

ZYTOUCH®

The ZYTOUCH® touch sensor is the most robust touch sensor available based on Zytronic's embedded Projected Capacitive Technology (PCT™)

Utilising Zytronic's lamination expertise, ZYTOUCH® touch sensors are designed to provide the highest levels of transmission, readability and unsurpassed protection against a wide range of physical threats. The touch sensors are accurate, highly dependable and have a rapid response time.



ADVANTAGES

- Unsurpassed impact, vandal and scratch resistance
- Ideal for public use and external applications
- No drift, no recalibration required
- Works with gloved and ungloved finger
- Unaffected by moisture and surface contaminants
- Increased reliability and life expectancy
- Ability to create sealed designs that comply with NEMA 4, 12 and IP65 standards or higher
- Output protocols available upon request for a variety of operating systems
- Numerous customisable options, including screen printed borders and logos, anti-reflective treatments, thermal or chemically toughened glass, etc.

FEATURES

- Sensors can be supplied with a number of options including front surface anti-glare treatments, rear surface anti-reflection coatings, thermal or chemical glass strengthening and privacy or contrast enhancement filters
- The driver software allows the touch sensor to interface with the host computer's operating system by emulating the behaviour of a computer 'mouse' and translates taps on the touch sensor surface into mouse clicks

OPERATION

The screen is divided into an X-Y matrix of sensing cells, using an array of embedded 10-18µm copper electrodes, which are near invisible to the human eye on the powered display. These electrodes are connected to a remotely mounted controller board, and an oscillation frequency is established for each track.

When a finger or conductive stylus approaches the surface of the sensor, a change in the oscillating frequency of the tracks around that particular point is registered; the position is then determined by the controller and firmware combination. Unlike conventional capacitive systems the active component of PCT™ is embedded behind the front substrate, ensuring protection, long life, and stability.

With the unique Z-axis (or depth) sensing characteristics of PCT™, ZYTOUCH® sensors can be tuned by the user to eliminate the need for an operating force. The sensors can also be mounted behind and operate through a further sacrificial glass layer for ultimate levels of protection.

APPLICATIONS

ZYTOUCH® touch sensors are proven to meet today's demanding requirements for public access human machine interfaces, such as ATM's, ticket machines, medical displays, industrial displays, pay-at-the-pump gas machines, and interactive kiosk systems.

The touch sensor is uniquely durable and dependable, the construction protecting the sensing elements against damage caused by moisture, heat and even vandalism. The ZYTOUCH® touch sensor is the most robust touch sensor based on Zytronic's embedded Projected Capacitive Technology (PCT™).



ZYTOUCH® Specification

SENSOR

Detection Method	Projected Capacitive Technology (PCT™)
Sensor	Multi layer glass with embedded micro-fine sensing array
Electronics	Remotely sited PCB, Serial or USB connectivity
Size range	5" - 82"
Optical Resolution	>4 lines/mm (NBS1963A)
Light Transmission	~90%
Haze	<3% (Gardner Haze)

CONTROLLER

See data sheet for ZXY100® touch controller

MECHANICAL

Immunity to damage	Glass surface with no moving parts
Sensor thickness	From 3mm upwards
Stylus type	Finger, gloved hand, conductive stylus
Operation Force	<0.1g
Hardness	Glass hardness - Mohs 7
Sensor MTBF	Glass with no moving parts or coatings, no known wear out mechanisms
Sealing	Can be sealed to meet NEMA 4, 12 and IP 65 standards
Vibration	In accordance with IEC 60068-2-64 when installed in a suitable bezel
Options	Various glass types and thicknesses available; custom screen printed borders/ logos; flat or curved glass; drilled holes, slots and edge profiles, etc.

ENVIRONMENT

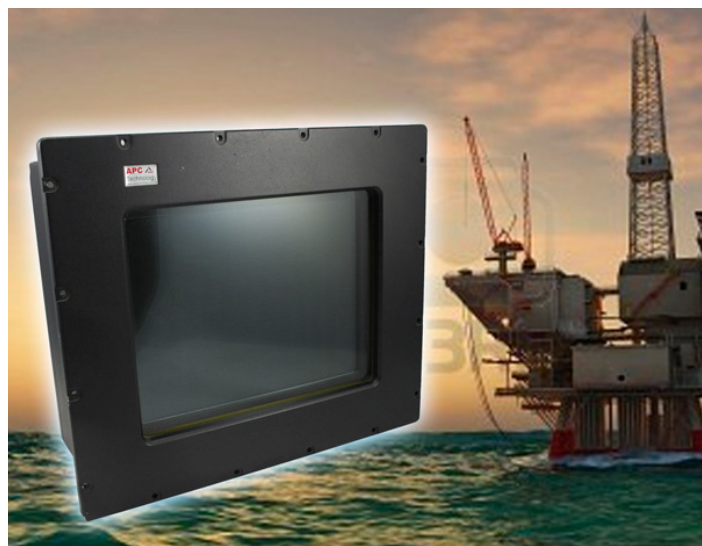
Operating Temperature	-35°C to +70°C
Humidity	RH 0-90% up to 40°C
Storage Temperature	-40°C to 80°C
Storage Humidity	RH 0-90% up to 40°C
Resistance to Contamination	Sensing media protected by glass, exceeds requirements of ASTM-F1598-96
Water Resistance	Unaffected by water droplets or condensation

QUALITY

See cosmetic specification www.zytronic.co.uk

APPROVALS

RoHS compliant
CE, FCC and UL approved www.zytronic.co.uk/support/quality-assurance



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