



Your Sensing Solutions



COMPANY PROFILE

Since 1978 leading supplier for EMEA sensors market.
Thanks to our technical background and strong relationship with
the most important OEM's R&D, we are able to satisfy and
understand the real need of the customer

OUR PORTFOLIO

A wide range of sensors and devices selected through the best world leader brands.



- ✓ Thermostats ✓ Motor Protectors ✓ Pressure Switches ✓ Pressure Transducers
- ✓ Circuit Breakers ✓ Solid States Relays ✓ High Temperature Sensors ✓ Position sensors & Encoders
- ✓ Joysticks & Armrests ✓ BMS ✓ EVCC ✓ IMD ✓ Contactors ✓ High Voltage Relays ✓ Blind Spot Monitoring Systems



- ✓ Low Consumption, fast response NDIR CO₂ sensors



- ✓ Electrochemical Gas Sensors
- ✓ Electrochemical Gas Modules
- ✓ Gamma ray sensors



- ✓ Portable Gas Detectors
- ✓ Fixed Gas Detectors



- ✓ MPS Refrigerant gas sensors
- ✓ MPS Flammable gas sensors
- ✓ MPS Methane gas sensors



- ✓ Humidity Sensors
- ✓ Particulate Sensors
- ✓ IAQ Sensors



- ✓ NEMA Enclosures
- ✓ Special Enclosures
- ✓ Antennas



- ✓ Semiconductor Gas Sensors
- ✓ Pre-calibrated Gas Modules
- ✓ Automotive H₂ Modules



- ✓ High Power Disconnectors



- ✓ Oxygen Sensors
- ✓ Analyzers
- ✓ Blender SpO₂



- ✓ Thermal Runway Sensors



- ✓ MEMS Pressure Sensors
- ✓ Compensated Pressure Sensors
- ✓ Custom Solutions



- ✓ Nuclear Radiation Sensors
- ✓ Gas Radon Detectors



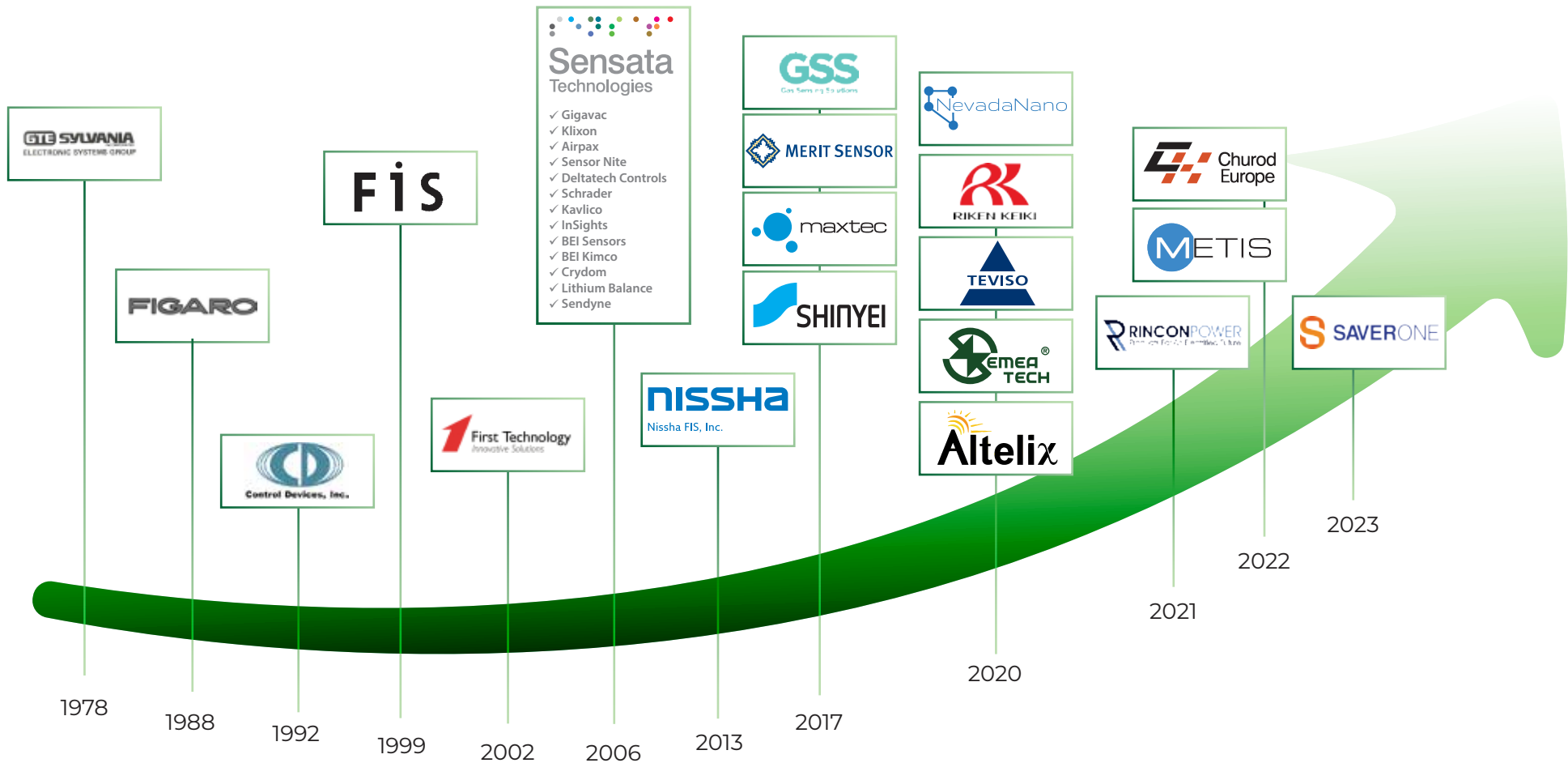
- ✓ Disable cell phone distractions while driving

COMPANY EVOLUTION

GVZ COMPONENTS S.R.L.



GVZ COMPONENTS SRL



The Relationship with **SENSATA**




Sensata
Technologies



GVZ development with Sensata Technologies

GVZ was founded in **1978** for the distribution of GTE Sylvania's glass bottle motor protectors in Italy, Switzerland and Eastern Europe. The main customers were electric motors and compressors' manufacturers. In **2006** thanks to the merger of First Technologies (former CD and GTE) and a business unit of Texas Instruments **Sensata Technologies** became **GVZ** main supplier for sensing solutions.

In **2008** GVZ signed a contract with the Industrial Sensing department of Sensata Technologies for the **industrial, HVOR, refrigeration and HVAC** products' distribution (pressure sensors, combined

pressure and temperature sensors, pressure switches and thermostats). For Defense and Aerospace's niche market, GVZ started distributing Airpax products.

In the last 10 years **Sensata Technologies** acquired **Sensor Nite** (high temperature sensors), **Schrader** (TPMS), **Kavlico** (pressure sensors) **BeiSensors** (encoders), **DeltaTech** (joystick armrest) **Gigavac** (high voltage contactors) **Cynergy 3** (IoT sensors), **PreView** (blindspot monitoring), increasing GVZ's products portfolio.

From **2016** GVZ is also Global distributor for Sensata Alternative Fuel portfolio supplying the whole EMEA market and some Global accounts located in **Canada, USA and India**.



Sensata

Technologies



Sensata Technologies is one of the world's leading suppliers of sensing, electrical protection, control and power management solutions.

Its wide product portfolio is crucial for all the domestic, industrial, automotive, HVOR and aerospace markets solving all the problems related to any mission critical application.

Sensata Technologies sensors and controls are designed to make the world cleaner, safer and more efficient.



Families and Products



Industrial Sensing | Thermostats, Motor protectors, Pressure switches, Pressure sensors, Circuit breakers.



Sensing Solutions | Position sensors, Encoders, Joysticks and armrests, Blindspot monitoring, Telematics.



EV Portfolio | Contactors, fuses, high voltage relays, EVCC (Electric Vehicle Communication Controller), IMD (Insulation Monitoring Devices), CVS (Current & Voltage Sensing) and BMS (Battery Management Systems).

Key markets and Applications



Industrial Sensing | Appliances, HVAC, Industrial, Lighting, Home Safety, Defense & Aerospace, Air Conditioning, High Pressure System Security, Refrigeration, Military & Civil applications, Food and Beverage.



Automotive Products | Alternative Fuel, Engine, Exhaust after treatment, Transmission, Tire pressure monitoring, HVAC, Electronic stability, Cabin confort.

crydom

PreView
RADAR SYSTEMS

SCHRADER
INTERNATIONAL

GIGAVAC
ADVANCED SWITCHING SOLUTIONS

KAYZIO

BEI SENSORS

KLIXON

cynergy3

SENSOR NITE

DeltaTech
CONTROLS

AIRPAX



NISSHA

Nissha FIS, Inc.



Founded in 1992 FIS is leading the market of low power consumption semiconductor gas sensors.

Beside the gas sensors manufacturing, FiS has developed so far also special equipments for medical and scientific application where the high level of sensitivity, durability and reliability is mandatory.

These sensors can measure from the higher (%) to the ultra low (ppb) concentration of gases.

A market breakthrough of FiS was the H₂ automotive compliant gas sensor that met his first application on the Toyota Mirai and that is now the benchmark for all the car manufacturers worldwide.

Key markets and Applications



Industrial, Wellness, Refrigerant, HVAC, Building Control, Automotive and Special application (Hydrogen and Technical Gases)



NevadaNano Inc. develops and manufactures Micro Electro-Mechanical Systems (MEMS)-based sensor modules

NevadaNano has spent a decade integrating multiple, complementary chemical sensors on a single silicon chip. We call it the Molecular Property Spectrometer™ (MPS). The MPS Gas Sensor works together to measure a variety of thermodynamic and electrostatic molecular properties of sampled vapors, liquids, and particles. In less than a second, the chip creates a large, rich dataset of chemical information.

Key markets and Applications



HVAC, Industrial, Oil&Gas, Automotive and Medical, Gas leak detection



Flammable gas sensors, Refrigerant gas sensors, Methane gas sensors

GSS

Gas Sensing Solutions



Gas Sensing Solutions is a global leader in solid-state (NDIR) LED-based gas sensors

GSS designs, develops and manufactures a wide range of solid-state NDIR CO₂ and CH₄ gas sensors, providing innovative products to the world's leading OEMs where low-power, high-accuracy and high-speed measuring capability are required. **GSS** has world-wide representation, selling into a wide range of markets including IAQ monitoring systems, transport, health care, aerospace, food monitoring and personal safety equipment.



Product Range



Fast NDIR CO₂ Gas Sensors,
Low concentration NDIR CO₂ Gas Sensors
Industrial Wide Range NDIR CO₂ Gas Sensors
New Methane NDIR Gas Sensor

Key markets and Applications

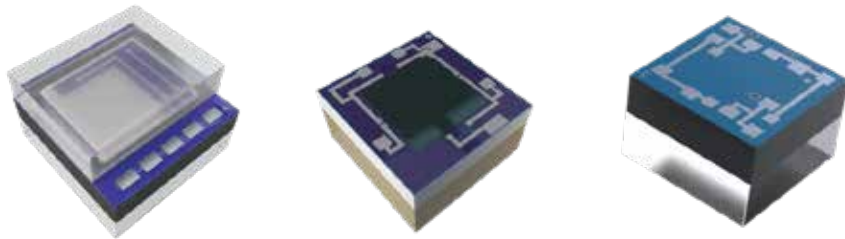


Industrial, Horticulture Wellness, HVAC,
Building Control, Food Packaging and Diving





MERIT SENSOR



MERIT Sensor is an American company based in South Jordan USA and part of Merit Medical.

With more than 25 years experience and owning the entire MEMS production chain from the core of the sensing element to the semifinished pressure sensor Merit can supply the best MEMS sensing solutions suitable for both the light and the harsh environments. Their internally designed technology, give the customer a wide selection of option that can fit also for special application like fuel vapors and blood pressure.



Product Range

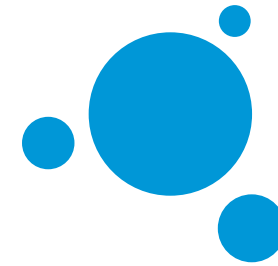


MEMS Sensing Element, Uncompensated Packages, Passively Compensated Packages, Fully Compensated Packages.

Key markets and Applications



Consumer, Aerospace, Automotive, Medical and Industrial



maxtec

Maxtec, has been a leader in oxygen analysis and delivery products for more than 15 years.

They provide a full line of replacement oxygen sensors and SpO₂ probes compatible with all major applications in the market.

Being global leader of oxygen sensors and oxygen related products for medical application, now Maxtec is successfully entering the industrial market with very high quality standards.



Key markets and Applications



Diving, Medical, Neonatal Therapy, Veterinary, Automotive, Zootechnical, Industrial

Product Range



Oxygen Sensors, Analyzers, Blender SpO₂



In 2007 **Shinyei Technology** has been founded to develop sensing solutions.

Shinyei is a leading Company in the field of temperature, humidity, dust and AQ sensors.

Product Range



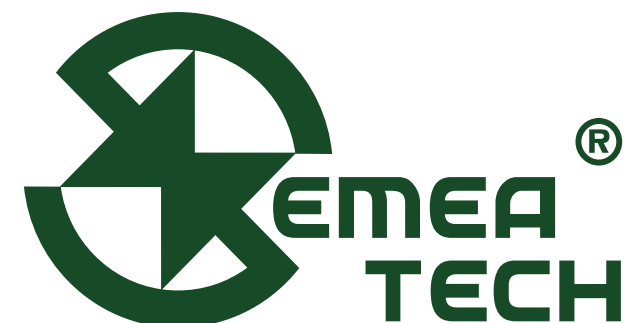
Particle Sensors, Humidity Sensors, IAQ Sensors

Key markets and Applications



Industrial, Wellness, HVAC, Building Control, Automotive, Outdoor and Indoor Air Quality





SemeaTech is a worldwide leader in sensing technologies focusing on hazardous material detection

It was founded by a group of scientists and engineers with extensive experience and knowledge in sensing technologies and related product to develop low energy consumption infrared CO₂ and CH₄, gas sensors and sensors with long shelf lives and low environmental impact - smart sensor module for implementation in the Internet of Things (IoT).



Key markets and Applications



Security, Air Quality, Ozone, HVAC, Building Control, Technical Gases applications



Electrochemical sensors, Smart Sensor modules, Gamma X Ray detectors, PID VOC sensors, CO₂ NDIR modules





TEVISO Sensor Technologies is a Swiss company of engineers and experts founded in 2015

The focus is on the development and manufacture of compact and robust sensors for radon and radioactive radiation. With the latest products, TEVISO has succeeded in developing high performance and, above all, cost effective sensors. These sensors contain all the components required for an output signal which is suitable for digitally processing the measured physical data. TEVISO sensors are successfully used in monitors for nuclear safeguards, in nanosatellites and in natural science projects.



Product Range



Particle Sensors, Humidity Sensors, IAQ Sensors

Key markets and Applications



Radon Sensors, Alpha/Beta Gamma ray sensors, Beta Gamma ray sensors, Evaluation and Starter Kit for Radon sensor.



RIKEN KEIKI

Riken Keiki manufactures proprietary gas detection and monitoring equipments

Riken Keiki goals is to use its expertise and years of experience to protect precious lives and valuable assets. The company is committed to continually strengthen our research and development, provide high quality gas detection and monitoring equipment and superior gas sensors to all countries worldwide, to help ensure safety from industrial disasters.

Key markets and Applications



Oil&Gas, furnace, industrial, chemical, petrochemical, mining



Portable single and multi gas detectors, Fixed gas detectors





Altelix designs and manufactures a wide range of weatherproof equipment enclosures and accessories.



With full in house engineering capability using the latest in solid modeling software, CNC and laser machining equipment, Altelix can customize products in house to customers' unique requirements. Created by and run by Engineers, Altelix has over 20 years' experience in the telecommunication and NEMA enclosure industry

Key markets and Applications



AirQuality Environmental analysis
Telecom, Marine, Energy, Buildings,
Research



Waterproof NEMA Enclosures in
different materials, Audio Video
Equipment enclosures, Waterproof
Phone Call boxes, Accessories





BATTERY THERMAL RUNAWAY



Thermal runaway battery and battery pressure sensors

Battery packs are an essential part of nowadays electric vehicles. The charging and de-charging process can generate over-heating and increase of the internal pressure.

These can cause fires and explosions.

This is well known as battery thermal runaway.

Our safety sensors constantly monitor the battery status to prevent dangerous situations.



Key markets and Applications

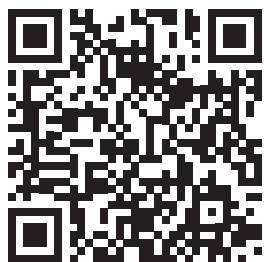


Automotive, Motorcycle and RV



MLD

GAS DETECTOR



MLD Gas Leakage detector for HVAC-R is an exclusive custom product by GVZ

MLD series is available in different configurations,

- A1, A2L and A3 Refrigerant Gas
- Flammable Gas and Methane only
- Hydrogen Gas detection

using the latest MPS (Molecular Property Spectrometry) technology by NevadaNano or the Nissha FIS to indicate the presence of low GWP A1, A2L and A3 refrigerant gas providing both a continuous signal proportional to the gas concentration and the activation via relay for alarming once a prefixed (and settable) level is reached.



More GVZ Custom Products



1

The GVZ **Gas Leakage Relays Board** is a flexible and easy solution used to control and commute the Open collector signal (from FiS3000 gas sensors) in a dry contact solving the most common requests of the markets

2

Air Quality Module by GVZ is an all-in-one solution for measuring the main parameters defining the air quality level. Highly flexible and customizable.

3

The **Air Flow Meter** module by GVZ is a flexible solution that combine one or two high quality MEMS differential Pressure sensors by Merit Sensor with a PCB in order to offer the highest accuracy with the simplest installation.

4

OEM Radon Sensor delivers a complete set of information on Radon concentration level.

1



2



3



4





PreView
RADAR SYSTEMS

Sensata
Technologies

PreView
RADAR SYSTEMS



Sensata PreView Blindspot Monitoring System for heavy duty vehicles

PreView safety systems provide active object detection capabilities to increase operator situational awareness. PreView enables our partners to enhance their future safety offerings and help save lives.

Blind spot monitoring systems to protect cyclists and pedestrians will be mandatory from July 2022 on all newly approved vans and heavy vehicles and from 2024 also for vehicles already on the market (approved before 2022).





SAFETY DRIVE

with

S SAVERONE



Disable cell phone distractions while driving



Cellular distraction is the leading cause of road accidents worldwide. While most existing safety measures focus on reducing damage, warning of a risk of an accident, or correcting driver errors, SaverOne controls/preempts the distraction. Hardware and software work in combination to prevent the use of distracting apps. When stopped, full functionality returns.

Key markets and Applications



Cars and HVOR

References



GIGAVAC®

ADVANCED SWITCHING SOLUTIONS



Sensata

Technologies

GIGAVAC®

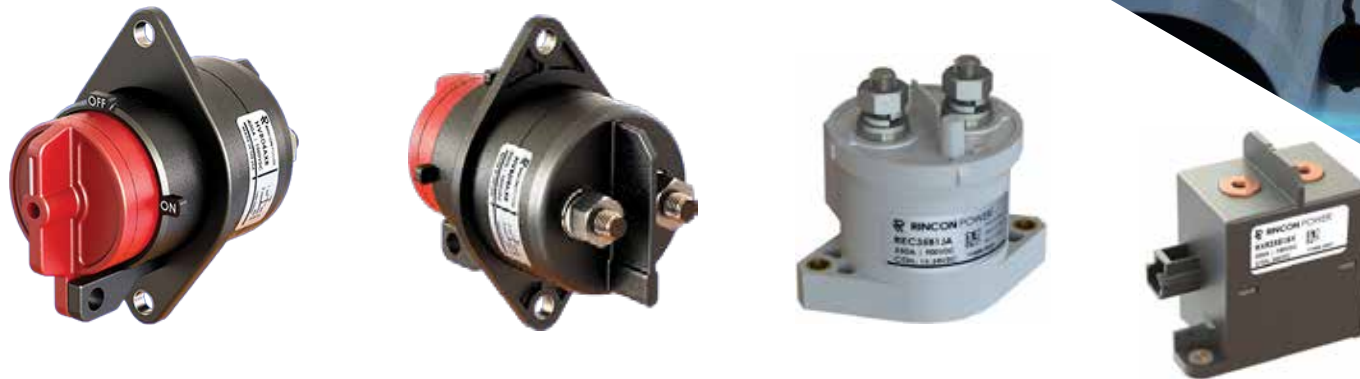


GIGAVAC's high voltage contactors are in the market on many applications enabling the higher current levels required for improved power, range, and recharging times.

GIGAVAC's hermetically sealed contactors provide safe operation at extremely high current levels, satisfying the critical power and charging needs of next generation electric vehicles.

Automotive customers today include: Tesla, Jaguar, Porsche, Volvo, Iveco, Navistar. Out from automotive, we find ABB, Samsung, GE Energy Storage, Ballard, Power One, Nuvera, Gridco Systems, Hydrogenics, Emerson, Aton, Tecnogen; Agritalia Carraro, Iveco CNH Industrial, System Logistics, Tecnoferrari, Elettric 80, Miretti, NMHG, Baumann, Linde, Still, Raymond, Komatsu Forklift, Landoll, FIAMM, MIDAC, Kaitek.





RinconPower designs and produces Power Switching devices

With a collaborative customer approach, Rincon Power provides innovative solutions while advancing products for an electrified future. Leveraging experience and agility, our team responds efficiently as customer applications evolve.

Product Range



High power disconnects, Manually disconnect Switches, custom solutions

Key markets and Applications



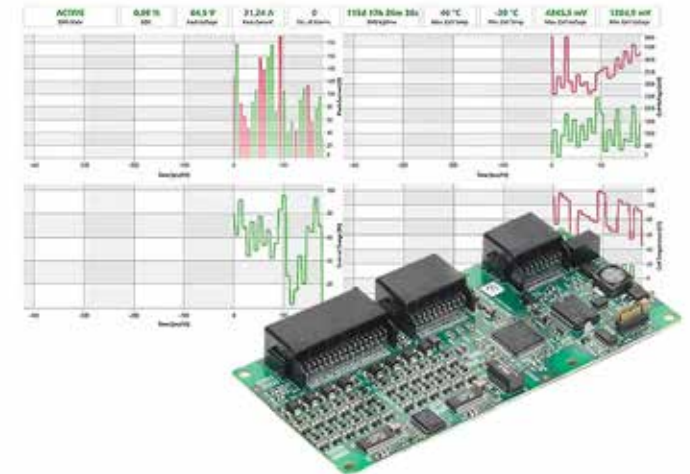
Automotive, electric vehicles, alternative energy



BMS



LiTHIUM BALANCE
BATTERY MANAGEMENT SYSTEMS



BMS (Battery Management Systems)

A BMS is the intelligent component monitoring and managing any lithium-ion battery pack. It is the brain behind the battery and has a key role in its levels of safety, performance, charge rates, and longevity.

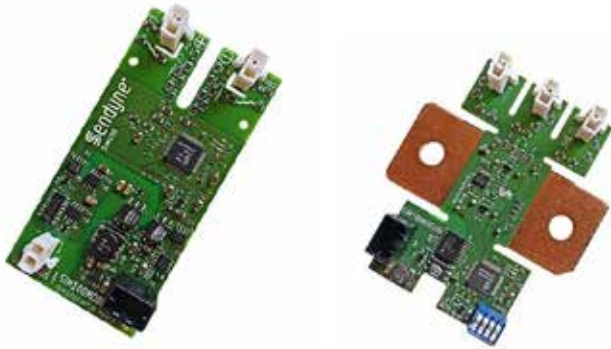
These BMS are designed to be a long-term solution for our customers with the highest level of safety in mind!

Key markets and Applications



Automotive, HVOR, Industrial,
Electric Vehicles and Charging Stations

IMD & VCS



IMD (Insulation Monitoring Devices) & **VCS** (Voltage and Current sensors)

IMD modules are safety components to detect resistive leakages and capacitively stored energy that could be harmful to human operators.

Plus we provide precise **VCS** measurement modules with Coulomb counting functionality for electric vehicles and charging stations.



Electric Vehicle



Key markets and Applications



Automotive, HVOR, Industrial,
Electric Vehicles and Charging Stations



EVCC



Key markets and Applications



Automotive, HVOR, Industrial,
Electric Vehicles and Charging Stations

EVCC (Electric Vehicle Communication Controller)

We have added to our **EV Portfolio** the latest generation Controller for charging Electric Vehicles. The **EVCC** (Electric Vehicle Communication Controller) is a solution targeted at commercial vehicles with key features.



Sensata
Technologies

FUSES



High Voltage Fuses

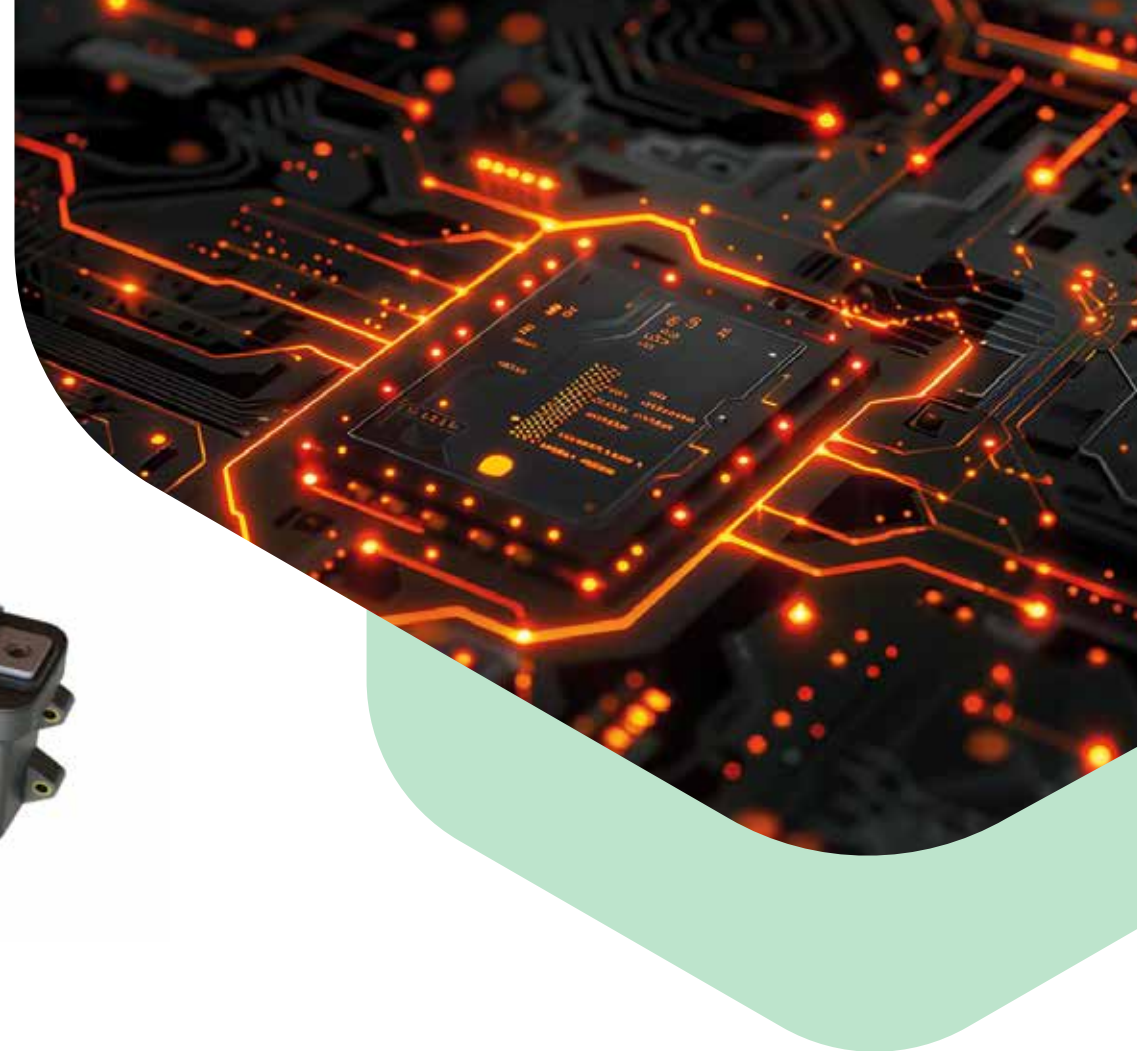
Wide range of fuses for any kind of application, and PyroTactor™, the world's first contactor with integrated pyro fuse designed for high voltage and high power fuse application requirements.



Key markets and Applications



Automotive, HVOR, Industrial,
Electric Vehicles and Charging Stations





Your Sensing Solutions



www.gvzcomp.it

GVZ Components Srl

Via Magenta, 77/16A

20017 Rho (MI) - Italy

Email: info@gvzcomp.it

Phone: +39 02 3340 0846