

Touch Screen Types

When buying a touch screen monitor, the type of touch screen that you use is very important. For example, when buying a monitor for a food processing factory that will be used on a conveyor belt, then a Resistive touch screen would be the better option as you can still use it whilst wearing gloves.

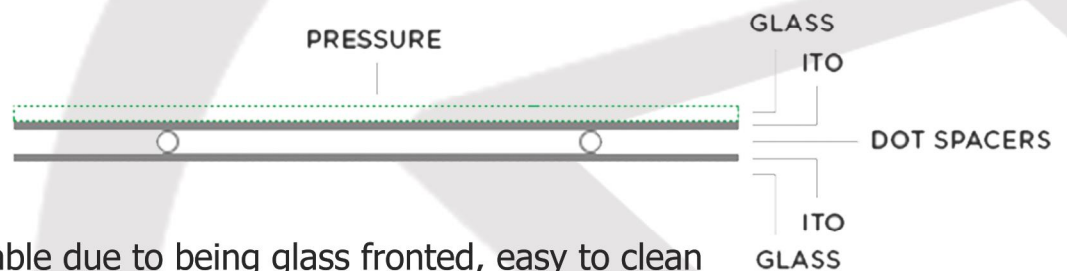
We have listed how each touch screen type works, and the advantages and disadvantages of each one to help you decide which is the best option for your application.

Capacitive Touch

Commonly utilised for industrial purposes, capacitive touch screens consist of a glass overlay, coated with a conductive material such as Indium Tin Oxide.

Contact with a capacitive screen creates an electrostatic charge that sends information to the touch control in order to perform its function.

This type of touch screen has very good clarity and durability, except they can only respond to the touch of a finger or special gloves unless it is capacitive charged.



Advantages - Highly durable due to being glass fronted, easy to clean and resistant to scratches.

Disadvantages - Doesn't respond to much more than a human finger, glass is more prone to breaking.

Resistive Touch

Resistive touch screens can be divided into 4, 5, 6, 7 or 8-wired models, which differentiate between the coordinates of touch.

As one of the most commonly used, resistive touch screen relies on a touch overlay, constructed by a flexible top layer and rigid bottom layer, divided by insulating spacer dots.

The inside surface is coated with a transparent material (ITO) that makes electrical contact when pressure is applied.

These voltages are then converted to X and Y coordinates, which are sent to the controller.

Whilst resistive screens are durable and easy to integrate, they can only offer 75% clarity.

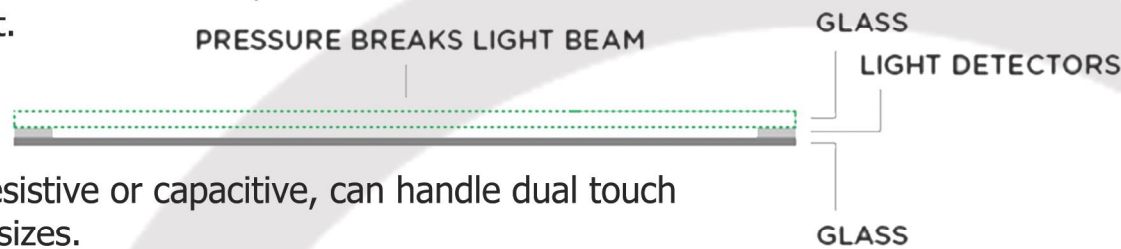
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Infrared Touchscreen

Unlike the other types, infrared touch screen technology does not incorporate an overlay. Instead, a frame surrounding the display consists of LEDs on one side and phototransistor detectors on the other.

The phototransistors detect an absence of light and relay a signal that determines the coordinates.

The touch is identified and located at the point of interruption of the LED beams. Commonly used in outdoor locations, infra red touch screens are durable and can detect any input.



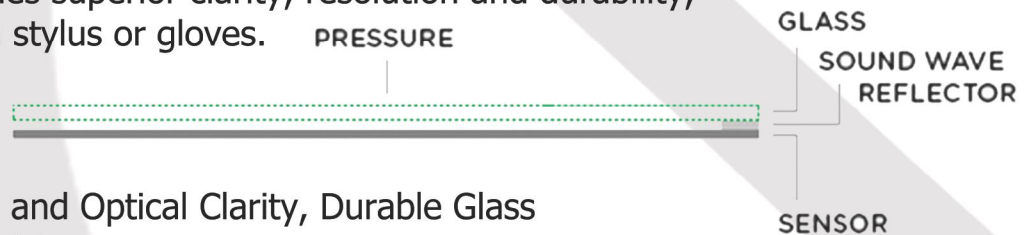
Advantages - Clearer than resistive or capacitive, can handle dual touch input and can scale to large sizes.

Disadvantages - Cameras may disalign.

SAW (Surface Acoustic Wave Touchscreen)

SAW touch screen technology is based upon two transducers and a reflector placed on the glass surface. The waves are dispersed across the screen by bouncing off the reflector arrangement and are then received by the transducers.

The touch is detected when the waves are absorbed. In comparison with the other touch screens, SAW provides superior clarity, resolution and durability, with the ability to interact with a stylus or gloves.



Advantages - High Transmission and Optical Clarity, Durable Glass Construction and Pressure Sensitivity.

Disadvantages - Vulnerable to surface contaminants, water and requires soft touch inputs.

**If you require further assistance, please
don't hesitate to call one of our team who will
be happy to help!**

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