Frequently Asked Questions

How does the STREAMLINE™ system handle over-temperature protection?

- Over-temperature protection is built into the EZ-ZONE® RMT controller intrinsically by redundant processors, and Watlow® holds UL® 1998 and SIL-2 agency certifications on the controller.

Is a Watlow controller required with the STREAMLINE system?

- The STREAMLINE system requires the Watlow EZ-ZONE RMT controller to receive all the benefits, protection and wiring reduction.

What makes the heaters different? Can existing heaters work with the EZ-ZONE RMT controller?

- The heater and sensor wires are the same, the heater is the sensor and vice versa.
- The power leads are thermocouple alloys.
- No, the STREAMLINE system requires Watlow's heaters to receive all the benefits of the system.

How does the price compare to legacy systems? (Total cost and cost per loop.)

- The break-even point is approximately four loops, offering users the additional benefits of the STREAMLINE system. Above four loops, customers will realize a cost benefit as well compared to expanding the number of controllers.

Can Watlow develop the STREAMLINE system faster than legacy products for new applications?

- Watlow is maintaining a database of designs that can be reused for a variety of applications. Because of the power conversion capabilities in the EZ-ZONE RMT, parts no longer need to be customized to resistance, which eliminates design iterations.

What is ATS as it relates to the STREAMLINE product and how is it different?

Through the EZ-ZONE RMT controller, the STREAMLINE system...

- Utilizes a single pair of wires to create the heater element, control sensor and limit sensor into one circuit.
- Protects small heaters from high voltage and allows independent control with power conversion capabilities in the EZ-ZONE RMT.
- Protects the components in the system in the event of fault or mis-wiring through the capabilities of the EZ-ZONE RMT.

Will Watlow provide the cable harness required for the STREAMLINE system?

- A custom harness is required and Watlow can supply the harness or help customers spec their own harness.

What data is available from the system?

- Available data includes real-time process temperature, heater resistance, heater wattage, heater current, output voltage, error messages, set point, alarm conditions and PID parameters.

What reliability data is available?

- Mean Time Between Failures (MTBF) and Mean Time To Failure (MTTF) data is available for the heater jackets, EZ-ZONE RMT controller and the system.
- A Weibull analysis report is available for the EZ-ZONE RM family of controllers.
- Heater reliability data is in process. Watlow expects it to be the same as the legacy products.

Where are the components manufactured? What is the business continuity plan (BCP) if one of the facilities experiences a catastrophic event?

- Watlow's STREAMLINE systems are manufactured at Watlow facilities in North America. Watlow has business continuity plans (BCP) for each manufacturing facility that cover various business continuity type events.

What are the constraints on maximum power and maximum temperature? What constructions are available for the heaters?

- Watlow has all specifications captured in the engineering data.
- Silicone rubber gas line, pump line and foam-in-place are the heater forms for the system.
- Approximately 140 watts per zone or loop and 0.75 amps per channel is the maximum wattage available.
- Maximum operating temperature for silicone rubber configuration is up to 180°C.

Is there performance data ready to share related to repeatability and temperature uniformity?

- Yes, see the charts in the product literature.

Does Watlow have performance data on particulates and outgassing?

- There is no difference between particulates and outgassing compared to the legacy product.
- Heater flexibility and lead pull strength is the same compared to the legacy product.

Is the STREAMLINE system easy to install?

- Heater installation is similar to the legacy product.
- Fewer lead wires allow for easier installation and a lower risk of mis-wiring.
- The EZ-ZONE RMT can be used as a diagnostic tool to detect mis-wiring because it is capable of reading resistance.