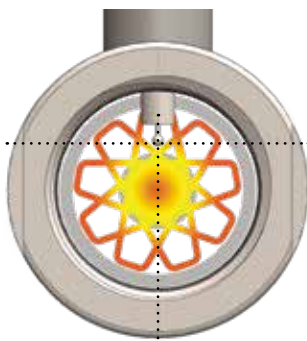
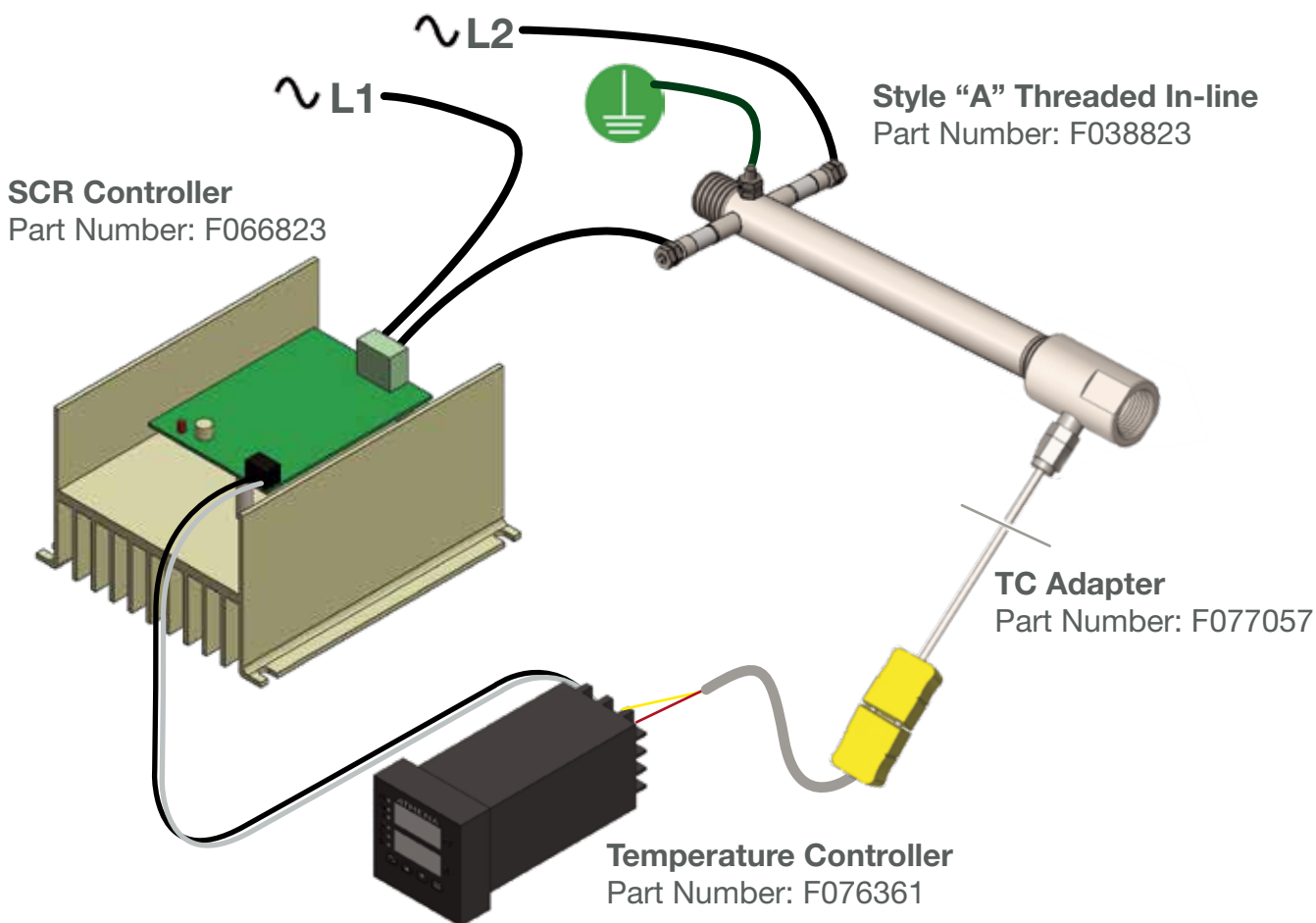


Threaded In-line Heaters

General Description

Threaded in-line air heaters are UL Recognized products designed for industrial process heating applications requiring high-heat and high air pressure. Serpentine™ heating elements are installed into a 304 stainless steel housing and threaded at both ends. Tutco SureHeat threaded in-line heaters offer two styles, Style “A” and Style “B”. Style “A” should be used when an absolute leak-proof air system is required. Need a custom solution? We have supplied hundreds of customer specified variations. Contact us for more information.

Closed-Loop Connection Diagram

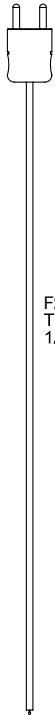


Make sure to properly mount the TC coupling so that the TC is slightly above the ceramic rod running through the center of the Serpentine™ heating element. The open end of the TC should be in the heated air stream as shown left.

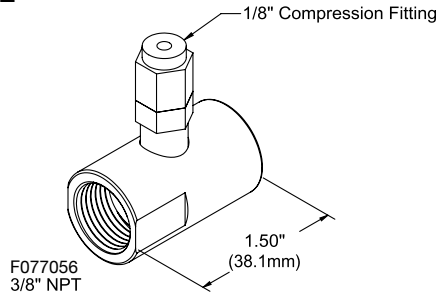
Threaded In-line Thermocouple Adapters

THREADED INLINE TC ADAPTERS

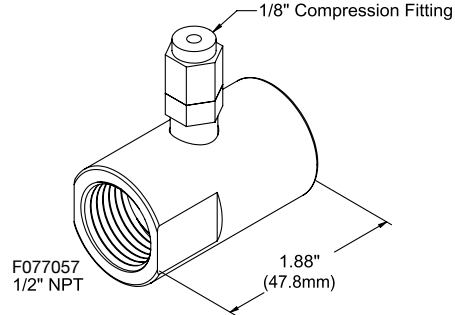
MODELS NOT TO SCALE



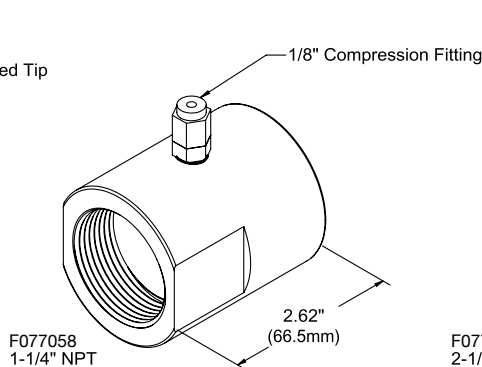
F206119
Type 'K' TC - Exposed Tip
1/8" OD x 12" Long



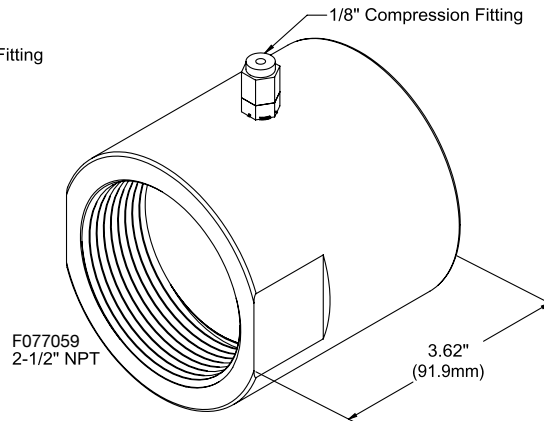
F077056
3/8" NPT



F077057
1/2" NPT



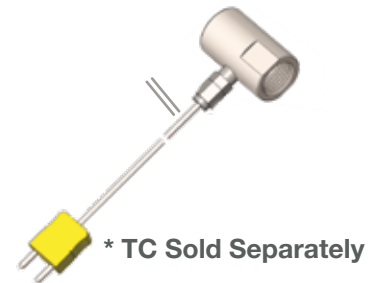
F077058
1-1/4" NPT



F077059
2-1/2" NPT

Threaded In-line Thermocouple Adapters

Part Number	Description
F077056	TC Adapter 3/8" Threaded In-line
F077057	TC Adapter 1/2" Threaded In-line
F077058	TC Adapter 1-1/4" Threaded In-line
F077059	TC Adapter 2-1/2" Threaded In-line
F206119	1/8" TC Type K 12" Probe

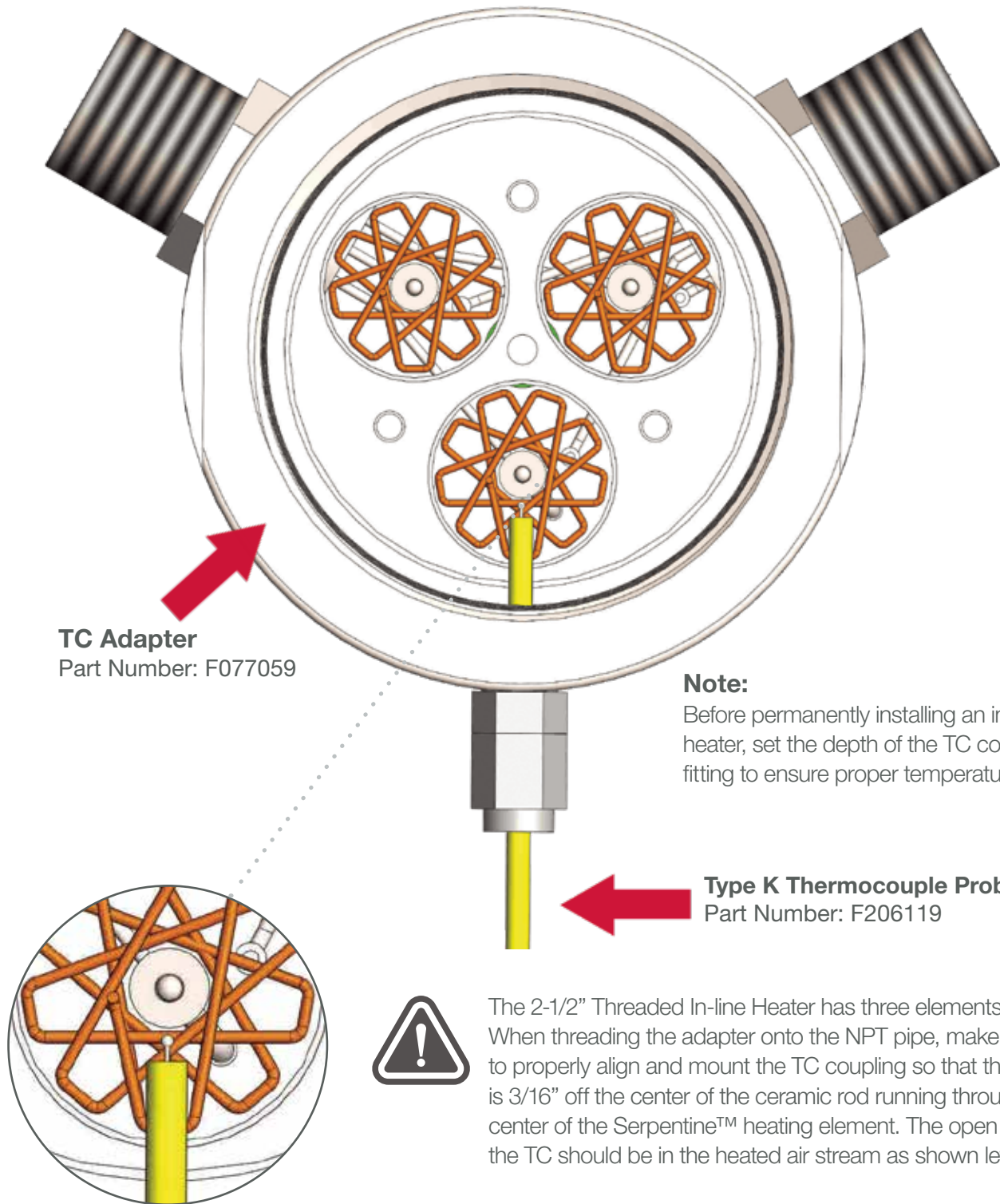


Notes:

- Threaded In-line thermo couple adapter material is 316 stainless steel
- Better resistance to oxidation at higher temperatures
- Type K thermocouple F206119 sold separately
- Use of other sensor types and mounting locations can result in heater damage
- Thermocouple mounting depth location is critical. Follow all mounting instructions.
- If replacing a Thermocouple, take note of the depth by measuring the distance to the compression fitting on the old Thermocouple.

Thermocouple Installation Reference

2-1/2" NPT Threaded In-line
Heater Assembly Part Number:
F074439



TC Adapter
Part Number: F077059

Note:
Before permanently installing an in-line heater, set the depth of the TC compression fitting to ensure proper temperature control.

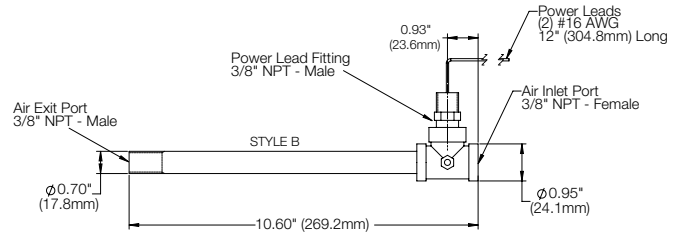
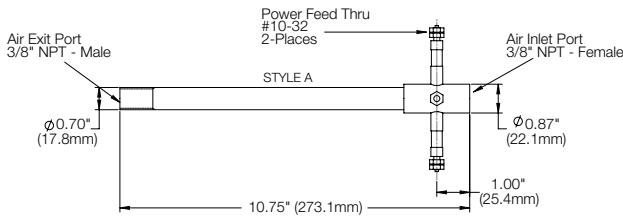
Type K Thermocouple Probe
Part Number: F206119



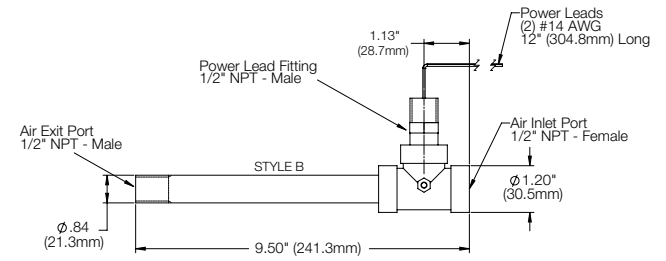
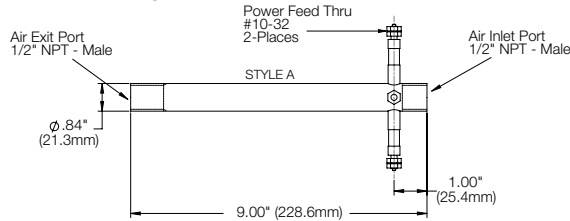
The 2-1/2" Threaded In-line Heater has three elements. When threading the adapter onto the NPT pipe, make sure to properly align and mount the TC coupling so that the TC is 3/16" off the center of the ceramic rod running through the center of the Serpentine™ heating element. The open end of the TC should be in the heated air stream as shown left.

Dimensions / Installation Reference

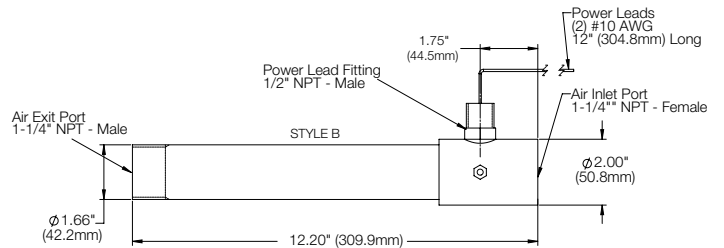
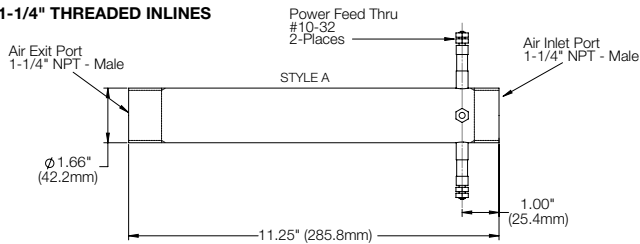
3/8" THREADED INLINES



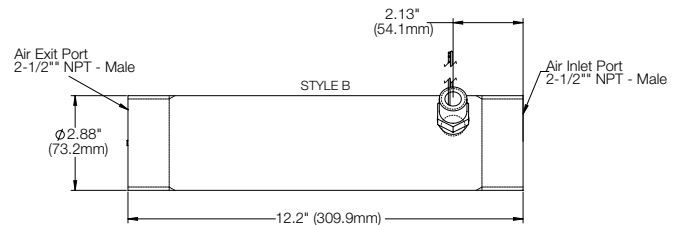
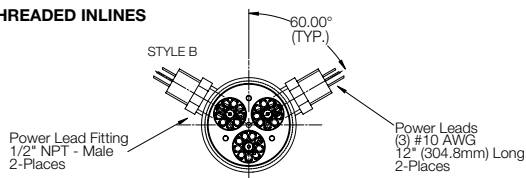
1/2" THREADED INLINES



1-1/4" THREADED INLINES



2-1/2" THREADED INLINES



Threaded In-line Products

Size (NPT)	Max. Power	Max.Volts	Max. Amps	P/N, Style "A"	P/N, Style "B"
3/8"	1.6kW	170	9.4	F038821	F038822
1/2"	4.0kW	220	18.2	F038823	F038824
1-1/4"	6.0kW	220	27.3	F038825	F038826
1-1/4"	8.0kW	240	33.3	F077065	F077028
2-1/2"	18.0kW	240	75.0 (1ø)/44.0 (3ø)	N/A	F063007
2-1/2"	18.0kW	480	21.7 (3ø)	N/A	F076418
2-1/2"	24.0kW	240	100.0 (1ø)/57.8 (3ø)	N/A	F074439

Style A / Style B Installation Reference

Style A Threaded In-line Products

- UL Recognized
- High-pressure power feed throughs
- Leak-proof to 150 psi (10 bar)
- Maximum inlet temperatures 900°F (482°C)
- Torque Specification for power connections 20 lb-in (2.26 N-m)



The inlet side of the heater is located closest to the power feed throughs. Installation orientation is critical. Positioning the heater in the wrong direction will cause damage. Like all Tutco SureHeat products, do not operate without air flow.

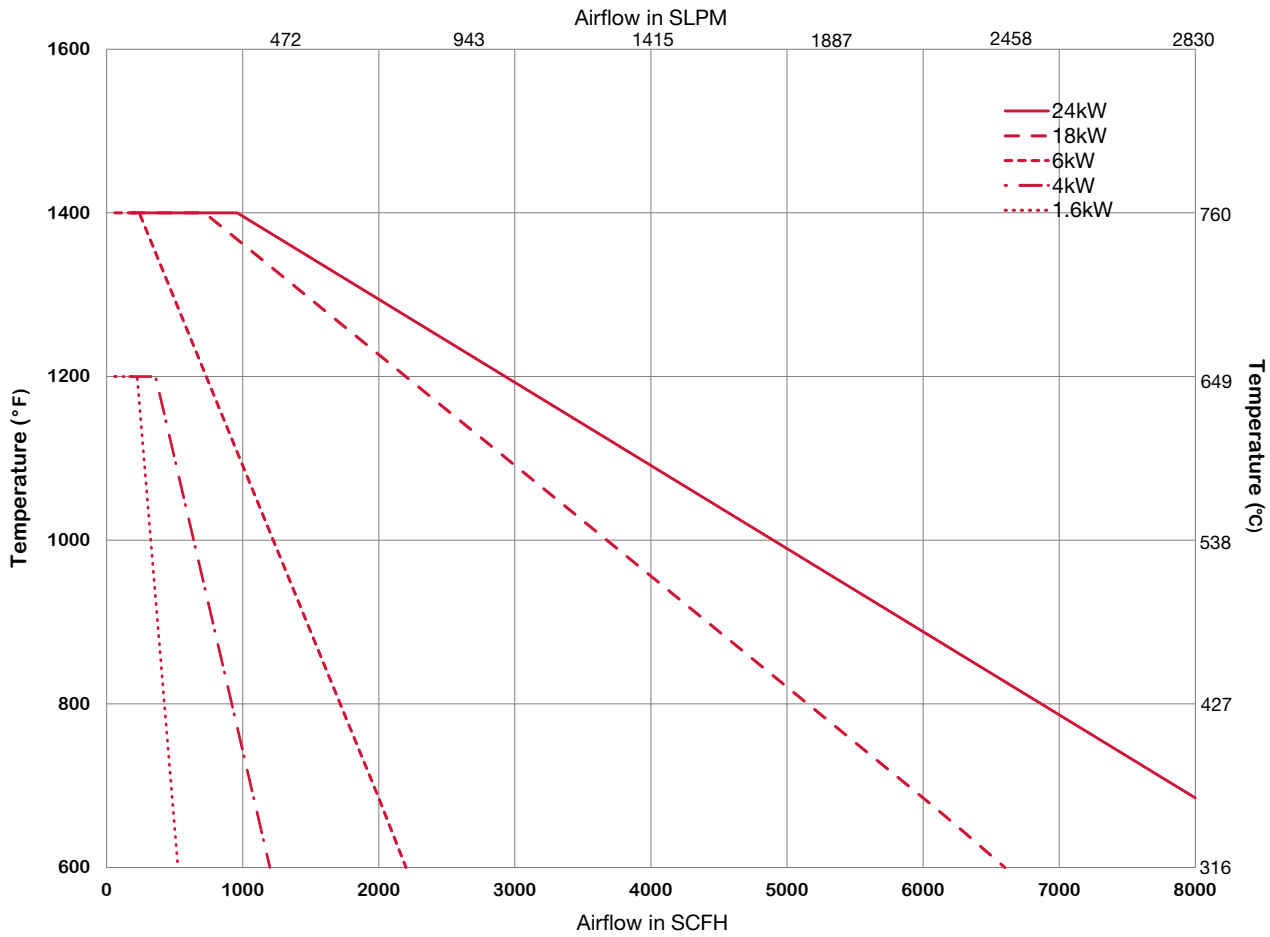


Style B Threaded In-line Products

- UL Recognized
- 12" (305mm) flexible wire power leads
- Not recommended for leak-proof systems due to slight leakage through wire strands
- Maximum inlet temperatures 200°F (93°C)

Threaded In-line Performance Curves

Threaded Inline Maximum Performance



Notes:

- Temperatures are measured by 3/16" "K"
- Use of other sensor types and mounting locations can result in heater damage
- Minimum airflow for accurate control is 60 SCFH
- Maximum air temperature is 1400°F (760°C)
- Operating above this curve voids the product warranty

