



REV	DESCRIPTION	DATE	APP
0	INITIAL RELEASE	01/10/2019	DD
REVISION HISTORY			

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	DRAWN BY: DAN DANKERT	
P/N ERTD1B501	SCALE: NONE	LAYER: 0 OF 2
	REV: 0	DATE: 01/10/2019

RESISTANCE @ 0°C = 500 Ω ± 0.12%  
 ACCURACY @ 0°C = ± 0.30°C  
 DIN 43760 ACCURACY CLASS = "B"  
 TCR = 3,850 ppm/°C  
 DISSIPATION CONSTANT = 2 mW/°C NOMINAL (AIR @ 1m/SECOND)  
 MAXIMUM APPLIED CURRENT = 1 mA  
 THERMAL TIME CONSTANT = 15 SECONDS MAXIMUM (AIR @ 1m/SECOND)  
 TEMPERATURE RATING = -50 TO +500°C

ROHS COMPLIANT

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# El Sensor Technologies

## Resistance Versus Temperature Table

P/N ERTD1B501 Revision "0"

Resistance @ 0°C = 500 Ω

Temperature (°C)	Temperature (°F)	Resistance (Ω Nominal)
-50	-58.0	401.53
-49	-56.2	403.52
-48	-54.4	405.50
-47	-52.6	407.49
-46	-50.8	409.47
-45	-49.0	411.45
-44	-47.2	413.43
-43	-45.4	415.41
-42	-43.6	417.39
-41	-41.8	419.37
-40	-40.0	421.35
-39	-38.2	423.33
-38	-36.4	425.31
-37	-34.6	427.29
-36	-32.8	429.26

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
-35	-31.0	431.24
-34	-29.2	433.21
-33	-27.4	435.19
-32	-25.6	437.16
-31	-23.8	439.14
-30	-22.0	441.11
-29	-20.2	443.08
-28	-18.4	445.05
-27	-16.6	447.02
-26	-14.8	448.99
-25	-13.0	450.96
-24	-11.2	452.93
-23	-9.4	454.90
-22	-7.6	456.87
-21	-5.8	458.83
-20	-4.0	460.80
-19	-2.2	462.77
-18	-0.4	464.73
-17	1.4	466.69
-16	3.2	468.66
-15	5.0	470.62
-14	6.8	472.58
-13	8.6	474.55

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
-12	10.4	476.51
-11	12.2	478.47
-10	14.0	480.43
-9	15.8	482.39
-8	17.6	484.35
-7	19.4	486.31
-6	21.2	488.26
-5	23.0	490.22
-4	24.8	492.18
-3	26.6	494.13
-2	28.4	496.09
-1	30.2	498.05
0	32.0	500.00
1	33.8	501.95
2	35.6	503.91
3	37.4	505.86
4	39.2	507.81
5	41.0	509.76
6	42.8	511.71
7	44.6	513.66
8	46.4	515.61
9	48.2	517.56
10	50.0	519.51

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
11	51.8	521.46
12	53.6	523.41
13	55.4	525.36
14	57.2	527.30
15	59.0	529.25
16	60.8	531.19
17	62.6	533.14
18	64.4	535.08
19	66.2	537.02
20	68.0	538.97
21	69.8	540.91
22	71.6	542.85
23	73.4	544.79
24	75.2	546.73
25	77.0	548.67
26	78.8	550.61
27	80.6	552.55
28	82.4	554.49
29	84.2	556.43
30	86.0	558.36
31	87.8	560.30
32	89.6	562.24
33	91.4	564.17

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
34	93.2	566.11
35	95.0	568.04
36	96.8	569.98
37	98.6	571.91
38	100.4	573.84
39	102.2	575.77
40	104.0	577.70
41	105.8	579.63
42	107.6	581.56
43	109.4	583.49
44	111.2	585.42
45	113.0	587.35
46	114.8	589.28
47	116.6	591.21
48	118.4	593.13
49	120.2	595.06
50	122.0	596.99
51	123.8	598.91
52	125.6	600.84
53	127.4	602.76
54	129.2	604.68
55	131.0	606.60
56	132.8	608.53

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
57	134.6	610.45
58	136.4	612.37
59	138.2	614.29
60	140.0	616.21
61	141.8	618.13
62	143.6	620.05
63	145.4	621.97
64	147.2	623.88
65	149.0	625.80
66	150.8	627.72
67	152.6	629.63
68	154.4	631.55
69	156.2	633.46
70	158.0	635.38
71	159.8	637.29
72	161.6	639.20
73	163.4	641.11
74	165.2	643.03
75	167.0	644.94
76	168.8	646.85
77	170.6	648.76
78	172.4	650.67
79	174.2	652.58

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
80	176.0	654.48
81	177.8	656.39
82	179.6	658.30
83	181.4	660.21
84	183.2	662.11
85	185.0	664.02
86	186.8	665.92
87	188.6	667.83
88	190.4	669.73
89	192.2	671.63
90	194.0	673.53
91	195.8	675.44
92	197.6	677.34
93	199.4	679.24
94	201.2	681.14
95	203.0	683.04
96	204.8	684.94
97	206.6	686.84
98	208.4	688.73
99	210.2	690.63
100	212.0	692.53
101	213.8	694.42
102	215.6	696.32



<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
103	217.4	698.21
104	219.2	700.11
105	221.0	702.00
106	222.8	703.90
107	224.6	705.79
108	226.4	707.68
109	228.2	709.57
110	230.0	711.46
111	231.8	713.35
112	233.6	715.24
113	235.4	717.13
114	237.2	719.02
115	239.0	720.91
116	240.8	722.80
117	242.6	724.68
118	244.4	726.57
119	246.2	728.45
120	248.0	730.34
121	249.8	732.22
122	251.6	734.11
123	253.4	735.99
124	255.2	737.87
125	257.0	739.76

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
126	258.8	741.64
127	260.6	743.52
128	262.4	745.40
129	264.2	747.28
130	266.0	749.16
131	267.8	751.04
132	269.6	752.92
133	271.4	754.79
134	273.2	756.67
135	275.0	758.55
136	276.8	760.42
137	278.6	762.30
138	280.4	764.17
139	282.2	766.05
140	284.0	767.92
141	285.8	769.79
142	287.6	771.67
143	289.4	773.54
144	291.2	775.41
145	293.0	777.28
146	294.8	779.15
147	296.6	781.02
148	298.4	782.89

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
149	300.2	784.76
150	302.0	786.63
151	303.8	788.49
152	305.6	790.36
153	307.4	792.23
154	309.2	794.09
155	311.0	795.96
156	312.8	797.82
157	314.6	799.68
158	316.4	801.55
159	318.2	803.41
160	320.0	805.27
161	321.8	807.13
162	323.6	808.99
163	325.4	810.85
164	327.2	812.71
165	329.0	814.57
166	330.8	816.43
167	332.6	818.29
168	334.4	820.15
169	336.2	822.00
170	338.0	823.86
171	339.8	825.72

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
172	341.6	827.57
173	343.4	829.43
174	345.2	831.28
175	347.0	833.13
176	348.8	834.99
177	350.6	836.84
178	352.4	838.69
179	354.2	840.54
180	356.0	842.39
181	357.8	844.24
182	359.6	846.09
183	361.4	847.94
184	363.2	849.79
185	365.0	851.64
186	366.8	853.48
187	368.6	855.33
188	370.4	857.17
189	372.2	859.02
190	374.0	860.86
191	375.8	862.71
192	377.6	864.55
193	379.4	866.40
194	381.2	868.24

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
195	383.0	870.08
196	384.8	871.92
197	386.6	873.76
198	388.4	875.60
199	390.2	877.44
200	392.0	879.28
201	393.8	881.12
202	395.6	882.96
203	397.4	884.79
204	399.2	886.63
205	401.0	888.47
206	402.8	890.30
207	404.6	892.14
208	406.4	893.97
209	408.2	895.80
210	410.0	897.64
211	411.8	899.47
212	413.6	901.30
213	415.4	903.13
214	417.2	904.96
215	419.0	906.79
216	420.8	908.62
217	422.6	910.45

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
218	424.4	912.28
219	426.2	914.11
220	428.0	915.94
221	429.8	917.76
222	431.6	919.59
223	433.4	921.42
224	435.2	923.24
225	437.0	925.07
226	438.8	926.89
227	440.6	928.71
228	442.4	930.54
229	444.2	932.36
230	446.0	934.18
231	447.8	936.00
232	449.6	937.82
233	451.4	939.64
234	453.2	941.46
235	455.0	943.28
236	456.8	945.10
237	458.6	946.91
238	460.4	948.73
239	462.2	950.55
240	464.0	952.36

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
241	465.8	954.18
242	467.6	955.99
243	469.4	957.81
244	471.2	959.62
245	473.0	961.43
246	474.8	963.25
247	476.6	965.06
248	478.4	966.87
249	480.2	968.68
250	482.0	970.49
251	483.8	972.30
252	485.6	974.11
253	487.4	975.92
254	489.2	977.73
255	491.0	979.53
256	492.8	981.34
257	494.6	983.14
258	496.4	984.95
259	498.2	986.76
260	500.0	988.56
261	501.8	990.36
262	503.6	992.17
263	505.4	993.97

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
264	507.2	995.77
265	509.0	997.57
266	510.8	999.37
267	512.6	1,001.17
268	514.4	1,002.97
269	516.2	1,004.77
270	518.0	1,006.57
271	519.8	1,008.37
272	521.6	1,010.17
273	523.4	1,011.96
274	525.2	1,013.76
275	527.0	1,015.55
276	528.8	1,017.35
277	530.6	1,019.14
278	532.4	1,020.94
279	534.2	1,022.73
280	536.0	1,024.52
281	537.8	1,026.32
282	539.6	1,028.11
283	541.4	1,029.90
284	543.2	1,031.69
285	545.0	1,033.48
286	546.8	1,035.27



<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
287	548.6	1,037.06
288	550.4	1,038.85
289	552.2	1,040.63
290	554.0	1,042.42
291	555.8	1,044.21
292	557.6	1,045.99
293	559.4	1,047.78
294	561.2	1,049.56
295	563.0	1,051.35
296	564.8	1,053.13
297	566.6	1,054.91
298	568.4	1,056.69
299	570.2	1,058.48
300	572.0	1,060.26
301	573.8	1,062.04
302	575.6	1,063.82
303	577.4	1,065.60
304	579.2	1,067.38
305	581.0	1,069.15
306	582.8	1,070.93
307	584.6	1,072.71
308	586.4	1,074.49
309	588.2	1,076.26

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
310	590.0	1,078.04
311	591.8	1,079.81
312	593.6	1,081.59
313	595.4	1,083.36
314	597.2	1,085.13
315	599.0	1,086.91
316	600.8	1,088.68
317	602.6	1,090.45
318	604.4	1,092.22
319	606.2	1,093.99
320	608.0	1,095.76
321	609.8	1,097.53
322	611.6	1,099.30
323	613.4	1,101.07
324	615.2	1,102.83
325	617.0	1,104.60
326	618.8	1,106.37
327	620.6	1,108.13
328	622.4	1,109.90
329	624.2	1,111.66
330	626.0	1,113.42
331	627.8	1,115.19
332	629.6	1,116.95

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
333	631.4	1,118.71
334	633.2	1,120.47
335	635.0	1,122.24
336	636.8	1,124.00
337	638.6	1,125.76
338	640.4	1,127.51
339	642.2	1,129.27
340	644.0	1,131.03
341	645.8	1,132.79
342	647.6	1,134.55
343	649.4	1,136.30
344	651.2	1,138.06
345	653.0	1,139.81
346	654.8	1,141.57
347	656.6	1,143.32
348	658.4	1,145.08
349	660.2	1,146.83
350	662.0	1,148.58
351	663.8	1,150.33
352	665.6	1,152.08
353	667.4	1,153.83
354	669.2	1,155.58
355	671.0	1,157.33

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
356	672.8	1,159.08
357	674.6	1,160.83
358	676.4	1,162.58
359	678.2	1,164.33
360	680.0	1,166.07
361	681.8	1,167.82
362	683.6	1,169.56
363	685.4	1,171.31
364	687.2	1,173.05
365	689.0	1,174.80
366	690.8	1,176.54
367	692.6	1,178.28
368	694.4	1,180.02
369	696.2	1,181.76
370	698.0	1,183.51
371	699.8	1,185.25
372	701.6	1,186.99
373	703.4	1,188.72
374	705.2	1,190.46
375	707.0	1,192.20
376	708.8	1,193.94
377	710.6	1,195.67
378	712.4	1,197.41

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
379	714.2	1,199.15
380	716.0	1,200.88
381	717.8	1,202.62
382	719.6	1,204.35
383	721.4	1,206.08
384	723.2	1,207.82
385	725.0	1,209.55
386	726.8	1,211.28
387	728.6	1,213.01
388	730.4	1,214.74
389	732.2	1,216.47
390	734.0	1,218.20
391	735.8	1,219.93
392	737.6	1,221.66
393	739.4	1,223.38
394	741.2	1,225.11
395	743.0	1,226.84
396	744.8	1,228.56
397	746.6	1,230.29
398	748.4	1,232.01
399	750.2	1,233.74
400	752.0	1,235.46
401	753.8	1,237.18

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (Ω Nominal)</b>
402	755.6	1,238.91
403	757.4	1,240.63
404	759.2	1,242.35
405	761.0	1,244.07
406	762.8	1,245.79
407	764.6	1,247.51
408	766.4	1,249.23
409	768.2	1,250.94
410	770.0	1,252.66
411	771.8	1,254.38
412	773.6	1,256.10
413	775.4	1,257.81
414	777.2	1,259.53
415	779.0	1,261.24
416	780.8	1,262.96
417	782.6	1,264.67
418	784.4	1,266.38
419	786.2	1,268.10
420	788.0	1,269.81
421	789.8	1,271.52
422	791.6	1,273.23
423	793.4	1,274.94
424	795.2	1,276.65

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
425	797.0	1,278.36
426	798.8	1,280.07
427	800.6	1,281.77
428	802.4	1,283.48
429	804.2	1,285.19
430	806.0	1,286.89
431	807.8	1,288.60
432	809.6	1,290.31
433	811.4	1,292.01
434	813.2	1,293.71
435	815.0	1,295.42
436	816.8	1,297.12
437	818.6	1,298.82
438	820.4	1,300.52
439	822.2	1,302.22
440	824.0	1,303.92
441	825.8	1,305.62
442	827.6	1,307.32
443	829.4	1,309.02
444	831.2	1,310.72
445	833.0	1,312.42
446	834.8	1,314.11
447	836.6	1,315.81

<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (<math>\Omega</math> Nominal)</b>
448	838.4	1,317.51
449	840.2	1,319.20
450	842.0	1,320.90
451	843.8	1,322.59
452	845.6	1,324.28
453	847.4	1,325.98
454	849.2	1,327.67
455	851.0	1,329.36
456	852.8	1,331.05
457	854.6	1,332.74
458	856.4	1,334.43
459	858.2	1,336.12
460	860.0	1,337.81
461	861.8	1,339.50
462	863.6	1,341.19
463	865.4	1,342.87
464	867.2	1,344.56
465	869.0	1,346.24
466	870.8	1,347.93
467	872.6	1,349.61
468	874.4	1,351.30
469	876.2	1,352.98
470	878.0	1,354.67



<b>Temperature (°C)</b>	<b>Temperature (°F)</b>	<b>Resistance (Ω Nominal)</b>
471	879.8	1,356.35
472	881.6	1,358.03
473	883.4	1,359.71
474	885.2	1,361.39
475	887.0	1,363.07
476	888.8	1,364.75
477	890.6	1,366.43
478	892.4	1,368.11
479	894.2	1,369.79
480	896.0	1,371.46
481	897.8	1,373.14
482	899.6	1,374.82
483	901.4	1,376.49
484	903.2	1,378.17
485	905.0	1,379.84
486	906.8	1,381.52
487	908.6	1,383.19
488	910.4	1,384.86
489	912.2	1,386.53
490	914.0	1,388.20
491	915.8	1,389.88
492	917.6	1,391.55
493	919.4	1,393.22

Temperature (°C)	Temperature (°F)	Resistance ( $\Omega$ Nominal)
494	921.2	1,394.88
495	923.0	1,396.55
496	924.8	1,398.22
497	926.6	1,399.89
498	928.4	1,401.56
499	930.2	1,403.22
500	932.0	1,404.89