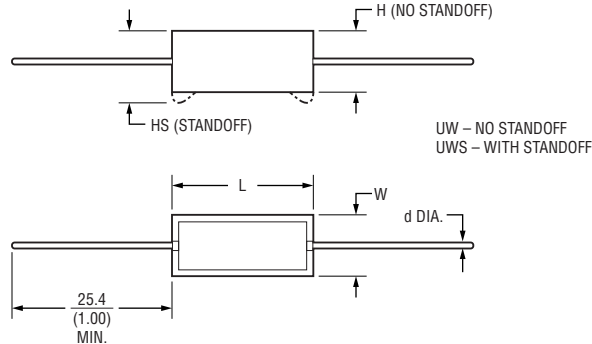


## Features

- Formerly a Riedon™ product
- Resistances from 0.01 to 91k  $\Omega$
- Resistance tolerances as low as  $\pm 0.01\%$
- Power rating: 2 to 15 watts
- Suitable for current sensing
- TCR as low as  $\pm 20$  PPM/ $^{\circ}\text{C}$
- All welded resistance element
- Non-inductive windings available
- Flameproof inorganic construction
- UWS version with built-in standoff
- RoHS compliant\*

## UW Series – Riedon™ Ceramic Wirewound Resistors by Bourns

### Specifications and Dimensions



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

Bourns Part Number	Power Rating @ 70 $^{\circ}\text{C}$ (W)	Resistance Range <sup>1</sup> ( $\Omega$ )	Dimensions				
			L	H	HS	W	d <sup>2</sup>
UW2	2	0.01 to 12k	$\frac{17.8 \pm 1.0}{(.700 \pm .04)}$	$\frac{6.2 \pm 1.0}{(.245 \pm .04)}$	$\frac{7.6 \pm 1.0}{(.300 \pm .04)}$	$\frac{6.5 \pm 0.4}{(.255 \pm .015)}$	$\frac{0.8 \pm 0.4}{(.032 \pm .015)}$
UW3	3	0.01 to 22k	$\frac{22.2 \pm 1.0}{(.875 \pm .04)}$	$\frac{7.9 \pm 1.0}{(.312 \pm .04)}$	$\frac{9.5 \pm 1.0}{(.375 \pm .04)}$	$\frac{7.9 \pm 0.4}{(.312 \pm .015)}$	$\frac{0.8 \pm 0.4}{(.032 \pm .015)}$
UW5	5	0.01 to 45k	$\frac{22.2 \pm 1.0}{(.875 \pm .04)}$	$\frac{9.5 \pm 1.0}{(.375 \pm .04)}$	$\frac{11.1 \pm 1.0}{(.437 \pm .04)}$	$\frac{9.5 \pm 0.4}{(.375 \pm .015)}$	$\frac{0.8 \pm 0.4}{(.032 \pm .015)}$
UW10	10	0.01 to 65k	$\frac{48 \pm 1.0}{(1.875 \pm .04)}$	$\frac{9.5 \pm 1.0}{(.375 \pm .04)}$	$\frac{12.7 \pm 1.0}{(.500 \pm .04)}$	$\frac{9.5 \pm 0.4}{(.375 \pm .015)}$	$\frac{1.0 \pm 0.4}{(.040 \pm .015)}$
UW15	15	0.01 to 91k	$\frac{48 \pm 1.0}{(1.875 \pm .04)}$	$\frac{12.7 \pm 1.0}{(.500 \pm .04)}$	$\frac{15.9 \pm 1.0}{(.625 \pm .04)}$	$\frac{12.7 \pm 0.4}{(.500 \pm .015)}$	$\frac{1.0 \pm 0.4}{(.040 \pm .015)}$

Notes:

<sup>1</sup> For non-inductive windings, divide maximum resistance by 2.

<sup>2</sup> Lead Diameter: 18 AWG = 0.040" / 20 AWG = 0.032".

Specification	Value
Tolerances	$\pm 0.01\%$ to $\pm 10\%$ (1% Standard)
Temperature Coefficient	>10 $\Omega$ : $\pm 20$ PPM/ $^{\circ}\text{C}$ 1 $\Omega$ to 10 $\Omega$ : $\pm 50$ PPM/ $^{\circ}\text{C}$ <1 $\Omega$ : <a href="#">Contact Bourns</a> . Other TCR values available upon request.
Temperature Range	-55 $^{\circ}\text{C}$ to +275 $^{\circ}\text{C}$
Dielectric Strength	1500 VAC
Construction	Centerless ground ceramic core Matte tin over copper High temperature / inorganic potting compound (anti-arc design) All welded terminations

### Additional Information

Click these links for more information:



[PRODUCT](#) [TECHNICAL LIBRARY](#) [INVENTORY](#) [SAMPLES](#) [CONTACT](#)



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

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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"Riedon Logo" is a registered trademark of BE Services Company, Inc., in the United States.

"Riedon" is a trademark of BE Services Company, Inc.

# UW Series – Riedon™ Ceramic Wirewound Resistors by Bourns



## Environmental Performance

Test (MIL-STD 202)	ΔR
Dielectric	±0.2 % + 0.05 Ω
Load Life	±1 % + 0.05 Ω
Storage	±0.2 % + 0.05 Ω
Moisture Resistance	±0.2 % + 0.05 Ω
Thermal Shock	±0.2 % + 0.05 Ω
5X Overload (5 s)	±0.2 % + 0.05 Ω
Shock	±0.1 % + 0.05 Ω
Vibration	±0.1 % + 0.05 Ω

## How To Order

**UW - 5 4R J 1**

Model \_\_\_\_\_

UW (standard)  
UWN (non-inductive)  
UWS (built-in standoff)

Power Rating \_\_\_\_\_

2 = 2	10 = 10
3 = 3	15 = 15
5 = 5	

Resistance Code \_\_\_\_\_

For values <1K Ω, "R" represents decimal point  
(Example: 5R = 5 Ω)  
For values ≥1K Ω, "K" represents decimal point  
(Example 1K = 1K Ω, 1K5 = 1.5K Ω)

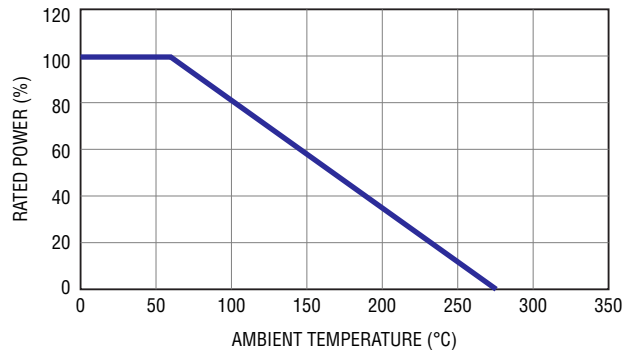
Tolerance \_\_\_\_\_

X** = ±0.01 %	D = ±0.5 %
W** = ±0.02 %	F = ±1 %
V** = ±0.025 %	G = ±2 %
U** = ±0.05 %	H = ±3 %
B = ±0.1 %	J = ±5 %
T = ±0.2 %	K = ±10 %
C = ±0.25 %	

Internal Use \_\_\_\_\_

\*\*Contact Bourns for tolerances <±0.01 %.

## Power Derating Curve



## Packaging Specifications

Tray

UW2 .....	70 pcs./pk.
UW3 .....	40 pcs./pk.
UW5 .....	40 pcs./pk.
UW10 .....	30 pcs./pk.
UW15 .....	24 pcs./pk.



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