

Press Release

NRG SERIES: SOLID STATE RELAYS WITH COMMUNICATION INTERFACE

Faster installation, space savings, flexibility and increased machine uptime amongst some of the benefits.

Lainate, November 2019 - Carlo Gavazzi Automation, the international electronics group with activities in the design, manufacture and marketing of electronic equipment, today presents its new series of solid state relays.

In this 4th industrial revolution, machinery needs to evolve to become more autonomous. For this to happen, the various components within the machine need to be able to communicate with each other to exchange data. The NRG series makes it possible for the solid state relays to communicate with the main controller in the machine. The NRG is a platform consisting of bus chains. Each bus chain is made up of a NRG controller (NRGC) daisy chained to a number of solid state relays (RG..N). The NRGC interfaces with the machine controller through Modbus RS485.

The communication interface on the NRG series enables real-time monitoring of each solid state relay (status and read-out of parameters). With this new release, it is now possible to control the switching of the RG..N via this communication interface. Apart from ON/OFF switching, it is also possible to control the RG..Ns by power control.

“Machine builders can remain globally competitive if the users needs for increased machine uptime, lower scrap rates and high production overall equipment efficiency are satisfied”, Dorianne Grech International Product Manager says. “Real-time monitoring with the NRG series enables OEMs to offer machines that improve operational efficiencies and make reactive maintenance predictive and preventive. This additional development on the NRG platform benefits OEMs by having reduced PLC output modules, much simpler wiring and flexibility to adapt the switching of the solid state relay to suit the specific process. This solution allows our customers to accommodate, in turn, their customer needs whilst remaining competitive.”

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 potential machine stoppages are predicted. Typical applications are plastic injection machines, semiconductor manufacturing and glass tempering machines.

Main technical features

NRG controller - NRGC

- Modbus RTU over RS485
- Connects up to 32x RG..CM..N or 48x RG..D..N* solid state relays
- 24 VDC supply voltage
- 1x configurable relay output
- Approvals: CE, UL listed, EAC

**The RG..CM..N uses the communication interface for switching and real-time monitoring. The RG..D..N uses the communication interface for real-time monitoring only.*

NRG internal BUS cables - RCRGN

- Proprietary cables for the NRG internal BUS
- Cables available in different lengths: 10, 75, 150, 350, 500 cm

NRG solid state relays – RG..CM..N

- 1-phase, zero cross switching
- Selectable switching modes: ON/OFF or Power Control (Burst, Distributed or Advanced Full Cycle firing)
- Read-outs: Current, Voltage, Frequency, Power, Energy consumption, SSR and Load running hours
- Diagnostics: Mains loss, Load loss, Load deviation, SSR short circuit, Over-temperature, SSR out of (set) limits
- Ratings: up to 660 VAC, 90 AAC (RGS..N – ver. w/o heatsink)
- Ratings: up to 660 VAC, 65 AAC (RGC..N – ver. w/ integrated heatsink)

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:

Carlo Gavazzi Automation SpA - Via Milano 13 – 20020 Lainate (MI) - Italy
Marketing and Communication - info@gavazziautomation.com - www.gavazziautomation.com