API-Cecomp Group n'fo

Technical & Application Note A165

Application: Hardware shutdown for furnace over temperature alarm

Type Of company: Manufacturer

Location: New York

<u>Problem:</u> The customer is a manufacturer/supplier of gases, high performance powder coatings and fluoropolymer coatings. They have designed a new furnace which uses an application specific custom PLC to maintain extremely accurate control of the heat in their processes. The PLC uses software to shutdown the furnace in the event of an over temperature event but they also need a hardware shutdown for the control power to the furnace. This hardware shutdown in to prevent the furnace from going to an over temperature condition in case of any software issues and needs to be the "failsafe" for any power issues. The customer also wants the hardware shutdown system to be easy to repair in the field

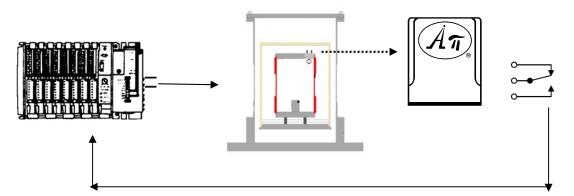
Note: for additional information on this process see httphttp://en.wikipedia.org/wiki/Furnace

<u>Solution</u>: Since the customer needed a "failsafe" operation they chose to use an API 1200 G D HT. This allowed the customer to use a module that is not only has "failsafe" relay operation but it has a latching operation that requires someone to manually reset the furnace and verify that the power is operating properly.



Thermocouple Input Alarm





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