



## INFORMATION SHEET

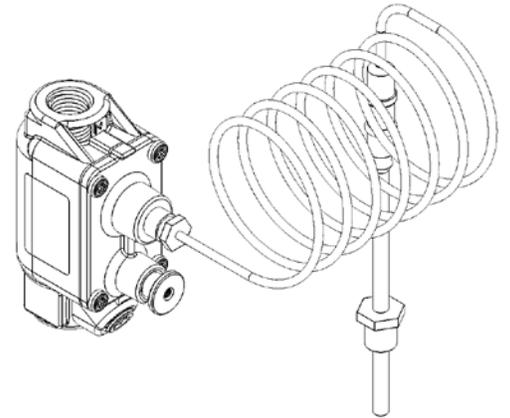
### THERMOCOUPLE AND LOW TEMPERATURE SHUTOFF VALVE

#### How do the valve and thermocouple work?

Catalytic heaters require 3 things to work: Fuel, oxygen and a 250° catalyst. The thermocouple senses the temperature of the catalyst and holds the valve in the open position as long as the catalyst maintains a temperature of 250° F. If the thermocouple senses that the catalyst has dropped below that temperature, the valve will close and the heater will not operate until it is manually restarted with the electric heating element.

#### What's the **downside** of adding the valve and thermocouple to catalytic heaters?

The downside to adding the valve and thermocouple has to do with the reliability of the heater. Catalytic heaters are typically considered very durable and simple products. When more components are added to the product, more places for potential failures are added as well. The vast majority of the time when a customer is having trouble with a catalytic heater, the problem is the valve and thermocouple.



#### What's the **benefit** of adding the valve and thermocouple to catalytic heaters?

From a safety standpoint, the valve and thermocouple eliminate the risk of venting natural gas through the face of the heater. The important thing to consider in different applications is how much gas is going to be potentially vented. This is easy to determine based on the BTU ratings of the heaters. The BTU rating for the heaters is on the label on the back of the heater. See table 1 for common enclosures and potential gas venting. It's important to understand the risk that is being mitigated. The question to ask is whether or not that potential amount of vented gas is a concern worth the added expense and time of adding the valve and thermocouple.

**Table 1**

Potential venting prevented by adding low temperature shutoff valve

Enclosure Part Number	Heater Size	Number of Heaters	Potential Venting
70-015P1	3000 BTU	1	3 SCFH
70-015P2	3000 BTU	2	6 SCFH
70-050P1	2667 BTU	1	2.6 SCFH
70-050P2	2667 BTU	2	5.2 SCFH
70-067P1	6000 BTU	1	6 SCFH
STD2600SS1	2667 BTU	1	2.6 SCFH