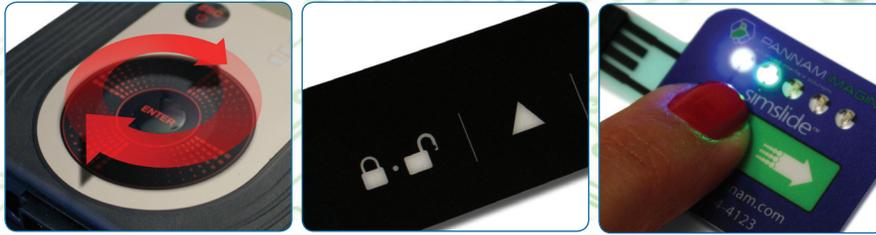


SimTouch®

Continuous Action Membrane Switches



Overview:

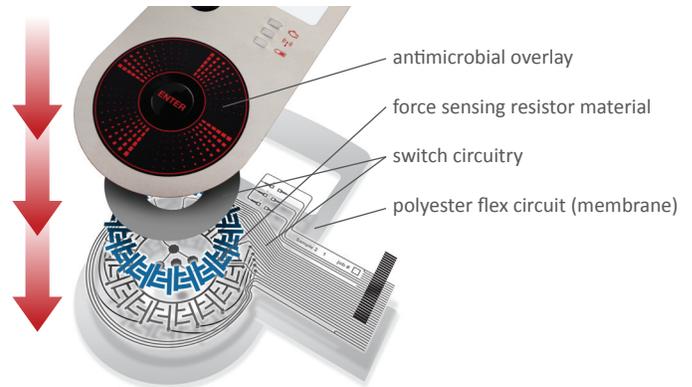
SimTouch® is a patented membrane switch technology that enables continuous menu scrolling and slide bars without requiring the contact of human skin. Unlike capacitive touch interfaces, SimTouch requires no controller chips so it costs less and integrates easily into existing hardware and software platforms.

SimTouch is ideal for many electronic applications because it is not moisture sensitive, emits no electromagnetic (EMI) interference and is available with an optional antimicrobial coating. SimTouch can be designed with the most cutting edge membrane switch features, such as back lighting and customizable graphic overlays for an appearance and functionality that fits your application.



How the SimTouch Technology Works:

1. Force applied on top of the overlay is transmitted to the force-sensing resistor material through a very thin layer of air.
2. This causes a drop in resistance, which is detected by the electronics connected to the membrane circuitry, very similar to how traditional membrane switches are integrated to the controller.
3. The electronics then perform a switching action.



Features & Benefits:

Feature	Benefit
Can be actuated without contact with human skin/gloved actuation	Ease of use Safety of use
Continuous scrolling action with low actuation force required	Easier to use for patients and caregivers to operate
No controller chips or firmware programming required	Seamless integration into existing platforms at a lower cost than capacitive switches
Not moisture or EMI sensitive	Reliable and durable for demanding medical environments

Applications:

- Handheld/Portable devices
- Medical Devices
- Audio Equipment
- Home Appliances
- CNC Industrial Equipment
- Commercial Food Equipment

The SimTouch® Comparison

<i>SimTouch vs. Standard Membrane Switch Technology</i>
SimTouch's low actuation force delivers a modern user interfacing experience, simulating today's high-end consumer electronics.
SimTouch requires only a thin material stack-up, providing a low profile.
SimTouch offers increased durability and actuation life due to less deflection stress on overlay.
SimTouch sleek profile provides a more modern look.
SimTouch offers the ability to incorporate continuous action scrolling and sliding features for easy menu navigation.



<i>SimTouch vs. Capacitive Switch Technology</i>
SimTouch is easy to integrate and may be used with existing membrane hardware platforms; no special integrated circuits or controller chips are required.
Unlike capacitive, SimTouch can be operated with any stylus, gloved hand, even beneath a plastic sterile field. NOTE: Some capacitive solutions can be "dialed up" to sense human interaction through gloves. This is at the expense of greater RF noise created.
SimTouch does not create RF, nor is it impacted by environmental RF noise.
SimTouch is not affected by moisture or humid environments. Capacitive switches can become inoperable if covered in fluid or dirt. This could be particularly key in medical environments where electronic devices are frequently exposed to fluids.
SimTouch is not affected by a user's location or environment. However, capacitive can be: If a user is not grounded properly (i.e., standing in water etc) the switch function may be impacted.
SimTouch consumes power only when actuated. Capacitive requires a constant power draw, ultimately draining the battery on a handheld device.
SimTouch is available with antimicrobial coating.
Individual capacitance can vary from user to user. Because SimTouch is a resistive technology, it is not dependent on body capacitance. Capacitive switch function can be affected by low body capacitance or skin deviations.
SimTouch is lightweight with a thin profile. PCAP requires a capacitive layer over glass or lexan, adding thickness and weight.
While some finishes/graphics are known to cause interference with the function of capacitive, SimTouch allows you to achieve any desired look, including metallics.
SimTouch provides instantaneous actuation. In contrast, PCAP experiences an inherent delay in switch operation as the signal is registered by the processors.