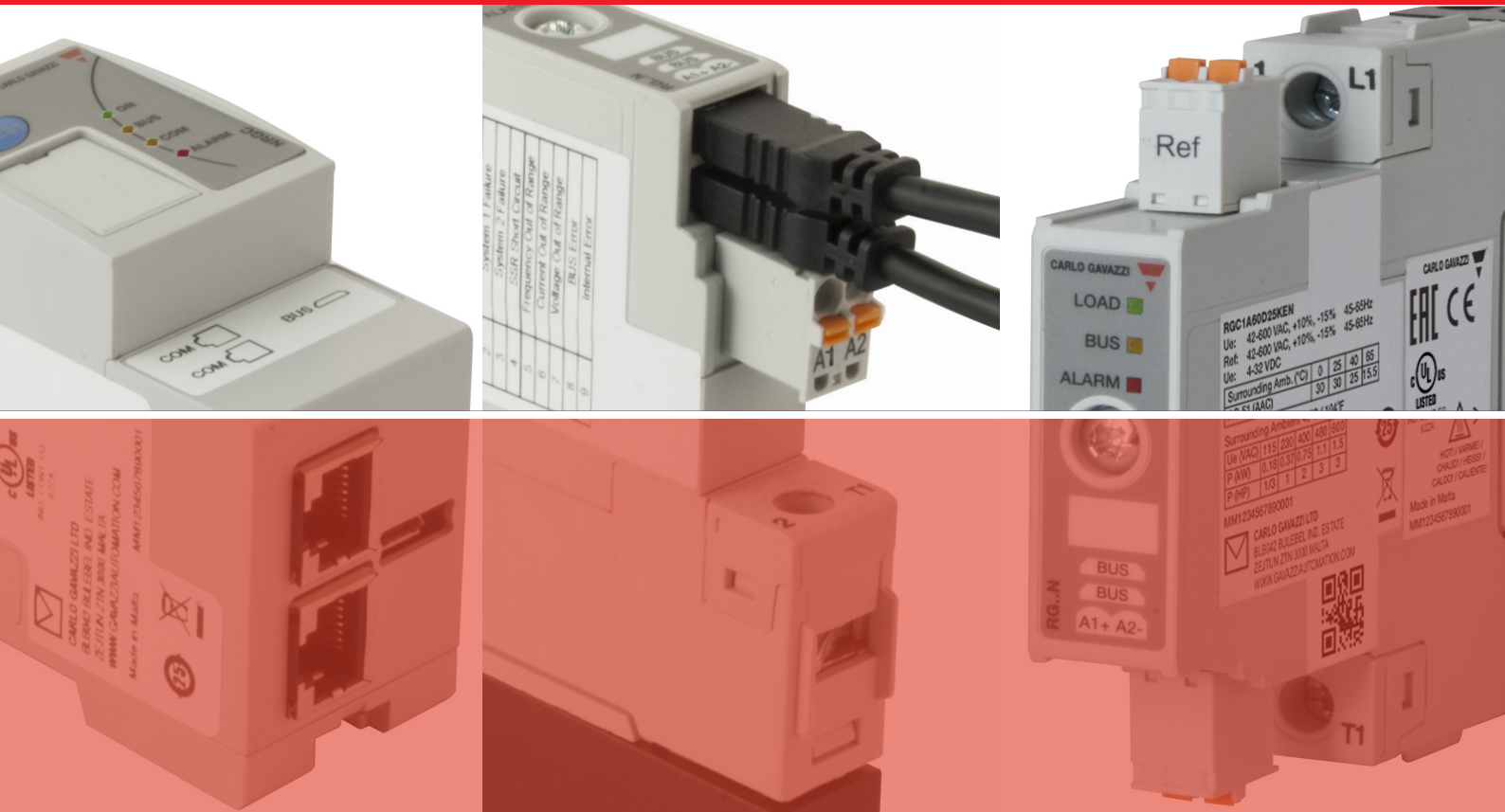




NRG: Solid state relays with a fieldbus interface

Switches

NRG series

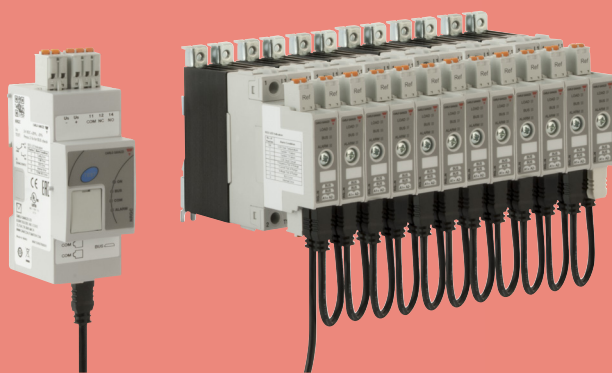
Solid state relays with a fieldbus interface

In order for machine builders to make informed decisions, solve urgent problems on short notice and develop machines that are more autonomous, data from the various components within the machine needs to be collected and analysed. The **NRG** has been developed to fit this purpose since data from each solid state relay is now accessible through a fieldbus interface (Modbus RTU).

The new NRG series of solid state relays has evolved to include switching functions on top of monitoring and diagnostic capabilities via the communication interface. The communication between the machine controller (or PLC) and the solid state relays is facilitated by an NRG controller.

Applications

Any heating application where reliable and precise maintenance of temperature is crucial to the quality of the end product: Plastic injection machines, PET blow moulding machines, Semiconductor manufacturing and Glass tempering machines.



Switching and monitoring capabilities via the bus network

Features:

Switching

The RG..N Solid State Relays (SSRs) can be controlled via the bus. Apart from ON/OFF switching mode it is possible to control the SSRs in burst mode through a % value.

Measurements

Through the bus it is possible to read the following parameters related to the RG..N's on the bus:

- Current,
- Voltage,
- Frequency,
- Power,
- Energy consumption,
- Running hours.

Diagnostics

Each RG..N on the bus is equipped with on-board diagnostics for systems, load or bus malfunction.



UR, CSA only for RGS..N

Benefits:

Time and space savings

Less wiring and I/O modules are required with switching, monitoring and diagnostic capabilities via the bus network.

Flexibility

Various firing modes are available including a Burst option which saves computational power from the PLC.

Easy configuration

The NRG offers an auto-addressing function via the NRGC for a quick system setup.

Maximised throughput

Possibility for predictive maintenance by analysing system parameters.

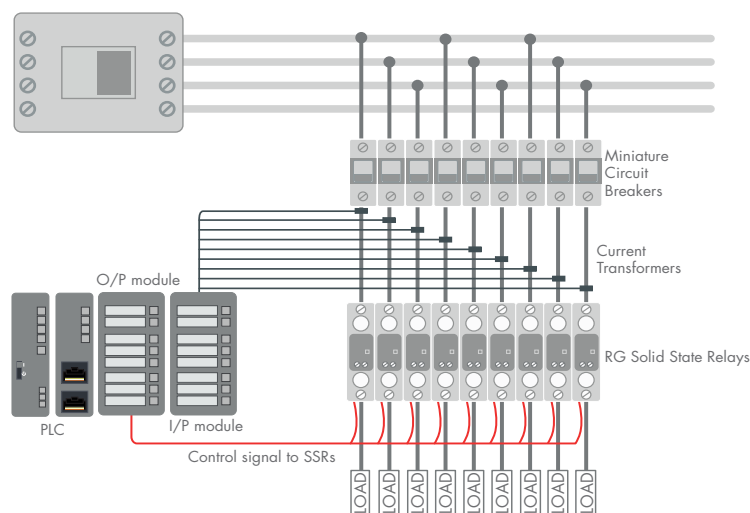
Higher quality end products

PLC can perform timely decisions for optimal temperature control through real time monitoring.

Cost and space savings with the new NRG series of solid state relays

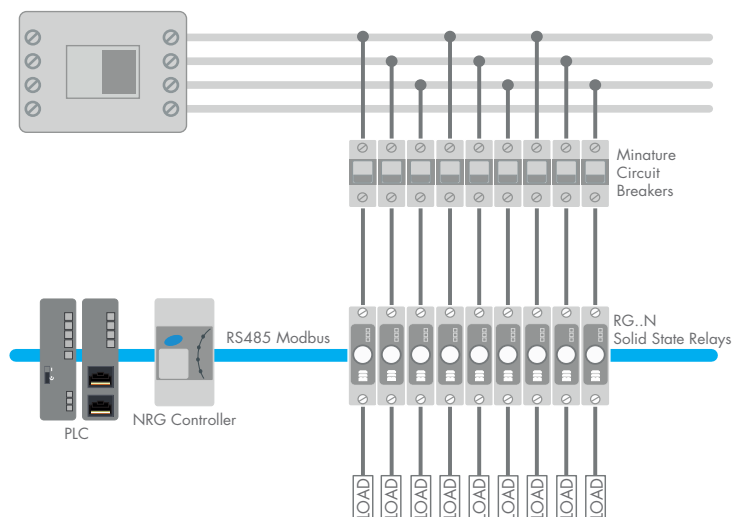
General system setup

I/O modules and current transformers are required to control the solid state relays (SSRs) and obtain current measurements from the system.



NRG system setup

Switching, monitoring and diagnostic functions can be performed via the bus network. The NRG system can handle up 247 bus chains. An NRG bus chain consists of one NRGC and a maximum of 32 RG..N solid state relays.



Selection guide

NRG Controller

Modbus RTU **NRGC**

NRG Solid state relays

	25 AAC	30 AAC	37 AAC	43 AAC	65 AAC	50 AAC	90 AAC
Version	with heatsink					without heatsink	
Screws	RG1A60CM25KEN		RG1A60CM32KEN			RG51A60CM50KEN	RG51A60CM92KEN
Box clamps			RG1A60CM32GEN	RG1A60CM42GEN	RG1A60CM62GEN	RG51A60CM92GEN	

NRG Internal BUS cables

Length	10 cm	75 cm	150 cm	350 cm	500 cm		
	RCRGN-010-2	RCRGN-075-2	RCRGN-150-2	RCRGN-350-2	RCRGN-500-2		

Further details are available on online data sheets at www.gavazziautomation.com

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