

ZON-0550 (Wi-Fi Enabled Zone Control)

Technical Data Sheet



Submittal: HBX ZON-0550

Project: []

HBX Control Systems Inc. - Specification

Part 1: ZON-0550 Product

1. The Hydronic Zone Control must be a full microprocessor control with at least an 8-bit, 8MHz integrated microprocessor chip.
2. The Control must be capable of the following Input/Output Functions:
 - a. 4 x Thermostat communication and power inputs
 - b. 2 x Demand output relays
 - c. 3 x Fancoil outputs (24VAC 2A)
 - d. 4 x Zone relay outputs (120VAC 5A)
 - e. 1 x Input power (120VAC 15A Max)
 - f. 1 x system pump relay (120VAC 5A)
 - g. 1 x Humidity Output (24VAC 2A)
3. The control must be able to control 4 zone valves, pumps or dampers per module.
4. The control must be expandable up to an additional four (4) ZON-0550 modules for a maximum of 20 zones per system. The control must allow to pair additional ZON-0550 modules wirelessly at a maximum range of 2000 ft. open air. No wiring is required to pair additional modules.
5. The control must allow for a system pump to activate anytime when a zone demand is made. The control must allow a delay for the system pump to activate for 60 seconds when utilizing zone valve or actuators.
6. The control must allow for zone post purge. Post purge is 60 seconds.
7. The control must be able to control a fancoil, furnace, air conditioner unit.
8. The control must allow for only 2 wire thermostats (power and communication) to be used on the ZON-0550. Only the THM-0300 or THM-0500 thermostats are compatible with the ZON-0550 module.
9. The control must be able to connect to a wifi network for remote control and monitoring using the TMX-0100 wifi communication module and the ThermoLinX mobile app.

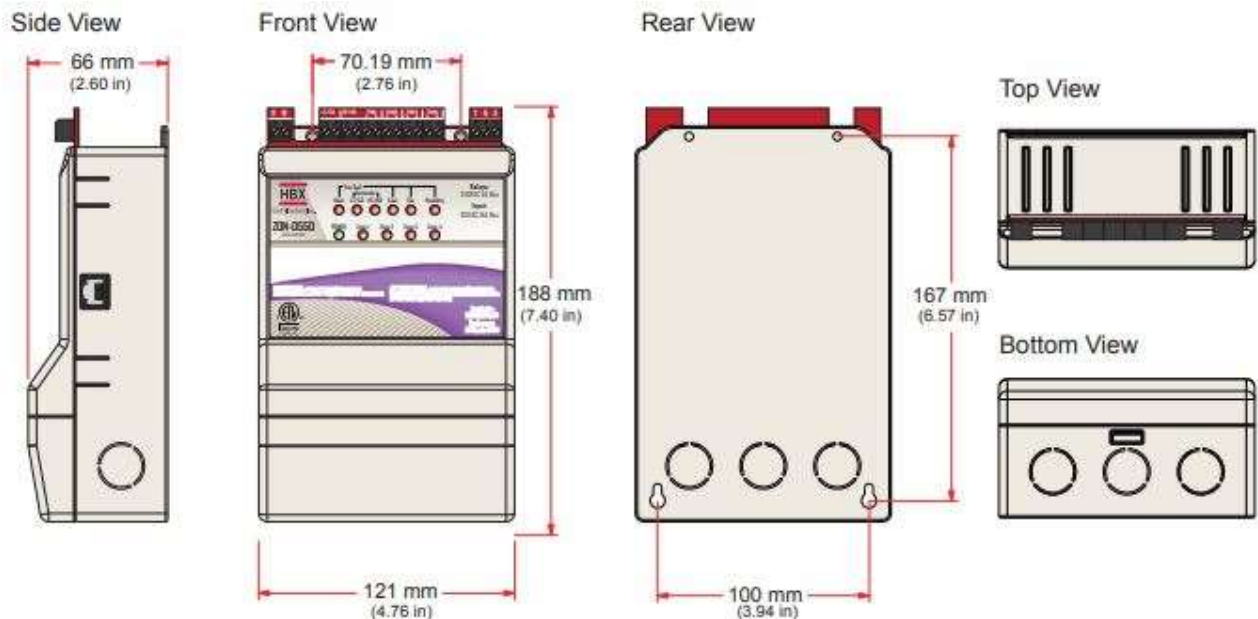


10. The control must allow for multiple zone priorities with the ability to have a permanent zone demand priority using the priority shield feature.
11. The control must allow for multiple zone demands (Low Temp, High Temp, DHW, Fancoil).
12. The control must be capable of controlling 2 or 4 pipe geothermal applications (2 stage heating and 2 cooling).
13. The control must be capable of controlling humidity. The control must allow for the humidity target to be controlled automatically when connected to a wifi network or an external sensor.
14. The control must allow for operation of normally open and normally closed dampers.
14. The Control unit must be ETL approved.

Part 2: Acceptable Products

1. HBX ZON-0550 Control

Part 3: Physical Dimensions



Part 4: Technical Data, Main Parts & Labels

Inputs/Outputs:

4 x THM-0300/THM-0500 Communication inputs
3 x Fancoil outputs 24VAC 2A
2 x Demand output replays 24VAC 2A
4 x Zone relay 120VAC 5A
1 x pump relay (120VAC 5A)
1 x Humidity output (24VAC 2A)

Combined relay power should not exceed 15A

Power supply:

120 VAC, 15A

Dimensions:

4.76" x 7.40" x 2.60" (121mm x 188mm x 66mm)

Weight:

0.408kg

ETL Listings:

Meets CSA C22.2 No. 24
Meets UL Standard 873
ETL Control No. 3068143

Storage:

50°F to 104°F (10°C to 40°C)

ZON-0550 RF info:

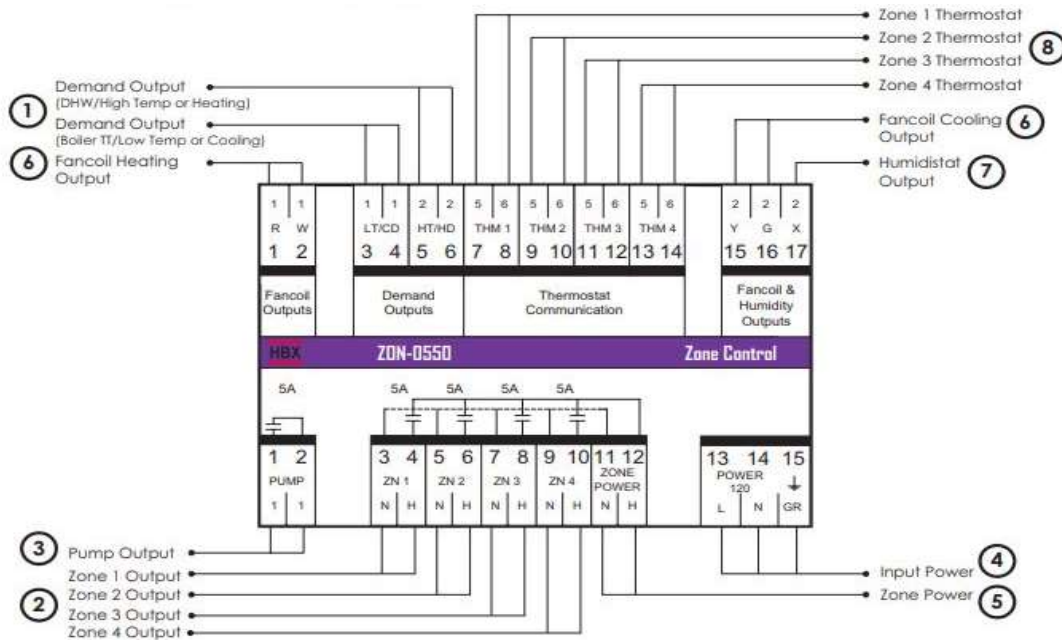
Contains IC: 7693A-24J40MB
Contains FFC ID: 0A3MRF24J40MB

TMX-0100 RF Info:

Contains IC: 8169A-G2M5477
Contains FFC ID: U3O-G2M5477



Terminal Block Labels:



Wiring

All signal wiring must be a minimum of 18AWG at a maximum of 500ft.

1. **Demand outputs** – These are the outputs for the demands. These can be a heating and cooling demand. 24VAC contact, dry contact TT/Low temperature demand on a boiler, or DHW/High temperature demand.
2. **Zone 1-4 output** – These are the outputs for the zone device. This can be a pump or a valve depending on power is supplied to terminals 11-12. These outputs can also be used for damper zones (terminals 1 & 3) or a 4 pipe system.
3. **System pump output** – This is a dry contact output that can be used for a system pump. This contact will activate any time a zone comes on. Pump will not activate in damper zones and in cooling zones in a mixed system in Geo Mode. When using zone valves or actuators there is a 60 second delay to turn on the system pump.
4. **Input power** – This input is to power the ZON-0550. 0.5 Amps at 120VAC is required to power this device.
5. **Zone power** – This input is used to power the zone outputs and is rated for 240VAC, 120VAC or 24VAC.
6. **Fancoil output** – These are the outputs for the Fancoil demands. These can be a Fan Demand or an HRV Demand.
7. **Humidity Output** - This output is used for a humidity demand. This can be used to humidify or dehumidify.
8. **Thermostat Input 1-4** – These terminals are used for power and communication for thermostat inputs. Only THM-0300 or THM-0500 thermostats are compatible with this control.

