



MOUSE temperature controller
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Description and Purpose:
Temperature controller box for three computer-addressable Omron E5CC PID controllers.
Control can be done via the front panels, or basic control via our EPICS IOC/driver over RS485/Modbus.
Each controller has a 0-100VDC 3A solid-state relay (SSR) on both heating and cooling control*, as well as a 10A 230VAC SSR on the heating control line. *v1.1 update: we have the wrong model of E5CC (should have -QQ model), which doesn't have cooling control. This functionality is therefore not available.
Note 1: As SSRs switch <u>one phase only</u> , the AC connections MUST BE CONNECTED VIA A SAFETY INTERLOCK.
Note 2: As SSRs fail closed, an external thermal safety interlock must be added to the safety circuit to avoid meltdown in case of failing SSD
An internal PT1000 to 4-20mA converter is added for PT1000 sensors. v1.1 update: This is now fed by a 24VDC loop ilne power brick.