



**THE DATASHEET OF**  
**3296X-1-500LF**





## Features

- Multiturn / Cermet / Industrial / Sealed
- 5 terminal styles
- Tape and reel packaging available
- Chevron seal design
- Listed on the QPL for style RJ24 per MIL-R-22097 and RJR24 per High-Rel Mil-R-39035
- [Mounting hardware available \(H-117P\)](#)
- RoHS compliant\* version available
- For trimmer applications/processing guidelines, [click here](#)

# 3296 - 3/8" Square Trimpot® Trimming Potentiometer

## Electrical Characteristics

Standard Resistance Range	10 ohms to 2 megohms (see standard resistance table)
Resistance Tolerance	±10 % std. (tighter tolerance available)
Absolute Minimum Resistance	1 % or 2 ohms max. (whichever is greater)
Contact Resistance Variation	1.0 % or 3 ohms max. (whichever is greater)
Adjustability	
Voltage	±0.01 %
Resistance	±0.05 %
Resolution	Infinite
Insulation Resistance	500 vdc. 1,000 megohms min.
Dielectric Strength	
Sea Level	900 vac
70,000 Feet	350 vac
Effective Travel	25 turns nom.

## Environmental Characteristics

Power Rating (300 volts max.)	
70 °C	0.5 watt
125 °C	0 watt
Temperature Range	-55 °C to +125 °C
Temperature Coefficient	±100 ppm/°C
Seal Test	85 °C Fluorinert†
Humidity	MIL-STD-202 Method 103 96 hours (2 % ΔTR, 10 Megohms IR)
Vibration	20 G (1 % ΔTR; 1 % ΔVR)
Shock	100 G (1 % ΔTR; 1 % ΔVR)
Load Life..	1,000 hours 0.5 watt @ 70 °C (3 % ΔTR; 3 % or 3 ohms, whichever is greater, CRV)
Rotational Life	200 cycles (4 % ΔTR; 3 % or 3 ohms, whichever is greater, CRV)
Moisture Sensitivity Level	N/A
ESD Classification (HBM)	2

## Physical Characteristics

Torque	3.0 oz-in. max.
Mechanical Stops	Wiper idles
Terminals	Solderable pins
Weight	0.03 oz.
Marking	Manufacturer's trademark, resistance code, wiring diagram, date code, mfr's. model number and style
Wiper	50 % (Actual TR) ±10 %
Flammability	U.L. 94V-0
Standard Packaging	50 pcs. per tube
Adjustment Tool	H-90

## Product Dimensions

### Common Dimensions



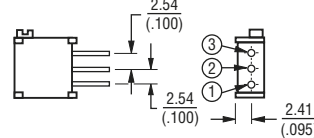
### 3296P



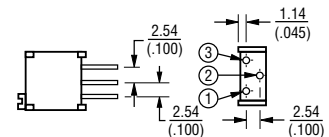
### 3296W



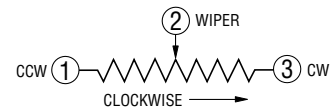
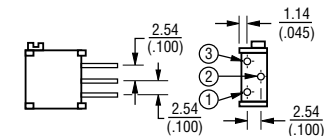
### 3296X



### 3296Y



### 3296Z



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

TOLERANCES: ±  $\frac{0.25}{(.010)}$  EXCEPT WHERE NOTED

## How To Order

**3296 W - 1 - 103 LF**

Model	_____
Style	_____
Standard or Modified	_____
Product Indicator	_____
-1 = Standard Product	
Resistance Code	_____
Packaging Designator	_____
Blank = Tube (Standard)	
R = Tape and Reel (X and W Pin Styles Only)	
A = Ammo Pack (X and W Pin Styles Only)	
Tape and reel material meets Antistatic ANSI/ESD 5541-2003 packaging standards.	
Terminations	_____
LF = 100 % Tin-plated (RoHS compliant)	
Blank = 90 % Tin / 10 % Lead-plated (Standard)	

Consult factory for other available options.

## Standard Resistance Table

Resistance (Ohms)	Resistance Code
10	100
20	200
50	500
100	101
200	201
500	501
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
25,000	253
50,000	503
100,000	104
200,000	204
250,000	254
500,000	504
1,000,000	105
2,000,000	205

Popular values listed in boldface. Special resistances available.

†"Fluorinert" is a registered trademark of 3M Co.



**WARNING**  
**Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

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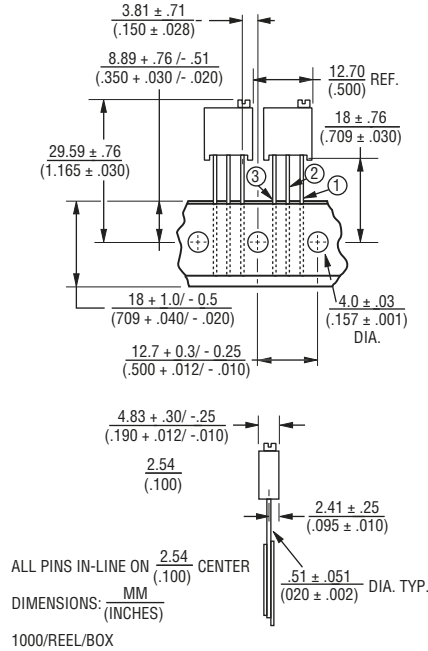
**BOURNS®**

## Packaging Specifications

### SIDE ADJUST 3296X-1



### TOP ADJUST 3296W-1



Meets EIA Specification 468.

REV. 06/18

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Users should verify actual device performance in their specific applications.

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