

CG APPLICATIONS

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Application Note : 16 January 2006

Market involved : HVAC

Product : RJ1P

Customer : ---

Subject : Control of electric air heater batteries



CUSTOMER ISSUE :

To provide modulating output control of electric air heater batteries via thyristor control with zero point switching and galvanic separation.

In many HVAC installations it is normal to use a standard zero switching SSR. Since the temperature regulator has an analog output signal, it is then necessary to use an interface that converts the analogue signal into ON/OFF pulses for the SSR.

OUR SOLUTION:

The RJ1P is a microprocessor based solid state contactor that can directly accept an analog signal from a temperature regulator.

The output of this relay is then time proportioned according to the level of the analog input.

A choice of switching strategies can be made from a simple rotary switch on the front of the device, according to the application.

ACHIEVED BENEFITS:

- Simpler solution that reduces the number of components in the HVAC control system
- This solution is more cost effective: lower cost of hardware, lower cost of installation of the control system
- Fine control with the microprocessor based approach.
- The availability of different switching modes helps ensure that the load is well matched with the controller.

