

SOLLATEK DATA SHEET NO:

10910542



# TEMPERATURE PROBE

 100 kΩ NTC MOULDED TEMPERATURE SENSOR  
 FOR SOLLATEK CONTROLLERS

## Technical Specification

Maximum Operating Temp. Range	-40°C to +105°C
Probe	NTC 100 kΩ thermistor
Probe Tip	TPE moulding
Probe Diameter	3.2 mm, 5 mm or 6 mm
Cable	Outer Diameter: 3.6 mm 2-core, 24/26/28 AWG, double insulated
Cable Length	From 0.1 m to 4.5 m
Colour	White or Black
IP Rating	IP66 at probe end
Connector	C1: 2-way 0.11" female crimp terminal

## Controller Compatibility

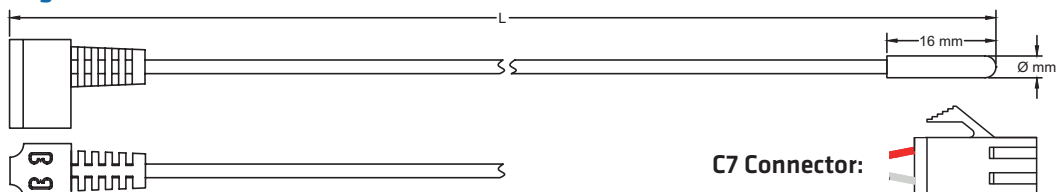


## Electrical Specifications

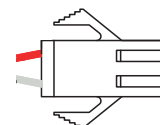
Item	Symbol	Test Conditions	Min	Nominal	Max	Units
Resistance @ 25°C	R <sub>25</sub>	T <sub>a</sub> = 25°C (±0.05) P <sub>T</sub> ≤ 0.1 mW	99.00	100.00	101.00	kΩ
Resistance @ 50°C	R <sub>50</sub>	T <sub>a</sub> = 50°C (±0.05) P <sub>T</sub> ≤ 0.1 mW	-	35.511	-	kΩ
β value	β <sub>25/50</sub>	β = [(T <sub>1</sub> *T <sub>2</sub> )/(T <sub>2</sub> -T <sub>1</sub> )] ln(R <sub>T1</sub> /R <sub>T2</sub> )	3950.1	3990.0	4029.9	K
Dissipation factor (air)		T <sub>a</sub> = 25°C	5	-	-	mW/°C
Thermal time constant (water/oil)	τ	25°C → 50°C T1 = 25+[(50-25)×63.2%] = 40.8°C	-	-	30	s
Insulation Resistance	-	500 VDC, 60 seconds	100	-	-	MΩ
Voltage withstand	-	1800 VAC, 2.0 mA	60	-	-	s

## Dimensional Drawing

### C1 Connector:



### C7 Connector:



Temp (°C)	Resistance value (kΩ)		
	Min	Typical	Max
-40	3198.806	3346.560	3500.789
-39	2990.842	3126.867	3268.751
-38	2797.980	2923.264	3053.853
-37	2619.023	2734.468	2854.716
-36	2452.876	2559.303	2670.080
-35	2298.536	2396.692	2498.789
-34	2155.083	2245.651	2339.791
-33	2021.674	2105.276	2192.116
-32	1897.536	1974.740	2054.879
-31	1781.957	1853.282	1927.269
-30	1674.290	1740.210	1808.544
-29	1573.936	1634.883	1698.021
-28	1480.344	1536.716	1595.074
-27	1393.012	1445.170	1499.131
-26	1311.477	1359.753	1409.665
-25	1235.310	1280.009	1326.192
-24	1164.120	1205.520	1248.267
-23	1097.547	1135.903	1175.482
-22	1035.258	1070.805	1107.462
-21	976.946	1009.899	1043.860
-20	922.329	952.886	984.357
-19	871.146	899.489	928.661
-18	823.158	849.454	876.501
-17	778.143	802.544	827.627
-16	735.894	758.543	781.810
-15	696.224	717.250	738.836
-14	658.956	678.479	698.511
-13	623.928	642.059	660.651
-12	590.991	607.832	625.090
-11	560.005	575.650	591.673
-10	530.842	545.378	560.255
-9	503.382	516.888	530.704
-8	477.515	490.066	502.896
-7	453.137	464.801	476.717
-6	430.153	440.993	452.061
-5	408.473	418.549	428.830
-4	388.017	397.382	406.932
-3	368.707	377.411	386.281
-2	350.471	358.560	366.800
-1	333.243	340.761	348.414
0	316.961	323.948	331.056
1	301.567	308.060	314.661
2	287.008	293.041	299.171
3	273.233	278.838	284.529
4	260.195	265.402	270.685
5	247.851	252.686	257.590
6	236.159	240.649	245.199
7	225.082	229.250	233.471
8	214.583	218.451	222.366

Temp (°C)	Resistance value (kΩ)		
	Min	Typical	Max
9	204.630	208.218	211.848
10	195.189	198.518	201.882
11	186.234	189.320	192.437
12	177.735	180.595	183.482
13	169.668	172.317	174.989
14	162.007	164.460	166.933
15	154.730	157.000	159.287
16	147.817	149.916	152.029
17	141.247	143.187	145.139
18	135.001	136.792	138.594
19	129.061	130.715	132.376
20	123.412	124.936	126.467
21	118.037	119.441	120.850
22	112.921	114.214	115.509
23	108.052	109.240	110.430
24	103.416	104.506	105.598
25	99.000	100.000	101.000
26	94.710	95.709	96.708
27	90.626	91.622	92.619
28	86.737	87.728	88.722
29	83.033	84.018	85.006
30	79.504	80.482	81.463
31	76.141	77.111	78.084
32	72.936	73.896	74.861
33	69.880	70.829	71.785
34	66.966	67.904	68.849
35	64.186	65.113	66.047
36	61.534	62.449	63.371
37	59.004	59.906	60.816
38	56.589	57.478	58.375
39	54.284	55.159	56.043
40	52.082	52.944	53.815
41	49.980	50.828	51.685
42	47.972	48.806	49.649
43	46.054	46.873	47.702
44	44.221	45.025	45.840
45	42.469	43.259	44.059
46	40.794	41.569	42.355
47	39.192	39.953	40.724
48	37.661	38.407	39.164
49	36.196	36.927	37.670
50	34.794	35.511	36.240
51	33.476	34.179	34.894
52	32.214	32.904	33.604
53	31.006	31.681	32.368
54	29.849	30.510	31.183
55	28.740	29.388	30.047
56	27.677	28.312	28.958
57	26.658	27.280	27.913

Temp (°C)	Resistance value (kΩ)		
	Min	Typical	Max
58	25.682	26.290	26.910
59	24.745	25.340	25.948
60	23.846	24.429	25.024
61	22.984	23.555	24.137
62	22.157	22.715	23.285
63	21.363	21.909	22.467
64	20.601	21.135	21.681
65	19.869	20.391	20.925
66	19.166	19.677	20.199
67	18.491	18.990	19.501
68	17.842	18.330	18.830
69	17.218	17.696	18.185
70	16.619	17.087	17.565
71	16.044	16.500	16.968
72	15.490	15.936	16.394
73	14.957	15.394	15.842
74	14.446	14.872	15.310
75	13.953	14.370	14.798
76	13.479	13.887	14.306
77	13.024	13.422	13.831
78	12.585	12.975	13.375
79	12.163	12.544	12.935
80	11.757	12.129	12.511
81	11.366	11.729	12.103
82	10.989	11.344	11.710
83	10.626	10.974	11.331
84	10.277	10.617	10.966
85	9.941	10.272	10.614
86	9.617	9.941	10.275
87	9.305	9.621	9.948
88	9.004	9.313	9.632
89	8.714	9.016	9.328
90	8.435	8.730	9.035
91	8.165	8.454	8.752
92	7.905	8.188	8.479
93	7.655	7.931	8.216
94	7.414	7.683	7.962
95	7.181	7.444	7.717
96	6.956	7.214	7.480
97	6.740	6.991	7.252
98	6.531	6.777	7.031
99	6.329	6.569	6.818
100	6.134	6.369	6.613
101	5.947	6.176	6.414
102	5.765	5.990	6.223
103	5.590	5.810	6.037
104	5.421	5.636	5.858
105	5.258	5.468	5.686

**C1 Connector**

Part number	Description	L (m)	D (mm)	Colour	AWG
9TM23210BS	T Probe 3.2/1.0/16 100K BK28 C1A	1.0	3.2	Black	28
9TM25003BS	T Probe 5.0/0.3/16 100K BK26 C1A	0.3	5.0	Black	26
9TM25005BS	T Probe 5.0/0.5/16 100K BK26 C1A	0.5	5.0	Black	26
9TM25005WS	T Probe 5.0/0.5/16 100K WT26 C1A	0.5	5.0	White	26
9TM25010BS	T Probe 5.0/1.0/16 100K BK26 C1A	1.0	5.0	Black	26
9TM25030BS	T Probe 5.0/3.0/16 100K BK26 C1A	3.0	5.0	Black	26
9TM25035BS	T Probe 5.0/3.5/16 100K BK26 C1A	3.5	5.0	Black	26
9TM25035WS	T Probe 5.0/3.5/16 100K BK26 C1A	3.5	5.0	White	26
9TM25045BS	T Probe 5.0/4.5/16 100K BK26 C1A	4.5	5.0	Black	26
9TM26001WS	T Probe 6.0/0.1/16 100K WT24 C1A	0.1	6.0	White	24
9TM26015BS	T Probe 6.0/1.5/16 100K BK24 C1A	1.5	6.0	Black	24
9TM26015WS	T Probe 6.0/1.5/16 100K WT24 C1A	1.5	6.0	White	24

**C7 Connector:**

Part number	Description	L (m)	D (mm)	Colour	AWG
9TM26001BH	T Probe 6.0/0.1/16 100k BK24 C7A	0.15	6.0	Black	24
9TM26008BH	T Probe 6.0/0.8/16 100k BK24 C7A	0.8	6.0	Black	24
9TM26020BH	T Probe 6.0/2.0/16 100k BK24 C7A	2.0	6.0	Black	24
9TM26035BH	T Probe 6.0/3.5/16 100k BK24 C7A	3.5	6.0	Black	24



MBA	16/12/2024
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