

# VersaTouch®

Industry's most versatile 4-wire resistive analog touchscreens

## Mechanical and Dimensional Characteristics

<b>Standard Construction:</b>	<b>Three layer Construction</b> (Glass/Film/Film)
<b>ITO Glass Construction:</b>	<b>Two layer Construction</b> (Glass/Film)
<b>Other Constructions available:</b>	<b>ELTT, SLRT, EMI, Buffer Layer</b>
<b>Diag. Sizes:</b>	2" – 32" (Standard or wide aspect ratio)
<b>Borders:</b>	As narrow as 0.1"
<b>Tail:</b>	<b>Integrated tail</b> or <b>Bonded tail</b>
<b>Connectors:</b>	Standard connectors are 2.54 mm (0.10") <b>FCI</b> (Berg), <b>Tyco</b> (AMP) and <b>Molex</b> attached to integrated or bonded tails
<b>ZIF Contacts:</b>	Material: Gold plated copper or Carbon coated silver Spacing: 0.5 mm, 1.0 mm, 0.05" and 0.10"
<b>Input Method:</b>	Finger, Gloved hand, Stylus, Prosthetic Limb
<b>Activation Force:</b>	Stylus 20 grams, Finger 50 grams (Contact factory for custom activation force)
<b>Life:</b>	Over 1 Million touches at a single location (Contact factory for extended life version)
<b>Dimensional Tolerances:</b>	Overall size $\pm 0.015$ inch Tail length $\pm 0.050$ inch Thickness $\pm 0.010$ inch Layer to layer registration: $\pm 0.030$ inch Printing accuracy: $\pm 0.010$ inch Die cutting accuracy: $\pm 0.010$ inch
<b>Surface Hardness:</b>	Better than 3H, others available
<b>Chemical Resistance:</b>	Industrial chemicals acetone, ethylene, chloride, isopropyl alcohol, hexane, turpentine, unleaded gasoline, diesel fuel, motor oil, transmission fluid, antifreeze, Food service chemicals vinegar, coffee, tea, grease, cooking oil, salt and most commercial cleaners including ammonia-based glass cleaner and laundry detergent.

## Optical Characteristics:

	Three Layer Construction	Two Layer Construction	Optically Enhanced Construction
<b>Light Transmission *</b>	78	81	91
<b>Reflection *</b>	20	20	3.5
<b>Clarity:</b>	99	99	99
<b>Haze:</b>	2.5	0.9	2

\* ASTM STD D 1003, Values are for clear hardcoat finish

## Electrical performance

<b>Non-Linearity (Average):</b>	Less than 1%
<b>Non-Linearity (Maximum):</b>	Less than 3%
<b>Input Voltage:</b>	2 to 5 Volts
<b>Current:</b>	50 mili-Amp (Max.)
<b>Sheet Resistance:</b>	300 Ohms/Square (Typical)
<b>Bounce:</b>	10 ms
<b>ESD:</b>	15KV

## Environmental Characteristics

### Temperature and Humidity:

	Operating	Storage
Temp	0C to 50C	-20C to 70C
Humidity	95% at 50C	95% at 50C

Contact factory for environmental requirements outside of the standard range

<b>Sealing:</b>	To NEMA 4, 12 and IP 65 standards
<b>Altitude:</b>	Operating 10,000 ft storage 30,000 ft
<b>Warranty:</b>	Limited 1 year – extended warranty available
<b>Controllers:</b>	Work with all industry standards controllers