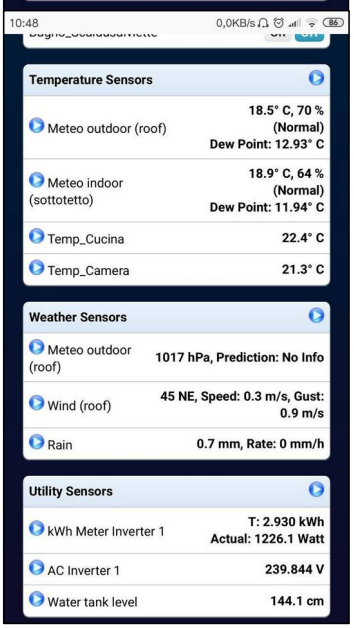
Open/close **gate, garage door, ... by smartphone.**

When door bell rang, sends a photo by Telegram.

Measure water tank level, and activates **garden watering**.







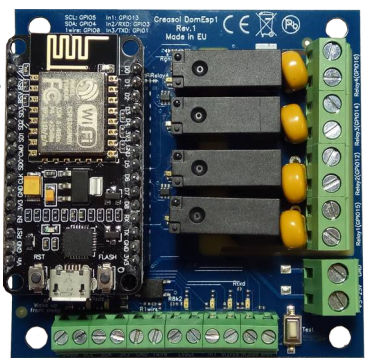
Creasol DomESP1

Electronic board, without case, designed for **ESP8266 NodeMCU WiFi 2.4GHz module.**

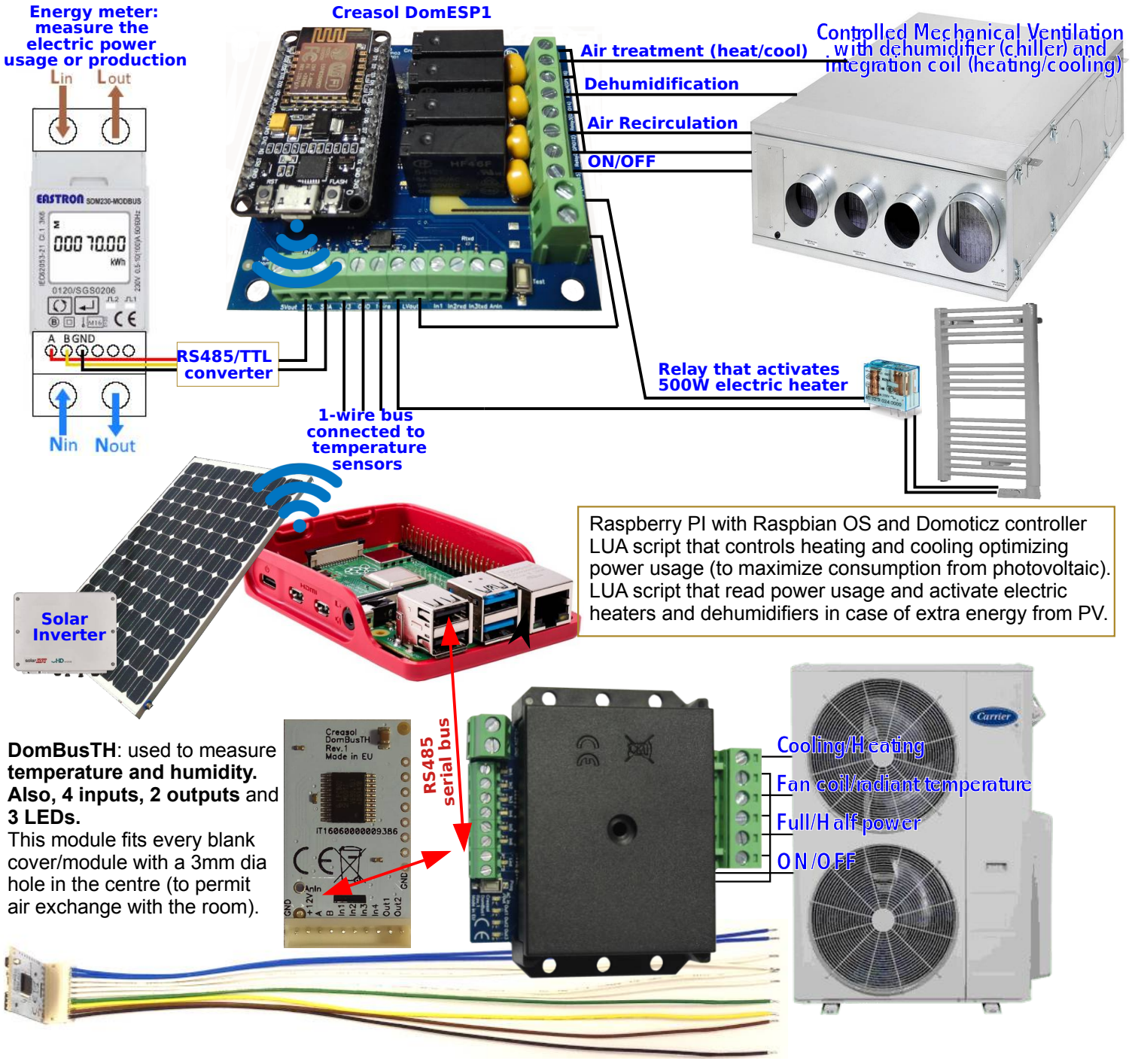
Integrates the whole circuitry to manage **digital inputs**, **1 analog input**, **4 relay outputs**, **1 Solid State Relay output 60V 100mA**, **I2C bus** (for sensors and relay outputs boards), **1wire bus** (for temp/humidity sensors).

Switching mode power regulator, to reduce power consumption and dissipation, can be supplied from **5 to 25Vdc**.

Using ESPEasy firmware, can be used to **expand Domoticz I/Os and sensors by a WiFi connection**.



Using Domoticz to optimize renewable energy systems



Raspberry PI with Raspbian OS and Domoticz controller
LUA script that controls heating and cooling optimizing power usage (to maximize consumption from photovoltaic).
LUA script that read power usage and activate electric heaters and dehumidifiers in case of extra energy from PV.

DomBusTH: used to measure **temperature and humidity. Also, 4 inputs, 2 outputs** and **3 LEDs.**
This module fits every blank cover/module with a 3mm dia hole in the centre (to permit air exchange with the room).

Installing DomBusTH near the bed switches, in the bedroom

* controls, by a pushbutton switch, **the alarm system and white led:**
  short pulse when alarm is off => **enable night alarm and turn red Led ON** for 2 seconds;
  short pulse when alarm is on => **toggle white Led ON/OFF** (smooth light, useful in the night to not wake-up the partner);
  long pulse when alarm is on => **disable alarm and turn green Led ON** for 2 seconds;
* **white Led ON** in case of **power outage**
* controls, by a double-pushbutton UP/DOWN, the **roller shutters**: two external relays are needed to drive the roller shutter motor **UP/DOWN**;
* **buzzer alert in case of intrusion detection** (alarm) and in case that someone **rings the door bell**;
* measures the room **temperature and relative humidity;**