

Fan Coil Controller

OPTI Lite Output Board for heating and cooling control

The Fan Coil Controller (FCC) is an output board for the OPTI Lite mainboard, which can be used for heating and cooling control. The FCC board uses two of the four OPTI Lite slots. The OPTI Lite built-in webserver control page used for the FCC is depicted in Figure 1.

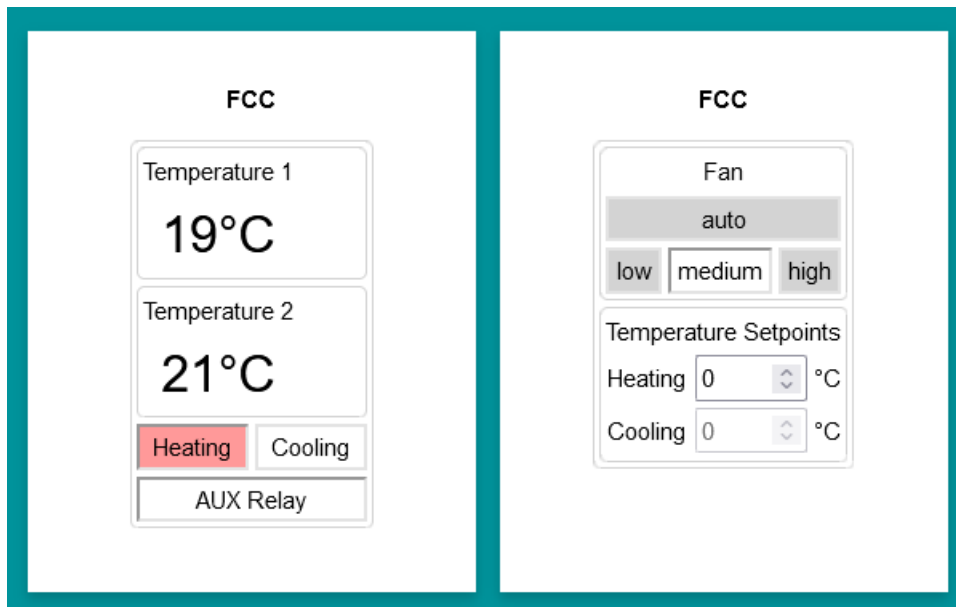


Figure 1. The OPTI Lite Control Page for the FCC

The terminal connectors of the FCC:

Fan Coil Controller											
L	LOW	MID	HIGH	HEAT	COOL	+24V	GND	(Bus-A) NTC1	(Bus-B) NTC2	RYG1	RYG2
1	2	3	4	5	6	7	8	9	10	11	12

Figure 2. The FCC terminal connectors

Main Features

- Heating, Cooling and Auto modes
- 3-Speed Fan Control (High, Medium, Low)
- Built-in web server for configuration, control, and monitoring
- Discrete setpoints for heating and cooling
- Setpoint adjustable via TCP/IP
- Two temperature sensor or an RS485 Bus Thermostat (terminals 7-11) connections
- Automatic event reporting of temperature changes
- Triggers and logics available based on temperature sensors' values
- Temperature curves for five analog NTC temperature sensors
- TCP communication protocol (API) with simple ASCII commands
- Drivers/Software modules/Profiles for third party systems
- Extra Relay Output (terminals 11 & 12)
- Calibration value can be added to the measured temperature to compensate for offset error.
- Minimum ON/OFF time. To avoid oscillation and take the thermal inertia of different heating/cooling methods into account there's a minimum time during which the status of the output won't change.
- Hysteresis. To avoid oscillation there is a deadband between turn on and turn off temperatures.