

# DRY ELECTRODE ATTACH SYSTEM

## 413-01 DATASHEET AND APPLICATION NOTES

### APPLICATIONS

ECG, EMG, physiological monitoring, bioimpedance, biopotentials, heart rate and temperature measurements, electrostimulation

### ADVANTAGES

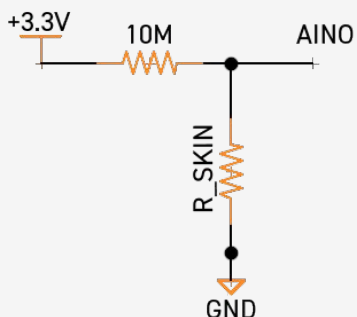
Lower profile, more flexible, reusable, gentle on skin, easy to clean

### KEY FEATURES

Dry signal acquisition (no gel), customizable design, seamless soft to hard transition of sensor to output connector, easy integration to soft goods

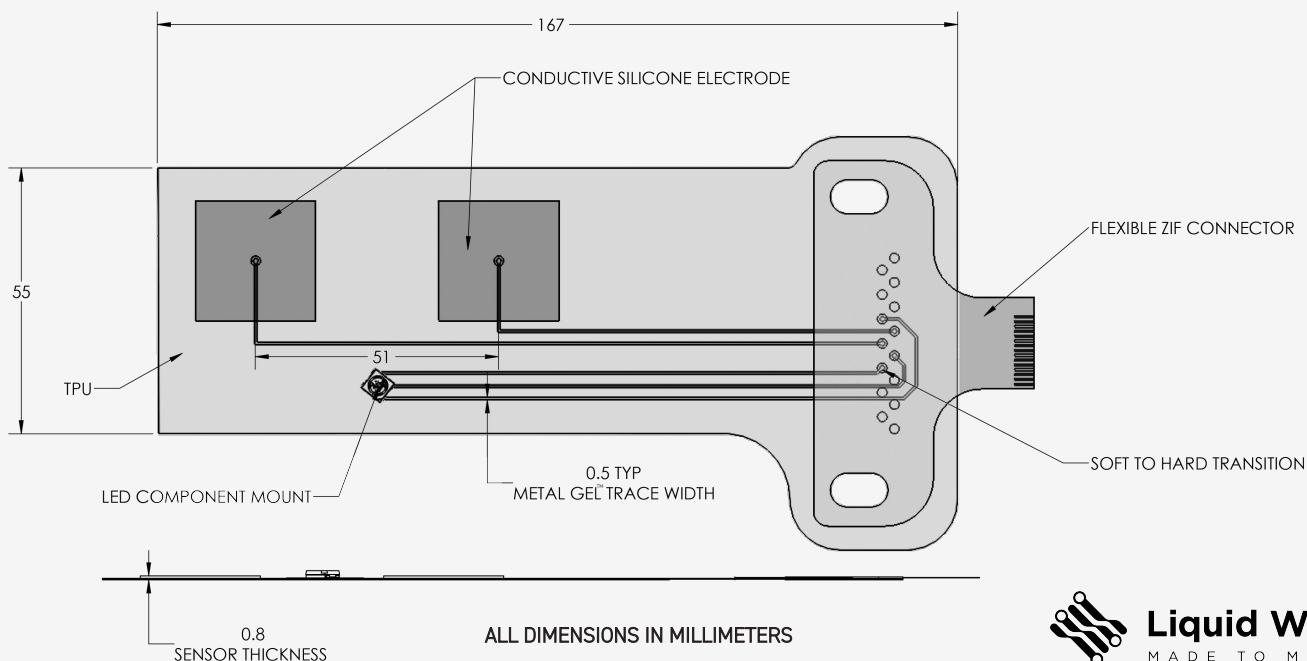
### ELECTRODE SPECIFICATIONS

Biocompatibility	ISO 10993-10
Resistance range	<50Ω/cm <sup>2</sup> - MΩ/cm <sup>2</sup>
Max stretch %	Up to 30% (fabric dependent)
Abrasion resistance	10,000 cycles
Material	Metal Gel™ (indium, gallium, tin)
Skin contact material	Conductive silicone rubber
Connector type	ZIF flexible polyimide
Operating temp range	-15° C to 50° C



### PRINCIPLE OF OPERATION

When contacting both electrodes (R-SKIN), the user acts as one leg of a voltage divider, with the other leg set to 10 MΩ. As a user provides a resistive path to ground that is less than infinite, the voltage seen at analog input 0 (AIN0) changes based on this resistance. If the change is enough that it passes a threshold, the microcontroller in the puck will send a signal to turn on the green LED seen on the page. The current passing through the user is minimal. Note: Activation of the electrode is dependent on the natural moisture level of the user's skin.



ALL DIMENSIONS IN MILLIMETERS

