MFC0250

MODBUS/BACNET THERMOSTAT

PRODUCT DEFINATION

The MFC0250 Communicating Thermostats are ideal for existing building retrofits and controls upgrades when integration with a building automation system is desired. Existing thermostat wire and junction box and conduit can often be re-used to reduce installation hardware and labor cost. A hinged PCB board, removable terminal blocks, and onboard configuration can further reduce installation and commissioning time and expense. Increased energy efficiency can be gained through the use of optional covers with built-in occupancy sensors and the optional economizer output on rooftop units.

FEATURES

Three Fan Speed Control

Support either 1, 2 or 3 fan speed control, relay-type output. Auto Fan mode is available for 2 & 3 fan speed.

Hot and Cold Valve Control

Separate hot and cold valve control, relay output. Support 2 and 4 circuits system.

Various Input and Output Points

This IO expansion controller module provides universal inputs, digital inputs, analogue outputs and digital outputs with a total of 28 points.

Non-Configurable

Different Modbus addresses provide various types and values for input and output to cater for different application requirements without any programming or physical setting.

Energy Saving

Auto sleep and wake-up function reduce the power consumption on operation

Swing Function

For asynchronous motor control. Use unoccupied relay output (either from fan, heat or cool control).

Preload Program

7 pre-loaded applications for a quick, out-of-the-box solution

External Sensor

Two external sensors for anti-freeze protection, external return air sensor with user configurable temperature table. Can be used as general purpose digital input.

Temperature offset control

Temperature offset setting for all sensors for compensation.

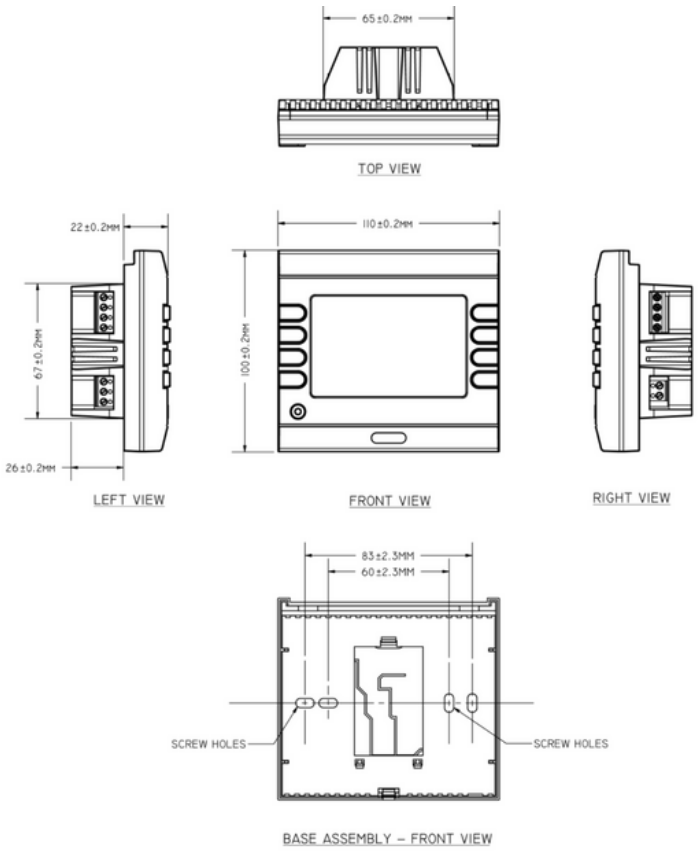
+603 6185 1170

sales@matrix-controls.net

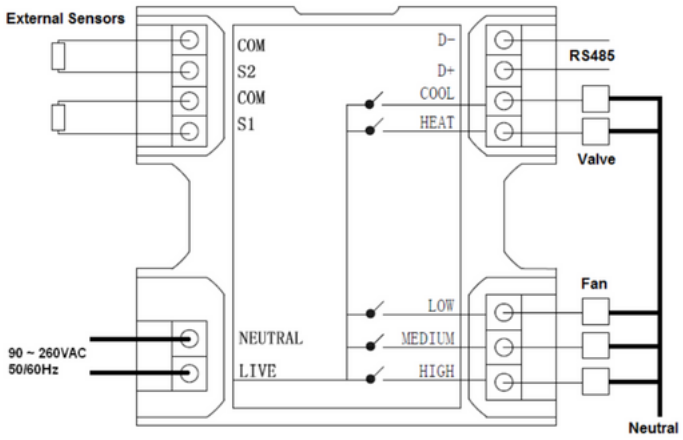
www.matrix-controls.net

MFC0250

DIAMENSION



WIRING DIAGRAM



Technical Specification

Input/Output Configuration
Fan Output:
• 3 Channels
• Type: Relay Contacts, SPST NO, 1A at 240VAC, Pilot Duty

Heat Output:
• 1 Channel
• Type: Relay Contacts, SPST NO, 1A at 240VAC, Pilot Duty

Cool Output:
• 1 Channel
• Type: Relay Contacts, SPST NO, 1A at 240VAC, Pilot Duty

Sensor Input:
• 2 Channels
• 10K or 10K shunt 11K type Thermistor

Communication:
Physical Interface:
• EIA-485 (BUS A,B) Two-wire
• Half Duplex
• Baud Rate Speed: 9.6K, 19.2k, 38.4K, 115.2K bit/s
• Data Bit: 8 bits
• Parity: None, Even, Odd
• Stop Bit: 1 bit
• Application Protocol: BACnet MSTP / Modbus RTU
• Multi-drop Capability: Yes, Slave (Software ID Setting)

Electrical Specification:
Power Supply: 90 – 260VAC, 50/60Hz
Consumption: 25mA max @ 240VAC
Operating Temperature: 32° to 150° F (0° to 65° C)
Storage Temperature: -4° to 150° F (-20° to 65° C)
Operating Humidity: 10% to 95% relative humidity non-condensing

ORDERING CODE

APPLICATION PROTOCOL	PART NUMBER
BACnet MSTP	MFC0250BD
Modbus RTU	MFC0250MD

+603 6185 1170
sales@matrix-controls.net
www.matrix-controls.net