

RTDW Series

Precision Wirewound Temperature Sensors



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

SPECIFICATIONS

RTDW1 ¹		RTDW3 ¹		RTDW2 ¹	
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 ² :	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 ± 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 Ω , 500 Ω , 1K Ω (referenced at 25 $^{\circ}\text{C}$, others on request) ³			
Temperature Range		0 $^{\circ}\text{C}$ to +100 $^{\circ}\text{C}$			
Recommended Measurement Current		100 Ω - 1mA to 7mA 500 Ω - 0.7mA to 3mA 1K Ω - 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.			

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

³May 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