



# Biodata

## Probe Input

This is a normal 3.5mm TR jack. It is intended to be connected to TENS cables. Cables are available with alligator clips or with replaceable adhesive pads. Attach the probes to whatever you want to interact with. Make sure to get a good connection. If you are using clip-style cables, you may want to use a dab of aloe vera gel or conductive gel to ensure a good contact.

## Density

Controls how many notes are in the scale used to quantize the V/Oct output. Starting with only octave intervals, notes are added according to the circle of fifths as density is increased, up to a chromatic scale.

## Trigger input

In addition to auto-triggering on fluctuations in the input signal (following the sensitivity knob), you can manually trigger it with a gate input. This will immediately sample the input and play a new note.

## Pulse

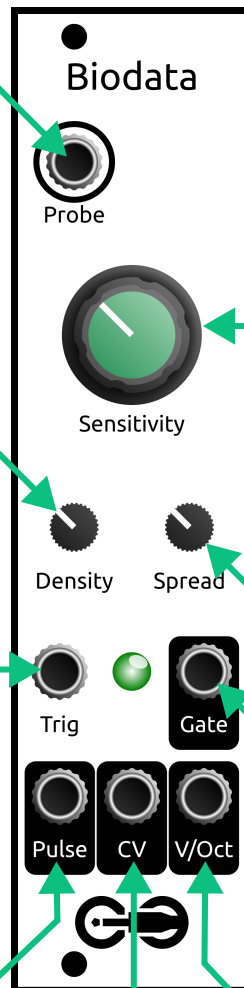
This square wave is the "raw" output from the galvanometer. The faster the pulses, the more current is traveling through the subject. The changes in frequency of this signal are interpreted as notes and gates on the other outputs.

## CV output

Continuous CV output based on the amount of activity in the input. 0V–10V.

Listen to plants! Biodata is designed to take electrical signals from external objects (plants, fungi, humans, other electrical equipment, or whatever else you want to hook it up to) and interpret them as musically useful and Eurorack-friendly CV. It has a single output channel with gate and volt-per-octave CV, as well as a continuous CV output and a raw pulse data output.

Biodata's circuitry is based on the MIDI Sprout, which is also the architecture used by the Instruō SCÍON. It measures the conductivity of the subject and responds to fluctuations in that signal over time.



## Sensitivity

This knob controls how sensitive the module is to changes in the input. As you turn the knob clockwise, it takes less activity in the input signal to trigger a new note, so the module will output notes more often. Depending on the subject, you may need to re-adjust the sensitivity often to keep the module in a semi-active state.

## Spread

Controls how many octaves the output notes will span, from 0 to 10.

## Gate output

This outputs a gate with every note. The length of the gate is derived from the galvanometric signal, just like the pitch. Subsequent notes can interrupt the gate, briefly re-triggering it.

## V/Oct output

A pitch CV based on the changes in activity in the input.