

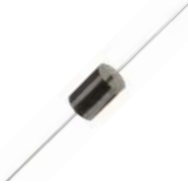


# RTDW Series

Precision Wirewound Temperature Sensors



- Resistance Tolerances to  $\pm 1\%$
- Temperature Coefficients to  $\pm 6000$  ppm/ $^{\circ}\text{C}$
- Flame & Moisture Resistant Protective Encapsulation
- All Welded Construction

## SPECIFICATIONS

RTDW1 <sup>1</sup>		RTDW3 <sup>1</sup>		RTDW2 <sup>1</sup>	
					
Diameter:	0.125 $\pm$ 0.005 [3.2 $\pm$ 0.13]	0.250 $\pm$ 0.005 [6.4 $\pm$ 0.13]	Width:	0.140 $\pm$ 0.01 [3.6 $\pm$ 0.25]	
Length:	0.260 $\pm$ 0.025 [6.6 $\pm$ 0.64]	0.375 $\pm$ 0.025 [9.5 $\pm$ 0.64]	Height:	0.250 $\pm$ 0.025 [6.4 $\pm$ 0.64]	
			Length:	0.270 $\pm$ 0.01 [6.9 $\pm$ 0.25]	
Lead diameter <sup>2</sup> :	0.020 [0.5] 0.025 [0.6]	0.032 [0.8] 0.025 [0.6]	Lead Diameter:	0.032 [0.8]	
			Lead Spacing	0.125 [3.2]	
Common Temperature Sensing Alloys		Alloy	TCR $\pm 300$ ppm/ $^{\circ}\text{C}$ (0 $^{\circ}\text{C}$ - 100 $^{\circ}\text{C}$ , 25 $^{\circ}\text{C}$ reference)		Ordering Code
		Nickel 99.9%	+6000		N
		Balco	+4500		B
		Copper	+3900		C
		Platinum	+3850		P
		Rediseal	+3500		R
Stainless Steel	+1100		S		
Standard Resistance Values		100 $\Omega$ , 500 $\Omega$ , 1K $\Omega$ (referenced at 25 $^{\circ}\text{C}$ , others on request) <sup>3</sup>			
Temperature Range		0 $^{\circ}\text{C}$ to +100 $^{\circ}\text{C}$			
Recommended Measurement Current		100 $\Omega$ - 1mA to 7mA   500 $\Omega$ - 0.7mA to 3mA   1K $\Omega$ - 0.1mA to 1mA			
Response Time (approximate) 100 $^{\circ}\text{C}$ / 25 $^{\circ}\text{C}$ , still air, 50%, 90%		$t_{0.5}$ = 40 seconds	$t_{0.9}$ = 100 seconds		
Stability		< 100ppm / year			
Terminations		100% Matte Tin Plating over Copper			
Processing		Meets the soldering requirements of MIL-STD-202, Method 208.			
Operating Conditions		RTDW series temperature sensors may not be used in unprotected moist environments or in aggressive atmospheres. User should verify suitability on a case by case basis.			

<sup>1</sup>Other sizes available, please consult factory for additional information | <sup>2</sup>Where more than one lead is listed / the top value is Standard, Lead Length = 1.00 [24.5] Min.

<sup>3</sup>May not apply for all wire types. Higher and lower values may be available. Please consult factory for additional information.

## Ordering Information

Part Description:

RTDW  
Style

1  
2  
3  
Size

N (6000)  
B (4500)  
C (3900)  
P (3850)  
R (3500)  
S (1100)  
TCR Code

100  
500  
1K  
Resistance Value

1%  
5%  
Tolerance

Example: RTDW1N 1K 1%

Last digit of formal part number is reserved for internal use