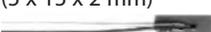
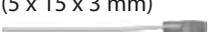
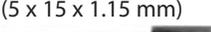
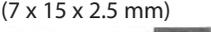
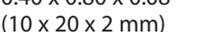
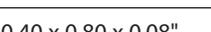


# Thermal-Tab™ and Thermal-Ribbon™ Sensors

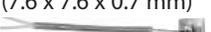
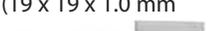
Install these compact sensors anywhere for accurate point sensing and fast response. All Thermal-Tab modules use a thin-film RTD element. All Thermal-Ribbon models conform to EN60751 Class B tolerance when ordered with a PD platinum element.

- Fast response surface sensing in aerospace, medical and industrial devices
- Rugged lamination construction
- Polyimide, silicone rubber or Mylar™ insulation
- All models are RoHS compliant

## Thermal-Tab Specifications

Dimensions W x L x T <sub>max</sub>	Element options	Insulation	Temperature range	Leadwires	Time constant*	Features	Model
0.20 x 0.50 x 0.08" (5 x 12 x 2 mm) 	PD, PF, PW	Polyimide with elastomer cover coat	-50 to 155°C -58 to 311°F	AWG 26, PTFE insulated	0.8 sec.	Stocked for immediate shipment	S665
0.20 x 0.60 x 0.08" (5 x 15 x 2 mm) 	PD, PF, PW, PS, NB, NA, NJ	Polyimide	-50 to 200°C -58 to 392°F	AWG 26, PTFE or polyimide insulated	1.0 sec.	Platinum models in stock	S17624
0.20 x 0.60 x 0.08" (5 x 15 x 2 mm) 	PD, PF, PW, PS	Polyimide film	-50 to 260°C -58 to 500°F	AWG 26, PTFE or polyimide insulated	0.4 sec.	Highest temperature capability	S100820
0.20 x 0.60 x 0.12" (5 x 15 x 3 mm) 	PD, PF, PW	Silicone rubber with elastomer cover and foil backing	-50 to 155°C -58 to 311°F	AWG 24, Silicone insulated	1.3 sec.	Waterproof; suitable for continuous immersion	S667
0.20 x 0.60 x 0.045" (5 x 15 x 1.15 mm) 	PD, PF, PW	Polyimide film	-50 to 200°C -58 to 392°F	AWG 26, PTFE or polyimide insulated	0.6 sec.	Thinnest profile	S100725
0.30 x 0.60 x 0.10" (7 x 15 x 2.5 mm) 	PD, PF, PW, PS, NB, NA, NJ	Polyimide film	-50 to 200°C -58 to 392°F	AWG 22, PTFE or polyimide insulated	1.2 sec.	Heavier leadwire for applications requiring ruggedized design	S100724
0.40 x 0.80 x 0.08" (10 x 20 x 2 mm) 	PD, PF, PW, PS, NB, NA, NJ	Polyimide film	-50 to 200°C -58 to 392°F	AWG 26, PTFE or polyimide insulated	0.9 sec.	Larger surface area for easier handling and maximum adhesive bond	S100723
0.40 x 0.80 x 0.08" (10 x 20 x 2 mm) 	PD, PF, PW, PS, NB, NA, NJ	Silicone rubber	-50 to 220°C -58 to 428°F	AWG 26, PTFE or polyimide insulated	1.5 sec.	High temperature rating, available with wide range of element options	S100721

## Thermal-Ribbon Specifications

0.20 x 1.50 x 0.030" (5.1 x 38.1 x 0.8 mm) 	FA	Polyimide	-200 to 200°C -328 to 392°F	AWG 34, PTFE insulated	0.15 sec.	Wire-wound nickel-iron for high resistance in small package	S38
0.30 x 0.30 x 0.025" (7.6 x 7.6 x 0.7 mm) 	PD, PE	Polyimide with foil backing	-200 to 200°C -328 to 392°F	AWG 28, PTFE insulated	0.15 sec.	Wire-wound element	S651
0.75 x 0.75 x 0.04" (19 x 19 x 1.0 mm) 	FA	Mylar	-200 to 150°C -328 to 302°F	AWG 30, PTFE insulated	0.3 sec.	Wire-wound nickel-iron flat element for high resistance	S25

Notes: T<sub>max</sub> is measured over the lead bulge. \*Time constant is in water at 1 m/sec.

## Specifications, continued

Leadwire insulation codes	
S25, S38, S651, S665, S667	Leave blank
S17624, S100721, S100723, S100724, S100725, S100820	T = PTFE insulated wires      K = Polyimide insulated wires

Specifications subject to change

## Sensing elements

Sensing element specifications**		Code
Platinum (0.00385 TCR) (EN60751, Class B)	100 Ω ±0.12% at 0°C	PD
Platinum (0.00385 TCR)	100 Ω ±0.22% at 0°C	PE
Platinum (0.00385 TCR)	1000 Ω ±0.12% at 0°C	PF
Platinum (0.00375 TCR)	1000 Ω ±0.12% at 0°C	PW
Platinum (0.00385 TCR)	10,000 Ω ±0.12% at 0°C	PS
Nickel-iron (0.00518 TCR)	604 Ω ±0.26% at 0°C	FA
Nickel (0.00618 TCR) (DIN43760 NI100, Class B)	100 Ω ±0.22% at 0°C	NB
Nickel (0.00672 TCR)	120 Ω ±0.50% at 0°C	NA
Nickel (0.00618 TCR) (DIN43760 NI1000, Class B)	1,000 Ω ±0.22% at 0°C	NJ

\*\* See table on previous page for element options on each model.

### Waterproof model

Model S667 is waterproof and suitable for continuous immersion. Use it to monitor the temperature of water in a tank or container, or on equipment that must withstand wash-down or immersion.

Check with Minco for suitability in other liquids.



## Specifications and order options

S17624	Model number from table
PD	Sensing element from table
Z	Number of leads: Y = 2 leads      Z = 3 leads (N/A on S25, S38) X = 4 leads (N/A on S25, S38 or S665/S667)
T	Leadwire insulation code from table at left
24	Lead length in inches: S665/S667: 60" max.
A	Adhesive backing: A = No adhesive B = Pressure-sensitive adhesive (PSA)
Stop here for all models except S665 or S667. For models S665 and S667, add:	
C	Compliance: C = RoHS Compliance
S665PDY40AC = Sample part number	

Notes: PSA reduces temperature range to -20 to 177°C (-4 to 350°F) and adds 0.005" (0.1 mm) to thickness.

### Custom Thermal-Ribbon designs

Minco can custom-wind Thermal-Ribbon elements in virtually any shape and size. We can profile sensing elements to provide increased sensitivity in selected zones, and provide packaging to perfectly fit your applications.

Contact Access: Minco Sales and Support today to discuss your application.

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



### STOCKED PARTS

Model #	Sensor Insulation	Temp. Range	Time Constant	Sensing Element	# of Leadwires	Leadwire Insulation	Lead Length	Pressure Sensitive Adhesive Backing	RoHS Compliant	Stock Part #
S665	Polyimide w/ Elastomer Cover Coat	-50 to 155° C -58 to 311° F	0.8 Sec	PD	2	PTFE	40"	No	Yes	S665PDY40AC
					3	PTFE	40"	No	Yes	S665PDZ40AC
					2	PTFE	40"	Yes	Yes	S665PDY40BC
				PF	3	PTFE	40"	Yes	Yes	S665PDZ40BC
					2	PTFE	40"	No	Yes	S665PFY40AC
						PTFE	40"	Yes	Yes	S665PFY40BC
S667	Silicone Rubber w/ Elastomer Cover and Foil Backing	-50 to 155° C -58 to 311° F	1.3 Sec	PD	3	Silicone	40"	No	Yes	S667PDZ40AC
					2	Silicone	40"	No	Yes	S667PDY40AC
					3	Silicone	40"	Yes	Yes	S667PDZ40BC
				2	Silicone	40"	Yes	Yes	S667PDY40BC	
				PD	3	PTFE	40"	Yes	Yes	S17624PDZT40B
S17624	Polyimide	-50 to 200° C -58 to 392° F	1.0 Sec	PF	2	PTFE	40"	Yes	Yes	S17624PFYT40B
					PTFE	40"	No	Yes	S17624PFYT40A	
				PD	2	PTFE	40"	Yes	Yes	S17624PDYT40B
					PTFE	40"	No	Yes	S17624PDYT40A	
					3	PTFE	40"	No	Yes	S17624PDZT40A
					S38	Polyimide	-50 to 200° C -58 to 392° F	0.15 Sec	FA	2
S651	Polyimide w/ Foil Backing	-50 to 200° C -58 to 392° F	0.15 Sec	PD	3	PTFE	24"	No	Yes	S651PDZ24A
					2	PTFE	24"	No	Yes	S651PDY24A
S25	Mylar	-50 to 200° C -58 to 392° F	0.3 Sec	FA	2	PTFE	36"	Yes	Yes	S25FAY36B

Note: Available up to 10 pieces or contact Minco Customer Service

Specifications subject to change

