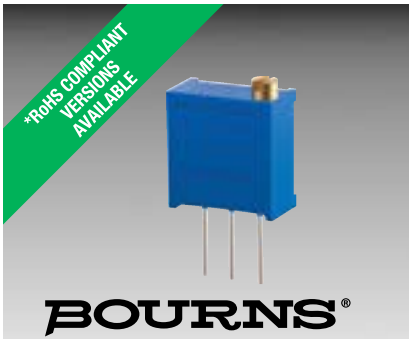




**THE DATASHEET OF**  
**3296W-1-103LF**





## 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 [RJ24](#) 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<br>(see standard resistance table) |
| Resistance Tolerance         | ±10 % std.<br>(tighter tolerance available)             |
| Absolute Minimum Resistance  | 1 % or 2 ohms max.<br>(whichever is greater)            |
| Contact Resistance Variation | 1.0 % or 3 ohms max.<br>(whichever is greater)          |
| Adjustability                |   |
| Voltage                      | ±0.01 %   |
| Resistance                   | ±0.05 %   |
| Resolution                   | Infinite  |
| Insulation Resistance        | 500 vdc.<br>1,000 megohms min.                          |
| Dielectric Strength          |   |
| Sea Level                    | 900 vac   |
| 70,000 Feet                  | 350 vac   |
| Effective Travel             | 25 turns nom.   |

## Environmental Characteristics

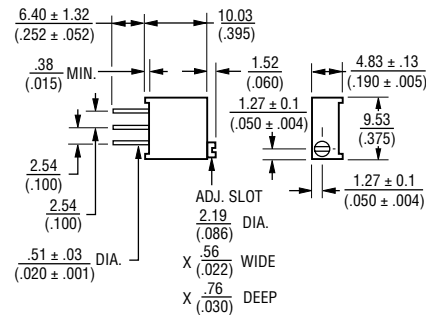
|                               |  |
|-------------------------------|--|
| Power Rating (300 volts max.) |  |
| 70 °C                         | 0.5 watt   |
| 125 °C                        | 0 watt   |
| Temperature Range             | -55 °C to +125 °C  |
| Temperature Coefficient       | ±100 ppm/°C  |
| Seal Test                     | 85 °C Fluorinert†  |
| Humidity                      | MIL-STD-202 Method 103<br>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<br>(3 % ΔTR; 3 % or 3 ohms,<br>whichever is greater, CRV) |
| Rotational Life               | 200 cycles<br>(4 % ΔTR; 3 % or 3 ohms,<br>whichever is greater, CRV)                   |
| Moisture Sensitivity Level    | N/A  |
| ESD Classification (HBM)      | 2  |

## Physical Characteristics

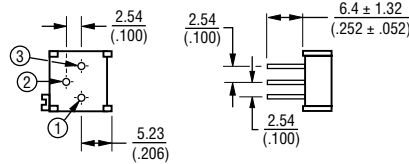
|                    |  |
|--------------------|--|
| Torque             | 3.0 oz-in. max.  |
| Mechanical Stops   | Wiper idles  |
| Terminals          | Solderable pins  |
| Weight             | 0.03 oz.   |
| Marking            | Manufacturer's<br>trademark, resistance code, wiring<br>diagram, date code, mfr's. model<br>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

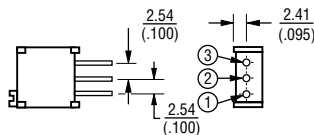
### Common Dimensions



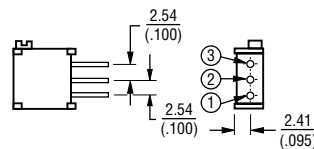
### 3296P



### 3296W



### 3296X

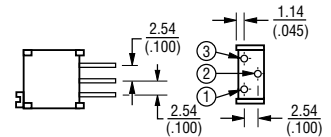


## Standard Resistance Table

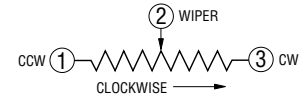
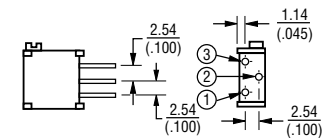
| Resistance (Ohms) | Resistance Code |
|-------------------|-----------------|
| 10                | 100             |
| 20                | 200             |
| 50                | 500             |
| 100               | 101             |
| 200               | 201             |
| 500               |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



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

\*RoHS Directive 2015/863, Mar. 31, 2015 and Annex "Trimpot" is a trademark of Bourns, Inc.  
†"Fluorinert" is a registered trademark of 3M Co.

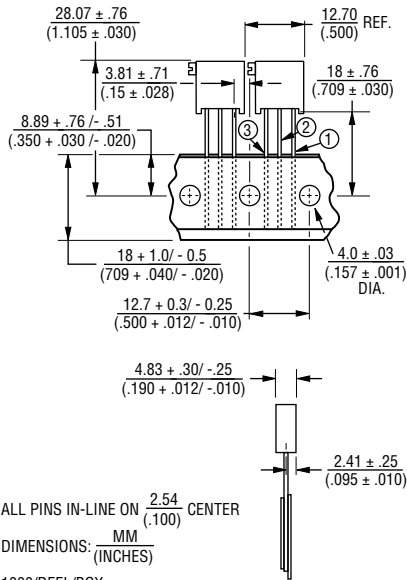
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# 3296 - 3/8" Square Trimpot® Trimming Potentiometer

**BOURNS®**

## Packaging Specifications

### SIDE ADJUST 3296X-1



### TOP ADJUST 3296W-1



Meets EIA Specification 468.

**BOURNS®**

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

Europe: Tel: +36 88 885 877 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

[www.bourns.com](http://www.bourns.com)

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