



Littelfuse Overview

Empowering a sustainable,
connected, and safer world

 **Littelfuse®**
Expertise Applied | Answers Delivered

Empowering a sustainable, connected, and safer world

WHO WE ARE

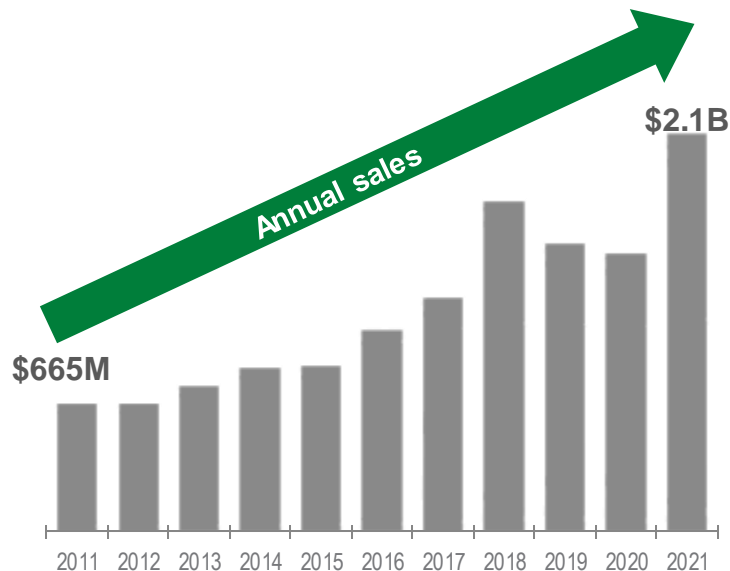
- **\$2.10B** industrial technology company*
- **17,000** innovative employees across **15 countries** worldwide
- **Designer & manufacturer** of leading technologies that improve the safety, reliability, & performance of our customers' products

WHAT WE DO

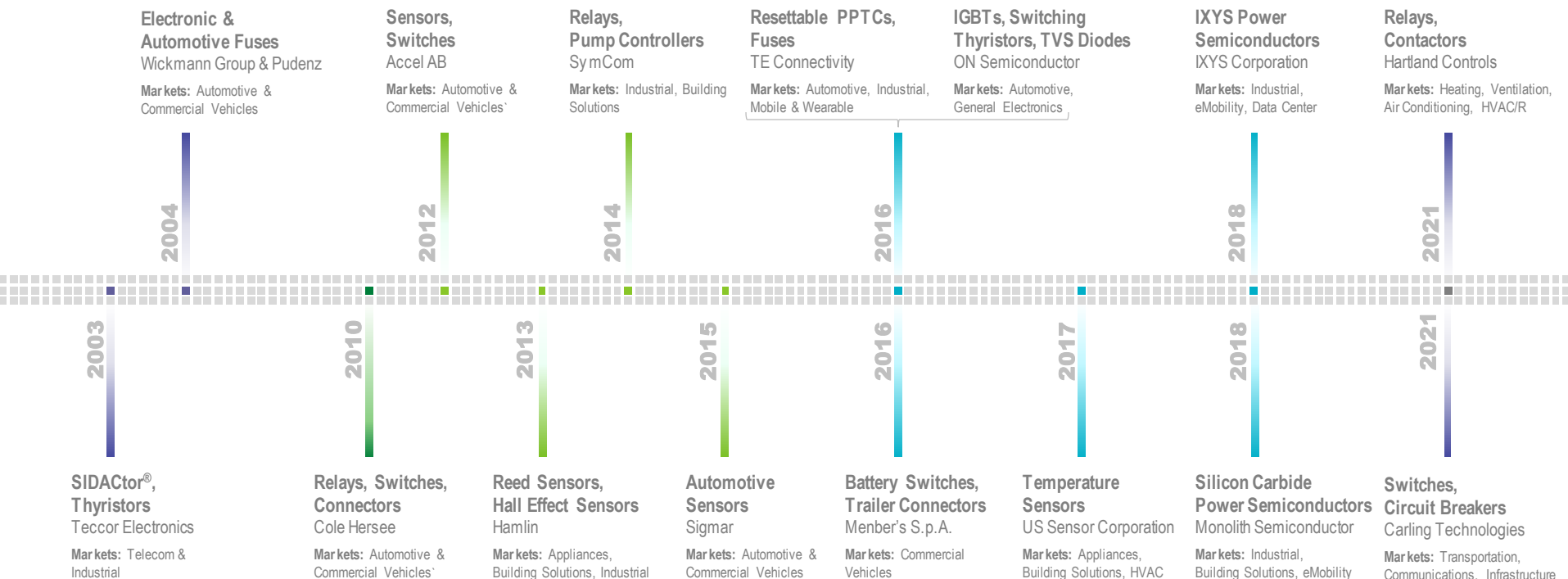
- We **partner with global customers** to design and deliver innovative, reliable solutions
- We collaborate to provide **technical & application expertise**

WHO WE SERVE

- Serving over **100,000 end customers**; our products are found in a variety of industrial, transportation, and electronics end markets—everywhere, every day



Enhancing organic growth through strategic M&A



Littelfuse focused on providing applications solutions to help advance *electronification* and *electrification*

ELECTRONICS



- Data Center and Communication
- Building Technologies and Automation
- Appliances
- Mobile and Wearables
- Consumer Electronics

TRANSPORTATION



- Passenger Vehicles
- Heavy Truck, & Bus
- Construction Equipment
- Material Handling Equipment
- Agricultural Machinery
- Railway Solutions
- Aerospace and Defense
- eMobility & EV Charging Infrastructure

INDUSTRIAL



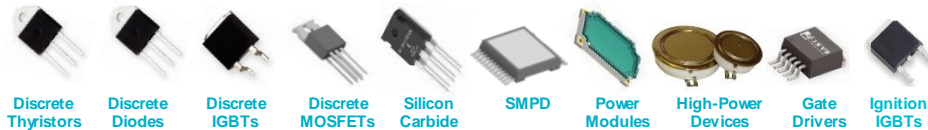
- Industrial Motor Drives
- Factory Automation & Safety Solutions
- Renewable Energy
- Energy Storage
- Heavy Industry
- HVAC

Littelfuse solutions overview

CIRCUIT PROTECTION SOLUTIONS



POWER SEMICONDUCTOR SOLUTIONS



SWITCHING & CONTROL SOLUTIONS



SENSING SOLUTIONS



TRANSPORTATION SOLUTIONS



Circuit protection solutions overview

OVERCURRENT PROTECTION



ESD PROTECTION



OVERVOLTAGE PROTECTION



- **Industry's broadest portfolio** with many industry-first solutions
- **Industry standards expertise and application testing capabilities** for various standards including UL, IEC, ITU, AEC-Q, and others
- **Global network of application expertise** to help address customers' design challenges
- **Solutions for many applications including** eMobility, industrial automation, data centers, consumer electronics, building solutions

Power semiconductor solutions overview

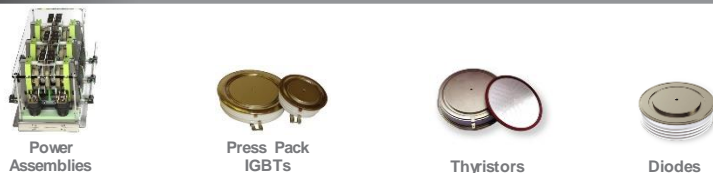
DISCRETE DEVICES & GATE DRIVERS



POWER MODULES



HIGH-POWER DEVICES & ASSEMBLIES



- **Wide range of discrete devices and power modules** to address wide spectrum of power conversion needs
- **Extensive packaging capabilities including** industry standard packages, HV packages, and more
- **Standard and custom assemblies:** standard sub-assemblies for multi-megawatt power systems
- **Solutions for many applications including** industrial motor drives, EV charging infrastructure, industrial power supplies, and renewable energy

Standard and customized sensing solutions overview

MAGNETIC SENSING



Reed
Switches



Reed
Sensors



Reed
Relays



Hall Effect
Sensors



TMRs

TEMPERATURE SENSING



Battery
Mini-breakers



NTCs



RTDs



Temperature
Probe & Assemblies



Temperature
Indicators



Thermal
Protectors

OTHER SENSING SOLUTIONS



PIR Motion
Sensors



MCUs

- **Global leader in magnetic sensing** including Reed, Hall Effect, and TMR
- **Broad range of temperature sensing** including thermistors, RTDs, and digital temperature indicators
- **Custom sensor design support** including custom packages, simulations and more
- **Unique MCU + PIR Motion Detector** providing simplified and flexible solutions for motion sensing
- **Solutions for many applications including** appliances, smart meters, battery management, automotive, EV, HVAC, and others

Switching and control solutions overview

RELAYS & OPTOCOUPLEDERS



Mechanical Relays



Reed Relays



Solid State Relays



Depletion Mode MOSFETs



Linear Optocouplers

PROTECTION RELAYS



Arc-Flash Relays



Ground-Fault Relays



Motor & Pump Protection



Industrial GFCIs



NGR Monitor

CONTROLS



Voltage & Current Monitoring



Time Delay Relays



Pump & Liquid Level Controls



DC Disconnect Switches



Contactors



Capacitors



Transformers

- **Enhanced portfolio of Reed Relays** with capabilities of switching voltages up to 2500 V
- **Industry's broadest lines of SSRs**, available in wide selection of configurations, blocking voltages, and load currents
- **Wide array of protection relays and controls** to limit equipment damage, improve productivity, and safeguard personnel from electrical faults
- **Solutions for many applications including** industrial, HVAC systems, building solutions, and motor and pump control

Transportation* solutions overview

PROTECTION & SENSING SOLUTIONS



POWER DISTRIBUTION MODULES



RELAYS & SWITCHES



- **Wide range of circuit protection solutions** with AEC-Q qualification and PPAP capability
- **Extensive portfolio of sensing solutions** to monitor passenger safety and comfort, emissions, and more
- **Standard & custom power distribution modules** housing a variety of fuses, relays, and other electrical components
- **Variety of DC solenoid relays** for remote switching of electrical currents from 20 A to 600 A
- **Multiple electric/electronic switches** for battery disconnection, ignition, windshield wipers, and more

Additional information can be found on Littelfuse.com

Explore the world of Littelfuse with the electronics eCatalogs (<http://electronicscatalogs.littelfuse.com/>)



Application expertise + testing capabilities to assist with reliability, safety, and regulatory compliance

APPLICATION EXPERTISE

Our engineers partner directly with customers to assist with speed up product design and meet their unique needs

COMPLIANCE & REGULATORY EXPERTISE

Support for customers with designing for requirements set by industry standards and regulatory bodies

TESTING CAPABILITIES

To help customers get products to market faster, we offer certification testing to global regulatory standards

SIMULATION & PROTOTYPING

Leverage our simulation and prototyping expertise to reduce product development cycle time and tooling costs



**15
GLOBAL
LABS**

**3D
PROTO-
TYPING**



**TESTING TO
REGULATORY
STANDARDS**



**DEDICATED
APPLICATION
ENGINEERS**



Local resources supporting our global customers



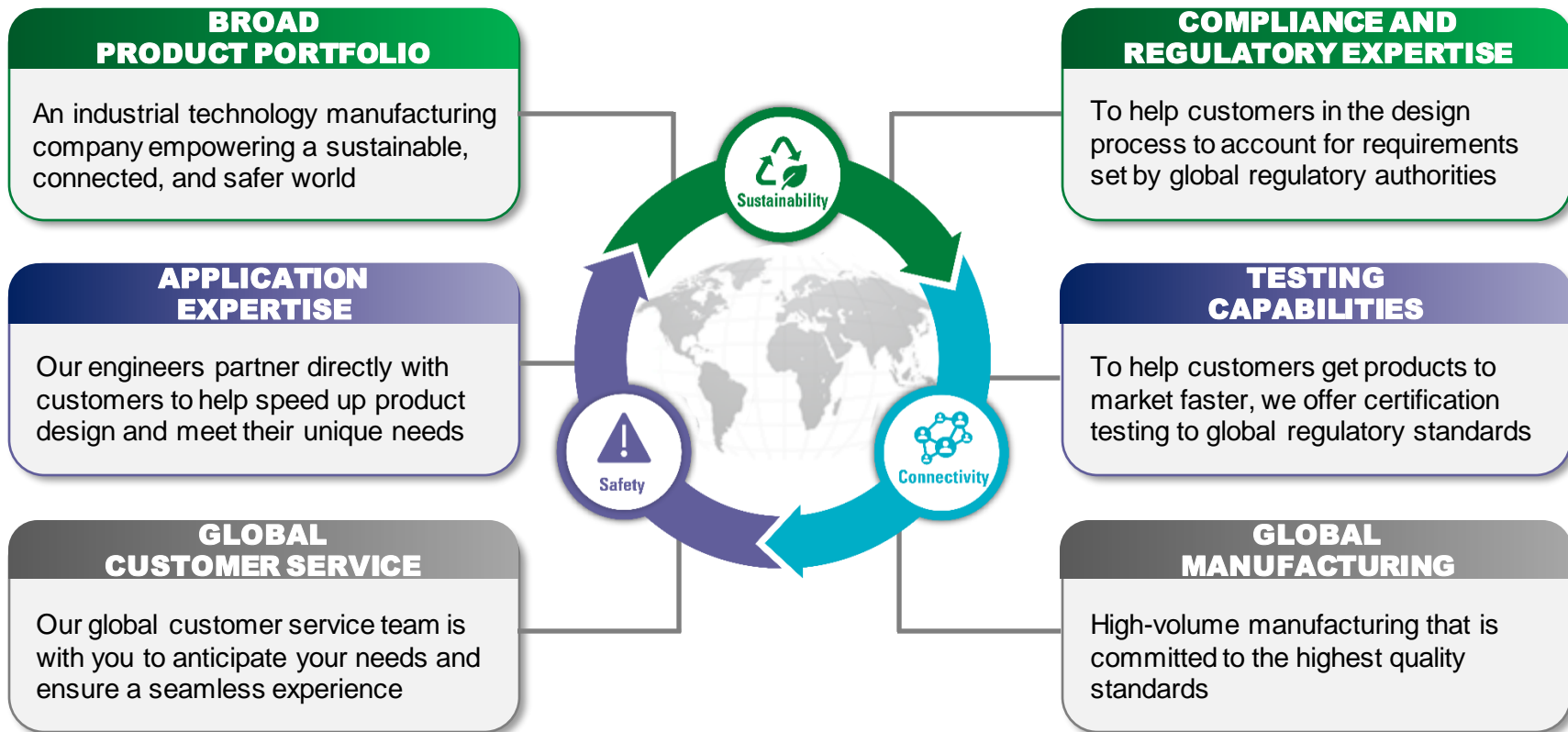
Legend

- Sales
- R&D
- Manufacturing



Expertise Applied | Answers Delivered

Partner for tomorrow's electronic systems





Expertise Applied | Answers Delivered



[Littelfuse.com](https://www.littelfuse.com)