



**THE DATASHEET OF**  
**3296W-1-503LF**





## 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

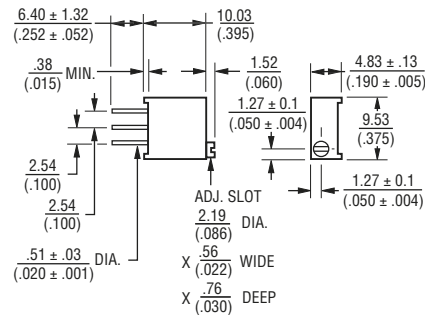
Power Rating (300 volts max.)  
 70 °C ..... 0.5 watt  
 125 °C ..... 0 watt  
 Temperature Range ... -55 °C to +125 °C  
 Temperature Coefficient ... ±100 ppm/°C  
 Seal Test ..... 85 °C Fluorinert†  
 Humidity ..... MIL-STD-202 Method 103 96 hours  
 (2 % ΔTR, 10 Megohms IR)  
 Vibration ..... 20 G (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



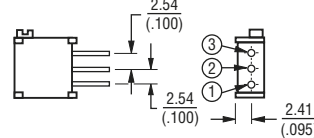
#### 3296P



#### 3296W



#### 3296X



### Standard Resistance Table

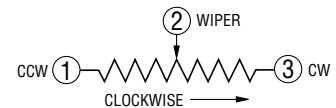
| Resistance (Ohms) | Resistance Code |
|-------------------|-----------------|
| 10                | 100             |
| 20                | 200             |
| 50                | 500             |
| 100               | 101             |
| 200               | 201             |
| 500               | 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.

#### 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.

†"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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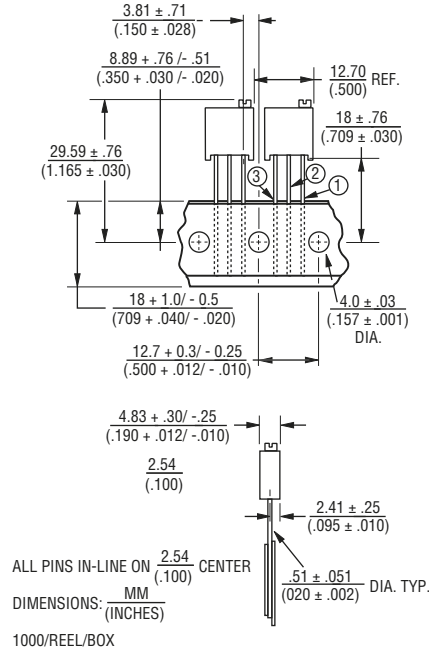
**BOURNS®**

## 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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