

## EL160.120.39

### ICEBrite™ small graphics TFEL display



The EL160.120.39 is a TFEL display designed for use in extreme operating conditions.

Lumineq® Thin Film Electroluminescence (TFEL) displays have the widest operating temperature range of commercially available technology.

TFEL displays are ideal for use in industrial, medical, transportation, military, public safety and other demanding applications.

### Lumineq Thin Film Electroluminescent Display

#### Product highlights:

- Wide temperature area from -50 to +85 °C
- Compact screen size
- Broad voltage input area from 8 to 18 VDC
- Locking connector
- Dimming

#### 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
- Extremely wide operating temperature range

#### Technical specifications:

Technology	Thin Film Electroluminescence
Color	TFEL-yellow
Viewing angle	179°, any viewing directions
Response time	< 1 ms
Luminance	70 cd/m <sup>2</sup> typical areal @ 150 Hz
Contrast	59:1 typical @ 500 lux 32:1 typical @ 1,000 lux 4.3:1 typical @ 10,000 lux
Resolution	160 × 120 pixels
Pixel pitch	0.39 × 0.39 mm
Weight	65 g
Display size	94 × 62 × 20 mm
Active area	62.3 × 46.7 mm
Supply voltages	5 and 8...18 VDC
Power	3.0 W typical @ 150 Hz
MTBF	> 50,000 hours
Temperature	Operating: -50 to +70 °C Survival: -50 to +85 °C Storage: -60 to +105 °C
Humidity	93% RH max @ +40 °C, oper., 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	<b>EL160.120.39 Series:</b> 5 to 500 Hz, 0.02 g <sup>2</sup> /Hz random, IEC 60068-2-64 test Fh. <b>EL160.120.39-M Series</b> 5 to 500 Hz, 0.05 g <sup>2</sup> /Hz random, IEC 60068-2-64 test Fh.
Interface	4-bit LCD-type timing
Options	AR-filter, AG-filter, ITO EMI shielding glass, Tempered glass.

#### Ordering Information:

Product	Part number	Features
EL160.120.39	996-0303-00LF	Standard
EL160.120.39 CC	996-0303-01LF	Conformal Coating
EL160.120.39-NE	996-0303-04LF	No mounting Ears
EL160.120.39 -NE CC	996-0303-05LF	No mounting Ears, Conformal Coating
EL160.120.39-M	EL00107100	Enhanced ruggedness
EL160.120.39 -M CC	EL00107200	Enhanced ruggedness, Conformal Coating

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