



CAPACITIVE SOLUTIONS FOR THE INTELLIGENT TOUCH

Added value at your fingertips

Abatek is an expert for Human Machine Interface (HMI) solutions and components.

This paper presents a selection of customized products to add value and make your capacitive application robust and cost efficient.

These products enable you to differentiate in electric conductivity, in simplicity and in efficient assembly.

Furthermore these solutions allow for unique design and styling.

Create perfect capacitive products, also using other Abatek HMI components.

Markets for advanced capacitive switches are automotive, computers, cell phones, consumer electronics, medical and industrial products.

Capacitive Solutions by Abatek

Polyform – an intelligent closed surface

Polyform is a new HMI technology that provides a customized 2D or 3D shaped user interface.

This innovative surface - developed by Abatek - can integrate capacitive functions, touch display elements as well as buttons.

The closed surface marries great design liberty with functionality. Various combinations regarding shape and surface structure such as glossy, matt, brushed, leathery and more are possible – even seamless.

Polyform is the perfect differentiator to support both the eyes and fingers to find capacitive traces.

Uniquely - even combine cap sense with traditional push function.

Important: The Polyform surface is self healing!



Capacitive electrodes on flexible foils

Flexible foil with conductive traces in different materials can be assembled with adhesive tape or co-molding to the existing A-surface to establish selective capacitive function.

For connecting flex tail to PCB, use Silicone Connector, please see next page.

In combination with our Abatek Polyform technology, the foil can be co-molded into to the surface.



Conductive Solutions for your Capacitive Application

Bridging the air gap with or without additional tactile function

Conductive Silicone Key

Benefit from the combination of traditional keypad (e.g. sealing, pre-load, lighting, click feel) with innovative capacitive sensing – the conductive black material.

For multiple conductive areas with- or without displacement, use a multi touch area keypad.

For a hard A-surfaces without displacement a conductive silicone shape can be used as connector to bridge an air gap. See cone to the right that also supports lighting.



Conductive Damper-Spacer and SMT Silicone Key

The conductive rubber serves as spacer, anti-vibration cushion and connector. Size and shape custom made. The contact gets soldered on the PCB and is SMT place able.

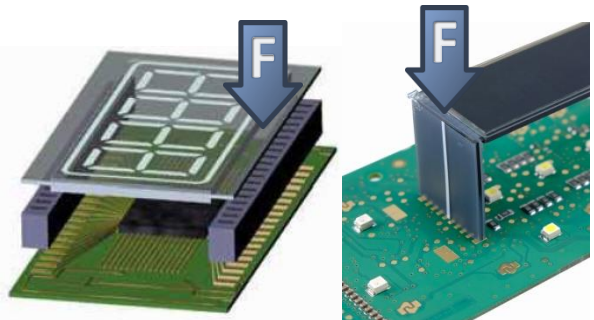
With SMT Silicone Key, right, you can also add standard silicone keypad function with customized force/way curve and electrical contact. Result is double function.



Silicone Connector / Zebra Strips

Silicone connector is the ideal solution for electrical connectivity between two parallel plane surfaces without soldering, gluing or complex assembly.

Eliminate expensive ZIF-Connectors with Silicone Connector to assemble the flex tail or any other multi-contact part. Used in the millions for LCD, see illustration to the right.



Conductive Silicone Inserts

Integrate an elastomer connector into the keypad and connect the capacitive surface to the PCB without losing functions like light guide, sealing etc.



**Contact your Abatek expert concerning your next project.
We would be delighted to support you.**

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