

# Your Partner for Dependable Protection, Safety, & Control

The Industrial division of Littelfuse delivers vital products to address customer needs for protection, safe control, and distribution of electrical power in industrial applications. Our product portfolio includes a comprehensive line of fuses, fuse holders, protection relays, timers, and surge protection devices. This portfolio is designed to minimize electrical safety hazards, limit equipment damage, improve productivity, and safeguard personnel from injury due to electrical faults.

Technically speaking, professionals in construction, manufacturing, mining, oil & gas, solar, and many more industries rely on Littelfuse for rugged, lasting protection for their designs and critical applications.

## Our Products Improve Safety While Reducing Costs and Hazards in the Workplace



### Improve Safety

- Shock Hazard
- Injury to Personnel
- Arc-Flash Hazards
- Open-CT Hazards
- Failed Resistors
- High SCCR Devices
- Touch Safe



### Reduce Cost

- Fault Damage
- Equipment Replacement
- Calibration Costs
- Compliance Citations
- Motor Rewinds
- Inventory Consolidation



### Minimize Downtime

- Replacement Time
- Nuisance Tripping
- Intermittent Faults
- Unreliable Protection
- Calibration Time
- Fuse Indication
- Fuse Cycling

## ...Across Many Industries

- Construction
- Data Centers
- EV Charging
- Food & Beverage
- HVAC/R
- Manufacturing
- Medical
- Mining
- Oil & Gas
- Power Generation
- Pulp & Paper
- Solar, Wind, & Energy Storage
- Telecom
- Water/Wastewater

## An Extension of Your Team

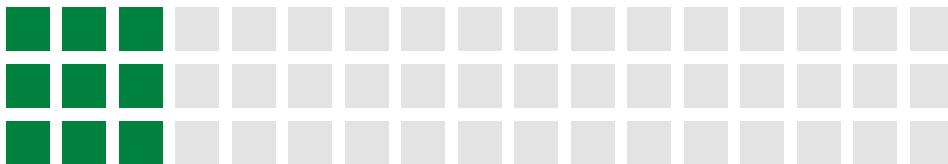


### Technical Hotline (1-800-TEC-FUSE or 1-800-832-3873)

Littelfuse engineers are a phone call away to help identify potential issues and provide product recommendations to resolve problems.

### Application and Field Support

Our experienced product and application engineers work step-by-step with customers from design to installation to determine the best solution.



# Safeguarding People and Equipment

## Fuses & Fuse Holders

### UL Class Fuses



Littelfuse manufactures a complete selection of UL Class fuses for protecting electrical systems and personnel. Innovative features, such as indication, improve productivity, while enhancing the safety of systems.

[Littelfuse.com/Fuses](http://Littelfuse.com/Fuses)

### POWR-SPEED® Fuses



Designed for sensitive power electronic devices, these fuses offer extreme current-limiting protection and balanced performance for longevity. They are available in direct bus-bar mount flush-end and blade designs.

[Littelfuse.com/Powr-Speed](http://Littelfuse.com/Powr-Speed)

### Medium Voltage Fuses



Littelfuse E-rated and R-rated medium voltage fuses protect transformers, potential transformers, feeders, and motor circuits. Designs are available to cover a wide range of current, voltage, interrupting rating, and mounting configurations to fit unique applications.

[Littelfuse.com/MediumVoltage](http://Littelfuse.com/MediumVoltage)

### Battery Energy Storage Fuses



Extremely fast acting and offering high-speed performance up-to 1500 V dc, these fuses range from 80 A to 1400 A in the smallest IEC standard NH XL package sizes. Available with multiple mounting terminations including flush-end, DIN, and bolted blade style.

[Littelfuse.com/BESS](http://Littelfuse.com/BESS)

### 10 x 38 mm Fuses



An extensive range of 10 x 38 mm fuses provides compact supplemental protection for a wide variety of applications. Availability in time-delay, fast-acting, board-mount, or solar versions, with ratings ranging from 125 to 1000 volts and 1/10 to 30 amperes, allows for a variety of design options.

[Littelfuse.com/Fuses](http://Littelfuse.com/Fuses)

### Solar Fuses



A leader in photovoltaic fuse technology, Littelfuse offers fuses and holders up to 1500 V dc for both high-current and low-current applications.

[Littelfuse.com/Solar](http://Littelfuse.com/Solar)

### Fuse Blocks & Holders



Original equipment manufacturers and designers select Littelfuse fuse blocks and holders for their compact designs, indication feature, and the flexibility of DIN-rail mounting.

[Littelfuse.com/FuseBlocks](http://Littelfuse.com/FuseBlocks)

### Distribution & Splicer Blocks



POWR-BLOKS power distribution blocks offer a safe, convenient way for splicing cables and managing power distribution requirements within panels and systems. Touch-safe blocks and available covers enhance the safety by reducing the risk of accidental contact.

[Littelfuse.com/PowrBloks](http://Littelfuse.com/PowrBloks)

### Custom OEM Product Solutions



Littelfuse understands that existing solutions may not solve all design challenges. Leveraging years of experience, our engineering team can collaborate with customers to develop a unique solution for specific applications such as those found in HVAC systems, lighting fixtures, or high volume OEM opportunities.

[Littelfuse.com/IndustrialOEM](http://Littelfuse.com/IndustrialOEM)

## Protection Relays & Controls



### Feeder Protection

Protect circuits from overcurrent, ground faults, phase loss, overload, and other detrimental conditions.

[Littelfuse.com/FeederProtection](http://Littelfuse.com/FeederProtection)



### Arc-Flash Protection Relays

Our arc-flash relays can detect a developing arc-flash incident and send a trip signal to interrupt power before significant damage occurs.

[Littelfuse.com/ArcFlash](http://Littelfuse.com/ArcFlash)



### Resistance Grounding/Monitoring

Limit the ground-fault current in order to prevent unwanted fault damage. High-resistance grounding eliminates arc-flash hazards and transient over-voltages associated with ground faults.

[Littelfuse.com/ResistanceGrounding](http://Littelfuse.com/ResistanceGrounding)



### Timers & Flashers

Delay starting and stopping loads, cycling, and sequencing of motors, pumps, compressors, heaters, and lighting.

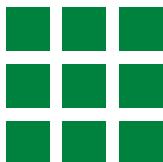
[Littelfuse.com/TimersFlashers](http://Littelfuse.com/TimersFlashers)



### Trailing-Cable Protection

Continuously monitor the integrity of the ground-return path to protect portable equipment from hazardous voltages caused by ground faults.

[Littelfuse.com/TrailingCableProtection](http://Littelfuse.com/TrailingCableProtection)



### Single-Function Relays

Provide a compact and cost-efficient solution typically used on low-voltage applications and include voltage and phase monitors, liquid-level controls, alternating relays and load sensors.

[Littelfuse.com/SingleFunctionRelays](http://Littelfuse.com/SingleFunctionRelays)



### Ground-Fault Protection Relays

Sensitive ground-fault relays featuring advanced filtering will quickly and reliably detect the breakdown of insulation resistance caused by moisture, vibration, chemicals, or dust.

[Littelfuse.com/GroundFaultProtection](http://Littelfuse.com/GroundFaultProtection)



### Industrial Shock-Block® GFCI

The first permanently connected special-purpose GFCI that meets UL Standard 943C Class C and Class D—designed for people protection in industrial facilities.

[Littelfuse.com/ShockProtection](http://Littelfuse.com/ShockProtection)



### Motor & Pump Protection

A wide range of current-, voltage-, and temperature-based protection for motors and pumps, including an innovative Bluetooth® user interface.

[Littelfuse.com/MotorProtection](http://Littelfuse.com/MotorProtection)

[Littelfuse.com/PumpProtection](http://Littelfuse.com/PumpProtection)

\*Bluetooth is a trademark of its respective owner.

## Temperature Sensors



### Thermistor Probes and Assemblies

Littelfuse probe assemblies are invaluable for sensing temperature in a variety of industries. Standard and customized probe assemblies offer very precise and extremely reliable thermal monitoring in the most demanding applications.

[Littelfuse.com/TempSensors](http://Littelfuse.com/TempSensors)



### NTC and PTC Thermistors

Littelfuse leaded thermistor options include the highly accurate precision interchangeable thermistors as well as high temperature axial leaded glass encapsulated thermistors and glass coated radial leaded chip thermistors.

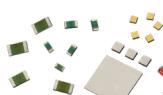
[Littelfuse.com/TempSensors](http://Littelfuse.com/TempSensors)



### RTD Elements and Probe Assemblies

Littelfuse RTDs exhibit a nearly linear temperature-resistance curve as well as high accuracy over a very wide temperature range. Their unique characteristics result in a device especially suitable for use in extreme environmental conditions.

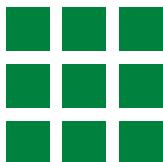
[Littelfuse.com/TempSensors](http://Littelfuse.com/TempSensors)



### Chip and MELF Style Thermistors

Littelfuse surface mount thermistors are manufactured using the most advanced equipment and technology available. They are available in a variety of sizes and configurations suitable for mounting using solder, wire bond, or epoxy.

[Littelfuse.com/SurfaceMountThermistors](http://Littelfuse.com/SurfaceMountThermistors)



## Surge Protective Devices



### Type 2 Surge Protective Devices

These branch circuit surge protective devices (SPDs) safeguard components from transient overvoltage or surges by limiting the fault current to a load or the unit being protected.

[Littelfuse.com/SPD](http://Littelfuse.com/SPD)

## Panels & Switches



### Shunt-Trip Switches & Coordination Panels

The shunt trip disconnect switch and coordination panels provide a simple, time-saving and economical solution for applications that require strict adherence to codes and standards. Common applications include elevators, data processing, and emergency systems.

[Littelfuse.com/LFCP](http://Littelfuse.com/LFCP)

[Littelfuse.com/LPS](http://Littelfuse.com/LPS)

[Littelfuse.com/LCP](http://Littelfuse.com/LCP)

## Industrial Controls



### Capacitors

Run capacitors, also known as start capacitors, are engineered to boost the current or reduce the power factor to an electrical motor. Capacitors are available with single and dual rated values, as well as round or oval case options.

[HartlandControls.com](http://HartlandControls.com)



### Contactors

Used in commercial and residential HVAC applications, Littelfuse contactors are designed with consistent silver thickness for increased product life. Plus, all contactors undergo rigorous testing and validation in house.

[HartlandControls.com](http://HartlandControls.com)



### Auxiliary Switches

Used to switch auxiliary loads below 10 amp, auxiliary switches are designed to fit all models of Littelfuse 3-pole contactors.

[HartlandControls.com](http://HartlandControls.com)



### Mechanical Relays

Littelfuse offers general purpose relays that control circuits through a low-power signal. Actuated with an electro-magnetic current, these relays create a closed circuit within the device, making them ideal for HVAC systems, standby power supplies, and telephone exchanges.

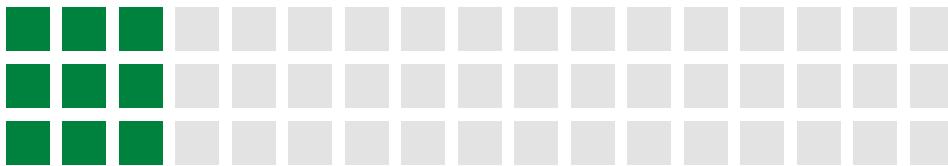
[HartlandControls.com](http://HartlandControls.com)



### Transformers

Littelfuse offers transformers engineered to change one ac voltage to another by magnetic induction. These heavy-duty transformers are available with primary and secondary voltages between 20 to 500 VA.

[HartlandControls.com](http://HartlandControls.com)



# Industrial Success Stories



### Solar: Shining Light on Power Protection

When one of the leaders in the solar industry was designing their next generation panels, they came to Littelfuse because of our history of innovation and experience with over 25 million devices installed in photovoltaic power systems worldwide. The Littelfuse patented fuse technologies were chosen as the preferred solution because they work seamlessly within a wire harness for unsurpassed reliability.



### HVAC/R: Climate of Reliability

A major furnace manufacturer has a reputation for extreme environmental testing of their products before the design makes it to market. They know to trust the reliability of Littelfuse fuse, relay and timer components in their designs to provide the ultimate protection that stands up to rigorous testing. Our OEM customers rely on the Littelfuse reputation for making extreme reliability an everyday practice.



### Construction: Protection Built for Safety

One of the top teaching hospitals in the United States, offering leading-edge care to more than 100,000 patients each year in the emergency room alone, was constructed using Littelfuse LCP series panels to keep their critical systems safely powered. They trusted the Littelfuse coordination panels to provide coordination between their Emergency Systems and Healthcare Essential Electrical Systems required by NEC. The Littelfuse UL Listed solution provided cost savings and increased safety; overall, improving the health of their systems.



### Manufacturing: Assembly of Protection

A brick manufacturing plant in the Western United States processes clay into bricks and other building materials for residential and commercial projects. The Littelfuse SB6100 is installed between the motor control center and the wet saws on the factory floor as shock protection for their workers. High-speed fuses and the PGR-8800 arc-flash relays are found in their switchgear for advanced circuit protection and improved worker safety from arc-flash incidents.



### Oil & Gas: Refined Power Protection

Littelfuse industrial products such as ground-check monitors are used by one of the largest producers of crude oil from oil sands. Our high-resistance grounding packages are found on oil and gas drilling rigs to reduce ground-fault troubleshooting time by 90%. Refineries producing 140,000 barrels a day rely on Littelfuse to protect their variable-frequency drives from ground faults. Fracking firms depend on Littelfuse circuit protection for service mains and injection panels. Upstream, midstream, or downstream. No matter where safety is needed, Littelfuse is there to deliver reliable protection.



### Mining: Power and Protection Run Deep

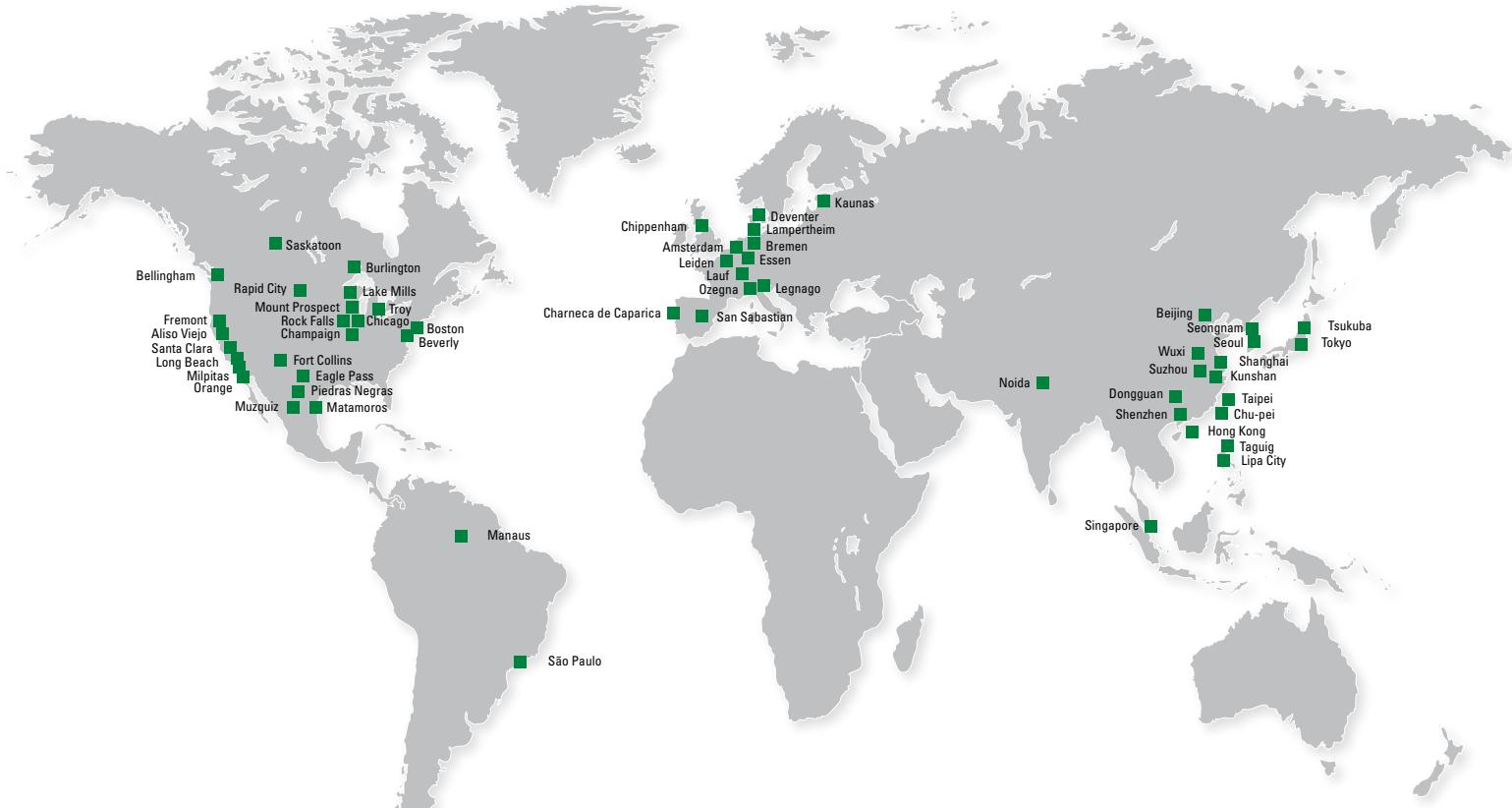
When the world's largest fertilizer company is mining for potash 1000 meters underground, they come to Littelfuse because of our reputation for quality and engineering expertise. There is no room for poor quality in mining. Littelfuse products are an integral part of the electrical systems that power and protect critical applications in the harshest underground and above ground mining environments. The world's top mining companies trust Littelfuse for protection from electrical hazards.



### Battery Energy Storage Systems: Packing in More Power with the Right Protection

A battery energy storage system (BESS) integrator wanted to provide its utility customer the ability to respond faster to increases in power demand while lowering its operating costs. The integrator selected lithium ion batteries to address the utility's requirement for a higher-capacity battery pack but needed a fast-acting fuse with a higher short-circuit current rating to protect it. With 150 kA dc breaking capacity, the Littelfuse PSR series high-speed semiconductor fuse offered the protection the integrator wanted to reduce the dc combiner count and add more battery banks. This design offered the utility a faster and more cost-efficient power demand response.

# LOCAL RESOURCES FOR A **GLOBAL** MARKET



## Littelfuse.com/Industrial

For a comprehensive library of resources including datasheets, product manuals, white papers, application guides, demos, online design tools, catalogs, and more, visit [Littelfuse.com/TechnicalResources](http://Littelfuse.com/TechnicalResources)

### North America

**Littelfuse World Headquarters**  
875 West Higgins Road, Suite 500  
Chicago, IL 60631, USA

**Littelfuse SymCom**  
1241 Concourse Drive  
Rapid City, SD 57703, USA

**Littelfuse Startco**  
140 – 15 Innovation Boulevard  
(The Galleria Building)  
Saskatoon, SK S7N 2X8, Canada  
Tel: +1-306-373-5505

**Hartland Controls** now part of Littelfuse  
807 Antec Road  
Rock Falls, IL 61071, USA  
Tel: +1-815-626-5170

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E-mail: [techline@littelfuse.com](mailto:techline@littelfuse.com)

**Customer Service:**  
Tel: +1-800-227-0029  
E-mail: [PG\\_CSG@littelfuse.com](mailto:PG_CSG@littelfuse.com)

### Asia

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Gaoxin Nanyi Ave.  
Hi-Tech Industrial Park  
Nashan District  
Shenzhen, 518057, China  
+86 755 8207 0760

### Europe

**Littelfuse**  
Julius-Bamberger-Str. 8a  
Bremen, D-28279, Germany  
+49 421 82 87 3 147



Littelfuse products are certified to many standards around the world. To check certifications on specific components, please refer to the specific product datasheet on [Littelfuse.com](http://Littelfuse.com).

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