HELTUN™

IMPOSSIBLY SMART

FAN COIL THERMOSTAT

HE-FT01

WITH Z-WAVE 700 PLATFORM

YOUR COMFORT MATTERS

- When considering your comfort at home, what is most important?
- Is it general room temperature?
- Heating or Cooling temperature?
- Conditioning and ventilation speed?
- Or maybe something else?

Whatever the need,

HELTUN has got you covered.

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TAKE CONTROL

Five channel relays, 5 Amp load each, with two independent dry contact inputs for fans and valves control.

Split Wall Mounted AC

Ceiling Concealed AC

Window Mounted AC

Ceiling Suspended AC

Ceiling Cassette AC

Floor Convectors

Split Ducted AC

Portable AC

Standing Floor (Tower) AC

Fan Coil Units

HELTUN

IMPOSSIBLY THIN

ELEGANT DESIGN

The Fan Coil Thermostat is available in 30 combinations to integrate seamlessly with your interior design. Five frames (silver, chrome, gloss black, matte black, & white), and six glass colours (white, black, yellow, green, red and blue) let you match any environment, style, or taste.

Designed to be powerful, efficient and stylish, at 9 mm thick the Fan Coil Thermostat is ‘impossibly thin’ and good-looking on your wall.

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FRAME: SILVER
GLASS: WHITE
MODEL: HE-FT01-SW

FRAME: SILVER
GLASS: BLACK
MODEL: HE-FT01-SK

FRAME: SILVER
GLASS: YELLOW
MODEL: HE-FT01-SY

FRAME: SILVER
GLASS: GREEN
MODEL: HE-FT01-SG

FRAME: SILVER
GLASS: RED
MODEL: HE-FT01-SR

FRAME: WHITE
GLASS: BLUE
MODEL: HE-FT01-SB

FRAME: CHROME
GLASS: WHITE
MODEL: HE-FT01-CW

FRAME: CHROME
GLASS: BLACK
MODEL: HE-FT01-CK

FRAME: CHROME
GLASS: YELLOW
MODEL: HE-FT01-CY

FRAME: CHROME
GLASS: GREEN
MODEL: HE-FT01-CG

FRAME: CHROME
GLASS: RED
MODEL: HE-FT01-CR

FRAME: CHROME
GLASS: BLUE
MODEL: HE-FT01-CB

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FRAME: BLACK GLOSS / MATTE
GLASS: WHITE
MODEL: HE-FT01-GKW / MKW

FRAME: BLACK GLOSS / MATTE
GLASS: BLACK
MODEL: HE-FT01-GKK / MKK

FRAME: BLACK GLOSS / MATTE
GLASS: YELLOW
MODEL: HE-FT01-GKY / MKY

FRAME: BLACK GLOSS / MATTE
GLASS: GREEN
MODEL: HE-FT01-GKG / MKG

FRAME: BLACK GLOSS / MATTE
GLASS: RED
MODEL: HE-FT01-GKR / MKR

FRAME: BLACK GLOSS / MATTE
GLASS: BLUE
MODEL: HE-FT01-GKB / MKB

FRAME: WHITE
GLASS: WHITE
MODEL: HE-FT01-WW

FRAME: WHITE
GLASS: BLACK
MODEL: HE-FT01-WK

FRAME: WHITE
GLASS: YELLOW
MODEL: HE-FT01-WY

FRAME: WHITE
GLASS: GREEN
MODEL: HE-FT01-WG

FRAME: WHITE
GLASS: RED
MODEL: HE-FT01-WR

FRAME: WHITE
GLASS: BLUE
MODEL: HE-FT01-WB

INTERNAL SENSORS

In addition to the temperature control sensor, the HELTUN Fan Coil Thermostat also features built-in humidity and ambient light sensors which can be monitored by a Z-Wave controller and used to trigger home automation scenes.

The frequency (reporting time) of data updates from sensors can be individually adjusted to meet the needs of your smart home system.

TEMPERATURE SENSOR

HUMIDITY SENSOR

AMBIENT LIGHT SENSOR

MULTIPLE SENSORS HELP SAVE ENERGY

When electronics are operating they generate heat. As a result, some thermostats measure ambient temperature with only 1.5-2.0° Celsius precision. The HELTUN Fan Coil Thermostat design incorporates four additional internal sensors and compensating software to calculate ambient temperature with ten times better precision: 0.2-0.3° C. This helps make you more comfortable while saving energy.

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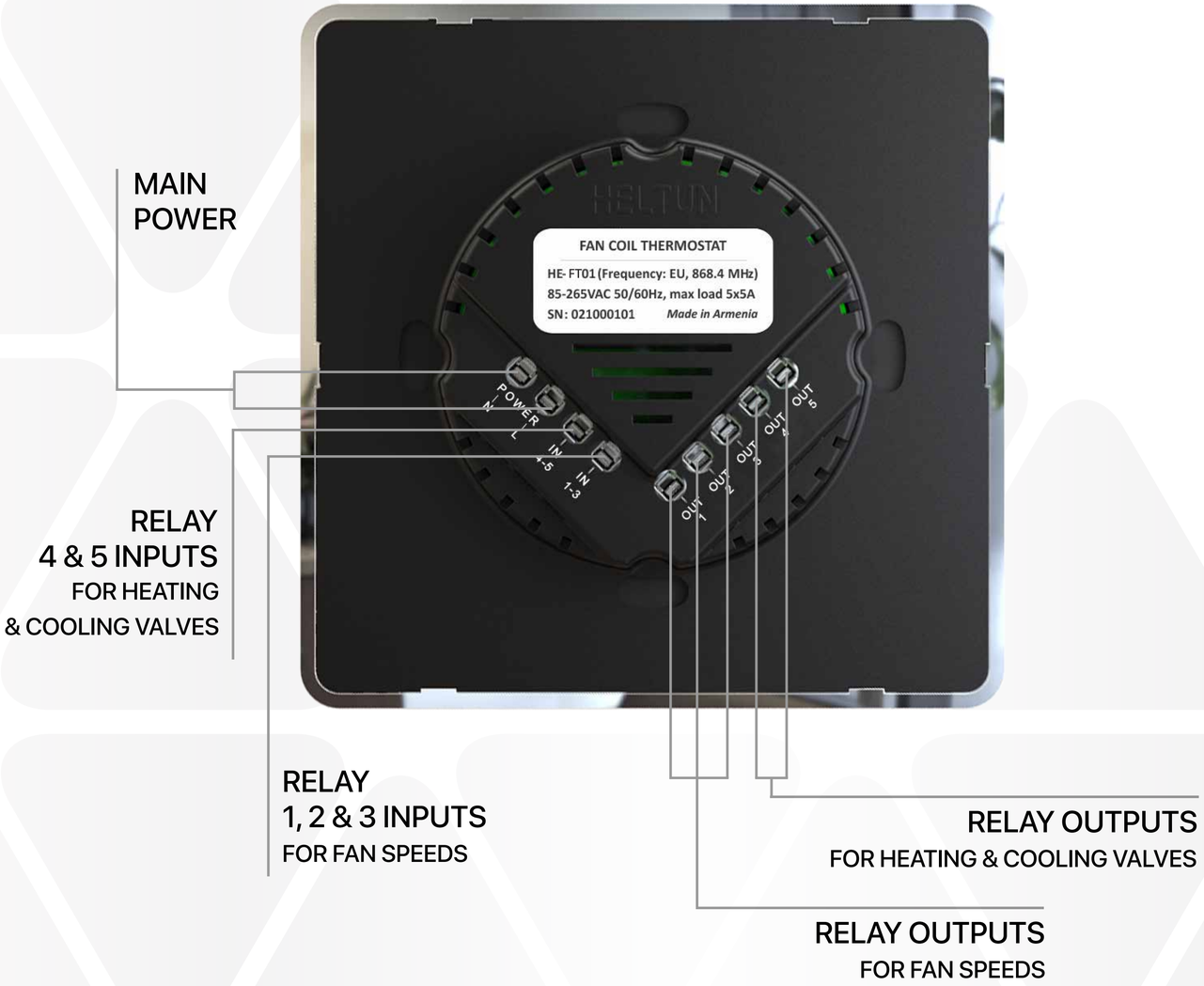

INPUTS & OUTPUTS

The main power input can be either 85-265VAC 50Hz/60Hz, or 24-48VDC.

There are five relay outputs each with a maximum 5 Amp load.

There are also two independent inputs for relay channels which allow control of systems with different power sources for fan speed and for heating/cooling valves.

Input 1 with the required power source is for fan speed and is used for relay channels 1, 2 and 3, which can carry a maximum 15 Amp load.

Input 2 with the required power source is for heating and cooling and is used for relay channels 4 and 5, which can carry a maximum 10 Amp load.

KNOW HOW MUCH ENERGY YOU USE

The HELTUN built-in Power Consumption System precisely monitors how much energy you used during any particular day, week, or month.
Does your current thermostat do that?

Just specify the consumption of the load in watts for each relay channel and the thermostat logic will calculate total consumption relative to the time since the output was in the ‘ON’ state

We have also designed the circuitry so it draws almost zero watts to power itself when in standby mode. This saves you energy and money even if your home is equipped with many HELTUN products.

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CONTROLS

The HELTUN Fan Coil Thermostat has six capacitive-touch buttons which react to even the lightest touch to access the following functions:

“Speed” controls fan speed (cooling, heating, or ventilation power) with three levels (Low, Medium, High) or in Auto mode.

“Mode” switches between modes (e.g. Comfort, Economy, etc.).

“Time” adjusts temperatures for different times of day

“Climate” control lets you select climate mode: heating only, cooling only, heating and cooling, or ventilation only. Hold “Climate” to open the settings menu for more than 30 different parameters adjustments.

“+” and “–” adjust the temperature set point

Touch-button sensitivity can be adjusted in the thermostat parameters settings to make it even easier to use.

LCD SCREEN

The large LCD display shows all necessary information at-a-glance without forcing you to activate or manipulate any controls.

You have instant access to all sensor and setting information: room temperature, humidity, set point, thermostat mode, climate mode, fan speed plus date and time.

Display brightness can be adjusted manually to 15 different brightness levels, or automatically using the ambient light sensor. This allows you to read the display easily even on bright sunny days, and will not overpower your eyes at night.

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COM — Comfort mode

ECO — Energy saving mode

TIME — Time mode

Heating & Cooling mode

Heating only mode

Cooling only mode

Ventilation mode

OPERATING MODES

COM and ECO modes maintain the temperature you set which can be easily adjusted by selecting the mode desired and pressing the "+" or "–" control.

TIME mode allows you to set a different temperature for Morning, Day, Evening, and Night periods for each day of the week.

CLIMATE MODES

In Heating & Cooling mode the thermostat will constantly maintain the desired temperature. If room temperature is higher than the Set Temperature the Fan Coil thermostat will start cooling the house. If room temperature drops below the Set Temperature the thermostat will start heating the house.

In Heating only mode the Fan Coil thermostat will heat the house if room temperature is lower than the Set Temperature, and will go into IDLE state if room temperature is higher than the set point.

In Cooling only mode the Fan Coil thermostat will cool the house if room temperature is higher than the Set Temperature, and will go to IDLE state if the room temperature is lower than the set point.

In Ventilation mode the Fan Coil thermostat will only operate the fan to ventilate the house.

TIME MODE

You could reduce your power bill by up to 50% and help the environment by activating TIME mode. Adjust your home comfort level according to your family's habits by reducing the temperature while everyone is away, and boosting it for evenings and early mornings.

People spend about 12-14 hours a day at home on average. The rest of the time an empty house needs minimal heating. And considering that much of the time at home your family is sleeping, it can make a huge difference setting your home's comfort level to 18° Celsius overnight which is considered to be the optimal sleeping temperature.

Using TIME mode, you can set different temperatures for Morning, Day, Evening, or Night. For example: 'Morning' mode might start at 7:00 @ 23°C and then shift to 'Day' at 8:30 @ 17°C when everyone is off to work and school. 'Evening' mode might start at 16:00 @ 22°C and then shift to 'Night' at 23:00 @ 18°C. Setting temperatures for these four periods can save a lot on your power bill plus you can adjust for weekdays versus weekend days.

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FAN SPEED

Fan Speed (heating, cooling, or ventilation) can be controlled manually or in Auto mode.

There are four speed levels: Off, Low, Medium, High, Auto Medium, Auto High.

In Auto mode the Fan Coil thermostat logic automatically selects the speed level depending on the difference between the temperature set point and ambient room

If the difference is...	Fan Coil Thermostat selects...
- less than 1.0°C	Low speed level
- in between 1.0 – 2.0°C	Medium speed level
- more than 2.0°C	High speed level

When room temperature equals set point temperature, the thermostat enters IDLE state (fan off).

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HYSTERESIS

Hysteresis is a technical term which defines when a heating or cooling system should turn on or off when the temperature changes. For example, if the desired temperature is 25°C and the internal hysteresis value is set to 0.5°C, the system will switch OFF the heating when the temperature reaches 25°C and switch it back ON when room the temperature drops to 24.5°C.

The higher your hysteresis value is set, the more energy you can save but the variations in room temperature will be greater. The factory default hysteresis value is 0.5°C.

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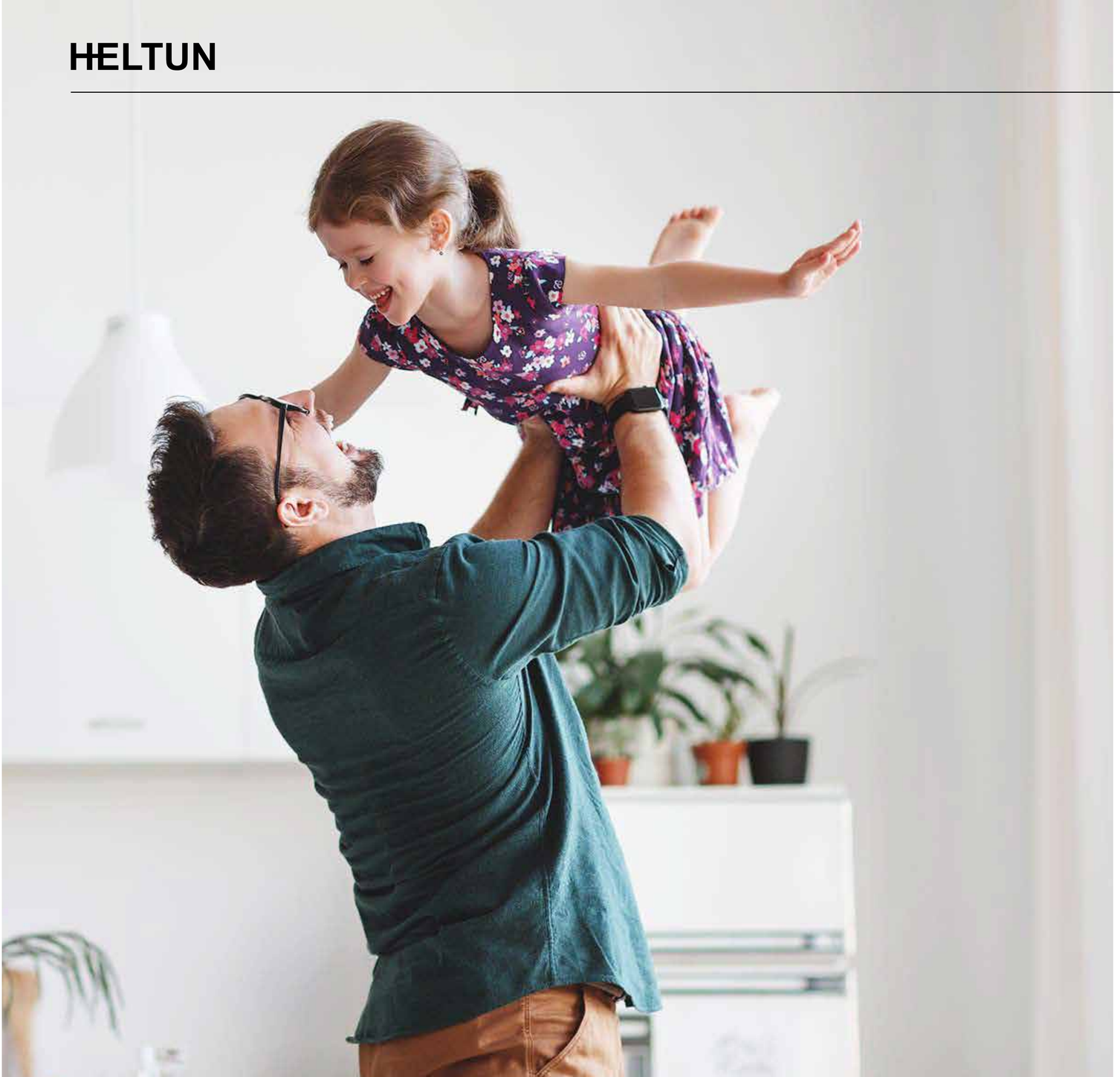

SAFE & SAVE

In case of a power outage, the Heating Thermostat's internal memory is saved and will not be erased. Once the thermostat comes back online all your settings will be fully functional.

To prevent your kids from changing any thermostat settings, you can activate the 'child-safe' mode which locks the control buttons and prevents any accidental changes.

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EASY TO INSTALL

HELTUN thermostats can be easily installed into any standard electrical junction box (square or round) in just minutes.
Installation must only be performed by someone trained in handling high voltage electrical systems.

1

2

3

HELTUN

Zipato

Athom Homey

HomeSeer

Vera

Fibaro
Home Center Lite

Eedomus

Fibaro
Home Center 2

Z-Wave.me
RaZberry

Z-WAVE PLUS V2 CERTIFIED

You can connect HELTUN devices to a Smart Home gateway/controller using the latest Z-Wave Plus V2 700 platform. HELTUN features advanced Smart Start technology for easy system integration, and the Security 2 (S2) framework with AES 256 encryption for safe data transfer.

This thermostat is compatible with all Z-Wave certified controllers and devices that properly implement Z-Wave thermostat classes. Using a Z-Wave controller, you can manage all thermostat functions via a mobile application including temperature and mode changes, viewing accurate energy consumption charts, and much more.

Up to 10 separate devices can be connected to your HELTUN thermostat. You can associate it with any Z-Wave compatible ON/OFF switch, or other thermostat, to control different climate systems in a room. You can even connect motion sensors and change thermostat modes when people are detected in the house.

HELTUN devices are compatible with all Z-Wave frequencies for different countries (Europe, Russia, Israel, Australia, USA, India, Hong Kong, China, Japan, and Korea). The correct frequency can be selected in the device menu.

HELTUN periodically releases new firmware with additional features and functionality which can be sent to devices via an encrypted OTA (Over-The-Air) update process.

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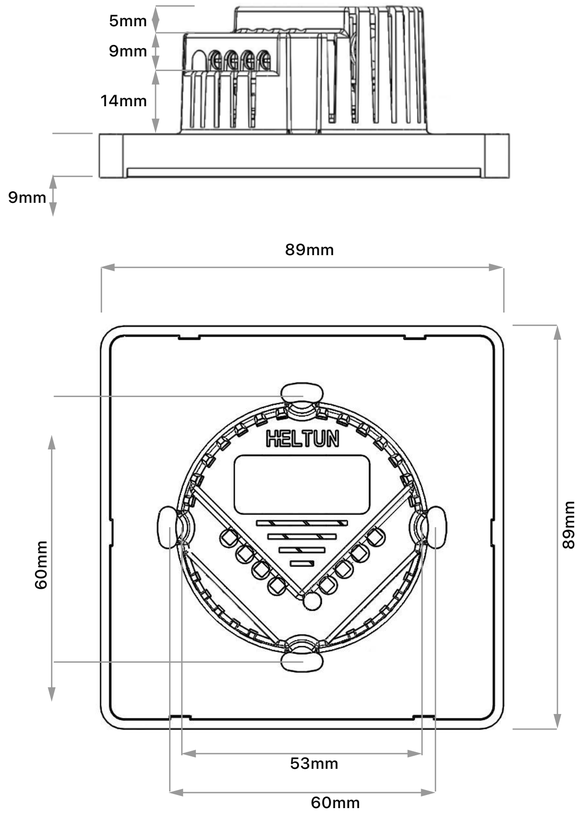

TECHNICAL SPECIFICATIONS:

- Front frame (on wall) dimensions: 89x89x9mm
- Rear package dimensions: 53x53x28mm
- Materials: Tempered glass, Flame retardant plastic
- 5 frame colors: White, Gloss Black, Matt Black, Silver, Chrome
- 6 glass colors: White, Black, Yellow, Green, Red, Blue
- LCD: 73x42mm, black with white segments
- 6 sensitive capacitive touch buttons
- 5 relays with resistive load up to 5A each
  - 2 relays for cooling and heating valves
  - 3 relays for fan speed
- 2 independent relay inputs (dry contact)
- Relay switching with HELTUN Advanced Zero-Cross Technology
- Relay life time: 100.000 cycles
- Internal ambient light sensor
- Internal temperature sensor
  - Measurement range: –30°C to +80°C
  - Accuracy: ±0.5°C
- Internal humidity sensor
  - Measurement range: 0% to 80%RH
  - Accuracy: ±3.0%RH
- Software energy consumption logic
- Operating temperature: 0°C to +50°C
- Power supply: 85-265VAC 50Hz/60Hz, 24-48VDC
- Power consumption: 1W
- IP class: IP21
- Z-Wave Plus V2 SDK: V7.11
- Z-Wave module: ZGM130S
- Requires mounting to flush electrical junction box: round or square type – min. depth 40mm

FUNCTIONS & FEATURES:

- Options for Inclusion/Exclusion to/from Z-Wave network
  - Non-Secure
  - S0 Secure
  - S2 Unauthorized, S2 Authorized with Key
- Association control with 50 devices from network
- Four operational modes with individual temperature set points: COM, ECO, TIME, OFF
- Four climate modes: Heating & Cooling, Heating only, Cooling only, Ventilation only
- Five Fan Speed control modes:
  - Low speed,
  - Medium speed,
  - High speed,
  - Auto Medium speed,
  - Auto High speed.
- Four schedules for 7 days of the week: Morning, Day, Evening, Night
- Periodic measurements from:
  - Internal temperature sensor
  - Internal humidity sensor
  - Internal ambient light sensor
  - Energy consumption meter
- Calibration of Internal Room Air Temperature Sensor
- Temperature set intervals: 4.0°C to 37.0°C
- Temperature hysteresis selection range: 0.2°C to 10.0°C
- Temperature format: Celsius (°C) or Fahrenheit (°F)
- Time mode format: 24 or 12 hours (AM/PM)
- LCD brightness:
  - Automatic adjustment (depending on ambient light)
  - Manual adjustment (15 levels).
- LCD standby mode
- LCD blinking function (for identification among other devices)
- Child lock mode (touch buttons lockout mode)
- Power consumption software logic for each relay channel
- Factory reset function
- SmartStart technology for quick addition to Z-Wave networks
- Encrypted OTA (Over The Air) firmware update

Z-WAVE PLUS V2 SPECIFICATIONS:

Generic Device Class: GENERIC_TYPE_THERMOSTAT

Specific Device Class: SPECIFIC_TYPE_THERMOSTAT_GENERAL_V2

Supported Command Classes

COMMAND_CLASS_ZWAVEPLUS_INFO [0x5E], V2
COMMAND_CLASS_ASSOCIATION [0x85], V2
COMMAND_CLASS_ASSOCIATION_GRP_INFO [0x59], V3
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION [0x8E], V3
COMMAND_CLASS_BASIC [0x20], V2
COMMAND_CLASS_SENSOR_MULTILEVEL [0x31], V11
COMMAND_CLASS_THERMOSTAT_OPERATING_STATE [0x42], V1
COMMAND_CLASS_THERMOSTAT_MODE [0x40], V3
COMMAND_CLASS_THERMOSTAT_SETPOINT [0x43], V3
COMMAND_CLASS_THERMOSTAT_FAN_STATE [0x45], V2
COMMAND_CLASS_THERMOSTAT_FAN_MODE [0x44], V4
COMMAND_CLASS_METER [0x32], V4
COMMAND_CLASS_CLOCK [0x81], V1
COMMAND_CLASS_TRANSPORT_SERVICE [0x55], V2
COMMAND_CLASS_SECURITY [0x98], V1
COMMAND_CLASS_SECURITY_2 [0x9F], V1
COMMAND_CLASS_VERSION [0x86], V3
COMMAND_CLASS_MANUFACTURER_SPECIFIC [0x72], V2
COMMAND_CLASS_DEVICE_RESET_LOCALLY [0x5A], V1
COMMAND_CLASS_POWERLEVEL [0x73], V1
COMMAND_CLASS_SUPERVISION [0x6C], V1
COMMAND_CLASS_INDICATOR [0x87], V3
COMMAND_CLASS_CONFIGURATION [0x70], V4
COMMAND_CLASS_APPLICATION_STATUS [0x22], V1
COMMAND_CLASS_FIRMWARE_UPDATE_MD [0x7A], V5

HELTUN™

IMPOSSIBLY SMART

Designed and Manufactured in Armenia | The Land of Surprising Engineering

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