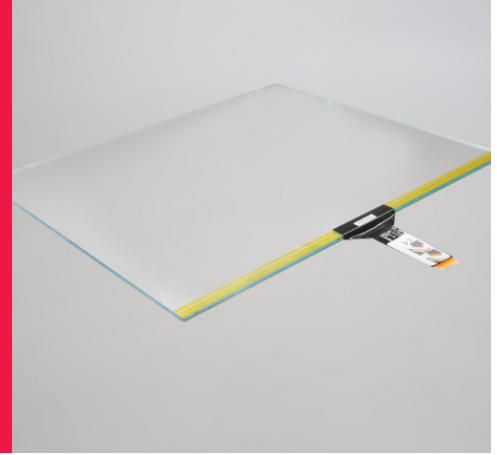




# ZYTRONIC DATA SHEET

## ZyPos®

ZyPos® standard design touch sensors are based on Zytronic's award winning self-capacitive Projected Capacitive Technology (PCT™). They offer "off the shelf" availability at cost effective pricing



### ADVANTAGES

- Increased reliability and life expectancy.
- Performance unaffected by moisture and surface contaminants.
- Operation with gloved and un-gloved finger.
- Drift-free operation - no recalibration required.
- A fully laminated, embedded sensing construction that is highly durable, vandal and scratch resistant.
- Fast and accurate response time.

### FEATURES

- A standardized range of sizes from 7" to 20.1" that provide the most cost effective PCT™ sensors available.
- A durable 3mm thick Anti-Glare etched glass surface.
- Can be additionally mounted behind a separate protective overlay glass for extreme impact resistance.
- Capable of being sealed into systems designed to comply with NEMA 4, 12 and IP65 standards or higher.
- Excellent light transmission.
- Detachable, fully independent touch controller for easy servicing.
- Single and dual touch performance when coupled with ZXY100® and ZXY110® controller.

### OPERATION

The screen 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 remotely mounted controller board, and an oscillation frequency is established for each trace.

When a finger or conductive stylus approaches the surface of the sensor, a change in the oscillating frequency of the traces around that particular point is registered; the position is then determined by the controller and its firmware. 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™, **ZyPos®** 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

Zytronic's **ZyPos®** sensors are proven to meet today's demanding touch requirements. The **ZyPos®** touch sensor is durable and dependable, and its construction protects against damage caused by moisture, heat and surface contaminants without compromise on the brightness or optical clarity of the display.

The sensors can be used in a variety of applications where reliability, low maintenance and high performance are critical, such as self service kiosks, and factory automation displays. The **ZyPos®** touch sensors provide the lowest cost of ownership, entry level to Zytronic's unique technology.

# ZyPos® SPECIFICATION



## SENSOR

Detection Method	Projected Capacitive Technology (PCT™) self capacitive type
Sensor	Glass with embedded micro-fine sensing array
Control electronics	Remotely sited PCB, Serial or USB connectivity
Size range	7"-20.1"
Optical Resolution	>4 lines/mm (NBS1963A)
Light Transmission	~90%
Haze	<3% (Gardner Haze)

## CONTROLLER

See data sheet for ZXY100® and ZXY110® touch controller

## MECHANICAL

Immunity to damage	Glass surface with no moving parts
Sensor thickness	3mm Anti Glare etched glass
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 standards	Can be sealed to meet NEMA 4, 12 and IP 65
Vibration	In accordance with IEC 60068-2-64 when installed in a suitable bezel

## 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	<a href="http://www.zytronic.co.uk">www.zytronic.co.uk</a>
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## APPROVALS

RoHS compliant	
CE, FCC & UL approved	<a href="http://www.zytronic.co.uk">www.zytronic.co.uk</a>

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