

T H E R M O M E T R I C S
A C O M M I T M E N T T O E X C E L L E N C E

NTC Interchangeable Type SC Series Thermometrics Thermistors



Features

- Precision, solid state temperature sensor
- Epoxy filled sleeve for controlled diameter
- Interchangeability down to $\pm 0.18^{\circ}\text{F}$ ($\pm 0.10^{\circ}\text{C}$)
- Suitable for use over the range of -40°F to 302°F (-40°C to 150°C)
- High sensitivity greater than $-4\%/^{\circ}\text{C}$ at 77°F (25°C)
- Most popular Resistance (R) vs Temperature (T) curves are available
- Suitable for temperature measurement, control and compensation
- Ideal for medical applications
- Fully insulated
- Sleeved for good mechanical strength and resistance to solvents
- 0.008 in (0.2 mm) diameter heavy isomid insulated bifilar copper lead wires for SC50
- 0.004 in (0.1 mm) diameter heavy isomid insulated bifilar nickel lead wires for SC30

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Type SC30 Specifications

NTC Interchangeable Type SC30

Sleeved interchangeable chip thermistors with heavy isomid insulated nickel lead-wires.

Options

Consult Factory for Availability of Options

- Other resistance values in the range of 1000 Ω to 100 k Ω
- Other tolerances or ranges
- Alternative lead wires or lengths
- Non standard R vs T curves
- Controlled dimensions

Thermal and Electrical Properties

Dissipation Constant

Still air: 0.4 mW/ $^{\circ}$ C
Stirred oil: 3 mW/ $^{\circ}$ C

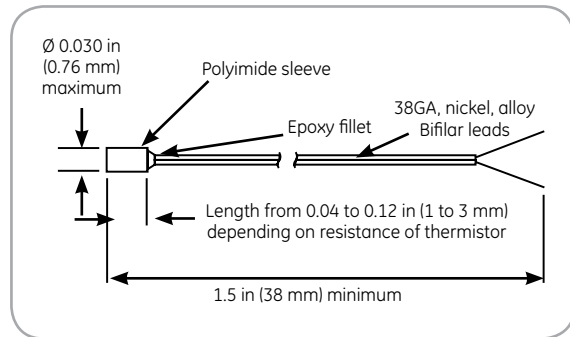
Thermal Time Constant

Still air: 5 seconds
Stirred oil: 0.3 seconds

Maximum Power at 77°F (25°C)

~30 mW

De-rated from 100% at 77°F (25°C) to 0% at 212°F (100°C)



NTC Interchangeable Type SC30 dimensions

Ordering Information

Select appropriate part number below for resistance and temperature tolerance desired.

$R_{25^{\circ}\text{C}}$	Material System	$\pm 0.18^{\circ}\text{F}$ ($\pm 0.1^{\circ}\text{C}$) 32°F to 158°F (0°C to 70°C)	$\pm 0.36^{\circ}\text{F}$ ($\pm 0.2^{\circ}\text{C}$) 32°F to 158°F (0°C to 70°C)
2252	F	SC30F232V	SC30F232W
3000	F	SC30F302V	SC30F302W
5000	F	SC30F502V	SC30F502W
10000	F	SC30F103V	SC30F103W
10000	Y	SC30Y103V	SC30Y103W
30000	H	SC30H303V	SC30H303W
50000	G	SC30G503V	SC30Y503W
100000	Y	SC30Y104V	SC30Y104W
100000	G	SC30G104V	SC30G104W

Notes:

1. For RoHS compliant product, please add the suffix "N" to the part label. *Example: SC30F103VN*
2. For RoHS compliant product with applications below 0°C, please add the suffix "H" to the part label. *Example: SC30F103VH*

Type SC50 Specifications

NTC Interchangeable Type SC50

Sleeved interchangeable chip thermistors with heavy isomid insulated copper lead wires.

Options

Consult Factory for Availability of Options.

- Other resistance values in the range of 1000 Ω to 100 k Ω
- Other tolerances or ranges
- Alternative lead wires or lengths
- Non standard R vs T curves
- Controlled dimensions

Thermal and Electrical Properties

Dissipation Constant

Still air: 0.5 mW/ $^{\circ}$ C
 Stirred oil: 0.4 mW/ $^{\circ}$ C

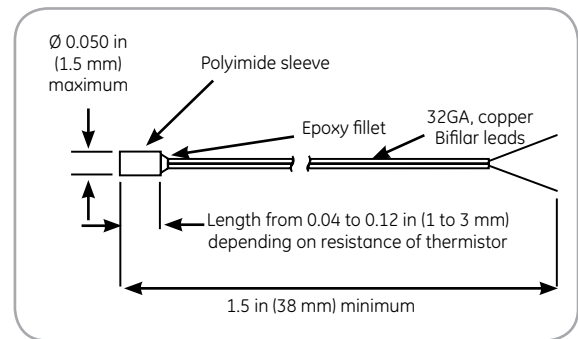
Thermal Time Constant

Still air: 8 seconds
 Stirred oil: 0.5 seconds

Maximum Power at 77°F (25°C)

~50 mW

De-rated from 100% at 77°F (25°C) to 0% at 212°F (100°C)



NTC Interchangeable Type SC30 dimensions

Ordering Information

Select appropriate part number below for resistance and temperature tolerance desired.

$R_{25^{\circ}\text{C}}$	Material System	$\pm 0.18^{\circ}\text{F}$ ($\pm 0.1^{\circ}\text{C}$) 32°F to 158°F (0°C to 70°C)	$\pm 0.36^{\circ}\text{F}$ ($\pm 0.2^{\circ}\text{C}$) 32°F to 158°F (0°C to 70°C)
2252	F	SC50F232V	SC50F232W
3000	F	SC50F302V	SC50F302W
5000	F	SC50F502V	SC50F502W
10000	F	SC50F103V	SC50F103W
10000	Y	SC50Y103V	SC50Y103W
30000	H	SC50H303V	SC50H303W
50000	G	SC50G503V	SC50Y503W
100000	Y	SC50Y104V	SC50Y104W
100000	G	SC50G104V	SC50G104W

Notes:

1. For RoHS compliant product, please add the suffix "N" to the part label. Example: SC50F103VN
2. For RoHS compliant product with applications below 0°C, please add the suffix "H" to the part label. Example: SC50F103VH

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AAS-920-307D-11/2014