

MTronic HVAC Controller

POWER SPECIFICATIONS

Working Voltage	230 VAC, 50/60 Hz
Standby Power	< 2.5 Watts
Max Load/Relay	2A @ 230 VAC
Outputs	Up to 8

CONNECTIVITY SPECIFICATIONS

Interface	Short-Range Mesh Technology 5.0 , IEEE 802.15.1
Control Method	Wireless
Dependency	MTronic MHub, HVAC Touch Panel, Temperature Sensor
Compatibility	Heating and Cooling: Up to 2 Stages for Heating and Cooling Heat pump: With/Without auxiliary heat Fan: Multi-speed Supported Voltages: 24/110/230/277 VAC
Compatible Voice Assistants	Google Home, Amazon Alexa

TEMPERATURE AND HUMIDITY SPECIFICATIONS

Working Temperature	-25°C ~ +50°C
Humidity	85%

PHYSICAL SPECIFICATIONS

Item Type	Relay Board
Available Color(s)	White
Mounting Tye	Din Rail/Wall-Mount
Material	Plastic
Dimensions	145 x90 x 40 mm

RADIO SPECIFICATIONS

Wireless Communication	Short-Range Mesh Technology
Short-Range Mesh Technology Frequency	2.402-2.480 GHz

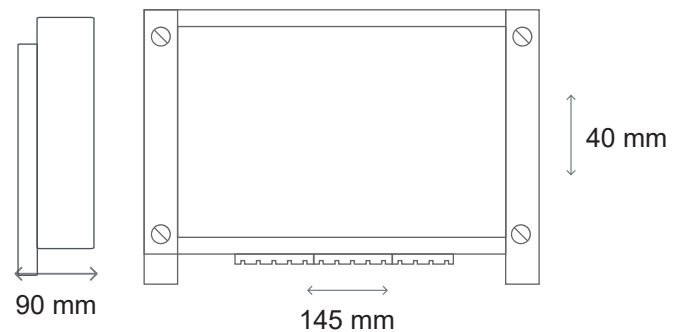
DESCRIPTION

MTronic HVAC Controller is an 8-Channel relay board that connects with your existing HVAC systems to make it compatible with MTronic Smart Thermostat. It is dependant on HVAC Touch Panel and Temperature Sensor to work.

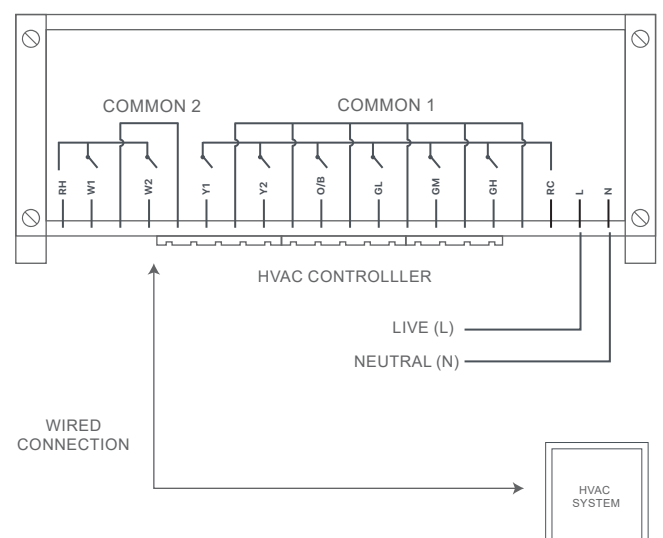
WORKS WITH

- MTronic Web Portal
- MTronic Android Application
- MTronic iOS Application

TECHNICAL DRAWING IN MM



WIRING DIAGRAM



ANTENNA PROPERTIES/ ANTENNA GAINS

Transmitter Power	+9dBm
Antenna Gain	3.96 dBi



PIN SUMMARY

PIN	Description
L	Terminal for the live wire to power the controller
N	Terminal for the neutral wire connection
RC	Power wire from the cooling equipment
RH	Power wire from the heating equipment
Common	Allows the continuous flow of power that thermostat requires to operate
W1	Controls your heating system
W2	Controls the second stage of your heating system
Y1	Controls your compressor
Y2	Controls the second stage of your compressor
GL, GM, GH	Controls the multi-speed fan, where GL is low speed, GM is medium speed, and GH is high speed.
O/B	Utilized for heat pump systems to tell the compressor to switch between the heating and cooling.

IN THE BOX

- | | |
|---------------------------------|-----------------------------------|
| 1. MTronic HVAC Touch Panel x 1 | 2. MTronic Temperature Sensor x 1 |
| 3. MTronic HVAC Controller x 1 | 4. Sticking Tape x 1 |
| 5. Screws x 2 | 6. Quick Start Guide x 1 |
| 7. Warranty Card x 1 | |

SAFETY INSTRUCTIONS

▲ Danger!
Note about hazard

⚠ Warning!
Note about potential hazard

Do's

- ▲ 1. **Tighten or loosen the screws when no Live wire is connected.**
- ▲ 2. **Since the installation requires working with high voltages, it MUST be installed and uninstalled by an expert electrician**
- ⚠ 3. Use the device only under 2000m altitudes.
- ⚠ 4. Ensure there are appropriate fuse/circuit breakers installed for the space and turn them off before installation. Turn them on only after the installation is done.
5. Operate the device only within indoor environments to keep it sheltered from all weather conditions.
6. Label the wires when removing the existing thermostat (if any) to make the connections easier.
7. Ensure all three devices are correctly powered to establish connection among them.
8. Wear insulation gloves, use wire nuts/electrical insulation tape to insulate the wire joints or stripped parts of the wire, and trim the extra wire to avoid electrocution and short-circuiting.
9. Use a wire gauge to select the wire size as required. Use 26~14 AWG solid or stranded wire preferably.
10. Ensure the connections with HVAC Controller are made as per the thermostat connections highlighted in the guide.

Don'ts

- ▲ 1. **The device must not be used in an explosive atmosphere.**
- ⚠ 2. Do not open the device by yourself nor use it if any of its parts is broken.
- ⚠ 3. Do not interchangeably use the Neutral and Live wires.
- ⚠ 4. Do not try to repair the device by yourself.
- ⚠ 5. Do not try to connect HVAC Controller with incompatible HVAC system types.
6. Do not allow children to play with the device or its packaging as its plastic film and small components may pose a choking hazard to them.
7. Do not place the device in an exposed setting after connecting the load.
8. Do not dispose-off the device with other household garbage. It should be recycled according to the National regulations.
9. To avoid short-circuiting, do not peel off the plastic from the wire more than required.
10. Do not use a dripping wet cloth to clean the device.
11. Do not install the devices in damp rooms or wet areas.
12. Do not connect a load higher than the power rating of the device (Refer to the technical specifications).

FAULT CORRECTION AND MAINTENANCE

Warning

Opening the device by yourself nullifies the warranty. Generally, the device is maintenance-free and would not require to be opened.