Technical data sheet



## **EL640.480-AF1** ICEBrite<sup>™</sup> TFEL display



EL640.480-AF1 is a VGA-display for use in extreme operating conditions.

Lumineq<sup>®</sup> 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, defense, public safety and other demanding applications.

Product highlights:		Technical specifications:		
			Technology	Thin Film Electroluminescence
<ul> <li>Wide temperature area from -60 to +105 °C</li> <li>Standard VGA</li> <li>Locking connector</li> </ul>		Color	TFEL-yellow	
		Viewing angle	179°, any viewing directions	
		Response time	< 1 ms	
			Luminance	65 cd/m <sup>2</sup> typical areal @ 120 Hz
General TFEL features and benefits:			Contrast	50:1 typical at 500 lux
		Resolution	640 × 480 pixels	
<ul> <li>Instant ON in cold and hot temperatures</li> <li>No need for heating and cooling</li> <li>Very long lifetime</li> <li>Extremely stable brightness - measured 100,000 hours</li> </ul>			Pixel pitch	0.202 × 0.202 mm
			Weight	280 g
			Display size	182 × 129 × 20 mm
			Active area	129.3 × 97.0 mm
			Supply voltage	12 VDC
with $> 85\%$ left of initial luminance			Power	4.5 W typical @ 120 Hz
• TFEL display brightness, contrast, viewing angle and response time are the same across the entire operating temperature range			MTBF	> 50,000 hours
			Temperature	Extended temperature range (ET):
				Operating Survival: -60 to +105 °C
• Wide viewing angle > 179° with crisp and clear image				Operating, continuous use: -60 to +85 °C
<ul> <li>Very fast response time, &lt; 1 ms</li> </ul>				Storage: -60 to +110 °C Standard:
<ul> <li>Extremely rugged and solid TFEL display structure</li> <li>Very long production life time</li> </ul>				Operating Survival: -20 to +65 °C
				Operating, Continuous use: -5 to +55 °C
				Storage: -40 to +75 °C
Ordering Information:			Humidity	93% RH, oper. @ +40 °C, IEC 60068-2-78
			Altitude	18,000 m, oper., IEC 60068-2-13
Product	Part number	Features	Shock	100 g-force, 4 ms, IEC 60068-2-27, test Ea.
EL640.480-AF1	996-0270-00LF	Standard		5 to 500 Hz, 0.05 g <sup>2</sup> /Hz random
EL640.480-AF1 ET	996-0270-05LF	range.		IEC 60068-2-64, test Fh.
			Interface	8-bit dual panel
			Options	Anti-glare or Anti-reflective film, Tempered glas
		connector,		Resistive touch screen, ITO glass
		dimming		
		ET with		
EL640.480-AF1 ET CC	996-0270-08LF	Conformal		
		coating		

Lumineg Thin Film Electroluminescent Display

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