

### What is this system?

One or more temperature sensors, combined with a temperature controller and relay modules results in a powerful heating, cooling and temperature control system. The different sensors can be monitored, operated and time controlled from one or more remote locations by means of our temperature controller. PC controlling and monitoring is also possible (see option below).

### What can I do with this system?

- ✓ Monitor the temperature from each room or sensor
- ✓ Preset an anti freeze (Off) / Night / Day / Comfort- temperature for each sensor
- ✓ Give each sensor a name, to display on the temperature controller(s) or PC
- ✓ Manually change the temperature in each room
- ✓ Create temperature "zones" (upstairs, downstairs ... ) for ease of global operation
- ✓ Check the temperature history (min / max and heating time) for each room or sensor
- ✓ Set a temperature alarm (too high and too low) for each sensor
- ✓ Set a "wake up" and "go to bed" time alarm
- ✓ Activate relay contacts for: heating / pump / air-conditioning / quick heating fan / temperature alarm / time alarm
- ✓ Switch between Off / Night / Day / Comfort- presets by means of:
  - A local button on each sensor or any push button in your Velbus system
  - Several week/day program steps for each sensor or zone
  - An (adjustable) sleep timer on each sensor or push button in your system
  - The "wake up" and "go to bed" alarm time for each sensor or zone

### What you need:



How many sensors VMB1TS do you need?



A basic application requires one sensor. For optimum comfort you require a sensor in each room (a max. of 32 sensors can be used)

**Hint:** Install extra sensors at locations such as garage, cellar, attic, fuse box, near the plumbing system, for monitoring and alarm purposes (e.g. frost alarm)

Note that these sensors are actually complete small thermostats, that can directly drive Velbus relays, all settings are stored "inside" the non volatile sensor memory



How many controllers VMB1TC do you need?



At least 1 controller for configuration, monitoring and programming(\*)

**Hint:** A second controller (eg in master bedroom) could come in handy. The timer-program is automatically synchronised between the controllers.

\* If "time" programming is not required, then it is also possible to configure and monitor the sensors using a PC (see "optional" below)



How many output relays VMB4RY (4 channel\*) do you need ?



Several switching options are possible, select one or more out of these possibilities. Except for monitoring, you will need at least 1 contact:

- For Each room radiator valve or each room electrical heating
- Switch your central heating system in day or night mode
- To turn on/off your central air-conditioning system
- To drive the circulation pump of your central heating system
- To drive an extra ventilator to speed up (boost) a large temperature difference
- To light an indicator in case of temperature alarm (separate high or low alarm is possible)

\*Note: a 1 channel type VMB1RY with NO/NC contact is also available



OPTIONAL  
A PC interface and free software



All modules can be configured manually, but for ease of configuration or temperature monitoring, you might consider using your PC\*.

Choose between USB or RS232 interfaces,  
Available types: VMB1USB (USB), VMB1RS (RS232) and VMBRSUSB (USB+RS232)  
\*The "VelbusLink" software is available free for download

### Easy 3-step installation:



1. Power relays



2. Install the temperature sensors in each room



3. Install the temperature controller(s).

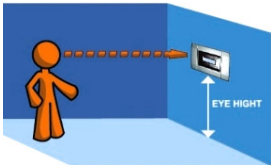
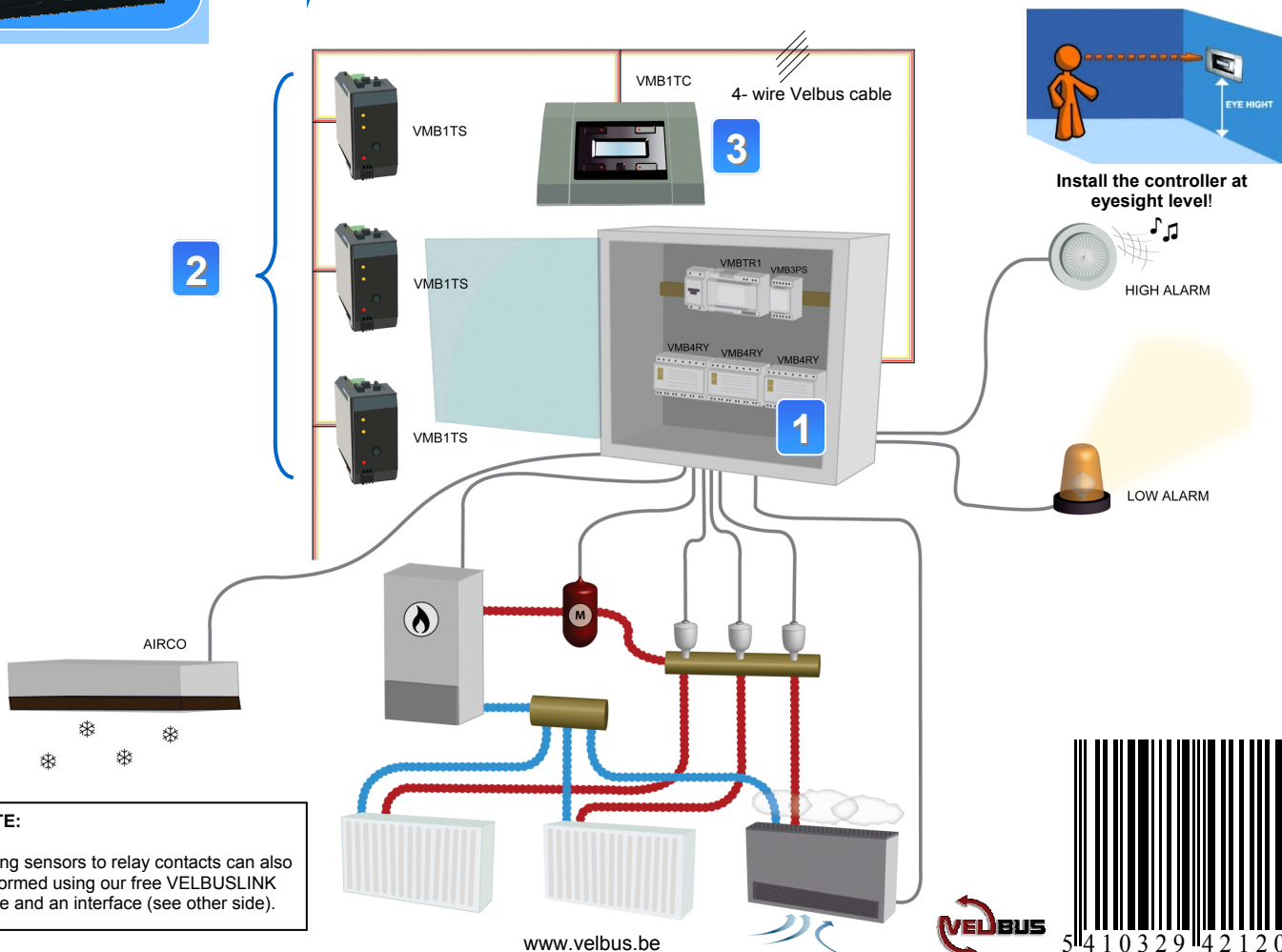
- Install the relay(s) in your fuse box or other appropriate place for ease of wiring
- Provide each relay with an address (write down the address), see user manual VMB4RY
- Connect the relay contacts with the appropriate target unit (heating, circulation pump, air-conditioning...)

**NOTE:** Mind direct sunlight, draft and away from heating/cooling vents

• Perform next steps **before** final fixation of the sensor, once mounted, the config buttons are no longer accessible, then only PC configuration is possible. (see controller user manual)

- Provide each temperature sensor with an address (write down the address), Assign (learn) the sensor outputs to a relay contact<sup>(\*)</sup> for its purpose, Examples:
  - ◊ **Room heater or room water valve.**  
⇒ Activated by the sensor if the room need to heat
  - ◊ **Central heating system**  
⇒ Activates your central heating system as soon as at least 1 sensor is set in day/or comfort temperature
  - ◊ **Central heating system main pump**  
⇒ Activated as soon as at least 1 sensor needs to heat a room (or if anti-pump jam is set)
  - ◊ **Central air-conditioning system**  
⇒ Activated by the sensor to cool down the room
  - ◊ **An extra fan for quick heating or cooling (Boost)**  
⇒ Activated by the sensor if target temperature must recover a big difference
  - ◊ **Alarm siren or light**  
⇒ Activated as soon as a temperature has reached a preset alarm temperature, separate high or low alarm is possible

- Install the controller in the room where you want to control or monitor the temperature.
- Preferably install the clock battery back-up type CR2032.
- Set a unique address for each controller. (see also the controller user manual).



Install the controller at eyesight level!



(\*) NOTE:  
Assigning sensors to relay contacts can also be performed using our free VELBUSLINK software and an interface (see other side).

