

High Wattage Polyimide Heater for Molecular/DNA and P.O.C. Instruments



FLEX | RIGID FLEX | HEATERS | ASSEMBLY

All Flex Solutions Inc. | Phone: (612) 351-6009 | Toll-Free: (866) 341-4815



Application:

Using small high wattage heaters in medical instruments

All Flex's customer base for Medical Diagnostic, DNA Testing, P.O.C. instruments and Cancer Diagnostics have been consistently needing to accommodate faster test results while also making their instruments and the corresponding thermal systems smaller. This has resulted in the need for higher wattage heaters other than the traditional Kapton, polyimide, or silicone rubber heaters commonly available on the market. All Flex has come up with a solution for this particular problem: etched foil heaters.

One of the greatest demands on a etched foil flexible heater is with rapid warm-up and high wattages. All Flex has tested our high watt heaters up to 120 watts per square inch, which is 50% higher watt density compared to the next highest available. These tests result showed that etched foiled heaters stood up against the demands of Molecular Diagnostic/DNA testing, where fast warm-up and rapid cool down is required, with no degradation after 100,000 thermal cycles.

Test Results After 100,000 Cycles	
1KV Dielectric	PASS
Voiding or Delamination	NONE
Resistance Change	NONE
Conductor Cracking or Damage	NONE

CAPABILITIES:

- 120 watts per square inch at 100 degrees Celsius
- 18 watts per square centimeter at 100 degrees Celsius
- Voltage range 5V to 240V
- Max temperature: 500F/260C
- Available with RTD's, Thermistors, and Thermocouples
- Can be supplied with lead wires, ZIF termination or SMT connectors
- RoHS compliant
- Meets UL94 V-0 Flammability
- Maximum size: 22" by 22" / 560mm by 560mm
- Profiling for uniform thermal system performance

Disclaimer:

Data presented for informational purposes only. Actual values and/or usage is for reference. Contact All Flex for details.

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