



Application Spotlight

Temperature Sensors in Catheter Applications

A catheter by definition is a tube that is inserted into the body, which serves many different functions during various medical procedures. Applications such as Cardiac Output, Cardiac Ablation, and Urinary Bladder Monitoring employ different style catheters equipped with high precision thermistors for tight temperature measurements.

Cardiac Output catheterization with the Thermodilution method uses the thermistor inside the catheter to measure the temperature of the blood flowing through the heart allowing the physician to diagnose and treat cardiovascular conditions related to decreased blood flow or blockages in the heart. During a Cardiac Ablation procedure to correct heart rhythm problems an Esophageal catheter will be inserted into the patient's esophagus. The thermistor inside the Esophageal catheter will monitor temperature changes related to the ablation procedure allowing for better clinical decisions and preventing injury to the esophagus. Foley catheters allow continuous drainage of urine from patients, and the thermistor inside the catheter provides an accurate measurement of core body temperature. This temperature measurement provides valuable information for detecting infection, inflammation, cardiac events, and internal bleeding.



How do we help?

Amphenol Advanced Sensors carries an extensive line of Thermistors and finished probe assemblies that meet the wide variety of application and temperature range requirements in these various catheter applications. Over the last 50 years our Thermistors have been used in all temperature measurement and control applications with the added assurance of long-term stability and reliability.

Customization and Value-Added Engineering - Making Us the Right Choice!

What sets Amphenol Advanced Sensors apart is our ability to offer custom packaged assemblies. Our catalog thermistor products will match the expected resistance versus temperature curves and connections required for the medical industry-standard patient monitors that exist today. Our engineering expertise in this application 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 completed device, our team is ready to partner with you.



Product Offerings for Catheter Applications:

Cardiac Output Catheterization:

Type GC / NTC Thermistors

Product prefix: GC11, GC14

R37: 14004 ohms

Max OD: 0.012" (GC11), 0.016" (GC14)



Type AB / NTC Thermistor Assemblies

Product prefix: AA, AB, AN, A9

Small packages to fit standard lumens

Various lead lengths available

Max OD: 0.022" typical, 0.0125" special



Esophageal and Foley Catheters:

Type MA Thermistor Assemblies

Product prefix: MA100BF, MA100GG

R25: 2252 ohm (400 Series Compatible), 10K ohm

Max OD: 0.030" (MA100BF), 0.080" (MA100GG)

Various lead lengths available



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."

Amphenol
Advanced Sensors

www.amphenol-sensors.com

© 2021 Amphenol Corporation. All Rights Reserved. Specifications are subject to change without notice. Other company names and product names used in this document are the registered trademarks or trademarks of their respective owners.

AAS-930-292A 12/2021