

## Technical data sheet

EL640.400-C

**TFEL display** 



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.

Product highlights:			Technical specifications:	
			Technology	Thin Film Electroluminescence
Broad input voltage range: 1130 VDC		VDC	Color	Amber
<ul> <li>Analog dimming</li> </ul>			Viewing angle	179°, any viewing directions
<ul> <li>200 rows mode</li> </ul>			Response time	< 1 ms
			Luminance	52 cd/m <sup>2</sup> typical areal (non-ICEBrite <sup>™</sup> )
General TFEL features and benefits:				21 cd/m <sup>2</sup> typical areal (ICEBrite <sup>™</sup> )
seneral TFEE leatures and benefits:			Resolution	640 × 400 pixels
			Pixel pitch	0.305 × 0.305 mm
<ul> <li>Instant ON in cold and hot temperatures</li> </ul>			Weight	400 g
<ul> <li>No need for heating and cooling</li> </ul>			Display size	226 × 153 × 16.5 mm
<ul> <li>Very long lifetime</li> </ul>		Active area	195 × 122 mm	
• Extremely stable brightness – measured 100,000 hours			Supply voltages	5 and 1130 VDC
with > 85% left of initial luminance			Power	11.0 W, typical
<ul> <li>TFEL display brightness, contrast, viewing angle and</li> </ul>				7.0 W, typical (low power mode)
response time are the same across the entire operating			MTBF	> 50,000 hours
temperature range			Temperature	-C2 series:
• Wide viewing angle > 179° with crisp and clear image				Operating: 0 to +55 °C
<ul> <li>Very fast response time, &lt; 1 ms</li> </ul>				Survival: -20 to +65 °C
• Extremely rugged and solid TFEL display structure				Storage: -40 to +85 °C
<ul> <li>Very long production life time</li> </ul>				-C3 & -CD3 series:
, 2,				Operating: -25 to +65 °C Survival: -40 to +65 °C
				Storage: -40 to +85 °C
Ordering Information:			Humidity	93% RH, oper., IEC 68-2-3
Product	Part number	Features	Altitude	15,000 m, oper., above sea level
EL640.400-C2	997-3217-00LF	Standard	Shock	100 g-force, 4 ms, IEC 68-2-27
EL640.400-C2 FRA	997-3218-00LF	Aluminum frame	Vibration	20 to 500 Hz, 0.05 g <sup>2</sup> /Hz random
EL640.400-C3	996-5056-00LF	Industrial temp.	Interface	EL standard, 1 or 2 bits/clock
		range	1.1.611466	
L640.400-C3 FRA	996-5062-00LF	Aluminum frame		
EL640.400-C3 CC	996-5062-01LF	Conformal coating		
EL640.400-CD3	996-5082-00LF	ICEBrite <sup>™</sup> display		
	996-5082-01LF	ICEBrite <sup>™</sup> +		

EL640.400-CD3 FRA 996-5082-01LF aluminum frame

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