

ZYFILM® ZYPROFILM®

ZYFILM® & ZYPROFILM® are flexible film touch sensors incorporating Zytronic's patented embedded Projected Capacitive Technology (PCT™)

Our touch foils are designed for temporary or semi-permanent mounting to the rear surface of a rigid transparent substrate such as a shop window. When installed and connected to our touch controller and PC, they are operated by touching the outside surface of the window.



ZYFILM®

Is our transparent touch foil available in customisable sizes up to 84" diagonal and intended for use in front of an LCD (when mounted to a suitable supporting substrate).

ZYPROFILM®

Is our touch foil with an integral laminated rear projection film, available in customisable sizes up to 84" diagonal and intended for use with a rear projection system (when mounted to a suitable supporting substrate).

Both sensor types are available with either "cling film" front surface for easy application and removal, or optically clear adhesive (OCA) for one time use.

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 capacitive body 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™, ZYFILM® and ZYPROFILM® sensors can be tuned by the user to eliminate the need for an operating force. The sensors are designed to be mounted behind and operate through a supporting substrate such as a glass window in a shop.

APPLICATIONS

ZYFILM® and ZYPROFILM® are intended for use in large format interactive digital signage and information displays in retail, advertising and exhibitions environments.



ZYFILM® and ZYPROFILM® Specification

SENSOR

| | |
|------------------|--|
| Detection Method | Projected Capacitive Technology (PCT™) mutual and self capacitive types |
| Sensor | PET film and/ or rear projection medium with embedded micro-fine sensing array |
| Electronics | Remotely sited PCB, Serial or USB connectivity |
| Size range | 15" - 84" |

CONTROLLER

See data sheets for ZXY100® and ZXY200® touch controllers

MECHANICAL

| | |
|--------------------|--|
| Immunity to damage | Protected by mounting the sensor behind a suitable substrate, no moving parts |
| Sensor thickness | ZYFILM® ~0.3mm, ZYPROFILM® ~0.5mm depending on rear projection material selected |
| Stylus type | Finger, gloved hand, conductive stylus |
| Operation Force | <0.1g |
| Hardness | Determined by mounting substrate |
| Sensor MTBF | Film with no moving parts or coatings, no known wear-out mechanisms when mounted behind a suitable substrate |

ENVIRONMENT

| | |
|-----------------------------|---|
| Operating Temperature | 0°C to +50°C |
| Humidity | RH 0-90% up to 40°C |
| Storage Temperature | -10°C to 60°C |
| Storage Humidity | RH 0-90% up to 40°C (max 2 weeks) |
| Resistance to Contamination | Determined by the mounting substrate used (from operation side) |
| Water Resistance | Determined by the mounting substrate used (from operation side) |

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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