



The EL640.400-C is a TFEL display for use in extreme operating conditions.

Lumineq's 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:

- Broad input voltage range: 11...30 VDC
- Analog dimming
- 200 rows mode

#### 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 life time

#### Ordering Information:

Product	Part number	Features
EL640.400-C2	997-3217-00LF	Standard
EL640.400-C2 FRA	997-3218-00LF	Aluminum frame
EL640.400-C3	996-5056-00LF	Industrial temp. range
EL640.400-C3 FRA	996-5062-00LF	Aluminum frame
EL640.400-C3 CC	996-5062-01LF	Conformal coating
EL640.400-CD3	996-5082-00LF	ICEBrite™ display
EL640.400-CD3 FRA	996-5082-01LF	ICEBrite™ + aluminum frame

#### Technical specifications:

Technology	Thin Film Electroluminescence
Color	Amber
Viewing angle	179°, any viewing directions
Response time	< 1 ms
Luminance	52 cd/m <sup>2</sup> typical areal (non-ICEBrite™) 21 cd/m <sup>2</sup> typical areal (ICEBrite™)
Resolution	640 × 400 pixels
Pixel pitch	0.305 × 0.305 mm
Weight	400 g
Display size	226 × 153 × 16.5 mm
Active area	195 × 122 mm
Supply voltages	5 and 11...30 VDC
Power	11.0 W, typical 7.0 W, typical (low power mode)
MTBF	> 50,000 hours
Temperature	-C2 series: Operating: 0 to +55 °C Survival: -20 to +65 °C Storage: -40 to +85 °C -C3 & -CD3 series: Operating: -25 to +65 °C Survival: -40 to +65 °C Storage: -40 to +85 °C
Humidity	93% RH, oper., IEC 68-2-3
Altitude	15,000 m, oper., above sea level
Shock	100 g-force, 4 ms, IEC 68-2-27
Vibration	20 to 500 Hz, 0.05 g <sup>2</sup> /Hz random
Interface	EL standard, 1 or 2 bits/clock

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