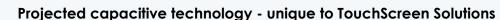# TOUCHSCREEN
SOLUTIONS

For Today's Demanding Needs

TouchScreen Solutions is a specialist manufacturer of touchscreens, optical filters to enhance the performance of electronic displays, and transparent composites.

Touch sensor is based on projected capacitive technology which enables the device to sense through a protective screen in front of the display.

By utilising TouchScreen Solutions's traditional lamination expertise, touchscreens are designed to provide the highest levels of light transmission, excellent readability and unsurpassed protection against a wide range of physical threats. The touchsacreens are accurate, highly dependable and have a rapid response time

- **Projected capacitive technology - unique to TouchScreen Solutions**
- **Unsurpassed impact, vandal and scratch resistance**
- **Ideal for public use and external applications**
- **13ms response time**
- **No drift, no recalibration required**
- **Works with gloved and ungloved finger**
- **Unaffected by moisture and rain**
- **Increased reliability and life expectancy**

Projected Capacitive Touchscreens

The electronic controls effectively divide the screen into pixel sized sensing cells, using microfine wires which are not visible on a powered display. These wires are connected to a controller board, and an oscillation frequency is established for each wire. Touching the glass causes a change in the frequency of the wires at that particular point, the position of which is calculated and identified by the controller. Unlike other capacitive systems where the operator touches the actual conducting surface of the sensing panel, the active component of the sensor can be embedded up to 25mm from the touch surface ensuring long product life and stability.

The touchscreen can be supplied with the options of anti¬glare or anti-reflection coatings, thermal toughening or chemical strengthening and privacy or contrast enhancement filters. The front glass of the touchscreen acts as a dielectric and enhances the capacitance of the touchscreen.

The driver software allows the touchscreen to interface with the host computer's operating system by emulating the behaviour of a computer "mouse" and translates taps on the touchscreen surface into mouse clicks.

Touchscreen is proven to meet today's demanding requirements for ATM's, web phones, ticket machines, medical displays, industrial displays, pay-at-the-pump gas machines, and interactive kiosk systems. The touchscreen is durable and dependable, its construction protects against damage caused by moisture, heat and even vandalism.

Specification

The touchscreen comprises a laminated glass sensor, which encompasses the sensing medium, and the control card which connects to the communications port of the computer.

Detection Method
Dynamic capacitance using horizontal and vertical 10 micron diameter wires.

Power Requirements
Typically 5mA at 6 to 12 volts which is provided by RS232 port, USB or external source.

Lead and Connector
Female D9 serial connector on a 3 metre long, 3 wire, lead. Maximum length of lead - 10 metres. Power supply components in connection -2 diodes, 1 resistor and 1 capacitor .

Operating Temperature
- 35 o C to + 65 o C

Humidity
0 to 90% RH @ 40 C. Unaffected by condensation.
Speed of Response
13msec through 4mm thick glass.

Durability
Unsurpassed vandal and shock resistance.
Resolution
Less than 1mm.

Position Accuracy
Less than 1.5% of diagonal error within the recommended viewing area.

Sensitivity
Adjustable by software. Maximum thickness 20mm from the sensor to the touch surface

What it Detects
Bare and gloved fingers.

Resistance to Contamination
Unaffected by harsh cleaning fluids, solvents, grease and dirt

Light Transmission
88% through standard ZYTOUCH® .

Immunity to Damage
Protected by glass - sensing media is not touched by the operator. No moving parts.

Stability
Use of fixed wires ensures no drift with time.

Glass Options
Clear, anti-glare, toughened, high transmission.

MTBF (Sensor)
Excellent, no known wear-out mechanism.

MTBF (Controller)
In excess of 1 million hours - Bellcore TR332

Regulatory
Controller will be compliant with CE and UL when installed in system.

Emissions
Will pass FCC Class B when installed in system

Sealability
Ability to be NEMA 12 or NEMA 4 compliant.

Software provided
Simple calibration and set-up with Windows 98, NT, 2000, XP and Linux. Mouse emulation with Select on Touch, Select on Dwell, Select on Release and Drag and Drop.

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