

# **ClickTouch** Brochure



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ClickTouch is a family-owned business based in Gavere, Belgium. We design and produce high-quality Human Machine Interfaces. In partnership with our clients, we help to develop new solutions. From the first contact involving excellent customer service to exquisite after-sales services. We have production lines both in Europe and China, enabling us to provide our customers with a smooth delivery wherever they are based.

The company was founded in 1986 as Velleman Switch. Our first mission was to develop and manufacture membrane keypads based on innovative Embossing technology. The resulting product was marketed under the brand name ClickTouch<sup>©</sup>, patented in Europe and the US, which later became the company name. These days, we create and produce highquality Human Machine Interfaces to deliver innovative solutions. When it comes to HMI's, we are the preferred partner of Europe's biggest and foremost companies. We make the difference in terms of the applications for harsh industrial environments, demanding circumstances, technically critical processes or in creating innovative control interfaces.

### Our philiosophy

Our philosophy is based on innovation and evolution. As a demanding manufacturer, you are looking for intuitive and reliable solutions to operate machinery. Based on your needs, we conceptualise and produce either existing or new highly reliable and long-lasting components.

#### What we stand for

First and foremost, ClickTouch offers you operational excellence, reliable products delivered at competitive prices, and integrity. We do all this while keeping our customers' needs at heart. We also work together, not only with our customers, but with our suppliers as well to constantly improve our innovative applications. This evolution is our second nature. Knowledge is our strength, innovation is our motivation.

## We are constantly in evolution

We have always been true pioneers. We developed the world wide first capacitive touch button controls back in 2000. In 2003 we introduced a full gesture capacitive touch screen. Our knack for evolution has seen us evolve as the preferred partner for the most well-known suppliers of semiconductors (Atmel, Cypress, EETI). The last few years have seen us continue on the path of evolution with the invention of capacitive metal touch in 2014 and the introduction of nano technology in 2017. Our latest design is our TwoTouch Redundant technology.





#### **Meet our products**

#### Membrane keyboards

User friendly and reliable keypads with the unique ClickTouch technology. Our keypads have an excellent life cycle with up to 6 million impressions. All keys are available in a wide range of design options, in diameters up to 35 mm and in several activation forces.

#### Touch screens and keys

Apart from the full range of standard dimensions, our strength lies in fully custombuilt sensors for various applications. Robust, durable, optically clear and with a firmware development all of its own. We offer apacitive keys as well as resistive and capacitive touch screens.

#### UniCTouch®

UniCTouch® is short for Universal Capacitive Touch and offers capacitive operation by any type of overlay imaginable: metal, stainless steel, wood, cork, textile, ... With this technology, clients are able to design a highly innovative product.

#### TwoTouch

TwoTouch technology sees a second, resistive touch screen placed underneath a first capacitive touch screen. It offers a combination of capacitive and resistive sensing, creating redundancy for applications in critical environments with no room for errors.

#### **Complete solutions**

Completely integrated applications developed together with our customers from an idea to the finished product. We offer support in design, production, assembly and bonding, even ranging from carrier plates and coverglasses to PCB's and displays.

#### References

" We rely on ClickTouch to develop products that do not yet exist in the form we desire and that offer added value to our customers."



" ClickTouch is flexible and problem-oriented. In the past, they have provided us with professional solutions in precarious situations."



# Membrane Keyboards

- Durable & reliable
- Patented solution
- Cost-effective
- Various key function (double click, redundant keys...)





The ClickTouch Membrane Technology brings together aesthetics, great tactile feedback, durability and reliability. Next to that it is incredibly intuitive and functional. ClickTouch offers membrane keypads and graphical fronts customized through silk-screen or digital printing.

#### **ClickTouch dome**

To make the ClickTouch Dome, we use our very own patented embossing technique. Whereas a metal dome will guarantee you around 1 million activations per key, the ClickTouch Dome guarantees you at least 6 million, or six times as many. Another advantage of not using any metal is that we can more easily determine the sensitivity of the keys whereas a metal dome is more limited for that factor. On top of that, there is no chance of auto contact. With our technology we easily can integrate full or selective shielding, which makes it highly reliable. Furthermore, we use a key-bykey embossing to create entire membrane keyboards. With an equal activation force and a precise tactile feedback for the end user. In other words, every single key provides that same, reliable touch.

#### Metal dome

Metal domes are commonly used because of their **simplicity of use** and **limited complexity**, but they have their advantages in certain circumstances. The **fast click response** and their performance in **high temperature applications** are very typical. ClickTouch can integrate metal dome technology into any type of keyboard. The overlay can be created by hot or cold embossing.

By combining the ClickTouch Dome and the Metal Dome, we can easily build a **double click system**.







# Touch Screens & keys

- Resistive and capacitive touch
- Own production plant
- Software support
- Customization is standard





Since the early 2000's, ClickTouch is a manufacturer of touch screens. Our capacitive keys are produced in our European or Asian plants. We control the entire process, from early design to serial production. We have the capability to produce fully customized touch films. We can combine different touch detections (keys, slider, wheel, touch screen) on the same sensor foil. This solution offers numerous design possibilities without the need for complex construction or decoding.

### **Complete standard solution**

Our CTG is fully standardized. Main reasons for this are cost efficiency, proven quality, fast availability and simple integration. In our standard solution we offer: printed glass, capacitive 'ITO on Glass' touch screen, controller board, cables, software & drivers. ClickTouch guarantees the complete integration and software support.

### **Tuning support**

ClickTouch offers all the needed support for the integration and customized programming of the touch screen controller. The controller and how well it handles the processing of noise-sensitive signals have an impact on performance, functionality and user experience. At a minimum, a controller needs high-quality analogue front ends, built-in noise handling capabilities and sophisticated processing algorithms. By providing a high signal-to-noise ratio (SNR) and effective noise handling, a controller can compensate for the signal-strength degradation caused by other noise sources.

We use tailor-written algorithms compatible with the sensors being used. The programming of the controller also determines which advanced features, such as water tolerance, water operation or glove control, the system can support.

#### From standardized to custom-

#### made

Our standard line can be personalized according to your needs. We offer the opportunity to design the cover glass according to your wishes. Thanks to the various controllers & tuning possibilities, we can even go further and offer solutions for any market that operates in any condition. On top of this, we can develop the controller board to a Chip on Tail solution.

### Keys

We have the capability to produce fully customized touch films. We can combine different touch detections all on the same sensor foil. With our Fine Line nano-silver we can easily upgrade to backlighting and 'secret until lit' functions.







- Capacitive detection trough any overlay
- Freedom in design
- Innovative touch on metal





UniCTouch® or Universal Capacitive Touch stands for capacitive operation (keys, slider, wheel functions and touchpad) through every conceivable type of overlay and top layer: metal, stainless steel, wood, cork, gold, glass ... 'Universal capacitive touch' indicates that the customer has complete freedom of design and can bring a highly innovative product to the market.

### The uniCTouch® principle

A capacitive system detects movement of the overlay as the distance between the two electrodes becomes smaller. This results in an increase in capacity. We can change the actuation force by playing with the mechanical design and software.

### Simple integration and user-friendly electronics

UniCTouch® is based on a flexible foil which makes the integration very easy. The foil is laminated directly to the front layer. You do not need to worry about the distance and integration, the positioning is not critical. ClickTouch offers all the needed support for the integration and custom programming of the touch screen controller. Our construction also guarantees an optimal operation in conjunction with EMI/EMC. Furthermore a force controlled signal is possible.

#### Stylish appearance

Metal and stainless steel are already widely used in your products. UniCTouch® enables you to extend metal surfaces to the control interface. Different input types are possible: keys, sliders, wheel and touchpad. The design options are limitless!

### Backlighting

The electrodes of the uniCTouch® are so unique that they can be translucent. This stylish feature makes backlighting an option.







# **Two**Touch

- Resistive and capacitive touch technology combined
- For critical applications
- Full operational reliability
- Groundbreaking technology





High-intensity problems require high-quality solutions. When you are working in critical circumstances for medical, industrial or military applications, you want to be sure that you can rely on prime-quality technology. Through our new TwoTouch Redundancy Technology, ClickTouch ensures that you can have full confidence in the touch screen technology that you are using.

### A revolutionary technology

Our groundbreaking TwoTouch Redundancy Technology sees a second resistive touch screen installed under-neath a first capacitive touch screen. You can navigate on the first screen and then activate through the second. The signal you give is registered on each screen separately and verified on both screens combined. In this way any accidental touches are avoided. The technology has an additional safety feature: if the first screen is no longer operational, the second can still carry out all necessary functions.

#### Full operational reliability

In high-pressure, critical situations, you want and need technology that offers ultimate operational reliability. Aside from that, our TwoTouch Redundancy Technology offers you more safety in those situations thanks to the two-touch activation mechanism. Furthermore, any conductive materials that may be nearby will not have any effect on our TwoTouch Redundancy Technology.

#### Versatility is key

The TwoTouch Redundancy Technology is designed for a wide array of applications. From medical procedures where precision is essential to military and harsh industrial environments that require an exquisite eye for detail. It can be applied in many other fields as well, such as the transportation industry, the assembly of safety equipment, the development of payment terminals and in any situation with greatly fluctuating temperatures. Whatever application you have in mind, the TwoTouch Redundancy Technology will provide the answer.









# **Complete** Solutions

- Competitive, reliable and sustainable
- Many Years of experience
- Guaranteed quality
- Your customized solution





ClickTouch has been active in the humanmachine interface market for over 35 years. We are therefore perfectly equipped to work with you to turn your early ideas into a competitive, reliable and sustainable solution. Our One-Stop-Shop services are fully customer-specific. We will work together with you to find a tailor-made solution for your application, based on your expectations. Especially in the area of customized and technically advanced solutions, ClickTouch stands out in the HMI market. ClickTouch meets all inspection criteria required for a 100% working solution. We are ISO9001 certified.

### **ClickTouch OSS**

Our 'One-Stop-Shop' solution is tailored to your needs. Together with you, our customer, we look at the complete design concept: the choice of product and the materials, the installation and assembly possibilities, the specifications & quality requirements... Once everything is specified, we start the design, provide drawings and deliver prototypes as soon as possible.

ClickTouch can offer both 2D and 3D drawings.

#### **Electronics & Firmware**

ClickTouch also handles the complete firmware and PCB development. Through our close cooperation with various industry partners, ClickTouch guarantees a solution that works for any market and in any circumstance.

#### All from one source

ClickTouch's services go from integrating the display, to optical laminating as well as the complete integration of the touch technology in your plastic or metal module or carrier plate. Having all solutions and services, from design to integration, in one place is an added advantage for our customers.

