



The EL40S is a high-bright segment display for use in extreme conditions. The display exhibits exceptional clarity and legibility of content, which greatly increases process control and safety in challenging environments.

Lumineq® Thin Film Electroluminescent (TFEL) displays sport the widest operating temperature range available for commercially available technology and displays.

TFEL displays are ideal for outdoor instrumentation, heavy industry, defense, medical, public safety and other demanding applications.

#### Lumineq Thin Film Electroluminescent Display

##### Product highlights:

- Wide temperature range from -60 to +85 °C
- Sunlight readability: 300 cd/m<sup>2</sup>
- High contrast
- Extremely rugged
- Overheating protection

##### General TFEL features and benefits:

- Instant ON in cold and hot temperatures
- No need for heating and cooling
- Very long lifetime
- Extremely stable brightness – measured 100,000 hours with > 85% left of initial luminance
- TFEL display brightness, contrast, viewing angle and response time are the same across the entire operating temperature range
- Wide viewing angle > 179° with crisp and clear image
- Very fast response time, < 1 ms
- Extremely rugged and solid TFEL display structure
- Very long production lifetime
- Wide operating temperature range

##### Ordering Information:

Product	Part number	Features
EL40S	EL00010800	Standard segmented display, 40 segments, ICEBrite, SPI Interface
EL40S CC	EL00010801	Conformal coating

##### Technical specifications:

Technology	Thin Film Electroluminescence
Color	TFEL-yellow
Viewing angle	179°, any viewing directions
Response time	< 1 ms
Luminance	300 cd/m <sup>2</sup>
Contrast	180:1 typical at 500 lux 16:1 typical at 10,000 lux 4:1 typical at 50,000 lux
Segments	4 × 7 segments with dots
Symbols	Battery, +, -, °F, °C, mV, : (colon)
Weight	150 g
Display size	138 × 56 × 21 mm (with mounting ears)
Active area	110 × 26 mm
Digit height	25.4 mm (1")
Supply voltage	12 VDC
Power	< 6 W @ 300 cd/m <sup>2</sup>
MTBF	100,000 hours
Temperature	Operating: -60 to +85 °C Storage: -60 to +85 °C
Humidity	93% RH, oper. @+40 °C, IEC 60068-2-78
Altitude	18,000 m, oper., IEC 60068-2-13
Shock	100 g-force, 6 ms, IEC 60068-2-27, test Ea.
Vibration	5 to 500 Hz, 0.20 g <sup>2</sup> /Hz random IEC 60068-2-64, test Fh.
Interface	SPI
Options	Conformal coating

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