CARLO GAVAZZI
Automation Components

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Press Release

DRC61: INSULATION MONITORING FOR FAST EV CHARGING STATIONS

Enhance safety and simplify integration in DC charging stations up to 1000 V with a flexible single-module solution.

Lainate, July 2026 - Carlo Gavazzi Automation, the international electronics group active in the design, manufacture, and marketing of electronic equipment, is pleased to introduce the DRC61, an insulation monitoring device specifically developed for unearthed DC systems up to 1000 V DC, targeting the fast-growing EV charging infrastructure market.

The DRC61 represents a strategic expansion of Carlo Gavazzi's portfolio for electric vehicle charging applications, complementing existing solutions and enabling a more comprehensive and integrated offering for OEMs and system designers.

Designed for Mode 4 DC fast charging stations - particularly in combination with the DCM1 DC energy meter - the DRC61 continuously monitors insulation resistance between DC lines and ground, ensuring early detection of both gradual degradation and sudden insulation faults. This functionality is essential to guarantee user safety and system reliability in high-voltage DC environments.

A key differentiator of the DRC61 is its ability to operate directly up to 1000 V DC within a single module, eliminating the need for additional adapters typically required by competing solutions. This results in a more compact, efficient, and simplified system architecture—particularly valuable in EV charging stations, where space, reliability, and ease of integration are critical.

"The DRC61 has been developed with a clear focus on the evolving requirements of EV charging infrastructure," says Francesco Vedana, International Product Manager. "By addressing the need for higher voltage monitoring, compact design, and digital integration, we provide OEMs with a reliable and future-ready solution for next-generation DC charging systems."

With the introduction of the DRC61, Carlo Gavazzi further strengthens its position in the electrification and e-mobility sectors, offering innovative solutions that enhance safety, reliability, and system efficiency in modern DC installations.

Main technical features

- Continuous monitoring of insulation resistance between DC lines and ground
- Detection of gradual insulation degradation and sudden faults
- System voltage monitoring with undervoltage and overvoltage detection
- Operating range up to 1000 V DC in a single module
- Two configurable relay outputs (pre-alarm and alarm)
- Modbus RTU communication for configuration and diagnostics
- Local and remote Test & Reset functions
- Compatibility with CCS and CHAdeMO charging architectures
- UL listed according to UL 2231-1 and UL 2231-2

ABOUT CARLO GAVAZZI AUTOMATION

Carlo Gavazzi is an international group engaged in the design, manufacturing, and marketing of electronic control components for the global building and industrial automation markets.
Carlo Gavazzi Automation provides customers with technologically innovative, high quality and competitive solutions, in compliance with their requirements and expectations through its 23 National Sales Companies in Europe, the Americas and Asia & Pacific, operating with its factories in Italy, Mexico, Lithuania, Malta, and China.

For further information:
Carlo Gavazzi Automation SpA - Via Milano 13 – 20045 Lainate (MI) - Italy
Marketing and Communication - info@gavazziautomation.com - www.gavazziautomation.com