# **Type TN Lab Grade Low TC Precision Film Resistors**

# Low TC of 5 ppm/°C, 10 ppm/°C, or 20 ppm/°C from 0°C to +70°C Tolerance of ±0.025%, ±0.05%, ±0.1%, to ±1%, Values from 1 Kohm to 1 Meg

Type TN Lab Grade Low TC Film Resistors were specifically developed for use in 0°C to +70°C applications which require a low temperature coefficient and a high degree of precision. These resistors combine the outstanding characteristics of Caddock's Tetrinox® resistance system with a space efficient, non-inductive, radial-lead design. These resistors are intended for precision analog designs where the system is not exposed to full military or space grade operating conditions. For full military or space grade operating conditions, we recommend Caddock's Type TK Low TC Precision Radial-Lead Film Resistors. For lab grade applications which require higher voltage ratings (up to 1,400 volts) and power ratings (up to 0.75 Watt), we recommend Caddock's Type TF Low TC Ultra-Precision Film Resistors.

The performance features of the Type TN Lab Grade Low TC Precision Film Resistors are:

- Low Temperature Coefficient 5, 10, or 20 ppm/°C.
- Ultra-Precision Tolerances from ±0.025% to ±1%.
- Resistance Range from 1 K to 1 Meg.
- Non-Inductive Design.
- · Radial-Lead Design conserves board space.

## Type TN Lab Grade Low TC Precision Film Resistors

Model No.	Temperature Coefficient ppm/°C	Wattage @ +70°C	Max. Working Voltage	Dielect. Strength	Resistance			
					Min.	Max.	Dimensions	Comments
TN130	5, 10, or 20	0.3	200	400	1 K	1 Meg	Ref. Case "A" Dwg.	
TN130V	5, 10, or 20	0.3	200	400	1 K	1 Meg	Ref. Case "C" Dwg.	With Standoff
TN137	5, 10, or 20	0.3	200	400	1 K	1 Meg	Ref. Case "B" Dwg.	

Temperature Coefficient Identification: 5 ppm/°C White Stripe; 10 ppm/°C No Stripe; 20 ppm/°C Green Stripe



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### Specifications:

**Resistance Tolerance:** ±0.025%, ±0.05%, ±0.10% or ±1.0%.

Absolute Temperature Coefficient:

5ppm/°C, 10ppm/°C, or 20ppm/°C referenced to  $+25^{\circ}$ C,  $\Delta$ R taken at 0°C and +70°C.

#### Load Life Stability at +70°C:



Shelf Life (Typical): 25 ppm/year.

Storage Temperature: -55°C to +105°C.

Encapsulation: Transfer Molded.

Leadwire: Tinned Copper.

#### **Derating Curve:**

