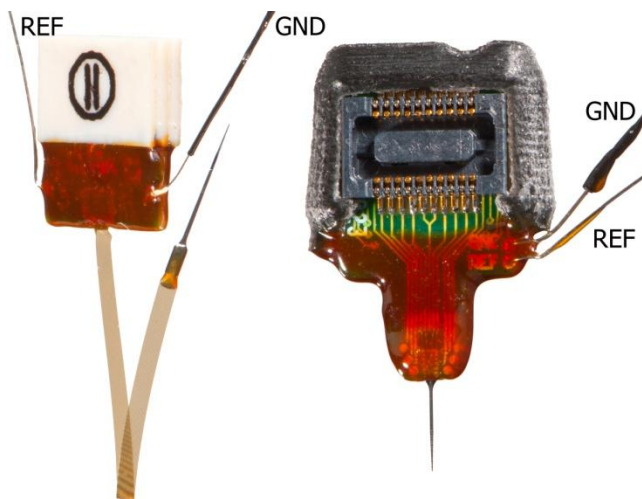




GND and Reference Wires:

Neuronexus packages now have REF and GND wires and this brief note describes their identification and usage.



	Identification	Location	Material
GND wire	Wrapped with black shroud	GND is on the PCB board	SS or Ag
REF wire	Naked	REF is on the actual probe if available (Refer to catalog), else it connected to the REF pin on the connector	SS or Ag

Usage notes:

- GND and REF are used to remove common sources of noise, obtain cleaner recordings.
- The REF site can be used as an additional channel to remove common mode noise during spike sorting.
- Common areas where the GND and REF wires are fixed are bone screws located on the skull, or fixed by other means to skin, or muscle depending on the experiment in question.

FAQ:

So where is the REF wire connected if the catalog shows that the probe has no REF?

The REF wire is connected to the connector pin marked REF. In many of our 16 channel probes designs there are no REF sites on the probes itself.

So where is the REF wire connected if probe does have a REF site?

The REF wire is connected to connector pin marked REF which is shorted to the REF site on the probe as shown in our catalog.

Caution:

Some manufacturers tie the GND and REF pins on their headstages by default. Please check with the manufacturer if this is the case.