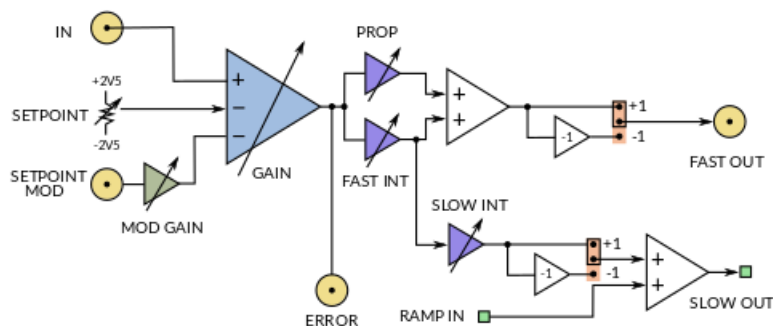
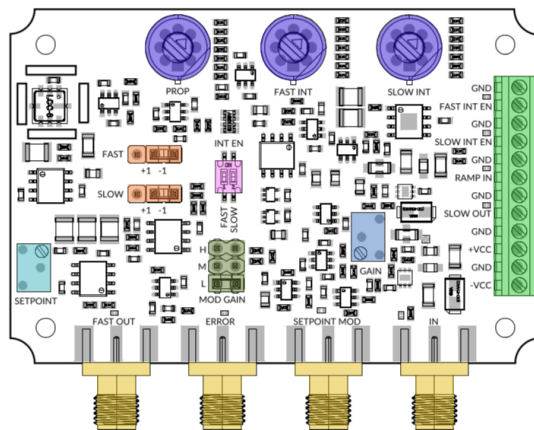
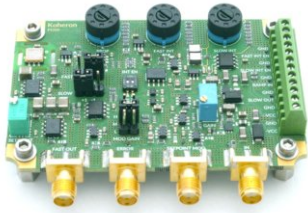


PI200 - User Guide



Power supply

You need to supply +5 V on the +Vcc pin and -5 V on the -Vcc pin. Do not apply any voltage outside this range on the board.

Setpoint

Setpoint can be adjusted between -2.5 V and +2.5 V with the SETPOINT trimmer. The setpoint can be modulated with the SETPOINT MOD input. Modulation input is DC coupled, gain is 1 V/V, 0.1 V/V or 0.01 V/V, depending on the MOD GAIN jumper.

Feedback sign

The sign of the feedback for FAST OUT and SLOW OUT can be chosen with the FAST and SLOW jumpers (+1 or -1).

Integrator enable

FAST and SLOW integrators are enabled with the INT EN switch ON. When the switches are OFF, the integrators can still be enabled by applying logic high signals on the FAST INT EN / SLOW INT EN pins.

Ramp in

A modulation can be added to the output of the slow integrator SLOW OUT via the RAMP IN pin.

Input / Output ranges

Input range is ± 3 V on the IN and SETPOINT MOD inputs. Output range is ± 3 V in the ERROR, FAST OUT and SLOW OUT outputs.

Tuning the frequency response

The frequency response of the loop filter can be adjusted with the 3 blue rotary switches in clockwise order:

PROP: -13.3 dB / -6.6 dB / 0 dB / 6.6 dB / 13.3 dB / 20 dB / 26.6 dB.

FAST INT: 47 kHz / 100 kHz / 220 kHz / 470 kHz / 1 MHz / 2.2 MHz / 4.7 MHz.

SLOW INT (PI200 version): 800 mHz / 2.4 Hz / 8 Hz / 24 Hz / 80 Hz / 240 Hz / 800 Hz.

SLOW INT (PI200-T version): 8 mHz / 24 mHz / 80 mHz / 240 mHz / 800 mHz / 2.40 Hz / 8 Hz.

