

Multi Touch ZYBRID®

The customisable multitouch touch sensor solution for industrial and self service applications

Our patent pending Multi Touch ZYBRID® touch sensors are based on our proven Projected Capacitive Technology (PCT™), using our latest mutual capacitive sensing developments.



ADVANTAGES

- Highly durable, vandal and scratch resistant
- Fast and accurate response times
- Increased reliability and life expectancy
- Works with gloved and ungloved finger
- Performance unaffected by moisture and surface contaminants
- Drift-free operation, one time calibration required
- Operation with gloved and un-gloved finger

FEATURES

- Chemically, physically and mechanically inert glass touch surface
- Ability to create a fully sealed design that complies with NEMA 4, 12 and IP 65 standards
- Size range from 15" - 82"
- Excellent light transmission with optional optical coating enhancements
- Compatible with a variety of operating systems including Linux
- Customisable options including, glass thickness and surface treatment, printed borders and customer logo's

OPERATION

The touchscreen is divided into an X-Y matrix of sensing cells, using an array of embedded 10µm copper electrodes, which are near invisible to the human eye on the powered display. These electrodes are connected to a controller board, and a charge is applied to the array.

When a finger or conductive stylus approaches the surface of the sensor, a change in the charge is detected in the nodes immediately beneath adjacent cells; 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.

The unique sensing characteristics of PCT™ sensing eliminates the need for an operating force, providing users with the same levels of touch sensitivity as experienced with the latest smartphones and tablet PC's but on a much larger scale, and in any environment or location.

APPLICATIONS

Zytronic's Multi Touch ZYBRID® touch sensors are a durable and cost effective method to meet the latest requirements for multi-touch and multi user interactivity, while still maintaining the ultra high levels of durability Zytronic's products are known for.

The construction is resistant to damage caused by moisture, heat and surface contaminants making Multi Touch ZYBRID® the perfect choice for digital signage, gaming and entertainment, touch tables and outdoor information stations.

Multi Touch ZYBRID® Specification

SENSOR

Detection Method	Projected Capacitive Technology (PCT™) mutual capacitive type
Sensor	Glass with embedded micro-fine sensing array
Electronics	Remotely sited PCB, USB connectivity
Size range	15" - 82"
Optical Resolution	>4 lines/mm (NBS1963A)
Light Transmission	~90%
Haze	<3% (Gardner Haze) if Anti Glare glass specified

CONTROLLER

See data sheet for ZXY200® touch controller

MECHANICAL

Immunity to damage	Glass surface with no moving parts
Sensor thickness	<6mm
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
Sealability	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