Thermocouples

Surface Temperature Measurement

Watlow's MICROCOIL™, Radio Frequency Thermocouple Probe (TR), Tapered Thermocouple Probe and True Surface Thermocouple (TST) all incorporate isothermal physical principles to achieve superior surface temperature measurement. The isothermal design provides accurate sensing because the areas of the sensor that are exposed to normal process variances are positioned outside the thermal gradient.

These four sensor technologies are now available as standard products that can be ordered in a variety of options. Proven standard technologies will help to shorten design cycles on next generation tool and process technologies.

MICROCOIL™

MICROCOIL surface sensors are ideal for measuring chuck, internal wall, chip, heat sinks and circuit temperatures. The flexible probe design positions the sensor tip for optimal surface contact and isothermal response and accuracy.

Radio Frequency Thermocouple Probe (TR)

TR immersion sensors are designed to reduce transient 13.56 MHz signals from being transmitted on the sensor leads in plasma environments. This results in a more stable and accurate measurement of chuck temperature.

TRUE SURFACE Thermocouple (TST)

TST is a surface sensor designed to reduce error in atmospheric applications where air currents can cause instability in temperature accuracy. A winner of *Control Engineering's* 2000 Editor's Choice Award, the TST achieves superior accuracy through a combination of isothermal design and shielding.