

## LCD Heaters

LCD heaters are constructed of a layer of electrically conductive transparent film with screen printed parallel busbars positioned along the edges. Lead wires are then attached to the busbars to provide means of electrical connection. These heaters can be provided with optical grade adhesive, laminated on the back, for easy mounting in front or behind an LCD display. Applying power to the busbars, through the lead wires, creates a uniform heated surface. Maximum wattage of up to 1.0 W/in<sup>2</sup> is recommended. (Wattage is a function of input voltage, surface resistivity and heater geometry)

The typical operating temperature for TN LCDs is -30°C to 80°C. For STN LCDs the operating temperature is -20°C to 80°C. With the help of an LCD heater, the LCD operating temperature can be extended to -55°C to 90°C. The addition of an LCD heater will greatly improve the LCDs performance at low temperature.

Typical Applications: Avionics displays, Ruggedized electronic devices, Portable military radios, Handheld terminals, Outdoor card readers, Defogging windows in environmental chambers, Gas pump, parking meters, Heating microscope stages.