

## Exergen's Non-Contact Sensors Protect Equipment Using Flanged Inline Heaters

### Challenge

A large electric air heating solutions company needed a very fast thermal management solution to prevent overheating of the air heater element used in its flanged inline heaters. The heaters are employed in industrial processing and R&D settings and are built to handle a wide range of extremely demanding process heat applications.

The company had tried using other thermal solutions in the heater, but they had tradeoffs in speed and longevity. Finding a fast and robust thermal sensor was imperative to protect its customers' large capital investments. If heating elements fail, its customers also lose testing income while the equipment is being repaired.

### Solution

The company's team met with Exergen Global and together they designed a thermal management solution that would measure the heating element temperature, during operation, in real-time. They used an adjustable IRt/c attached to a custom control card with programmed logic to maintain safe operating heating element temperatures in real-time. The team installed the sensor away from the heater and protected it with a site glass. Exergen factored the optical characteristics of the site glass into the sensor's calibration to ensure the utmost repeatability.

### Benefits

Executives from the company found that Exergen's thermal management solution provided the speed, reliability and repeatability that's essential to protect its customers' investment in their equipment and ensure maximum uptime. They reported that the Exergen IR sensors have worked perfectly and saved the day a number of times.

"The electric air heating solutions company has been using Exergen's reliable, self-powered IRt/c's for years with a range of its applications. As a result, they are very confident in our product and our abilities, so when they had a complex problem that they had to solve, they came to us," said Robert Harris, Industrial Sales/ Corporate Marketing Manager Exergen. "We sat down to discuss their needs and reviewed drawings, parameters, and conditions. Then we built a custom IRt/c product that did the trick for them. That's how our team works with our partners, we all work together, brain storm and find solutions!"



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