



## CAPACITIVE TOUCH SWITCHES— A DURABLE SOLUTION

Are you tired of dealing with switches not working because of broken parts? Select a capacitive touch switch from Wilson-Hurd and your troubles will disappear. With no moving parts to wear down, our capacitive touch switches offer excellent durability in even the harshest environments.

How does a capacitive touch switch work? A capacitive touch switch detects the presence or absence of a conductive object, such as a finger, by measuring changes in capacitance. This means that there are no mechanical components within the switch—eliminating any potential mechanical failure of the switch.

### ADVANTAGES OF CAPACITIVE TOUCH SWITCHES:

- Self-contained system gives flexibility to the design of your product
- Reduced board space requirements
- Lower cost
- Easy integration of multiple functions, including LED drivers and backlighting
- Wide selection of input choices: buttons, sliders, switches, touchpads, touchscreens and proximity sensors
- Variety of non-conductive overlay materials can be used (plastic, acrylic and glass)
- Usable in a wide range of applications, including automobiles, computers, cell phones, consumer electronics and industrial

**Consider using a Wilson-Hurd capacitive touch switch for your next keypad project ... you'll be pleased with the results.**

# CAPACITIVE TOUCH SWITCH FEATURES

- Utilizes “Cypress” In-System Serial Programmable Flash Memory Microcontrollers
- Wide Range of Microcontroller Packages Available
- 4MIPS 8bit Harvard Architecture
- 512 to 1k RAM
- 8k to 16k Flash Memory
- Configurable Analog/Digital GPIO
- Internal Oscillator
- Counters, Timers, PWM, ADC, Vreference
- Supports Serial Communication I2C, SPI, UART, USB
- 2.4V-5.25V Supply Range
- 1.2V Battery Supply Possible
- Industrial Temperature Range -40°C to +85°C

## CAPACITIVE TOUCH SWITCH OVERVIEW CHART

| INTERFACE TYPE    | OVERVIEW                                                                                                                                                                                                                                                                                                                                       | APPLICATIONS                                                                                                                                   |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| BUTTONS           | <p>Low-cost, simple solution for integrating up to 46 buttons</p> <p>Flexible technology enables sensing through a wide range of protective overlay materials</p> <p>Calibrate buttons individually with firmware parameters</p>                                                                                                               | Wireless Handsets, PC Peripherals, Appliances, LCD Monitors, TVs, PC Mice, Notebook Computers, Automotive and Toys                             |
| SLIDERS           | <p>Useful in applications requiring precise multi-level sensing</p> <ul style="list-style-type: none"> <li>- Volume control</li> <li>- Brightness control</li> <li>- Temperature control</li> </ul> <p>Achieve greater resolution than is inherent to IC pin count</p>                                                                         | Wireless Handsets, PC Peripherals, Appliances, LCD Monitors, TVs, Notebook Computers, Digital Still Cameras, Automotive and Exercise Equipment |
| TOUCHPADS         | <p>Touchpads can be integrated into non-traditional touchpad applications</p> <p>Capacitive sensing offers a cost-reduction to expensive modules and resistive-overlay technologies</p> <p>Automated design makes touchpad implementation easy</p>                                                                                             | Wireless Handsets, Notebook Computers and Keyboards                                                                                            |
| TOUCHSCREENS      | <p>Touchscreens can be integrated into non-traditional touchscreen applications</p> <p>Configurable I/O allows for the support of a wide range of panel sizes</p> <p>Multi-touch capable</p>                                                                                                                                                   | Wireless Handsets, Appliances, Handheld Devices (PDAs), Kiosks and PQS Terminals                                                               |
| PROXIMITY SENSING | <p>Wake your system before the user’s hand reaches the touch surface</p> <p>Proximity sensing can be applied to any application that senses a conductive object, such as fluid-level sensors and pulse-rate monitors</p> <p>Proximity sensing is implemented by adjusting the sensor design and sensitivity of the capacitance measurement</p> | Appliances, Keyboards, PC Mice, Touchpads, Notebook Computers, Automotive, Lighting Sensors, Industrial Sensors and Controls                   |