

From design to serial production. PCAP touchscreens from SCHURTER are used in the most demanding markets.



## We give value to touches

From design to serial production. SCHURTER develops and produces tailor-made projected capacitive (PCAP) touch solutions that perfectly fit the application.

### For the most demanding environments

Our production centres in Europe and Asia are fully equipped to handle the most complex PCAP projects. Thanks to our in-house protoshop, SCHURTER is able to manufacture prototypes for pre-testing and fast market introductions.

PCAP touchscreens from SCHURTER are used in the most demanding markets. We have a lot of experiences in developing PCAP touchscreens for:

- ATEX environments
- Outdoor applications
- Vending and Point of Sales (POS) machines
- Food processing systems
- Heavy duty machinery
- Medical devices

## We give value to touches

At our high-end production facilities, we produce small to large series of customized PCAP touchscreens. In close cooperation with you, we develop HMI solutions with PCAP touch panels, displays and electronics, for the most demanding applications. Tuned and programmed to your needs.

## The benefits of PCAP touchscreens from SCHURTER:

- From development to production at own production sites
- In-house experts for development, engineering, electronics and firmware customisation
- EMC compliance for industrial and medical
- Water / salt water resistant
- Can be operated with gloves
- Multi-touch 1-10 fingers
- Optical bonding
- In-house EMC testing possibilities



## The PCAP touchscreen competences at SCHURTER:

- Own sensor design and production from 3.5"- 24"
- Custom controller design, tuned to specific demands
- Partnerships with AMT, MaxTouch, Microchip and EETI
- Custom front glass in every desired thickness, shape and size
- Display, electronics and housing integration

Tailor made by SCHURTER - from development to serial production



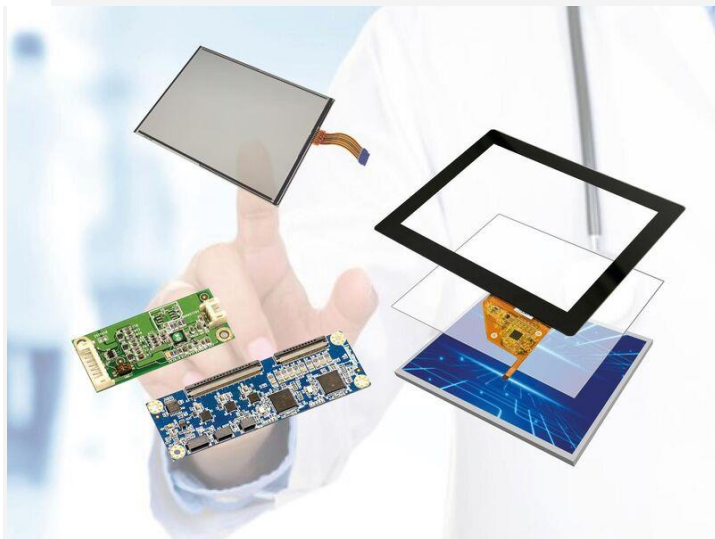
## Where touches matter

SCHURTER offers a wide range of standard sensors in 4-, 5-, 8-wire technology and customized sensors to meet application-specific requirements. SCHURTER offers: Standard Resistive Technology, Advanced Resistive Technology, Resistive Touch Controllers.

### Benefits of Resistive Touchscreens

The benefits of Resistive Touchscreens from SCHURTER:

- Qualified technology for a wide range of applications
- Custom designs and special and optimized types
- 4-, 5- and 8- wire technologies
- State-of-the-art production facilities
- Different surface materials, closed surface
- Diagonals between 3,5" and 21"

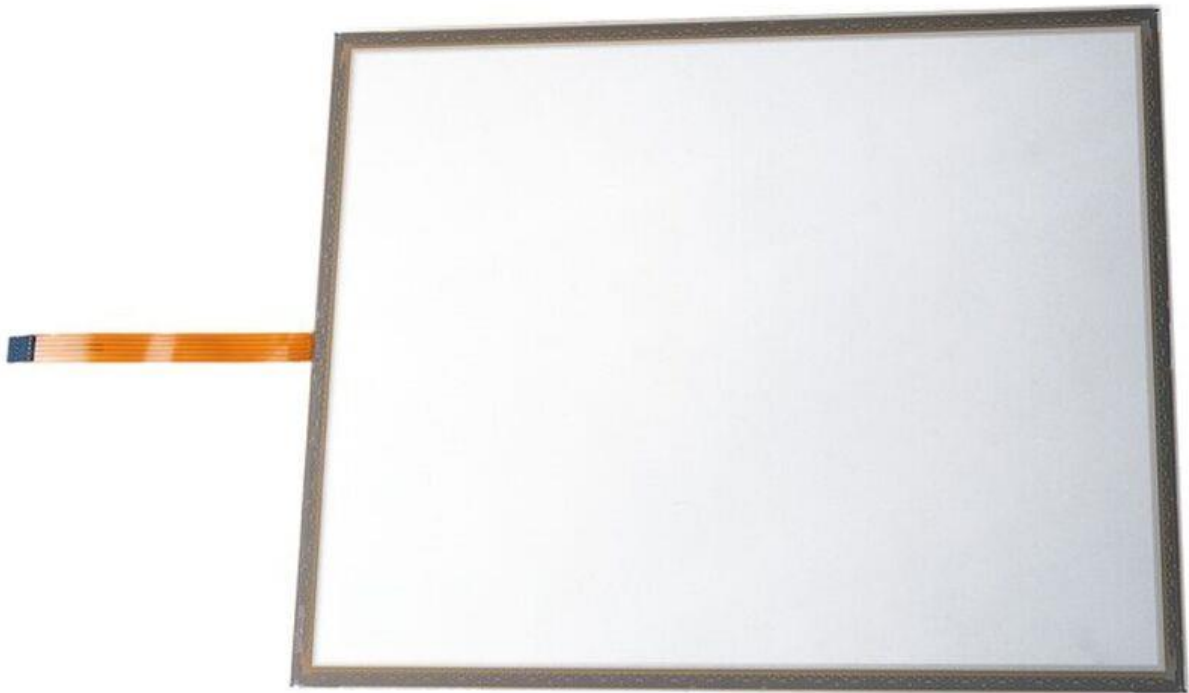




**LR - Low reflective touchscreen**

The reflectivity of this touchscreen is minimized to 1.5% which allows system developers to integrate this panel for outdoor use without rectifying the LCD. 4-, 5- and 8-wire designs are available for this product.

[Read more](#)



#### **GFG - Glass-Film-Glass Touchscreen**

This touchscreen is designed with an anti-scratch touch surface by using thin glass as touch surface, surface hardness can reach 9H or higher than 5 Mohs. It is enhanced with delicate touch control, high temperature resistance, and excellent waterproofing.

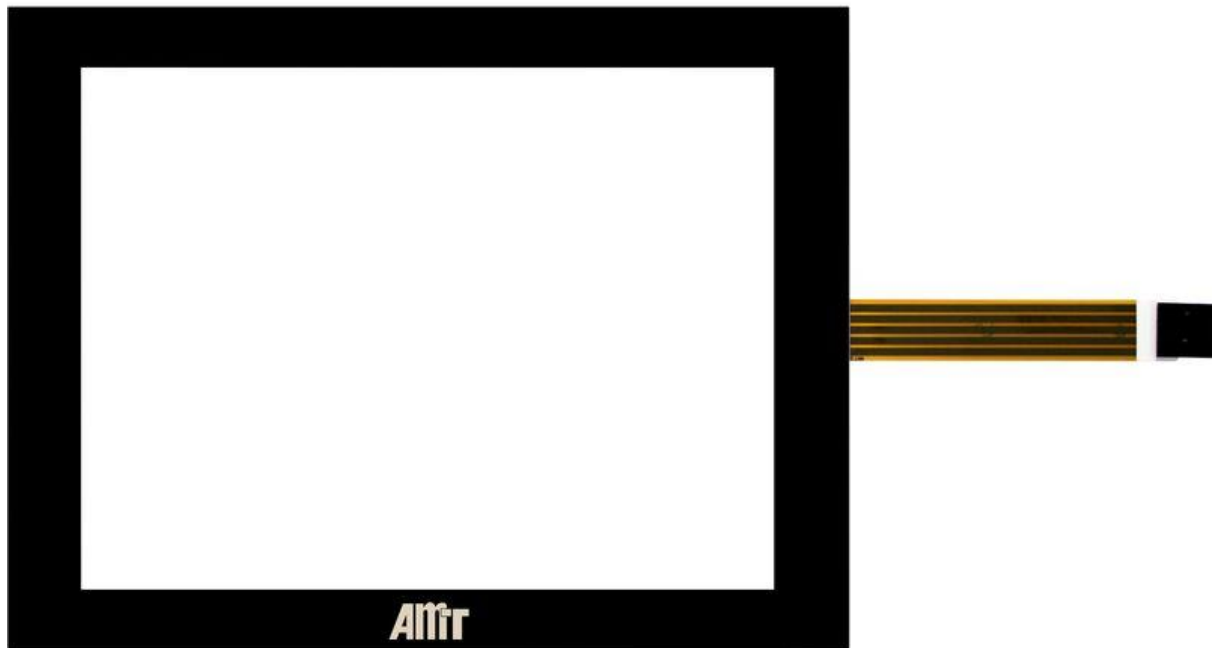
[Read more](#)



#### **TW - Touch Window**

A "true flat" frameless touch screen that confers a stylish outline to your product. A décor layer is printed on the top of the touch panel.

[Read more](#)



**FT - Framed Touch**

A variation of Touch Window with Film-Glass construction and featuring a smoothed outline.

[Read more](#)



#### **RMT - Resistive Multi Touch**

Resistive Multi-touch screens provide customers with reliability and noise immunity while incorporating multi-point touch operation and gestures.

[Read more](#)



Elegant and reliable solutions for touchscreens



## Capacitive Switch solutions

SCHURTER provides CapKeys which are custom developed, with a modern look and feel and fully meeting the most demanding requirements.

### How to explore the world by touching things?

From a young age, we explore the world by touching things and we learn to set things in motion by pushing buttons. Using this knowledge makes our live more comfortable. We learn to make connections with a single touch. Capacitive keys from SCHURTER make it happen!



## Capacitive switch solutions

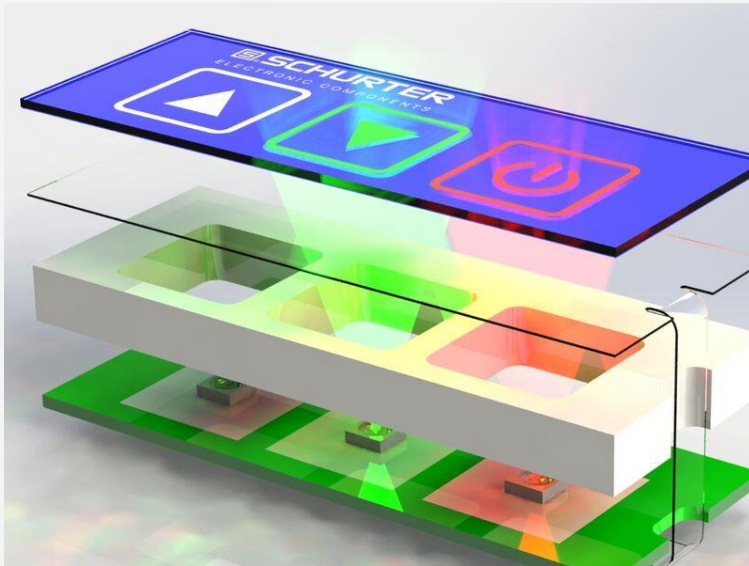
A strong up and coming technology is capacitive sensing. As we getting more and more used to touchscreens behind glass (mobiles, tablets, etc.), switching behind glass attracts the interest of the industry. If one takes into account the possibilities switching behind a cover lens gives, it is clear that capacitive sensing technology is recognized as future proof. With the glass examples we have produced we have demonstrated the following advantages:

- Easy to clean
- Highly decorative solutions including full colour printing (both transparent and light blocking)
- Backlight options
- Death fond printing options
- Integration of displays and insert labels behind the glass



## Sensor

One of the essential components within a CapKey® solution is the sensor. The sensor can be made of polyester or directly tracked on a PCB. The tracks and layout of the sensor is essential for good functionality. Transparent switch areas are possible with the use of conductive transparent material (ITO). The sensor itself will be laminated behind the chosen cover lens material. Each sensor requires a connection tail made of polyester or Kapton material. As the sensors are made by a screen print process, sensors can be produced in any required size and shape. This will give you similar design freedom as a traditional membrane switch.



## Controller

Unlike PCAP touchscreens with limited number of available controllers, there are many different kind of CapKey controllers on the market. SCHURTER has selected, based on experience and knowledge, a preferred list of CapKey controllers. These controllers are from well known manufacturers like Atmel, Microchip, Cypress and Freescale. Each controller has its own unique set of features and specifications. Before we can help you with the design of the correct sensor and selecting the corresponding controller, a decision has to be made of the required features like:

- Number of keys
- Sliders
- Wheels

This set of features will determine the best suitable controller and the required sensor design. SCHURTER will keep the focus on their core business of producing and assembling the sensors and cover lens. Regarding the controller you can choose the SCHURTER organization to take care of this or we can provide the schematics, BOM and libraries to integrate the CapKey controller onto your own PCB. Please contact us to learn more how SCHURTER can help you with the design of the CapKey controller.



## Application areas

The resistive touchscreen technology is available to you as a mature, flexible and cost-effective input technology for industrial and medical applications as well as in highly demanding markets:

- Control & Automation
- Medical & Laboratory
- Building Equipment
- Agriculture & Forestry
- POS, POI, Kiosk Systems

Membrane switches are ideally suited for a wide range of applications. An optimal solution for a HMI's without display.



## Tailor made Membrane Switches for a wide range of industries

Every SCHURTER membrane switch solution is customised - regardless of whether small or large quantities are involved. A high degree of automation in production ensures consistently high quality and enables us to compete with international manufacturers.

### High quality membrane switches designed in Europe

SCHURTER has over 40 years of experience in design, manufacturing and supplying high quality membrane switches. Our membrane switches are known to be reliable in all environmental circumstances. SCHURTER is specialized in customized complex membrane switches for all types of industry. Based on our outstanding expertise in technology, we can meet your customer-specific requirements, from the simple touch point to the complete solution, by creating a design of the highest quality and sophistication.



## Benefits

- Non-tactile, metal-dome and poly-dome variants
- Switching-life minimum of minimum 1.000.000 activations
- Backlighted keys and text
- Flexible design
- Use of embossing
- One-time design costs starting at €1.250
- Budgetary quote within 5 working days



## Features

- In-house development and production
- Various sizes and operating forces
- Temperature range -20°C to +70°C
- Selection of metal domes available
- Overlay materials in different thicknesses & structures
- Reliable global partners for high volume production



