



# CarrollTouch Infrared

## For Point-of-Sale and Harsh Environment Applications

Elo's **CarrollTouch infrared touchscreens** provide optical sensor technology for applications in harsh or glass-free environments. Featuring a low profile with nearly pixel-level touch resolution and no parallax, CarrollTouch touchscreens operate in extreme temperature, shock, vibration, and lighting conditions. The display is protected by a choice of glass or acrylic overlays optimized for optical clarity, security, or safety. CarrollTouch touchscreens provide stable, drift-free operation while delivering an extremely sensitive, accurate touch response with no touch activation force required.

CarrollTouch touchscreens are the ideal choice in many industrial automation, transportation, and in-vehicle applications, POS terminals, and medical equipment.

### Benefits

- Low profile, high resolution
- No parallax
- Highest clarity
- High durability, vandal resistance, and safety
- Sealable from contaminants
- Operates in extreme environments

### Applications

- Food processing
- Industrial automation
- Medical equipment
- In-vehicle and transportation
- Point-of-sale (POS) terminals

# CarrollTouch Infrared Specifications

## MECHANICAL

Input Method Finger, gloved hand or other stylus activation  
Available Sizes 10.4" to 19"; visit our website for full specifications and other offerings. Custom solutions available.

## ELECTRICAL

Positional Accuracy Typical centroid accuracy: 2mm with 1mm STD error  
Resolution Touchpoint density is based on controller resolution of 4096 x 4096  
Touch Activation Force No minimum touch activation force is required  
Controller Board: Serial (RS232) or USB

## OPTICAL

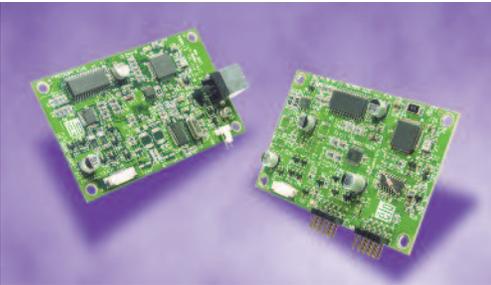
Light Transmission Glass or acrylic overlay:  $\geq 90\%$

## ENVIRONMENTAL

Temperature Operating:  $-20^{\circ}\text{C}$  to  $70^{\circ}\text{C}$ ; Storage:  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$   
Relative Humidity Operating:  $40^{\circ}\text{C}$  at 90% RH, noncondensing  
Altitude Operating: 10,000ft (3,048m); Storage/transport: 50,000ft (15,240m)  
Chemical Resistance Glass overlay: The touch active area of the touchscreen is resistant to chemicals that do not affect glass, such as: acetone, toluene, methyl ethyl ketone, isopropyl alcohol, methyl alcohol, ethyl acetate, ammonia-based glass cleaners, gasoline, kerosene, and vinegar.  
Acrylic overlay: ASTM D1308 resistance to benzene, toluene, xylene, methylene chloride, acetone, ethyl acetate, and 40% sulfuric acid.  
Saturated cotton ball test: 30 minutes with gasoline, antifreeze, brake fluid, and diesel fuel with no damage.  
Polycarbonate bezel: Some sensitivity to hydrocarbons.  
Electrostatic Protection Per EN 61000-4-2, 1995: Meets Level 4 (15kV air/8kV contact discharges)  
Agency Approvals UL, cUL, TÜV, CE, FCC Class B  
Sealability Can be sealed to meet NEMA 4 and 12 and IP65 standards

## DURABILITY

Surface Durability Glass overlay: Surface durability is that of glass, Mohs' hardness rating of 7  
Acrylic overlay: 9H or Mohs' hardness rating of 2.7  
Expected Life No known wear-out mechanism, as there are no layers, coatings, or moving parts  
Warranty Touchscreen: 5-year limited warranty  
Controller: 5-year limited warranty



4000S serial and 4000U USB controller boards

To find out more about our extensive range of Elo touch solutions, go to [www.elotouch.com](http://www.elotouch.com), or call the office nearest you.

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