

# Dual Element Stator Winding RTDs



## Overview

Dual element stator winding RTDs provide extra protection for motors and generators. The second element can be a back up in case of damage, or use one element for input to a temperature display at the machine and the other for control room monitoring.

Standard models are available with thickness options of 0.030" to 0.125", with sensing elements to match most instrumentation.

## Custom designs

Minco designs and builds custom models for many applications. We offer unmatched capabilities because we control all steps of the production from element to finished product. Examples of special options include:

- Thermocouple elements
- Thermistor elements (PTC or NTC)
- Dual sensors with different elements (for example, one copper and one platinum element)
- Ex rated sensors for equipment in hazardous areas. See page 8-2 for more information.
- Electrically conductive coating
- Special leadwire or cable

## Specifications

**Temperature limit:** 180°C (356°F), class H.

**Body material:** High temperature epoxy glass.

**Standard sizes:**

Thickness inches (mm)	0.030 (.76mm)	0.050 (1.3mm)	0.078 (2.0mm)	0.125 (3.2mm)
Length inches (mm)	2.0 to 35.0" (51 to 899 mm)	2.0 to 48.0" (51 to 1219.2 mm)		
Body width inches (mm)	0.425 to 1.065 (10.8 to 27.0 mm)	0.425 to 2.500 (10.8 to 63.5 mm)		

**Specify and order products at:**  
[www.minco.com/sensors\\_config](http://www.minco.com/sensors_config)

**Leadwires:** 2 or 3 (per element) stranded copper with PTFE or polyimide insulation. Other leadwire coverings available.

- 0.125" thick: AWG 18.
- 0.078" thick: AWG 22.
- 0.050" thick: AWG 26.
- 0.030" thick: AWG 30.

**Dielectric strength:** 3200 VRMS at 60 Hz, tested between the leads and external flat body surface for 1 to 5 seconds.

## Class H (180°C) RTDs

Element	Model for thickness:			
	0.030" *	0.050"	0.078"	0.125"
Platinum (0.00392 TCR) 100 Ω ±0.5% at 0°C	S9030PAPA	S9050PAPA	S9078PAPA	S9125PAPA
Platinum (0.00385 TCR) 100 Ω ±0.12% at 0°C (Meets EN60751, Class B)	S9030PDPD	S9050PDPD	S9078PDPD	S9125PDPD
Platinum (0.00385 TCR) 100 Ω ±0.5% at 0°C	S9030PEPE	S9050PEPE	S9078PEPE	S9125PEPE
Copper (0.00427 TCR) 10 Ω ±0.2% at 25°C	S9030CACA	S9050CACA	S9078CACA	S9125CACA
Nickel (0.00672 TCR) 120 Ω ±0.5% at 0°C	S9030NANA	S9050NANA	S9078NANA	S9125NANA

\*Model has a lead bulge 0.045" (0.11mm) thick, extending into the body a maximum of 0.62" (1.6mm).

## Specification and order options

S9078PAPA	Model number from table
120	<b>Body length:</b> Specify in 0.1" increments (Ex: 120 = 12.0")
T	<b>Leadwire insulation:</b> T = PTFE K = Polyimide
500	<b>Body width:</b> Specify in 0.001" increments (Ex: 500= 0.500")
Z	<b>Number of leads per element:</b> Y = 2 leads (PA, PE, NA only) Z = 3 leads
36	<b>Lead length in inches</b>
S9078PAPA120T500Z36 = Sample part number	

*Specifications subject to change*