

Pipette Heater

Complete pipette temperature accuracy for critical testing.



Overview

- Localized heat from a profiled etched heater provides $\pm 1^{\circ}\text{C}$ or better liquid dispensing temperature to maintain critical accuracy in medical diagnostic equipment
- Thin and lightweight; etched heaters allow the robotics in analyzers to seamlessly move without slowing transfer times.
- One-stop shopping lowers total cost of ownership (TCO) through lowered installation time ("plug and play"), higher reliability and longer lifetime.
- Precise heat control during sample transfer processes enables one analytical device to handle multiple testing standards
- Can wrap entirely around pipettes
- Fast warm-up time
- Can be customized to fit any application
- Optional integrated sensors, controllers, and flex circuits

Application

The pipette heater maintains an accurate temperature of the critical fluids in a pipette during the fluid transfer in a test system. The pipettes are then able to keep the fluids at the desired testing temperature. This feature allows for precision mixing and accurate reading of biological chemistry.

The thin profile of the heater is ideal for saving space and weight. The fast warm-up time and uniform thermal distribution reduce the need for additional strip heaters, fans and supporting framework within the system.

Specifications

Temperature range: -45 to 150°C

Heating element: Etched-foil

Insulation material: Polyimide film/acrylic

Resistance tolerance: $\pm 10\%$ standard (down to $\pm 5\%$ is possible)

Dielectric strength: 500 volts

Operating voltage: Dependant on application; typically 24 VDC

Power rating: up to 20 watts/in² (3.1 watts/cm²)

Minimum bend radius: 0.030" (0.8mm)

Power terminations: leadwires, solder pads or flex lead

Overall thickness: 0.008" (0.2mm) over element, 0.050" (1.3mm) over leads

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