AccuTouch®			
Title:	**Product Specification, 5-Wire Resistive Touchscreen**		
Number:	**PS600248**		

Change History			
Rev.	**Description of Change**	**Release Date**	**Changed By**
A	Initial release ECO-16-0967	7/12/2016	BJ Bounds
B	Updated specs	8/17/2016	BJ Bounds

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1. Description

The Elo Touch Solutions AccuTouch touchscreens are based on proven five-wire resistive technology, the preferred solution for applications that demand reliability, input flexibility, and contamination resistance.

2. Screen Specifications

Part #	Model #	Diagonal Size (in)	Aspect Ratio	Outer Dimensions (mm)	Active Area (mm)	Controller
E896667	SCN-A5-FLT05.7-Z30-0H1-R	5.7	4:3	140.6x104.5	116.8x88.8	CTR-2218A
E166578	SCN-A5-FLT05.7-Z31-0H1-R	5.7	4:3	140.6x104.5	116.8x88.8	CTR-2218A
E019369	SCN-A5-FLT06.4-Z02-0H1-R	6.4	4:3	155.65x115.27	129.49x97.49	CTR-2218A
E276717	SCN-A5-FLT07.1-002-0H1-R	7.1	4:3	165.48x124.46	139.70x106.68	CTR-2218A
E494781	SCN-A5-FLT08.4-Z01-0H1-R	8.4	4:3	196.09x149.86	170.69x129.54	CTR-2218A
E379151	SCN-A5-FLT09.8-001-0H1-R	9.8	4:3	245.75x184.15	210.82x158.50	CTR-2218A
E458225	SCN-A5-FLT10.4-Z01-0H1-R	10.4	4:3	248.92x186.69	215.90x163.83	CTR-2218A
E011881	SCN-A5-FLT12.1-Z01-0H1-R	12.1	4:3	271.27x205.74	248.87x187.40	CTR-2218A
E055550	SCN-A5-FLT15.0-Z01-0H1-R	15	4:3	332.88x248.88	307.11x231.09	CTR-2218A
E891026	SCN-A5-FLT15.1-Z01-0H1-R	15.1	4:3	332.88x248.88	310.01x232	CTR-2218A
E509854	SCN-A5-FLT17.1-Z01-0H1-R	17.1	4:3	365.4x290.18	340x272.40	CTR-2218A
E374999	SCN-A5-FLT18.1-Z01-0H1-R	18.1	4:3	388.02x308.61	362.21x290.83	CTR-2218A
E863464	SCN-A5-FLT19.0-Z01-0H1-R	19	4:3	406.28x323.4	380.88x305.62	CTR-2218A
E288906	SCN-A5-FLT20.1-Z02-0H1-R	20.1	4:3	430.29x330.97	408.69x307.04	CTR-2218A
E073119	SCN-A5-FLT21.3-001-0H1-R	21.3	4:3	472.69x355.09	431.80x324.61	CTR-2218A
E042031	SCN-A5-FLT07.0-W01-0H1-R	7	16:9	170.64x115.56	155.4x94.44	CTR-2218A
E499047	SCN-AT-FLW10.1-Z01-0H1-R	10.1	16:9	240.96x149.4	225.72x128.28	CTR-2218A
E529602	SCN-AT-FLT10.4-Z01-0H1-R	10.4	4:3	248.92x186.69	215.9x163.83	CTR-2218A
E803003	SCN-AT-FLT12.1-Z01-0H1-R	12.1	4:3	271.27x205.74	248.87x187.40	CTR-2218A
E212465	SCN-AT-FLT15.0-Z01-0H1-R	15	4:3	332.87x248.87	307.11x231.09	CTR-2218A
E134797	SCN-AT-FLT15.6-W01-0H1-R	15.6	16:10	370x216	345x194.5	CTR-2218A
E479792	SCN-AT-FLT15.3-W01-0H1-R	15.3	16:10	360.18x231.5	334.68x210.5	CTR-2218A
E564334	SCN-AT-FLT17.0-W01-0H1-R	17	16:10	395.77x261.55	365.6x228.7	CTR-2218A
E389515	SCN-AT-FLT17.1-Z01-0H1-R	17.1	4:3	365.4x290.18	340x272.40	CTR-2218A
E915523	SCN-AT-FLT19.0-Z01-0H1-R	19	4:3	406.29x323.41	380.88x305.62	CTR-2218A
E153011	SCN-AT-FLT21.5-W01-0H1-R	21.5	16:9	505.5x292.5	480x271.5	CTR-2218A
E021248	SCN-AT-FLT22.0-W01-0H1-R	22	16:10	497.89x313.88	473.76x296.1	CTR-2218A
E619311	SCN-AT-FLT24.0-W01-0H1-R	24	16:10	551.69x350.01	523.24x329.93	CTR-2218A
E976429	SCN-AT-FLW18.5-Z01-0H1-R	18.5	16:9	439.1x261.5	411.8x232.4	CTR-2218A
E751189	SCN-AT-FLW21.5-Z01-0H1-R	21.5	16:9	505.5x292.5	480x271.5	CTR-2218A
E598216	SCN-AT-FLW23.0-Z01-0H1-R	23	16:10	534x311.7	512.76x289.74	CTR-2218A
E444826	SCN-A5-FLT12.1-F02-0H1-R	12.1	4:3	271.3x205.7	248.87x187.40	CTR-2218A
E385171	SCN-A5-FLT13.3-F01-0H1-R	13.3	16:10	307.5x202	287.5x180.2	CTR-2218A
E896820	SCN-A5-FLT15.0-F02-0H1-R	15	4:3	332.9x248.9	307.11x231.09	CTR-2218A
E918729	SCN-A5-FLT17.1-F02-0H1-R	17.1	4:3	365.4x290.2	340x272.40	CTR-2218A
E395465	SCN-A5-FLT19.0-F02-0H1-R	19	4:3	406.3x323.4	380.88x305.62	CTR-2218A

Part #	Model #	Diagonal Size (in)	Aspect Ratio	Outer Dimensions (mm)	Active Area (mm)	Controller
E000336	SCN-A5-FZW07.0-Z02-0H1-R	7	16:10	194.4x127.44	157.4x96.44	CTR-2218A
E142722	SCN-A5-FZW10.1-Z01-0H1-R	10.1	16:9	258.58x160.28	225.92x128.48	CTR-2218A
E013642	SCN-A5-FZT10.4-Z01-0H1-R	10.4	4:3	250.9x195.83	215.9x163.83	CTR-2218A
E153107	SCN-A5-FZT12.1-Z03-0H1-R	12.1	4:3	288.87x221.4	250.87x189.4	CTR-2218A
E249624	SCN-A5-FZT15.0-Z02-0H1-R	15	4:3	359.2x273.66	308.11x232.09	CTR-2218A
E000536	SCN-A5-FZT15.6-Z01-0H1-R	15.6	16:9	385.6x234.5	345x194.5	CTR-2218A
E726992	SCN-A5-FZT17.0-Z01-0H1-R	17	4:3	386.8x322.12	340.92x273.34	CTR-2218A
E000612	SCN-A5-FZW18.5-Z01-0H1-R	18.5	16:9	449.47x274.6	413.80x234.40	CTR-2218A
E000437	SCN-A5-FZT19.0-Z01-0H1-R	19	4:3	427.48x350.22	381.88x306.62	CTR-2218A
E000906	SCN-A5-FZW21.5-Z01-0H1-R	21.5	16:9	520.6x312.1	480x271.5	CTR-2218A
E888932	SCN-A5-FZW22.0-Z01-0H1-R	22	16:10	523.76x336.1	475.76x298.10	CTR-2218A
E156078	SCN-A5-FLT08.4-002-0H1-R	8.4	4:3	196.12x148.86	174.28x131.08	CTR-2218A

3. Detail Specifications

3.1 Mechanical Specifications

Parameter	Specifications
Construction	5-Wire resistive
Cover Glass	T=1.8mm,2.4mm,3.2mm
Hardness – Cover Sheet	3H or 4H (per ASTM D3363) based on technology requests
Overall Thickness	Optional
Input methods	Finger, gloved hand or passive stylus

3.2 Optical Characteristics

Parameter	Specifications
Light Transmittance	HL products: 80% ±5% at 550nm wavelength

3.3 Reliability Testing

Parameter	Specifications
Impact resistance	IK05 Impact, No Breakage
Cable Pull Test	Cable to touchscreen interface shall be capable of withstanding a straight line pull of 10lbs, maintained for a period of 5 minutes

3.4 Environmental Specifications

Parameter	Specifications
Operating Temp Range	Operating Temp -10C to 50C, functionality is not adversely affected within this temperature range.
Storage Temp Range/Shipping Temp Range	Storage Temp -40 to 70C, functionality is not adversely affected within this temperature range.
Chemical Resistance	Industrial chemicals: acetone, methylene chloride, methyl ethyl ketone, isopropyl alcohol, hexane, turpentine, mineral spirits, unleaded gasoline, diesel fuel, motor oil, transmission fluid, antifreeze. Food-service chemicals: vinegar, coffee, tea, grease, cooking oil, salt, plus most commercial cleaners including ammonia-based glass cleaner and laundry detergent.
Temp Humidity	90% RH at max 50C, After 24hrs, room temp and test
Temp Cycling	The touchscreen shall be capable of functioning normally after the completion of 50 thermal cycles from room conditions to 71°C, back to room temperature; and then to -40° C and back to room temperature at a rate not to exceed 2° C per minute.
High Temp Storage	70C for 240 hrs, After 2hrs, room temp and test
Low Temp Storage	-40C for 240 hrs, After 2hrs, room temp and test

5.0   Warranty

5 year limited warranty on AccuTouch
3 year limited warranty on AccuTouch Zero-Bezel

Elo Touch Solutions, Inc. reserves the right to change or update, without notice, any information contained herein; to change, without notice, the design, construction, materials, processing or specifications of any products; and to discontinue or limit production or distribution of any products.

6.0   Troubleshooting

Troubleshooting the touchscreen

The first suggested course of action is to reconnect the touchscreen. Problems with functionality are often caused by poor attachment of the cables. Ensure that the pins of the screen align with the contacts in the connector. The gold side of the cable should face down when inserted into the connector.

If the screen is still not responding, try replacing the screen with another. Substitution is the fastest way to determine the source of the problem. If screen substitution does not resolve the issue, please continue by troubleshooting the controller.

Troubleshooting the controller

The first step in troubleshooting the controller is verifying that it is powered properly. Most Elo controllers operate on a 5 V-dc power source. Please double check the specific requirements for the controller you are using to ensure you are within the specified range.

The second step is to verify proper controller grounding, which is essential for controller functionality. Grounding allows the controller to deal with electrical noise and other environmental issues. Elo controllers are designed with Plated Through Holes (PTH) for Earth grounding of the system. Ensure that one or more of the PTH is used, and that the PTH is connected to Earth to prevent undesired controller operation. In systems where direct mounting to an Earth chassis is not possible, Elo recommends the implementation of a grounding strap to connect one PTH to Earth.

Substitution can also be used to verify a failure with the controller. Please contact Elo Technical Support for additional help with Elo controllers.

Troubleshooting the driver

Elo driver software provides a consistent software interface among Elo touchscreens and controllers. Elo systems are HID-compliant with most operating systems and should be functional without a driver. If the screen and controller are determined to be functional on

one operating system and do not function on another, a driver may be required. The driver software helps the touchscreen controller report touch location as a function of the screen coordinates. The driver also performs other operations as directed by the application.

Install the driver for the operating system to be used from the support page at www.elotouch.com. A video alignment program runs automatically at the end of the installation process. The alignment program may be run at any time from the Control Panel or a Desktop shortcut. The standard calibration program requires the touch and release of three "targets." A test screen shows confirmation of correct alignment. More precise alignment routines may be available upon request.

Connectivity to a touch device can be verified using the Device Manager in Windows operating systems. The touch device should show up under "Mice and other pointing devices." After auto-detection, with no driver installed, it should report as a HID-compliant mouse.   After successful driver installation it should report as a specific Elo Touch Solutions device.

Hardware functionality can be verified by touching the screen after auto-detection; even without any driver installed, there should be response to touch by virtue of the touch system being a HID-compliant device. Touch response may be radically misaligned with the video, but any sort of cursor movement on touch confirms basic hardware functionality.

There is very little troubleshooting to be done for the driver itself, other than verifying that the correct driver has been installed.   If several incorrect drivers have been installed, it may be necessary to do a manual uninstall to "clean up" the operating system. In such a case, see the Manual Driver Removal instructions in the Support section of www.elotouch.com.

7.0   Frequently Asked Questions

This section covers the most common questions concerning IntelliTouch components.

1. *What type of glass is used?*
Standard screens are available in Soda lime glass with thickness of 1.8mm, 2.4mm and 3.2mm.

2. *What finishes are available on Elo touchscreens?*
Elo screens come with an anti-glare finish.

3. *Will mounting tape or sealing materials be prepared by Elo?*
Mounting and sealing is typically completed by the customer. Elo Touch Solutions can apply mounting tape or design a sealing gasket for you upon request. See Chapter 2 for more details.

4. *How can I test functionality after integration?*
The functionality will depend on the applications and operating system used for the device. In general, a drawing program is helpful for ensuring that the system works properly after integration.

5.*Can I customize my touchscreen?*
Elo takes pride in our ability to work with customers to generate specialized touchscreen solutions for every application. For help with customizing your touchscreen, please contact your Elo Touch Solutions Representative.

6. Where can I find more information if my questions aren't answered in the Integration Guide?

Contact Elo Touch Solutions Customer Sales and Support for help with any further questions about your touchscreen application.

Check out our website

www.elotouch.com

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- Software drivers

Getting in Touch with Us

To find out more about the extensive range of Elo touch solutions, visit our website at www.elotouch.com, or simply call the office nearest you:

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