

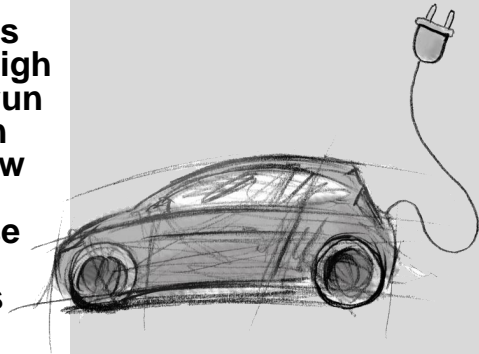
# E-Car

## Isolation measurement

New challenges in electric and hybrid vehicle drivetrains have forced designers to look for new ways to isolate high voltage levels in these systems. Typical systems were run on 12 or 24V, however these systems are now being run off of 400V and higher. This introduces a completely new set of requirements for OEM's and system module suppliers. The new requirements now must isolate these high voltage levels from other electrical systems in the vehicle, and also ensure the passengers are isolated as well.

The isolation requirement is necessary for many applications within the electric and hybrid vehicles, including the battery system, DC/DC converter, inverters and charging systems that tie into the power grid. These vehicles require an internal measuring system in order to ensure these levels are isolated between the electronic components and frame of the vehicle. In order to connect or isolate these two systems for measuring, a high isolation relay is required.

Reed relays from MEDER electronic are able to fulfill this requirement. Despite their small size, these relays have an isolation resistance of over 10 T Ohms. These relays offer very high breakdown voltages, exceeding 5kVDC across the contacts. Another advantage of these reed relays is low power consumption, as they only need power during the switching process. This improves the overall efficiency of the system. Reed relays from MEDER electronic are well sealed, making them a robust solution in these harsh environments.



### 3 good reasons:

High isolation

Low power consumption

Long life expectation

[www.meder.com](http://www.meder.com)

