

Press Release

THE NEW NRG DIGITAL SOLID STATE RELAYS WITH AN EtherCAT INTERFACE

Seamless integration with the availability of additional Ethernet-based protocols.

Lainate, March 2022 - Carlo Gavazzi Automation, the international electronics group with activities in the design, manufacture and marketing of electronic equipment, today presents an additional communication interface to the NRG family of digital solid state relays – the NRG with EtherCAT protocol.

The digital revolution in industrial automation is underway for a good reason. It opens the door to opportunities for manufacturers by facilitating machine optimization for better performance, lower costs, and higher reliability. This is all possible via an IIoT system which provides greater connectivity through a communication network that enables control and data collection from multiple IIoT devices.

The NRG system of digital solid state relays lends itself perfectly to the emerging needs of the digital revolution. On top of switching capabilities, the NRG incorporates fault identification and monitoring functionality of multiple system parameters. The NRG also includes a communication interface used simultaneously for data transfer and controlling the outputs of each solid state relay. This interface enables real-time monitoring that is crucial to predict failures, reduce unplanned machine stoppages and optimize machine performance.

The NRG is available via Modbus RTU, PROFINET, EtherNet/IP™ and now also via EtherCAT.

“Embedded machine intelligence is the gateway to predicting equipment failures and improving productivity”, Dora Lee Borg International Product Specialist says. “This is only possible with the availability of intelligent IIoT devices, such as the NRG, which are capable of collecting data and forwarding the information via the machine’s connectivity. The release of the new NRG controller with EtherCAT ensures easier integration in a wider range of machines”.

Developed in our competence centre in Malta, the NRG has been designed to suit any heating application where precise temperature control is crucial to guarantee the quality of the end product and where unplanned machine stoppages can result in a considerable loss of revenue. Typical applications are plastic injection machines, packaging machines, semiconductor manufacturing and glass tempering machines.

Main technical features

- EtherCAT (Conformance Tested), EtherNet/IP™ (ODVA conformant), PROFINET (PI certified) or Modbus RTU interface
- Up to 32 NRG solid state relays in 1 NRG bus chain
- NRG solid state relays ratings up to 660 VAC, 90 A
- Predictive failure detection with Load deviation indication
- Selectable switching modes: ON/OFF, Burst, Advanced Full Cycle, Distributed Full Cycle, Phase Angle and Soft Start
- Read-outs: Current, Voltage, Power, Energy consumption kWh, Load and SSR Running hours
- Malfunction detection: Mains loss, Load loss, SSR short circuit, SSR over-temperature, and Voltage/Current/Frequency out-of-range

ABOUT CARLO GAVAZZI AUTOMATION

Carlo Gavazzi Automation is an international electronics group with activities in the design, manufacture and marketing of electronic equipment targeted at the global markets of industrial and building automation.

Carlo Gavazzi Automation provides customers with technologically innovative, high quality and competitive solutions, in compliance with their requirements and expectations through its 22 National Sales Companies in Europe, the Americas and Asia & Pacific, operating with its production sites in Denmark, Italy, Malta, Lithuania and China.

For further information:

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