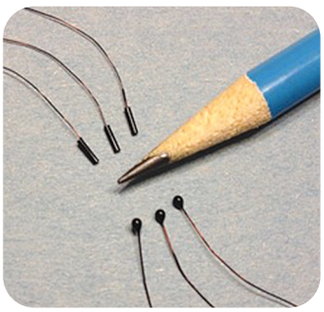
THERMOMETRICS
A COMMITMENT TO EXCELLENCE
AN AMPHENOL COMPANY

Application Spotlight

Temperature Sensors in In Vitro Diagnostic Analyzers

In Vitro Diagnostic (IVD) analyzers demand and require the ultimate in accurate and reliable monitoring of critical temperature measurement. Examples of these medical analyzers include Polymerase Chain Reaction (PCR) thermal cyclers, DNA sequencers, Hematology, Clinical Chemistry, and Microbiology. 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. DNA sequencers enable genetic profiling, allowing researchers to identify pathogens, treat disease, and design pharmaceuticals. They require high precision, fast responding, and extremely stable temperature sensors to maintain the biochemical reactions involved.

Hematology analyzers measure and or count blood cells, platelets, hemoglobin, and other blood traits, Clinical Chemistry analyzers test biological fluids to assess metabolic function, and Microbiology analyzers identify infection causing items such as viruses, bacteria, and fungi from blood or tissue samples, all designed for disease detection, diagnosis, monitoring, and proper treatment. Accurate temperature monitored by sensors in these analyzers maintain physical properties or facilitate correct biochemical reactions of the samples, ensuring proper and reliable diagnostic results.

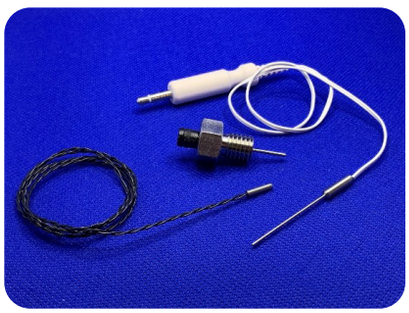


How do we help?

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.



Amphenol
Sensors

Product Offerings for IVD Analyzer Applications

Type SC

Description	SKU	R @ 25°C (Ω)	Res. Tol. @ 37°C	25/85 Beta	Figure	"A" (OD max)	"B" (Sleeve Length)	"C" (Total Length)	Lead Type
SC30F232VN	508845	2252	±0.10°C	3969K	1	0.032"	0.245" ref	1.50" min	#38 AWG Ni
SC30F103AN	508696	10K	±0.05°C	3969K	1	0.032"	0.075" ref	1.50" min	#38 AWG Ni
SC30F103VN	508063	10K	±0.10°C	3969K	1	0.032"	0.110" ref	1.50" min	#38 AWG Ni
SC30F103VN-L100	508850	10K	±0.10°C	3969K	1	0.032"	0.110" ref	4.00" min	#38 AWG Ni
SC30F103VN-L150	508851	10K	±0.10°C	3969K	1	0.032"	0.110" ref	6.00" min	#38 AWG Ni
SC30F103VN-L200	508852	10K	±0.10°C	3969K	1	0.032"	0.110" ref	7.90" min	#38 AWG Ni
SC30Y103WN	508064	10K	±0.20°C	3690K	1	0.032"	0.110" ref	1.50" min	#38 AWG Ni
SC50F103VN	508698	10K	±0.10°C	3969K	1	0.050"	0.110" ref	3.00" min	#32 AWG Cu
SC50G104WN	508758	100K	±0.20°C	4252K	1	0.050"	0.110" ref	3.00" min	#32 AWG Cu

Type MA100

Description	SKU	R @ 25°C (Ω)	Res. Tol. @ 37°C	25/85 Beta	Figure	"A" (OD max)	"B" (Sleeve Length)	"C" (Total Length)	Lead Type
MA100BF232XN	508549	2252	±0.10°C	3969K	1	0.030"	0.245"±0.010"	24" min	#38 AWG Ni
MA100BF103AN	508576	10K	±0.05°C	3969K	1	0.030"	0.200" max	24" min	#38 AWG Ni
MA100GG232CN	508650	2252	±0.15°C	3969K	2	0.080"	0.375" max	37" min	#28 AWG SPC
MA100GG103AN	508126	10K	±0.05°C	3969K	2	0.080"	0.375" max	37" min	#28 AWG SPC

Type MC

Description	SKU	R @ 25°C (Ω)	Res. Tol. @ 37°C	25/85 Beta	Figure	"A" (OD max)	"B" (Sleeve Length)	"C" (Total Length)	Lead Type
MC65F232AN	508195	2252	±0.05°C	3969K	3	0.065"	0.175" ref	3.00"	#38AWG Ni
MC65F502BN	508197	5000	±0.10°C	3969K	3	0.065"	0.175" ref	3.00"	#38AWG Ni
MC65F103AN	508199	10K	±0.05°C	3969K	3	0.065"	0.175" ref	3.00"	#38AWG Ni
MC65Y103CN	508202	10K	±0.15°C	3690K	3	0.065"	0.175" ref	3.00"	#38AWG Ni
MC65H303AN	508203	30K	±0.05°C	3936K	3	0.065"	0.175" ref	3.00"	#38AWG Ni
MC65G503AN	508204	50K	±0.05°C	4252K	3	0.065"	0.175" ref	3.00"	#38AWG Ni
MC65G104AN	508207	100K	±0.05°C	4252K	3	0.065"	0.175" ref	3.00"	#38AWG Ni
MC65Y104AN	508476	100K	±0.05°C	3699K	3	0.065"	0.175" ref	3.00"	#38AWG Ni

Type AB

Description	SKU	R @ 37°C (Ω)	Res. Tol. @ 37°C	25/50 Beta	Figure	"A" (OD max)	"B" (Sleeve Length)	"C" (Total Length)	Lead Type
AB6B2-GC14KA143L/37C	500804	14004	±15%	3500K	1	0.022"	0.090"±0.010"	72.0" min	#38AWG Ni
AB6B2-GC16KA143E/37C	500812	14004	±0.5%	3500K	1	0.022"	0.090"±0.010"	72.0" min	#38AWG Ni
AB6N2-GC14KA143E/37C	500891	14004	±0.5%	3500K	1	0.019"	0.060"±0.005"	72.0" min	#38AWG Ni
AA6B4-GC11KA143L/37C	507894	14004	±15%	3500K	4	0.014"	0.090"±0.010"	72.0" min	#40AWG Ni
A96N4-GC11KA143L/37C	508451	14004	±15%	3500K	4	0.0125"	0.055"±0.005"	72.0" min	#44AWG Cu
AN6N4-GC11KA143L/37C	508453	14004	±15%	3500K	4	0.0125"	0.055"±0.005"	72.0" min	#44AWG Ni

Type A266

Description	SKU	R @ 25°C (Ω)	Res. Tol. @ 37°C	25/85 Beta	Figure	"A" (OD max)	"B" (Sleeve Length)	"C" (Total Length)	Lead Type
A266T	508849	10K	±0.05°C	3969K	5	0.085"	0.400"±0.015"	24" min	#30 AWG SPC

Figure 1 Figure 2 Figure 3 Figure 4 Figure 5

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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