

## 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

# 3296 - 3/8" Square Trimming Potentiometer

### Electrical Characteristics

Standard Resistance Range .....10 to 5 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.

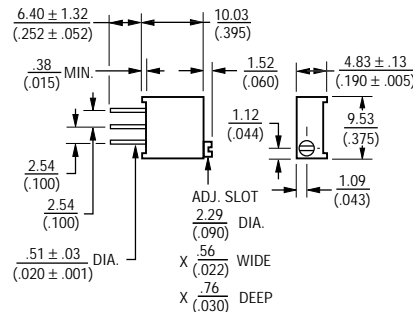
### Environmental Characteristics

Power Rating (300 volts max.)  
 70°C .....0.5 watt  
 125°C .....0 watt  
 Temperature Range .....-55°C to +150°C  
 Temperature Coefficient .....±100ppm/°C  
 Seal Test .....85°C Fluorinert\*  
 Humidity .....MIL-STD-202 Method 103  
 96 hours  
 (2% ΔTR, 10 Megohms IR)  
 Vibration .....20G (1% ΔTR; 1% ΔVR)  
 Shock .....100G (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)

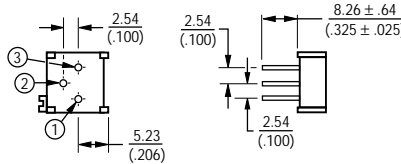
### Physical Characteristics

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, manufacturer's model number and style  
 Wiper .....Positioned at 50% nominal  
 Flammability .....U.L. 94V-0  
 Standard Packaging .....50 pcs. per tube  
 Adjustment Tool .....H-90

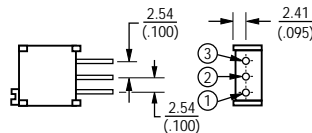
### Common Dimensions



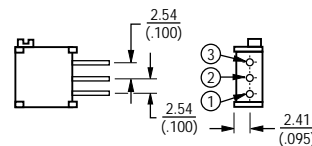
### 3296P



### 3296W



### 3296X

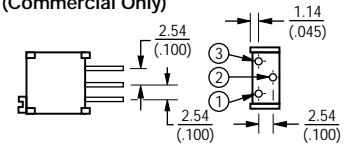


### How To Order

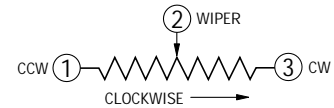
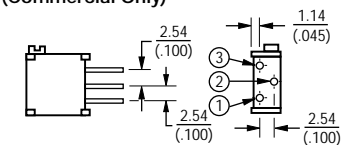
Model \_\_\_\_\_ **3296 W - 1 - 103**  
 Style \_\_\_\_\_  
 Standard or Modified Product Indicator \_\_\_\_\_  
 -1 = Standard Product  
 Resistance Code \_\_\_\_\_

Consult factory for other available options.

### 3296Y (Commercial Only)



### 3296Z (Commercial Only)



TOLERANCES: ± 0.25 (.010) EXCEPT WHERE NOTED

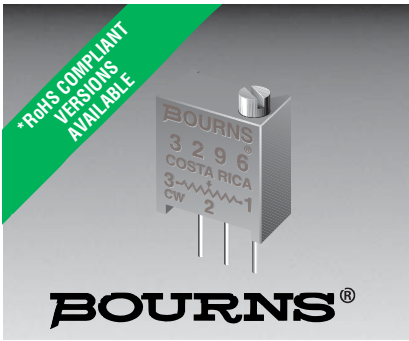
DIMENSIONS ARE:  $\frac{\text{METRIC}}{\text{(INCHES)}}$

### 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.



## 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

# 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

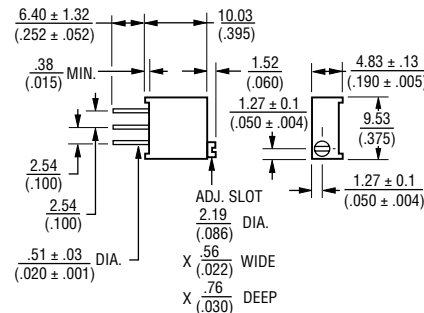
Power Rating (300 volts max.)  
 70 °C ..... 0.5 watt  
 125 °C ..... 0 watt  
 Temperature Range... -55 °C to +125 °C  
 Temperature Coefficient... ±100 ppm/°C  
 Seal Test .....85 °C Fluorinert†  
 Humidity .....MIL-STD-202 Method 103  
 96 hours  
 (2 % ΔTR, 10 Megohms IR)  
 Vibration ..... 20 G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

## Physical Characteristics

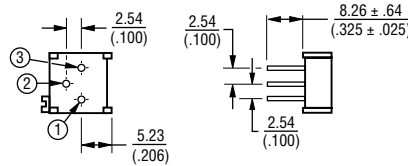
Torque..... 3.0 oz-in. max.  
 Mechanical Stops..... Wiper idles  
 Terminals ..... Solderable pins  
 Weight ..... 0.03 oz.  
 Marking..... Manufacturer's  
 trademark, resistance code,  
 wiring diagram, date code,  
 manufacturer's model  
 number and style  
 Wiper ..... 50 % (Actual TR) ±10 %  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

## Product Dimensions

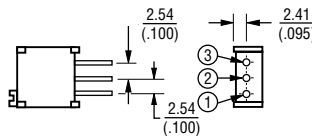
### Common Dimensions



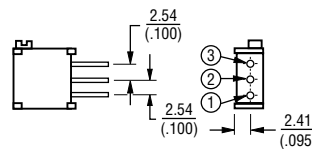
### 3296P



### 3296W



### 3296X



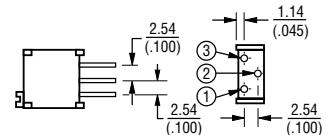
## How To Order

**3296 W - 1 - 103 LF**

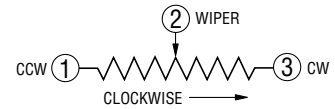
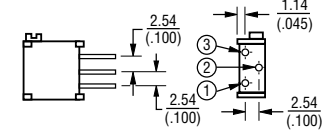
Model \_\_\_\_\_  
 Style \_\_\_\_\_  
 Standard or Modified \_\_\_\_\_  
 Product Indicator \_\_\_\_\_  
 -1 = Standard Product  
 Resistance Code \_\_\_\_\_  
 Packaging Designator \_\_\_\_\_  
 Blank = Tube (Standard)  
 R = Tape and Reel (X and W Pin Styles Only)  
 A = Ammo Pack (X and W Pin Styles Only)  
 Terminations \_\_\_\_\_  
 LF = 100 % Tin-plated (RoHS compliant)  
 Blank = 90 % Tin / 10 % Lead-plated (Standard)

Consult factory for other available options.

### 3296Y



### 3296Z



DIMENSIONS: MM (INCHES)

TOLERANCES: ± 0.25 (.010) EXCEPT WHERE NOTED

## Standard Resistance Table

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

Popular values listed in boldface. Special resistances available.

\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.

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

Specifications are subject to change without notice.

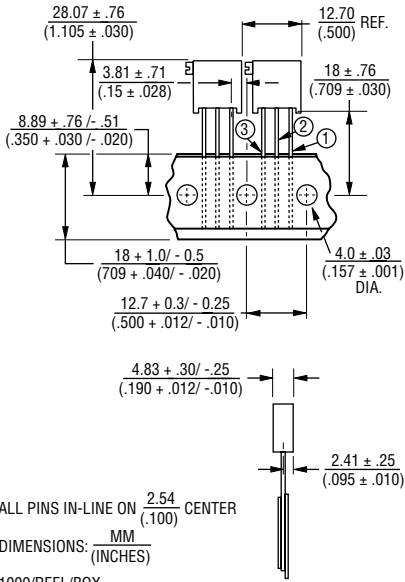
Customers should verify actual device performance in their specific applications.

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

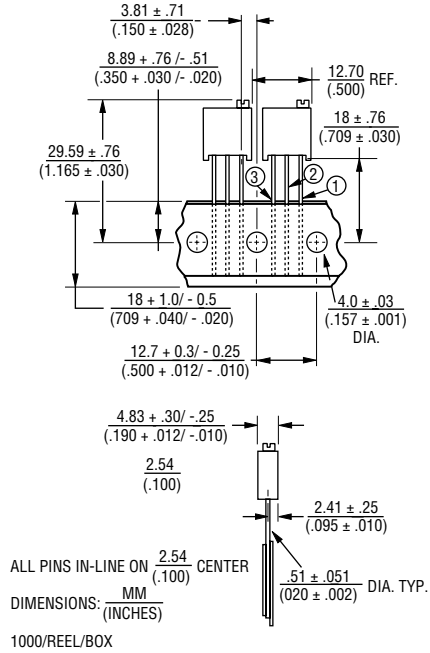
**BOURNS®**

## Packaging Specifications

### SIDE ADJUST 3296X-1



### TOP ADJUST 3296W-1



Meets EIA Specification 468.