

EL Thin Film Electroluminescent EL160.80.50 Small Graphics Display



An affordable Small Graphics Display with unequalled image quality and durability

The EL160.80.50 thin film electroluminescent (EL) small graphics display is a low-cost, high-performance alternative to small LCDs, LEDs, or VFDs. The EL160.80.50 utilizes Planar's proprietary Integral Contrast Enhancement (ICE™) technology to achieve unparalleled image quality without the use of expensive filters. The resulting improvements in brightness and contrast provide an image so crisp that it is readable even in direct sunlight.

The display consists of an EL glass panel and control electronics assembled into a space-saving, rugged package for easy mounting. The EL160.80.50 is easily interfaced to using standard LCD control signals. Each of the 12,800 pixels is individually addressable, allowing high information content graphics and text to be displayed. This display is equivalent to a 10 x 26 character display in text mode (assuming 5 x 7 characters).

Product highlights:

- Sunlight readability
- Low power capability
- Small mechanical package
- Wide temperature range (-40° to +85°)
- Locking connector option

EL features and benefits:

- Unrivalled visual performance
 - High brightness and contrast
 - Wide viewing angle >160°
- Rapid display response <1ms
- Space efficient mechanical package
- Low EMI emissions
- Extremely rugged and durable
- Reliable, long operating life

PLANAR®
The Definition of Quality

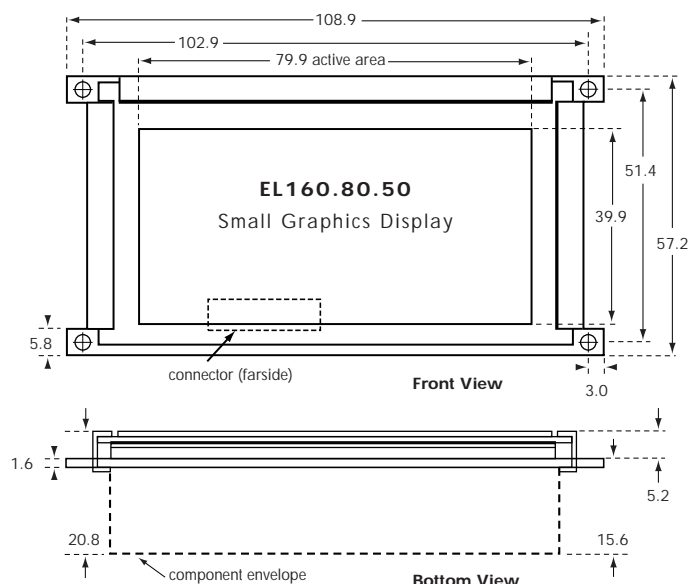
Thin film EL technology is light emitting, resulting in unequalled visual performance. High brightness, remarkable contrast, and wide viewing angle (>160°) are the hallmark of EL technology. The solid-state structure of EL produces a highly reliable, mechanically rugged flat panel display solution for the most demanding application environments.

Planar's proprietary ICE™ technology incorporates a dark, light-absorbing layer to capture ambient light and eliminate blooming and haloing around adjacent pixels. The resulting image clarity provides a contrast ratio 2x greater than most passive LCDs.

Extreme durability and long life of Planar's EL displays mean a lower overall cost of ownership. From the battlefield to the operating room, Planar displays are a reliable, high-performance flat panel display solution. Unlike CRT and LCD technologies, Planar's EL displays are field-proven to retain more than 75% of their original luminance after more than 100,000 hours of operation.

Product enhancements and value-added services are available for applications with specific requirements. Product options include extended operating temperature ranges, analog dimming, and a locking connector. To address the growing need for complete display solutions, Planar provides customer-specific value-added services. These capabilities include optical and environmental enhancements like optically bonded anti-glare and anti-reflective treatments and conformal coating of electronics. Turnkey display sub-systems that integrate touch screens, interfaces, bezels, or enclosures are also available on a value-added basis.

Dimensions (All dimensions in millimeters)



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Support and service: Planar is a U.S. company based in Beaverton, Oregon and Espoo, Finland with a worldwide sales network and full application engineering support and service.



EL160.80.50

Technical Specifications

| | |
|--|---|
| Display Technology | Thin film AC electroluminescent, ICE™ |
| Color | Amber |
| Viewing Angle | 160° minimum |
| Response Time | < 1 ms |
| Areal Luminance @ 240 Hz | 78.8 cd/m² (23.0 fL) typical |
| Contrast @ 240 Hz | 36:1 typical at 500 lux |
| Resolution | 160 x 80 pixels |
| Character Equivalent | 26 characters x 10 lines (5 x 7 format) |
| Pixel Pitch | 0.50 x 0.50 mm |
| Display External Dimensions (W x H x D) | 77 g (2.7 oz) 109 x 57 x 21 mm (4.3" x 2.3" x 0.8") |
| Display Active Area (W x H) | 80 x 40 mm (3.2" x 1.6") |
| Supply Voltages | +5 and +12 Vdc (integrated DC/DC converter) |
| Power Consumption @ 60 Hz | 2.1 W typical |
| @ 240 Hz | 5.3 W typical |
| MTBF | 50,000 hours minimum |
| Temperature (operating) | Standard 0° to +55° C Industrial (IN) -25° to +65° C Extended (ET) -40° to +*85° C (*@ 60 Hz) |
| Humidity | Operating +40° C, 93% RH (non-condensing) |
| Altitude (above sea level) | Operating 17,500 m (58,000 ft) |
| Shock | 100 g, 6 ms (3 on each of 6 surfaces) |
| Vibration | 5 to 500 Hz, .02 g²/Hz random |
| Interface | 4-bit LCD timing |
| Optional Features | Conformal coating Anti-glare (AG) treatment Anti-reflective (AR) treatment Analog dimming Locking connector |

Product Certifications:

The EL160.80.50 small graphics display will not inhibit the end product from obtaining the following certifications:

Safety – UL1950

EMC – CISPR11-B; IEC801-2; IEC801-3; EN55022B; FCC15J