

TE-6000 Series

# Temperature Sensing Element



## Description

TE-6000 Series elements typically work with TE-6001 hardware assemblies to satisfy a wide variety of temperature-sensing applications. All models have nickel elements except the TE-6359-1 platinum element model.

Elements and hardware are usually ordered separately and field assembled to suit the desired application. Refer to *TE-6001 Hardware Assemblies for TE-6000 Temperature Elements Product/Technical*

*Bulletin (LIT-216300)* for available hardware configurations and *TE-6100 Series Temperature Sensors and Completed Sensor/Hardware Assemblies Product/Technical Bulletin (LIT-216310)* for available factory assembled units.

## Features

- accurate sensing elements provide excellent performance in a wide variety of control applications

- numerous element styles satisfy a variety of temperature-sensing applications: surface (TE-6000-10), solar (TE-6000-6), and discharge (TE-6000-5)
- bearing sensing element (TE-6000-11 only) monitors bearing temperature to optimize equipment use and maintenance

## To Order

To order a replacement, contact the nearest Johnson Controls representative. Specify the code number from the selection chart. For more information about mounting hardware, see: *TE-6001 Hardware Assemblies for TE-6000 Temperature Elements Product/Technical Bulletin (LIT-216300)*.

## Selection Chart

Code Number	Description
TE-6000-1 (a)	1,000 ohm nickel element
TE-6000-2 (a)	500 ohm nickel element
TE-6000-3 (a)	333 ohm nickel element
TE-6000-5	50 ohm nickel element, $\pm 2.0\%$ accuracy at 70°F (21°C)
TE-6000-6 (a)	1,000 ohm nickel (used in solar heating applications)
TE-6000-10 (a)	1,000 ohm nickel surface element (encased in aluminum mounting block)
TE-6000-11 (a)	1,000 ohm nickel bearing element (encased in a brass tube)
TE-6000-100 (b)	1,000 ohm nickel wide range element, -50 to 250°F (-46 to 121°C)
TE-6000-101 (b)	1,000 ohm nickel narrow range element, 55 to 85°F (13 to 29°C)
TE-6359-1	1,000 ohm platinum element, $\pm 0.06\%$ accuracy at 32°F (0°C)

(a) Accuracy:  $\pm 1.0\%$  at 70°F (21°C).

(b) Accuracy:  $\pm 0.1\%$  at 70°F (21°C)

## Accessories

Code Number	Description
TE-6001-1	Duct Temperature Element Holder with Handi-Box
TE-6001-2	Housing for Outside Air Temperature Sensing Element
TE-6001-3	Handi-Box, Packing Nut, and Fittings for Use with WZ-1000 Wells
TE-6001-4	Single/Dual Element Holder for TE-6000 Elements in Room Temperature Sensing Applications
TE-6001-5	Dew Point Sensor Kit
TE-6001-6	Ten Adhesive Mounting Pads for Use with T-4100, T-4110
TE-6001-7	Ten Clips for Use with T-4002/4003 and H-4100/5100
TE-6001-11	Duct Temperature Element Holder (Less Handi-Box)

## Specifications

TE-6000 Series Temperature Sensing Element		
Sensing Range	TE-6000-6:	-40 to 350°F (-40 to 177°C)
	TE-6000-10:	0 to 125°F (-18 to 52°C)
	TE-6000-101:	55 to 85°F (13 to 29°C)
	All Other Models:	-50 to 250°F (-46 to 121°C)
Element	TE-6359-1:	Platinum
	All other models:	Nickel
Resistance Tolerance at 70°F (21°C)	TE-6000-1, -2, -3, -6, -10, -11:	$\pm 1.0\%$
	TE-6000-5:	$\pm 2.0\%$
	TE-6000-100:	$\pm 0.1\%$ , range of -50 to 250°F (-46 to 121°C)
	TE-6000-101:	$\pm 0.1\%$ , range of 55 to 85°F (13 to 29°C)
Temperature Coefficient (All Positive and Approximate)	TE-6359-1:	$\pm 0.06\%$ (platinum, DIN Class A)
	Nickel:	0.15, 1.0, 1.5 and 3 ohms/F° (0.27, 1.8, 2.7, and 5.4 ohms/C°) for 50, 333.3, 500 and 1,000 ohm elements respectively
Reference Resistor	At 32°F (0°C) TE-6359-1:	1,000 ohms (platinum)
	At 70°F (21°C) TE-6000-1, -6, -10, -11, -100, -101:	1,000 ohms (nickel)
	TE-6000-2:	500 ohms (nickel)
Temperature Range	TE-6000-3:	333.3 ohms (nickel)
	TE-6000-5:	50 ohms (nickel)
	TE-6000-6:	-40 to 350°F (-40 to 177°C)
	TE-6000-10:	0 to 125°F (-18 to 52°C)
Sensor Construction	TE-6000-101:	55 to 85°F (13 to 29°C)
	All other models:	-50 to 250°F (-46 to 121°C)
	TE-6000-6:	Black Anodized Aluminum Probe
Field Connection	TE-6000-10:	Aluminum Probe
	TE-6000-11:	Brass Probe
	All Other Models:	Copper Probe
Two wire leads, 18 AWG		

TE-6000 Dimensions, in. (mm), except where Indicated

***TE-6000 Series Temperature Sensing Element (Continued)***