



Flexible Lamp

Thin, flexible panels for backlighting and displays.

Product Information :

Electroluminescent (EL) Technology Is A Lighting Method Where Special Materials Emit Light When Exposed To An Electric Field Or Current. Keetronics' El Lamps Are Created Using Screen-printed Electroluminescent Inks On Thin Plastic Sheets, Forming Flexible, Lightweight, And Energy-efficient Illuminated Panels.

These Lamps Offer Uniform Brightness, Vibrant Color, And Long-lasting Performance With Minimal Heat Generation. They Can Be Easily Shaped And Customized For A Wide Range Of Applications — From Backlighting And Design Elements To Advanced Sensor And Display Systems.

Ideal For: Smart Packaging, Wearable Products, Industrial Panels, And Creative Visual Designs.

SPECIFICATIONS :

Operating Voltage

- Recommended: 100–120 V AC (RMS)
- Range: 60–250 V AC (RMS)

Operating Frequency

- Typical: 400–800 Hz
- Range: 50–5000 Hz

Electrical Characteristics

- AC sine wave preferred for longer lamp life
- Higher voltage and frequency increase brightness
- Brightness and color vary slightly with frequency

Construction

- Multi-layer structure using screen-printed polymer thick-film inks
- Phosphor material embedded in dielectric between conductive plates
- Functions as a parallel-plate capacitor

Key Features :

- Ultra-thin, lightweight, and flexible construction
- Uniform and glare-free illumination
- Low power consumption and minimal heat emission
- Impact-resistant and vibration-tolerant
- Customizable shapes, sizes, and colors
- Screen-printed polymer thick-film layers for durability
- Suitable for portable and low-profile product designs

Advantages :

- Bright and even illumination across surfaces
- Long operational life with proper voltage and frequency
- Silent, solid-state operation (no mechanical parts)
- Compatible with printed electronics and flexible circuit integration

Application :

- Backlighting for portable devices and control panels
- Instrument and automotive dashboard illumination
- Telecommunication equipment displays
- Advertising and signage panels
- Smart packaging and product branding
- Apparel and fashion lighting
- Touch and proximity sensor displays
- Apparel and fashion lighting
- Touch and proximity sensor displays
- Gas and environmental sensors
- Science and technology instruments

Technical Specifications :

Model Number	PE Lamp
Category	Functional Printed Electronics

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