THERMOMETRICS
A COMMITMENT TO EXCELLENCE

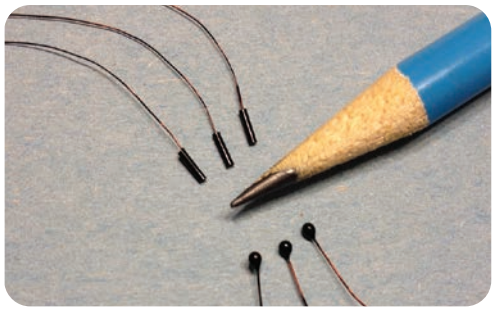
Application Spotlight

Fluid Temperature Sensors for Medical Applications

Medical applications can demand and require the ultimate in accurate and reliable monitoring of critical temperature measurement. Monitoring fluid temperature adds the complexity of protecting the temperature sensor from the fluid while not restricting its flow. Application examples include Hemodialysis, Polymerase Chain Reaction (PCR) thermal cyclers, and Sterilization of medical equipment.

Hemodialysis is a process that uses a medical filtration device to remove waste and water from a person's blood stream. Multiple fluid temperature measurements are required including blood, dialysate, and disinfectant solution temperatures. These critical temperatures ensure the success of the process for the patient's health and for the long-term use of the device itself. PCR thermal cyclers amplify or copy segments of DNA providing valuable diagnostic information for molecular biology and viruses. Precise temperature control is a key to heating DNA segments for amplification, with sensors allowing for real-time temperature measurement or system calibrations.

Sterilization of reusable medical equipment is vital in protecting patients from the transmission of dangerous infections. Water and detergent solutions are maintained at precise temperatures insuring proper cleaning and disinfection.

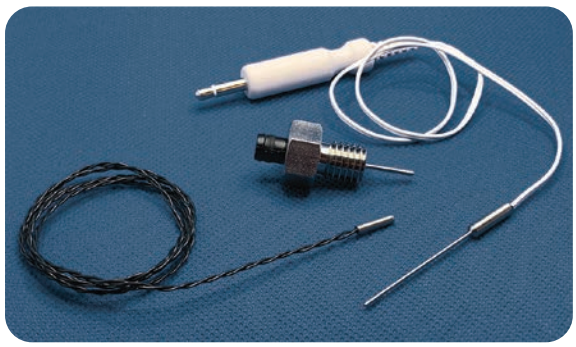


How do we help?

Amphenol Advanced Sensors carries an extensive line of Thermistors and finished probe assemblies that meet the small size and tight temperature tolerance requirements for these critical applications. Over the last 50 years our Thermistors have been used in temperature measurement and control applications with the added assurance of long-term stability and reliability.

Customization and Value Add Engineering – Making us the right choice!

What sets Amphenol Advanced Sensors apart is our ability to offer custom packaged assemblies. Our engineering expertise allows us to work directly with your technical team to customize a required R vs T curve, package style, or mating connection, and our attention to thermodynamic properties in the assembly design is critical for matching your measurement protocol. Whether providing NTC/PTC thermistors, IR Sensors, sub-assemblies, or a fully integrated solution , our team is ready to partner with you.



Product Offerings for Fluid Temperature Applications:

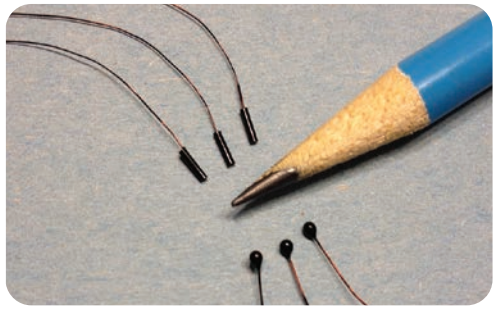
NTC Thermistors:

Product prefix: MC65, SC50, SC30

R25: 2252 to 100K ohms

Tolerance: ±0.05°C @ 37°C (A-tolerance)
±0.1°C from 0°C to 70°C (V-tolerance)

Max OD: 0.065” (MC65), 0.050” (SC50), 0.032” (SC30)



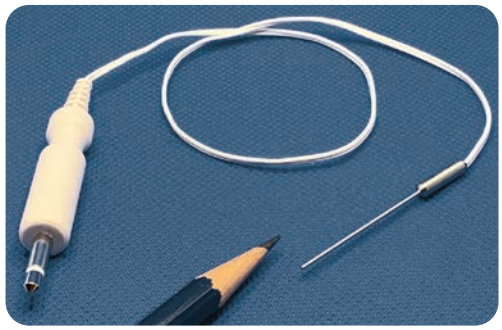
Customizable Assembly Styles:

Product prefix: A212

Tip: 0.036” OD x 1.3” L

300 series stainless steel

Tip transitions to 0.12” OD hub for larger wires supporting connectors



Product prefix: A266

Tip: 0.085” OD x 0.40” L

300 series stainless steel

Product prefix: A276

Tip: 0.0625” OD x 0.85” L

300 series stainless steel

Product prefix: A277

Tip: 0.050” OD x 0.60” L

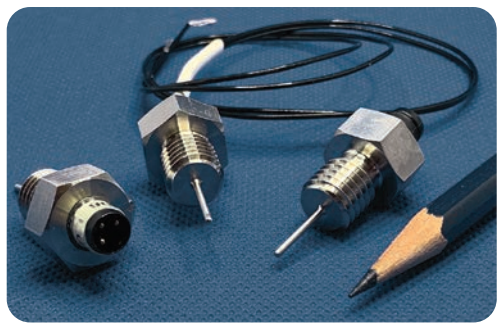
300 series stainless steel

Product prefix: A648

Tip: 0.050” OD x 0.5” L

M10 x 1.5 thread

300 series stainless steel



Medical Disclaimer “You are hereby advised that Amphenol Advanced Sensors has not performed any biocompatibility or clinical testing of these products. The responsibility to ensure that all products comply with all applicable federal, state, and local laws lies with the OEM manufacturer or user.”

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www.amphenol-sensors.com

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