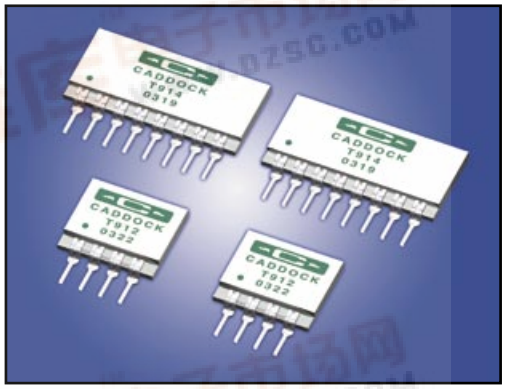
Type T912 and T914 Precision Resistor Networks

Resistor Pairs and Quads with Ratio Characteristics for Precision Analog Circuits

Type T912 and T914 Precision Resistor Networks are constructed with Caddock Tetrinox® resistance films to achieve the precise ratio performance and stability required by highly accurate amplifier circuits, voltage reference circuits, and precision bridge circuits.

- **Ratio Tolerance** - from 0.1% to 0.01%.
- **Ratio Temperature Coefficient** - 10 ppm/°C, 5 ppm/°C or 2 ppm/°C.
- **Absolute Temperature Coefficient** - 25 ppm/°C.
- **Ratio Stability of Resistance at Full Load for 2,000 hours** - within 0.01%.
- **Shelf Life Stability of Ratio for 6 Months** - within 0.005%.

Both the T912 and the T914 are available in 14 standard resistance values between 1K and 1 Megohm. Caddock's high thru-put manufacturing capability assures that prototype and large-volume production quantities are available either from stock or within 6 weeks after receipt of order.



Standard Type T912 and Type T914 Precision Resistor Networks

In addition to the 14 standard **equal value** models of the Type T912 and T914, the Type T912 can also be ordered with:

- **10:1 Resistance Ratio** - for use in amplifier gain-setting.
- **9:1 Resistance Ratio** - for use in voltage reference dividers.

Ordering Information: **T912 - A 10K - 010 - 02**

Model Number

Ratio Code Letter: *
A - T912 with R_1: R_2 where $R_2 = 10R_1$

1K:10K	10K:100K	40K:400K
2K:20K	20K:200K	50K:500K
5K:50K	25K:250K	100K:1 Meg

B - T912 with R_1: R_2 where $R_2 = 9R_1$

1K:9K	10K:90K	40K:360K
2K:18K	20K:180K	50K:450K
5K:45K	25K:225K	100K:900K

No Letter - T912 with $R_1 = R_2$
No Letter - T914 with $R_1 = R_2 = R_3 = R_4$

Ratio Temperature Track (0°C to +70°C):* -10 = 10 ppm/°C -05 = 5 ppm/°C -02 = 2 ppm/°C

Ratio Tolerance:* -100 = 0.10% -020 = 0.02% -050 = 0.05% -010 = 0.01%

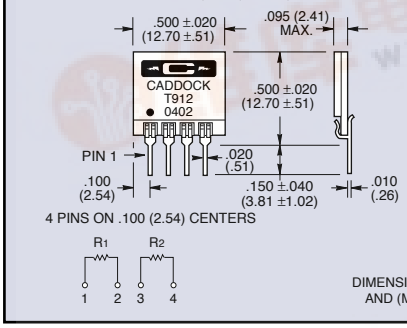
Standard Resistance Values:* (R_1)

1K	10K	40K	200K	500K
2K	20K	50K	250K	1 Meg
5K	25K	100K	400K	

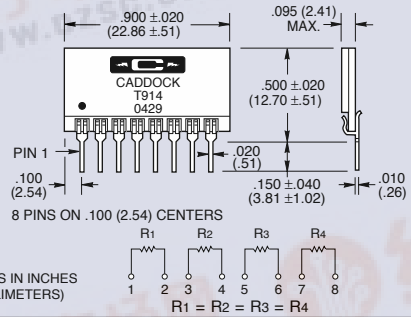
Special or mixed resistance values are available as custom networks. See the custom section at the bottom of this page.

* (This information appears on the back side of the network)

Type T912
Ratios Available: 1:1, 9:1, 10:1, and Custom.



Type T914
Ratios Available: 1:1 and Custom.



DIMENSIONS IN INCHES AND (MILLIMETERS)

$R_1 = R_2 = R_3 = R_4$

Specifications:

Absolute Tolerance: ±0.1% for all resistors.

Absolute Temperature Coefficient: 25 ppm/°C referenced to +25°C, ΔR taken at 0°C and +70°C.

Ratio Tolerance: Options for ratio tolerance are provided as shown in the Ordering Information panel.

Ratio Temperature Coefficient: Options for ratio temperature coefficient are provided as shown in the Ordering Information panel.

Voltage Rating: 30 volts DC or RMS AC applied to R_1, R_2, R_3 and R_4.

Power Rating: 0.10 watt applied to R_1, R_2, R_3 and R_4 (not to exceed rated voltage).

Package Power Rating: Type T912, 0.20 watt. Type T914, 0.40 watt.

Storage Temperature: -55°C to +105°C.

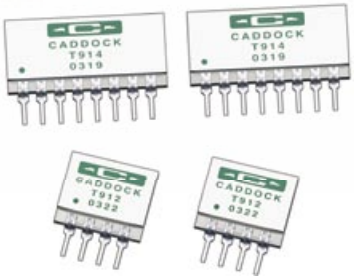
Insulation Resistance Between Isolated Pins: Pin 2 to Pin 3, Pin 4 to Pin 5, or Pin 6 to Pin 7, 1,000 Megohms, minimum.

Dielectric Strength Between Isolated Pins: 50 volts RMS AC.

Custom Model T912 and T914 Precision Resistor Networks

For applications requiring non-standard resistance values, the T912 and T914 custom configurations can include these special features:

- Mixed resistance values with a maximum ratio of 250-to-1. (Example: 1 Megohm and 4 K)
- Absolute TC as low as 15 ppm/°C.
- Ratio TC as low as 2 ppm/°C.
- Custom voltage ratings.
- Matched resistors of any special value between 1 K and 2 Megohms.



Contact our Applications Engineering for performance, price, and availability of these custom resistor networks.

Applications Engineering
17271 North Umpqua Hwy.
Roseburg, Oregon 97470-9422

CADDOCK ELECTRONICS, INC.

Sales and Corporate Office
1717 Chicago Avenue
Riverside, California 92507-2364