

# CarrollTouch Infrared

For Automotive, Transportation, and Harsh Environment Applications

**BENEFITS:**

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



**Elo's CarrollTouch infrared touchscreens** provide optical sensor technology for applications in harsh or glass-free environments. The next-generation design features a low-profile 4.5 mm bezel with nearly pixel-level touch resolution and no parallax, and operates in extreme temperature, shock and vibration, and lighting conditions. The display is protected by a choice of glass or acrylic overlays optimized for optical clarity, security, or safety. With their optical sensors, the CarrollTouch touchscreens provide stable, drift-free operation, and deliver an extremely sensitive, accurate touch response. CarrollTouch touchscreens are the ideal choice in many industrial automation, transportation, and in-vehicle applications, POS terminals, and medical equipment.

**APPLICATIONS:**

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

**CarrollTouch Infrared**

MECHANICAL	
Input Method	Finger or gloved hand activation
Available Sizes	10.4" to 42"; visit our Web site for full specifications and other offerings
ELECTRICAL	
Positional Accuracy	Typical centroid accuracy: 2 mm with 1 mm 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 1.1 Chip set: Serial (RS232) and USB 1.1
OPTICAL	
Light Transmission	Glass or acrylic overlay: ≥ 90%
ENVIRONMENTAL	
Temperature	Operating: -20°C to 70°C Storage: -40°C to 85°C
Relative Humidity	Operating: 40°C at 90% RH, noncondensing
Altitude	Operating: 10,000 ft (3,048 m) Storage/transport: 50,000 ft (15,240 m)
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 (15 kV air/8 kV 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



Controller chip set



Find out more about Elo's extensive range of touch solutions. Go to [www.elotouch.com](http://www.elotouch.com), or simply call the office nearest you.

<b>Corporate Headquarters</b>	800-ELO-TOUCH Elo TouchSystems 301 Constitution Drive Menlo Park, CA 94025-1110	<b>Europe Headquarters</b>	800-ELO-TOUCH Tel +32 (0)16 35 21 00 Fax +32 (0)16 35 21 01 eloinfo@elotouch.com	<b>Asia-Pacific Headquarters</b>	Tel +81 (45) 478-2161 Fax +81 (45) 478-2180 www.tps.co.jp	<b>Latin America Headquarters</b>	Tel 1-305-717-6715 Fax 1-305-717-4909 www.elotouch.com.ar
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