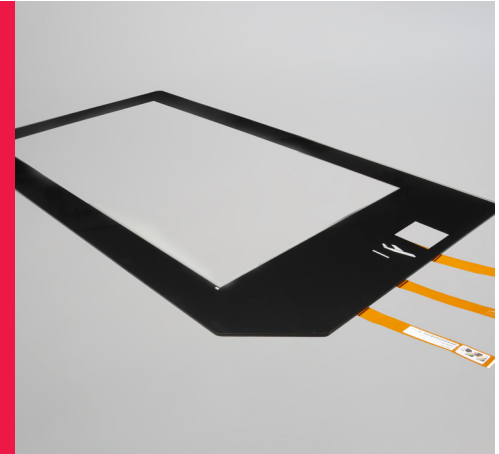




ZYTRONIC DATA SHEET

Multi Touch **ZyBrid**®

The customisable Multi Touch **ZyBrid**® touch sensors are based on our durable Projected Capacitive Technology (MPCT™), using our latest patented mutual capacitive sensing developments.



ADVANTAGES

- Highly durable, vandal and scratch resistant
- Fast and accurate response times
- Performance unaffected by moisture and surface contaminants.
- Operation with gloved and un-gloved finger.
- Drift-free operation - no recalibration required.
- Increased reliability and life expectancy.

FEATURES

- Chemically, physically and mechanically inert glass touch surface
- Ability to create a fully sealed design that complies with NEMA a, 12 and IP 65 standards
- Size range from 7" - 85"
- Up to 40 independent touch points when used with ZXY150/200/300 controllers
- Excellent light transmission and optional optical coating enhancements
- Compatible with a variety of operating systems including Linux
- Customisable options including, glass thickness and surface treatment, printed borders and curved glass.

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 a 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 its firmware. Unlike conventional capacitive systems the active component of the MPCT™ is embedded behind the front substrate, ensuring protection, long life, and stability.

The unique sensing characteristics of MPCT™ 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.

APPLICATIONS

Zytronic's Multi Touch **ZyBrid**® touch sensors are a durable and cost effective method to meet today's demanding touch screen requirements. The construction is resistant to damage caused by moisture, heat and surface contaminants making Multi Touch **ZyBrid**® the perfect choice for multiuser signage, leisure, retail applications whether indoors or outdoors.

Multi Touch **ZyBrid**® SPECIFICATION



SENSOR

Detection Method	Projected Capacitive Technology (MPCT™) mutual capacitive type
Sensor	Glass with embedded micro-fine sensing array
Control electronics	Remotely sited PCB, USB connectivity
Size range	7" - 85"
Optical Resolution	>4 lines/mm (NBS1963A)
Light Transmission	~90% without Anti Reflective enhancement
Haze	<3% (Gardner Haze) If Anti glare glass specified

CONTROLLER

See data sheets for ZXY150™, ZXY200™ or ZXY300™ touch controllers

MECHANICAL

Immunity to damage	Glass surface with no moving parts
Sensor thickness	Up to 12mm
Stylus type	Finger, gloved hand and 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; drill holes, slots and edge profiles.

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
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APPROVALS

RoHS compliant	
CE, FCC & UL approved	www.zytronic.co.uk



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