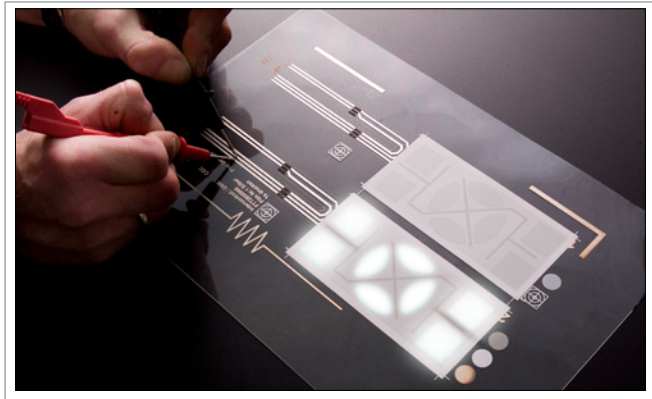


Illuminated keypads with EL film

Electroluminescent materials are flat, flexible illuminants. As with a capacitor, there is a layer of phosphorus particles between two electrodes. When an AC voltage is applied to the electrodes an electrical field is generated over the phosphorus and this causes it to emit light. These illuminants can be operated at voltages of between 40 V and 240 V and frequencies of between 50 Hz and 10 kHz.



EL film function test

Advantages of electroluminescent materials

- Very flat (approx. 0.2 mm, can be integrated into membrane keypads)
- Flexible (you can bend it)
- Low current consumption (at 110 V/400 Hz, approx. 0.15 mA without inverter)
- Low heat emission (approx. 1°C above ambient temperature)
- Extremely robust and highly resistant to vibrations and shocks
- Soft monochrome light (backlighting of displays)

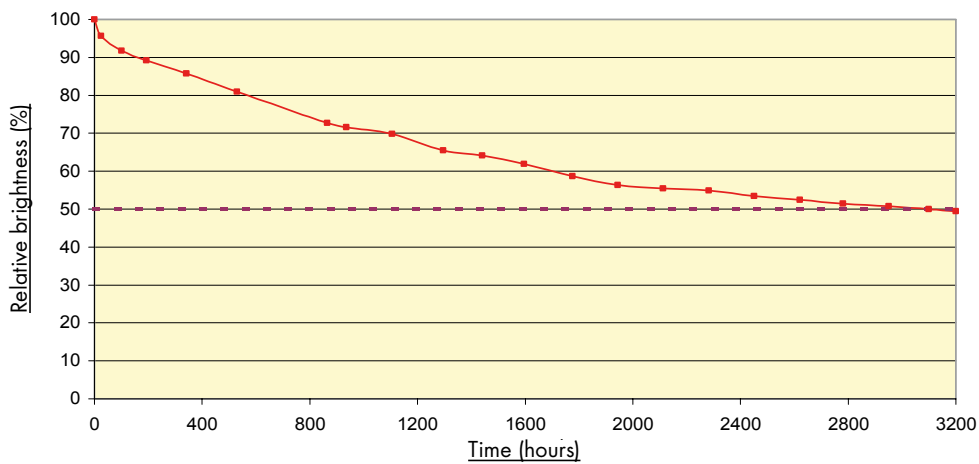
Fields of application

- Backlighting of membrane keypads and LCDs
- Instrument lighting
- Emergency or night lamps
- Illuminated panels, flashing lights as a sales promotion tool

Technical data

Voltage	40 - 240 V AC
Frequency	50 - 10,000 Hz
Luminance	70 cd/m ² , 115 V, 400 Hz
Half-life period	5000 h, 155 V, 400 Hz
Cpassive	0.25 nF/cm ²
Cactive	0.39 nF/cm ² , 100 V, 400 Hz
Operating temperature	-20°C to +70°C
Storage temperature	-30°C to +80°C
Colours	White, greenish blue, yellowish green
Inverter	On request

Half-life period at room temperature



Accelerated half-life period at 60°C/90%

