

## Comfort - TECHNICAL CHARACTERISTICS

### 2-module timer-thermostat

#### Scope

Suitable for the control of ambient temperature (heating and air conditioning) through action on supply circuit of burners or of water circulation pumps (heating) or on the air-conditioners supply circuit (air conditioning). The programming is simple and intuitive assisted by interactive menus (all instructions shown on the display), using the 4 buttons on the front.

It is possible to remote control timer-thermostat from a phone dialler to switch on and off of the system.


#### Conformity to Standards

LV Directive

EMC Directive

EN 60730-1, EN 60730-2-7, EN 60730-2-9 Standards

#### Technical specifications

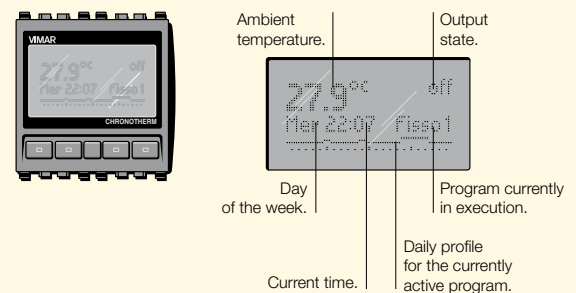
- Supply voltage: 120-230 V~± 10% 50-60 Hz.
- Absorption max: 1 W.
- Clock backup battery duration: about 7 days, with rechargeable lithium buffer battery.
- Output: change-over relay output.
- Type of regulation: ON/OFF.
- Temperature sampling frequency:
  - every 5 s, with an average of the values acquired in 20 seconds;
  - instantaneous, in the event of a parameter being changed by the user.
- Updating of display data: every 20 s.
- Ambient temperature display range: 0 °C +40 °C.
- Resolution of the reading: 0,1 °C.
- Resolution of the settings: 0,1 °C.
- Precision of the reading in heating mode:
  - ≤ ±0,5 °C between +15 °C and +25 °C;
  - ≤ ±0,8 °C at the temperature extremes.
- Precision of the reading in air conditioning mode:
  - ≤ ±0,5 °C between +20 °C and +30 °C;
  - ≤ ±0,8 °C at the temperature extremes.
- Software settings: possibility of compensating the temperature reading with a software offset (± 3 °C max) to adapt the measurement to the specific installation conditions.
- Hysteresis: adjustable between 0,1 °C and 1 °C.
- Thermostat operating range:
  - +4 °C - +15 °C in antifreeze mode;
  - +5 °C - +35 °C in heating or cooling mode.
- Clock accuracy: ≤ ±1 s a day.
- Timed back-lit display, activated by pressing one of the four push buttons.
- Protection degree: IP40.
- Class II equipment: .

#### Main functions

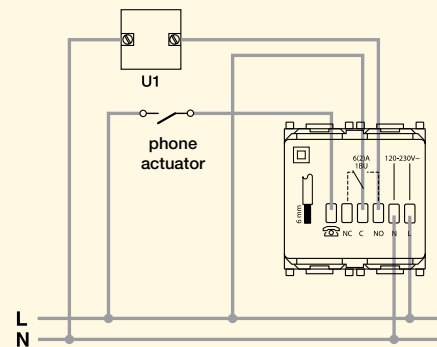
- hourly temperature settings in 20-minute steps;
- 3 programmable temperature set-points for heating + 3 temperature set-points for cooling;
- weekly programming;
- 2 fixed programs and 2 user configurable programs (for both heating and cooling);
- possibility of overriding the program to vary the temperature;
- programs retained even in the event of a power outage;
- regulation for both heating and cooling systems;
- antifreeze function;
- possibility of timed switch off;

- turn on and off with a phone dialler;
- instructions in 5 languages (Italian, English, French, Spanish, German)
- device reset;
- self-diagnostic functions: automatically activated at regular intervals during normal operation, to check the state of the temperature probe, the state of the display driver, the efficiency of the EEPROM memory, the efficiency of the backup stage;
- button lockout function with 3-digit PIN number to prevent unauthorised access to all the device functions and programs (for example, when installed in a public place);

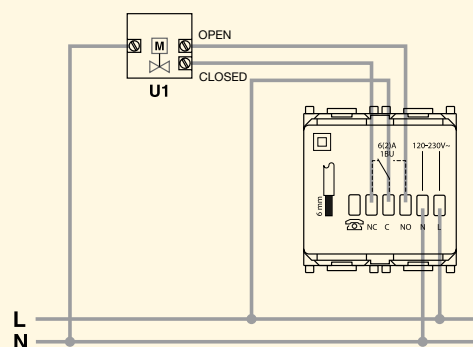
#### Example of daily programming



#### Wiring diagram with water circulation pumps, burners, solenoid valves and remote control through phone dialler



#### Wiring diagram with motor-operated valves.



### 2-module electronic timer-thermostat

**20445 .B .N** Electronic timer-thermostat for ambient temperature control (heating and air conditioning) 24h/7 day programming, remote control activation/deactivation output by phone dialler, 6(2) A 230 V~ change-over relay output, supply voltage 120-230 V~ 50-60 Hz - 2 modules



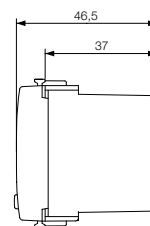
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### 20445 - Example of use

