



**THE DATASHEET OF**  
**3296X-1-102LF**





## 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 Timpot® Trimming Potentiometer

### Additional Information

Click these links for more information:



### 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

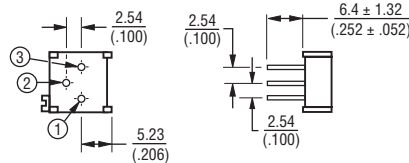
|                    |   |
|--------------------|---|
| Torque             | 3.0 oz-in. max.   |
| Mechanical Stops   | Wiper idles   |
| Terminals          | Solderable pins   |
| Weight             | 0.03 oz.  |
| Marking            | Manufacturer's trademark, resistance code, wiring diagram, date 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  |
| Storage Condition  | 40 °C max. / 70 % R.H. max.   |

### Product Dimensions

#### Common Dimensions



#### 3296P



#### 3296W



#### 3296X

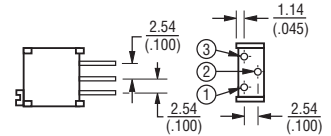


### Standard Resistance Table

| 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:    MM  
                          (INCHES)

TOLERANCES: ± 0.25 (0.010) 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)

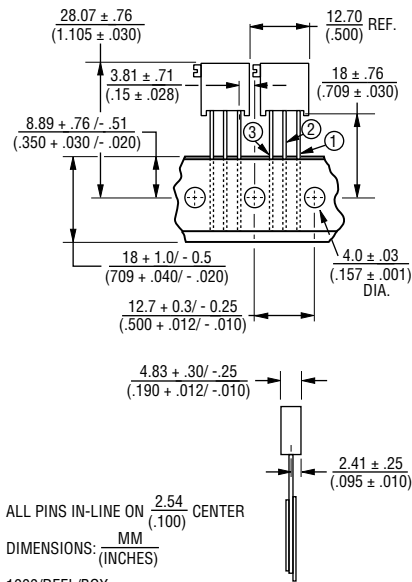
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# 3296 - 3/8" Square Timpot® Trimming Potentiometer

**BOURNS®**

## Packaging Specifications

### SIDE ADJUST 3296X-1



### TOP ADJUST 3296W-1



Meets EIA Specification 468.

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