



Sensors



Switches



Controls

Application notes



Application Note : May 2022

Market involved : Drying machines

Product : NRGC-MBTCP, RGC1A60CM32GEN

Customer : OEM

Subject : Control of heaters in drying ovens

CUSTOMER ISSUE :

The OEMs need to reduce the wiring time and optimise the panel space in their machinery by better utilisation of the communication system in the machine.

The heating process requires switching times of less than 100ms.

The OEMs would also like to benefit from remote support for instant diagnostic information from the application

In some machines, the customer utilises Sigmatec PLCs which apart from their standard communication protocol, include the option to communicate via Modbus TCP.

OUR SOLUTION :

The NRG system of solid state relays incorporates switching, monitoring and diagnostics via a communication interface.

The NRG includes extensive monitoring and diagnostic information which can be included in all types of maintenance plans.

To accurately control the heating process, the OEMs can utilise the ON/OFF switching mode for switching times down to a half mains cycle.

With the availability of Modbus TCP, the NRG can be incorporated easily into Sigmatec PLCs as well as many other PLC brands.

BENEFITS :

- Interoperable in various machines with the availability of multiple protocols
- Reduced panel space occupancy and wiring costs with an all-in-one solution
- Precise temperature control with the possibility of fast switching cycles
- Fast troubleshooting through extensive diagnostics to minimise machine downtimes
- Possibility of remote access down to the solid state relay level