

Heat Mat Expansion Box

Heat Mat Expansion Boxes are a cost-effective way to increase the capacity of your heat mat control system. Installation is simple and there is no additional configuration required; the Expansion Boxes follow the programming of the main control.

Model **HH-HMC4-EXP-10** has two 10 A stages; model **HH-HMC4-EXP-20** has one 20 A stage. Each stage accepts a 0 to 10 VDC input signal that sets the variable AC output.

Features

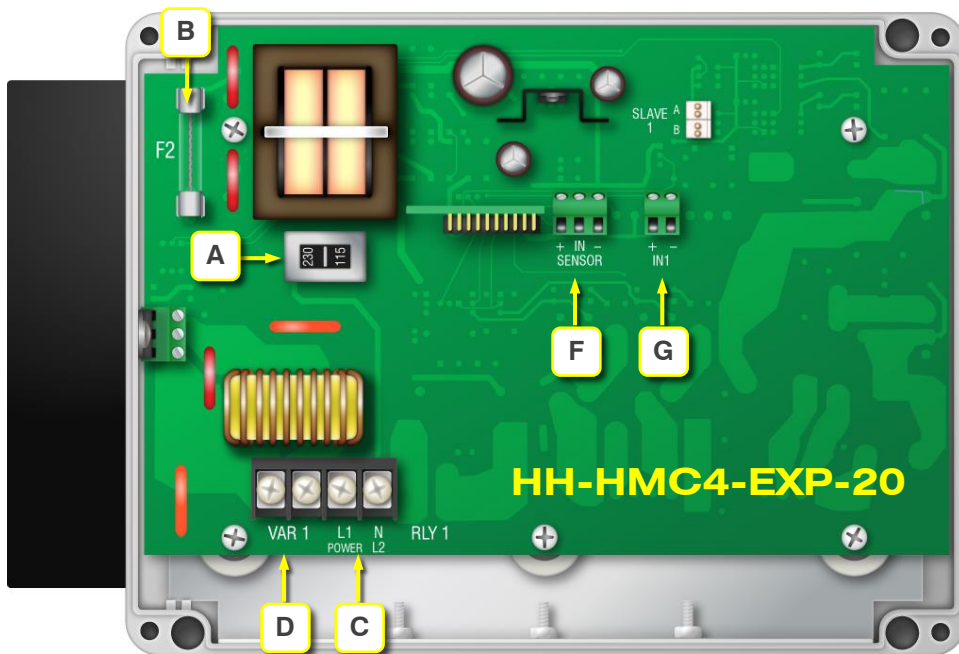
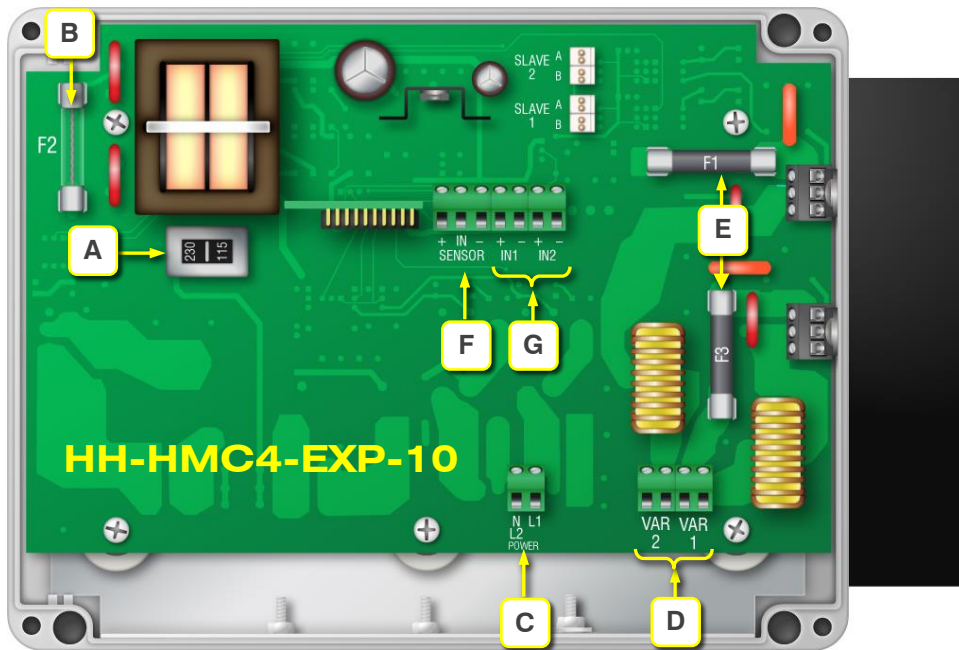
- ◆ Variable AC stages/channels
- ◆ DC signal input (0 to 10 V)
- ◆ Manual override
- ◆ Expandable capacity using additional units
- ◆ NEMA 4X enclosure (corrosion resistant, water resistant, and fire retardant)
- ◆ CSA approval
- ◆ Limited warranty (2 years)



Electrical ratings

	HH-HMC4-EXP-10	HH-HMC4-EXP-20
AC stages/ channels	(2x) 10 A at 120/230 VAC 1150 W at 120 VAC, 2300 W at 230 VAC	(1x) 20 A at 120/230 VAC 2300 W at 120 VAC, 4600 W at 230 VAC
AC fuses	2x 15 A, 250 VAC ABC-type ceramic	—
DC signal	0 to 10 V	
Input power	120/230 VAC, 50/60 Hz	
Input fuse	250 V, 1 A fast-acting glass	

Layout



- A** Voltage switch: set this switch to the correct voltage before installing the FanDRIVE.
- B** Control fuse: 250 V, 1 A fast-acting glass
- C** Incoming power terminal: connect the incoming power (120/230 VAC, 50/60 Hz) to this terminal
- D** Variable AC terminals: connect variable speed fans to these terminals.

- E** Variable AC fuses (HH-HMC4-EXP-10 only): 15 A, 250 VAC ABC-type ceramic
- F** Sensor terminal: is not used.
- G** DC signal input terminals: connect the 0 to 10 VDC signal from the main control to these terminals.

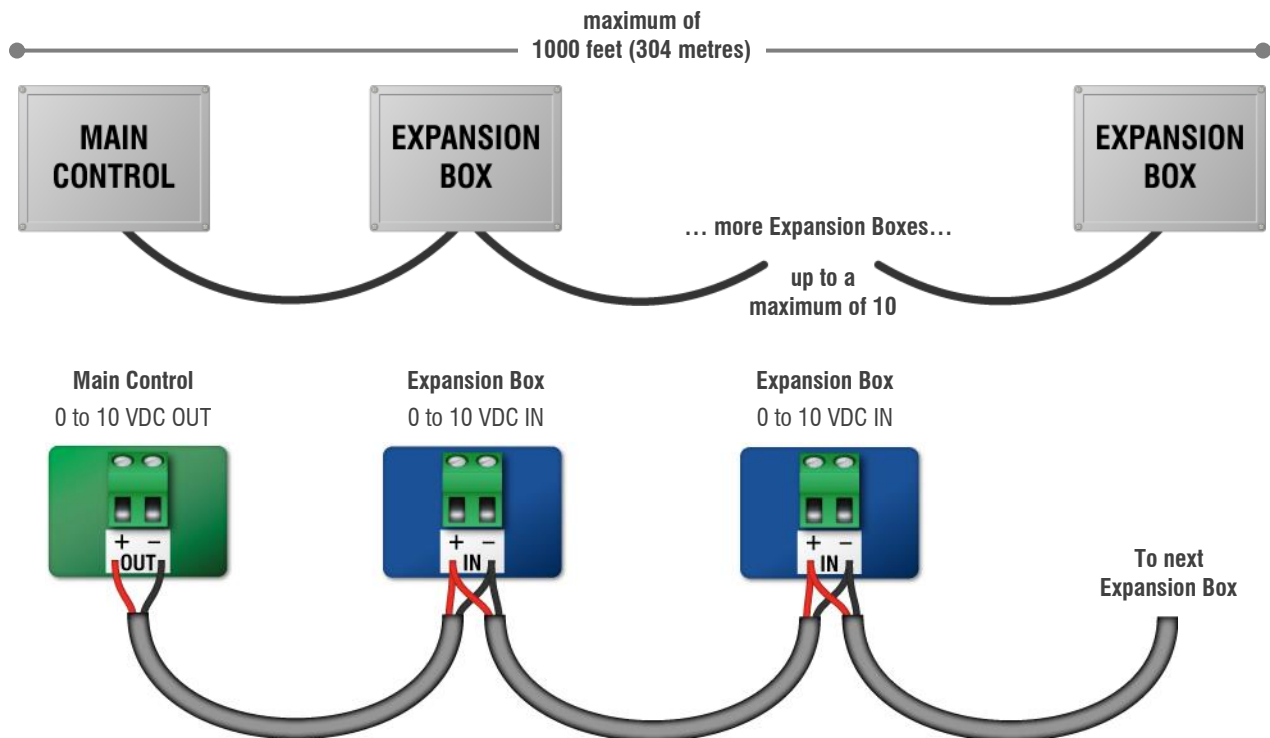
Installation

Mounting the Expansion Box

1. Select a location for the Expansion Box that is close enough to connect the expansion cable between it and the main control.
2. Remove the screws from the front cover and then lift it off.
3. Mount the enclosure to a wall using the four screws provided with the control. Insert the screws into the large holes in each corner of the box and then tighten.

Connecting the Expansion Box to the main control

You can connect a maximum of 10 Expansion Boxes to a main control. The total length of cable between the main control and **last** Expansion Box cannot be more than 1000 feet. **Use cable that is at least 20-gauge.**

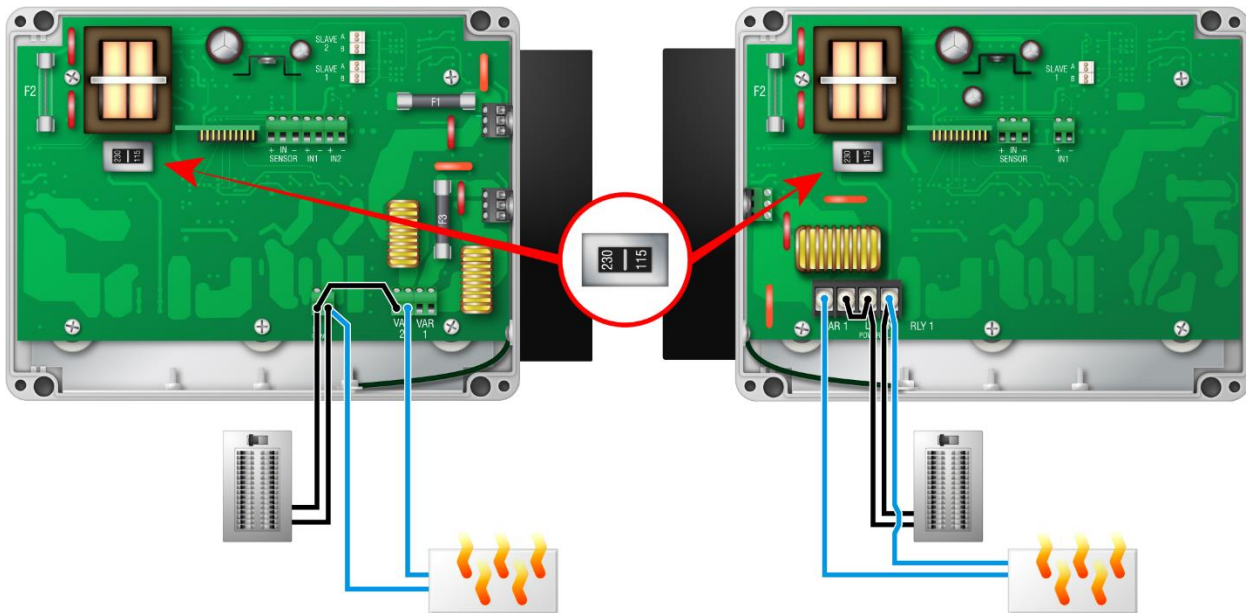


Excess line noise can cause the Expansion Box to lag behind the main control. To help prevent line noise:

- ◇ Do not run the wires in the same conduit as AC power cables.
- ◇ Do not run the wires beside AC power cables or near electrical equipment.
- ◇ When crossing other cables or power lines, cross them at a 90-degree angle.

Connecting heat mats and power to the Expansion Box

Connect heat mats and incoming power to the Heat Mat Expansion Box as shown below.



Using manual mode

The Heat Mat Expansion Box is set at the factory to run in **automatic mode**. In automatic mode, it follows the settings of the main control.

Manual mode can be useful for testing equipment. To switch to **manual mode**, change the position of **jumper 4**. In manual mode, the Expansion Box controls the heat mats according to how you set the adjustment screw inside. Adjust the screw **clockwise to increase**, or **counterclockwise to decrease** output.

