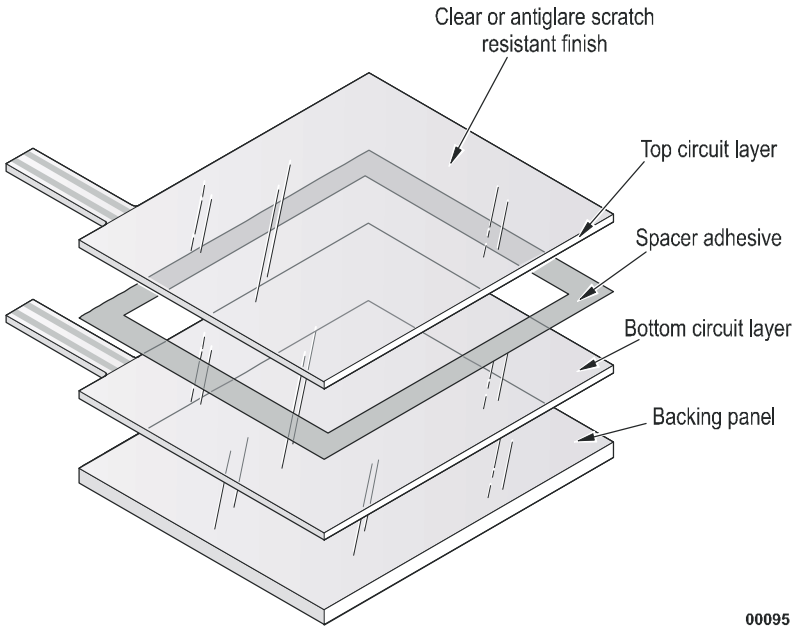
DYNAPRO
The hands on company

Dynaclear™ PL75 Resistive Touch Screen

Dynapro's Polyester Laminated (PL) touch screen construction produces the most rugged resistive touch screen in the industry. This is Dynapro's strongest design because it consists of layers of polyester bonded over the entire surface, rather than just at the edge, to a chemically toughened glass panel. This combination, of full optical lamination and a backing panel that is three to four times stronger than non-strengthened glass, provides break resistance similar to safety glass.

The PL construction is offered in two versions - the PL with buffer layer, and the new PL75. The PL 75 is made with fewer layers and smaller spacer dots between the layers for light, easy activation, and smooth feel. The PL75 is manufactured using Dynapro's proprietary ITO coating which is the thinest and most transparent coating available. This unique construction gives the touch screen durability, reliability and optimal image clarity in rugged environments.

Dynaclear-PL75 Construction



Specifications

Electrical

Operating Voltage	3.3 to 5 VDC typical
Sheet Resistance	350 ± 22% Ω/square
Linearity	< 1.5% full scale linearity error in either direction. Dynapro document PS002
Insulation Resistance	> 20 MΩ @ 25 VDC. Dynapro test procedure TP0004

Optical

Total Light Transmission	75% typical (> 74% @ 550 nm test). Dynapro test procedure TP0009
Clarity	Clear Finish - 25% Antiglare Finish - 15%
Workmanship Standards	Per Dynapro document PS014 Includes optical inspection standards for touch screen

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Environmental

After tests below, touch screen continued to meet electrical and optical performance specs.

Operating Temperature Range	-20°C to +50°C, 2 weeks at 50°C/90% RH Dynapro test procedures TP0006, TP0007
Storage Temperature High	+70°C, 240 hours at ambient humidity Dynapro test procedure TP0003
Storage Temperature Low	-40°C, continuous at ambient humidity Dynapro test procedure TP0005
Accelerated Aging	100 hours at 60°C/95% RH. Dynapro test procedure TP0001
Thermal Shock	25 cycles (one cycle is 30 min. dwell alternating from -40°C to +85°C with less than 10 min. transfer time). Dynapro test procedure TP0008

Mechanical

Activation Method	Gloved or ungloved finger Delrin or plastic stylus (no metal) with 1mm radius full hemispherical tip
Activation Force Data is for .004" diameter, .140" pitch spacer dots	< 25g average with non-metal stylus < 50g average with 5/8" diameter silicone finger Custom activation force and palm rejection available Dynapro test procedure TP0002

Durability

Point Activation Life	1 Million activations on a single point with a 5/8" diameter silicone finger with a 350g load at 2Hz
Character Activation Life	>100,000 characters written within a 20mm x 20mm area on the touch screen
Surface Finish Properties	Minimum 4H hardness. Refer to *Touch Screen Surface Finishes Data Sheet 1005* for more details

Specifications subject to change without notice. All values are typical. Products are sold with the understanding that buyers will test them in actual use and determine the product's adaptability to their application. Touch screens must be installed per *Dynapro Custom Touch Screen Design Guide D-CDG 100 and Dynapro Touch Screen Integration Guide D-IG-100.* Failure to adhere to recommended installation may affect ability to meet specifications stated within this document.

Supporting Documents

Touch Screen Surface Finishes Data Sheet 1005
Test Procedures: TP0001, TP0002, TP0003, TP0004, TP0005, TP0006, TP0007, TP0008, TP0009
Product Standards: Workmanship Standards for Dynapro Touch Screens PS014
Electrical Testing of Analog Resistive Touch Screens PS002

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For more information on our resistive stock products or custom design solutions, visit us at

www.dynapro.com

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Dynapro simplifies interaction between people and technology by designing and manufacturing world class touch products, from touch screen components to touch computers, terminals, and monitors.

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