

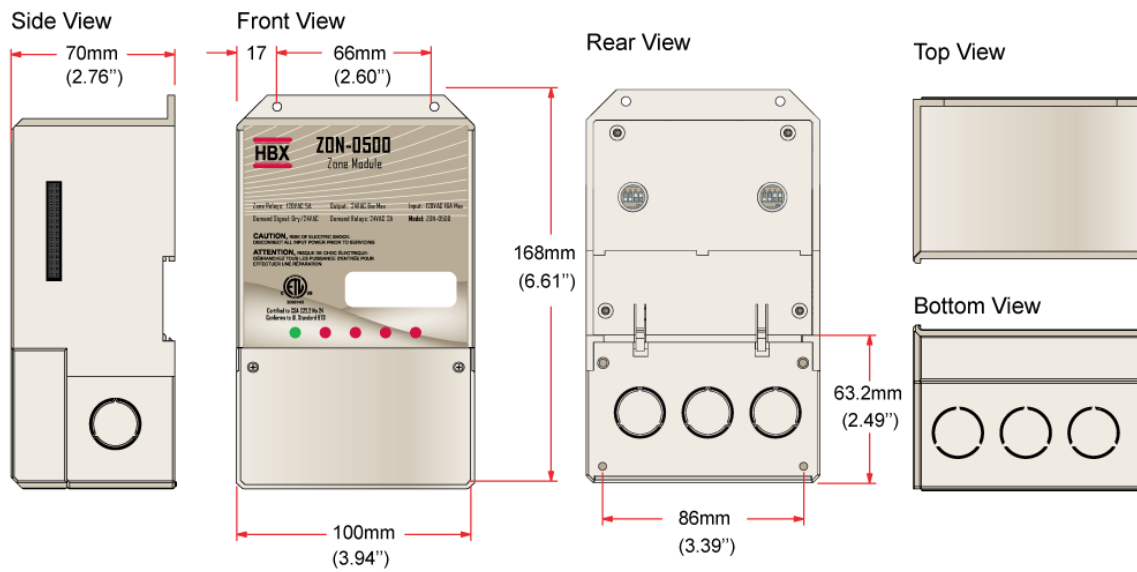
8. The Control, when functioning as an ECO-1000 expansion module, will have DIP switch selections for each zone, allowing for internal demands to be seen by the CPU-1000 as a heat demand (HD), or cool demand (CD) when the ECO-1000 is operating in Geothermal Mode.

9. The Control unit must be ETL approved.

Part 2: Acceptable Products

1. HBX ZON-0500 Control

Part 3: Physical Dimensions



Part 4: Technical Data, Main Parts & Labels

Inputs/Outputs:

1 x Boiler/Chiller Dry Contact (2A @ 120 VAC) Output
4 x Relay Powered Contact (5A @120VAC) Zone Outputs
4 x Dry Contact (Thermostat Inputs)
1 x Zone Power Input (24-240VAC)
2 x Thermostat power outputs (6VA total)

Power supply:

120 VAC, 2A (protected by integrated fast acting fuse)

Supplied Parts:

32-Pin Connector 033-0037

Dimensions:

3.94" x 6.61" x 2.76" (100mm x 168mm x 70mm)

ETL Listings:

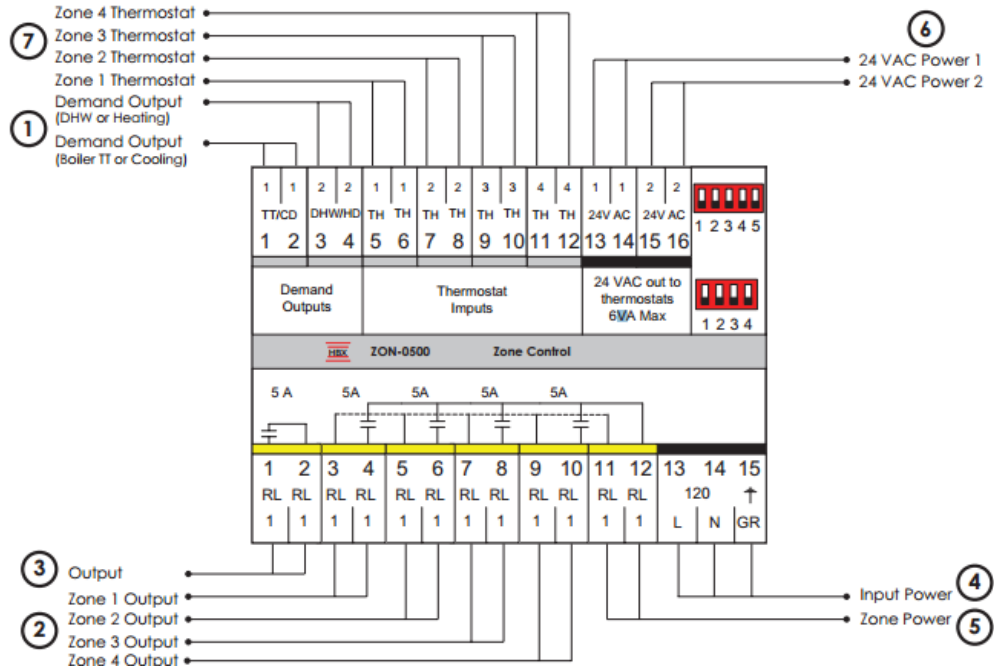
Meets CSA C22.2 No. 24
Meets UL Standard 873
ETL Control No. 3068143

Storage:

50°F to 104°F (10°C to 40°C)



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 for a boiler, or DHW 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.
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.
4. **Input power** – This input is to power the ZON-0500. 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. **Thermostat power** – These outputs are used to power the thermostats and are rated for 24VAC at 6VA.
7. **Thermostat Input 1-4** – These terminals are used for connecting thermostat inputs, and can be dry contact inputs or 24VAC.



DIP Switch Functions:

Left DIP Switches



DIP 1
ON = 180 seconds zone post purge time
OFF = 45 seconds zone post purge time



DIP 2
ON = Sequential priority on (zone 1 over 2 over 3 over 4)
OFF = Sequential priority off



DIP 3
ON = Dual Zone priority on (zones 1 & 2 over 3 & 4)
OFF = Dual Zone priority off



DIP 4
ON = Module priority
OFF = No module priority
⚠ Module priority can be used in conjunction with sequential and 1, 2 over 3, 4.



DIPs 2 & 3 are not to be selected together. Select only one or the other.

Right DIP Switches



DIP 1
ON = Temporary priority, zone 1 over zones 2-4 (60 mins or until satisfied)
OFF = Temporary priority off

⚠ When used in conjunction with a CPU-1000, this DIP will give on board DHW priority over ZON-0500 modules.

⚠ When using more than one ZON-0500 use the DIP on the first zone module connected.

⚠ When used in conjunction with an ECO-1000, this function is not available, leave DIP in OFF position.



DIPs 2 - 5
ON = High temp demand (CPU-1000 - Mixing only)
OFF = Heat/ Low temp demand (CPU-1000 - Staging/ Mixing)
Dip Switches 2 - 5 can be any combination of high temp demands or heat demands.



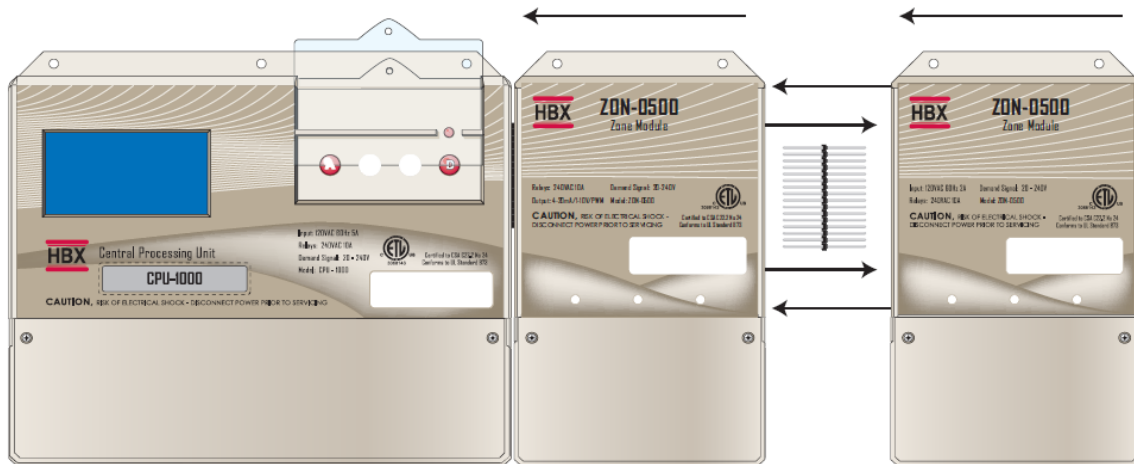
DIPs 2 - 5
ON = Cool demand (ECO-1000)
OFF = Heat demand (ECO-1000)

Dip Switches 2 - 5 can be any combination of cool demands or heat demands.

⚠ Must match up heat/ cool priorities on ECO-1000 with priorities on ZON-0500.



Part 5: Connecting the ZON-0500 Module:



Place the CPU-1000 or ECO-1000 and desired expansion modules on a flat surface. Align the 32-pin connector into the holes on the expansion module and gently push into place. Next slide the CPU-1000/ECO-1000 onto the 32-pin connector by carefully matching up the holes and pins. When installed correctly there is virtually no gap between units. With power applied to the assembly, the first (green) LED should be illuminated on each expansion module. This lit, green LED serves as confirmation of both electrical and communications continuity. When used as an expansion module, the ZON-0500 must be enabled in the “Control Options” menu.

