

# Temperature Sensors for Ablation Procedures

## Precise Heat Energy Control

Ablation, a corrective procedure that involves removal of faulty tissue, can involve abrasion, surgery, or heating by laser or RF energy. Applications include cardiac, endometrial, tumor, bone marrow and brain tissue ablation, as well as roto-ablation to clean blood vessels. Ablation procedures that use heat to correct damaged tissue must control the heat energy precisely to prevent undesired tissue damage.

GE Sensing & Inspection Technologies' fine wire thermocouples and AB6 thermistor subassemblies enable precision heat control. NTC Type AB6 thermistor assemblies consist of small GC (chip-in-glass) or thermobeads that are welded to insulated extension leads. The sensing elements and weld connections are then covered in one of several insulation types to form a fully insulated sub assembly ready for insertion into hypodermic needles, catheters or other small housings that require extended leads.



### Features and Benefits

- Extremely small size, fast response
- Reliable, accurate performance
- Wide range of custom packaging
- Designed for sterilization
- Interchangeable for single use (optional)

### Typical Applications

- Cardiac ablation control
- Endometrial ablation control
- RF and laser surgery
- Tumor and brain tissue ablation
- Cosmetic surgery
- Prostate surgery



# Technical Specifications

Miniature, fully insulated Type T thermocouples and AB6 NTC subassemblies ready for installation into ablation devices.

	NTC	T/C
Temperature accuracy	±0.1 °C	±1.0 °C
Temperature range	0°C to 70°C	
R-T Curves	14K @ 37°C*	Type T
Sizes	Down to 44 gage wire size	
Response time (secs., water)	0.150	<0.100
Can be ETO, autoclave, e-beam sterilized		
*Other ranges and curves available.		



## Standard Sizes of NTC Type AB6 Thermistor Assemblies

Thermistor Type	Type Thermistor Diameter in (mm)								
		A8	B2	B4	C8	D2	E3	E5	E8
BR11	0.012 (0.30)	0.014 (0.35)	0.018 (0.45)	0.014 (0.35)	0.022 (0.55)	0.034 (0.86)	0.020 (0.50)	0.022 (0.55)	0.024 (0.60)
BR14	0.016 (0.40)	0.016 (0.40)	0.021 (0.53)	0.016 (0.40)	0.024 (0.60)	0.036 (0.91)	0.022 (0.55)	0.025 (0.63)	0.027 (0.68)
BR16	0.017 (0.43)	0.017 (0.43)	0.022 (0.55)	0.017 (0.43)	0.025 (0.63)	0.037 (0.93)	0.023 (0.58)	0.026 (0.66)	0.028 (0.71)
BR23	0.025 (0.63)	0.025 (0.63)	0.032 (0.81)	0.025 (0.63)	0.033 (0.83)	0.045 (1.14)	0.031 (0.78)	0.036 (0.91)	0.038 (0.96)
BR32	0.033 (0.83)	0.033 (0.83)	0.040 (1.01)	0.033 (0.83)	0.041 (1.04)	0.053 (1.34)	0.039 (0.99)	0.044 (1.11)	0.046 (1.16)
BR42	0.046 (1.16)	0.046 (1.16)	0.053 (1.34)	0.046 (1.16)	0.054 (1.37)	0.066 (1.67)	0.052 (1.32)	0.057 (1.44)	0.059 (1.49)
BR55	0.060 (1.52)	0.060 (1.52)	0.070 (1.77)	0.060 (1.52)	0.068 (1.72)	0.080 (2.03)	0.066 (1.67)	0.074 (1.87)	0.076 (1.93)
GC 11	0.012 (0.30)	0.014 (0.35)	0.018 (0.45)	0.014 (0.35)	0.022 (0.55)	0.034 (0.86)	0.020 (0.50)	0.022 (0.55)	0.024 (0.50)
GC 14	0.016 (0.40)	0.016 (0.40)	0.021 (0.53)	0.016 (0.40)	0.024 (0.60)	0.036 (0.93)	0.022 (0.55)	0.026 (0.63)	0.027 (0.68)
GC 16	0.017 (0.43)	0.017 (0.43)	0.022 (0.55)	0.017 (0.43)	0.025 (0.63)	0.037 (0.93)	0.023 (0.58)	0.026 (0.66)	0.028 (0.71)
GC 32	0.033 (0.83)	0.033 (0.83)	0.040 (1.01)	0.033 (0.83)	0.041 (1.04)	0.053 (1.34)	0.039 (0.99)	0.044 (1.11)	0.046 (1.16)

Note: GE Sensing & Inspection Technologies is a sensor supplier to OEM manufacturers. We do not offer direct sales to clinics, hospitals, or end users.



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