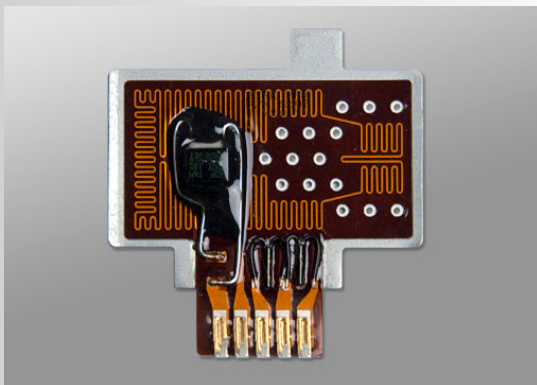
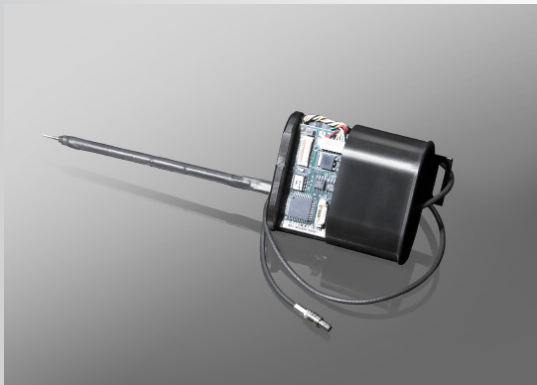
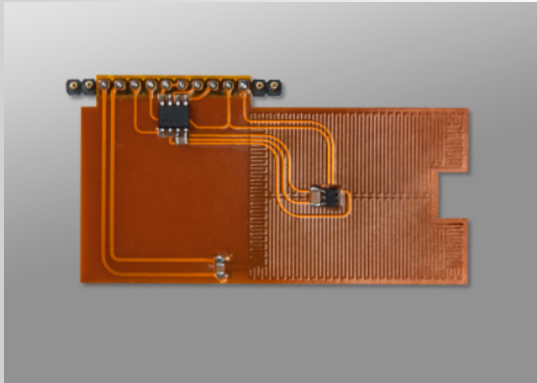


Thermal Systems for the Medical Industry



Birk Heaters are Designed to:

- **Replicate body (or higher) temp for body fluid testing**
- **Merge heat and sensors into surgical tools**
- **Fit small surface areas with heat contact**
- **Provide very even heat distribution**

Innovating to Support Medical Industry Leaders

Birk supplies many types of heaters to leaders in the medical device industry. These heating systems are designed to keep materials under test within precise temperature specifications to help ensure system accuracy. Birk heaters are typically made of Kapton® polyimide film and are optimized for each application. We provide complete assemblies, using a process that is managed entirely in-house, in order to give our customers plug-in capability of a more complete part. We provide mechanical attachment to machined parts and Gold/Nickel plating is available to resist corrosion or oxidation. In-house testing is available to verify compliance with medical industry standards. Some proven applications include:

— **Blood Analyzers**

Birk makes custom polyimide film heaters for reagent testing. We build heaters to fit Teflon tubing and machined parts and provide both standard and custom thin film sensors to fit the parameters of the user's control system.

— **Hemostasis Management**

Birk develops innovative polyimide film heaters to fit small surface areas with close heat contact around multiple openings. Sensors are specified to our customers' end need.

— **Small Heater Assemblies**

Birk has heater design capability to less than 0.040" diameter and sensor capability down to 44g wire. Heaters can be housed in polyimide film tubing and are made of polyimide film or silicone. Low out-gassing heaters are available up to 60 inches in length.

— **Surgical Tool Assembly**

We have designed unique heaters with flex heater/flex circuit integration providing power and signals to the same connection, manufactured to provide mechanical adhesion to the surgical tool in-house.

Custom Designs. Prototypes. Fast.

Birk specializes in "engineered solutions", not ordinary products you can get elsewhere. Our design team thrives on developing innovative approaches to complex problems. Our continuing implementation of Lean Processes allows us to deliver prototypes in days or weeks, where others quote months. Each thermal system is custom designed to meet the specific requirements of each integrated circuit under test.

What Can Birk Do For You?

For more information visit www.birkmfg.com, call 860.739.4170 or email sales@birkmfg.com