

# Specifications

---

## General

Power consumption: 50 mA +12V, 40 mA -12 V

Width: 30 HP


Depth: 32 MM (incl. power connector)


## VCO

Initial Frequency: C0 (16.35 Hz)


PWM CV response: 0 V (50%) to +10 V (min.)

Output amplitude (approx.)

 0 V to +7.5 V

 0 V to +6.5 V

 -5 V to +5 V

 -5 V to +5 V

## VCF

Frequency CV response: 0 V to +10 V

Frequency CV range: -10 V to +10 V

Resonance CV response: 0 V to +10 V

## VCA

Amplitude CV response: 0 V to +10 V

Maximum attenuation: -85 dB

Output signal indication: Green: >0 V, Red: >+7.5 V

---

## Calibration

The 810's VCO is calibrated to track at 1 V/octave over a range of approximately 6-8 octaves within a tolerance of  $\pm 5$  cents. When troubleshooting pitch and tracking issues ensure that you are using an accurate 1 V/octave CV source that is not subject to loading by being fanned out through multiples.

When self-oscillating the VCF is calibrated to track at 1 V/octave over a range of about 3-4 octaves starting at around middle C (261.6 Hz).

The pitch of both the VCO and the self-oscillating VCF will drift over time as the 810 warms up. About 20 minutes after warm up the VCO pitch should remain stable to within a few cents of the initial frequency.

From time to time the VCO and VCF may need to be calibrated. Instructions for calibration are available on the 810's Github page:

<http://github.com/minisystem/810>