

API-Cecom Group *n'fo*

Technical & Application Notes

Application: Controlling SCR's for supplemental heat

Type of Company: Building Maintenance Management

Location: Illinois

Problem: The company is using a Barber Colman HVAC system to control heat to the building. Due to equipment changes the company had to install several Robicon SCR's for supplemental heat to the building. The Barber Colman HVAC systems only outputs a signal of 6-9 VDC but the Robicon SCR's require an input of 0-10 VDC for proper operation. The HVAC engineers also have a requirement for an override switch for troubleshooting as well as emergency control of the SCR's. The interface system must not be overly expensive, must have excellent accuracy but must not be complex.

Solution: API furnished the customer an specially ranged API 4300 G. The API 4300 G accepts a 6-9 VDC input from the control system and outputs a 0-10 VDC signal for the SCR's. As an added feature on the API 4300 G the functional test pushbutton switch was replaced with a toggle switch. When the functional test toggle switch is in the manual position the unit will output a 5VDC signal independent of the input signal which the customer can vary for troubleshooting or manual control.



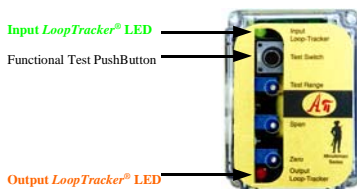
[API 4300 G](#)



Benefits of API's solution:

- Lower cost
- Satisfies customer without modifying HVAC system
- Lifetime warranty

API Unique Feature



The Functional Test Pushbutton will, when pressed, output a test signal independent of the input signal. This signal is adjustable from 0-100% of span by holding the Test button down and adjusting the Test potentiometer on the unit. On some models the test signal is fixed at 50% of output span. This feature allows the technician to temporarily inject a test or preset calibration signal into the output loop without manipulating the input signal. This signal can be used to check loop status, downstream display operation, downstream alarm operation, etc.

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