

SPECIFICATIONS FOR APPROVAL

SPEC. NO. SK-092915-1 dated Sep. 29, 2015

MODEL : NTC Sensor with Cable

NO.	Cust.Code	DESCRIPTION	PART NO.
1)		10K Ω +-1% B-Value (B25/85) : 3970K +-1% Hull: Dia 7(+0.5)x25(+1)mm Cable: UL2651W26AWGx2	SK-CWF103F3970FB1025AJ

APPROVAL STATUS:

- APPROVED
 APPROVED WITH THE FOLLOWING CONDITIONS

DATE :

SIGNATURE:

 **TRANSTECH CORPORATION**

NO. 301, 2-2-7, TENMABASHI, KITA-KU, OSAKA 530-0042, JAPAN

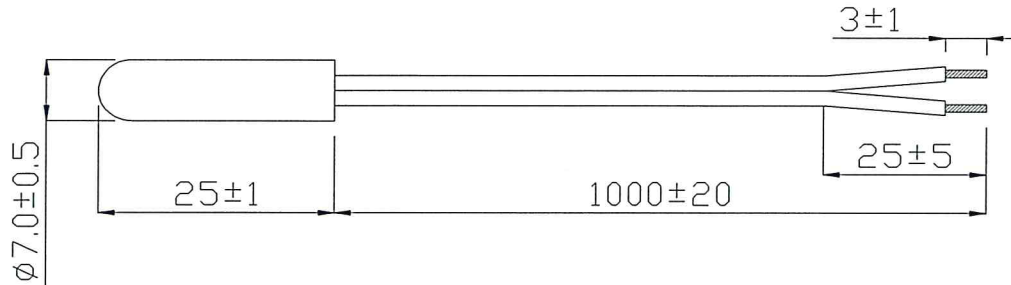
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URL: <http://www.transtech-co.jp/electronics/>

1、dimension

(unit: mm)



2、standard

No	material	standard/type	producing area
2-1.	wire	UL2651#26AWG×2C 105□ 300V black	JQ
2-2.	resistance	MF52 R25□=10KΩ±1% B25/85=3970K±1%	SH
2-3.	hull	7.0*25.0 white ABS hull	MJ
2-4.	epoxy resin	J105/J106B/J05X GU108/GU-01 black	DB

3、specifications:

SK - CWF xxx x xxxxx x x xxxxx x x

□ □ □ □ □ □ □ □ □ □ □ □

□Mark of Shun Kang electronic co., LTD;

□The symbols of NTC;

□Nominal resistance values at 25□, unit for ohm, top two figures show that the significant figures of resistance value, the third digit number show the number of zero followed it;

□The mark of resistance tolerance (%);

mark	E	F	G	H	J	K	X
The resistance tolerance	±0.5	±1.0	±2.0	±3.0	±5.0	±10	Special tolerance

□B value for 25/50 degrees commonly numerical constant token, to note that other conditions;

□The symbol of B value tolerance (%);

symbol	E	F	G	H	J	K	X
tolerance	±0.5	±1.0	±2.0	±3.0	±5.0	±10	Special tolerance

□The code values for temperature to calculate B;

mark	A	B	C	D	E	F	G	H	M	N	X
temperature spots	25/50	25/ 85	-20/25	0/25	0/50	0/100	5/25	25/75	25/100	100/200	Special

□The mark for length of NTC, the unit is mm;

□The mark of NTC shape

mark	A	B	C
shape	shell type	epoxy resin coating	Special

□The definition code of negative temperature sensor。

mark	C	J	T	W	R	X
item	routine	Housing	hull	wire rod	drivepipe	Special

4、Electrical Performance

No	item	sign	test condition	min	normal	max	unit
4-1.	resistance	R25	Ta=25±0.05℃ P _T ≤0.1mw	9.9	10	10.1	K
4-2.	B value	B25/85	$B=LN \frac{R_{T1}}{R_{T2}} / (\frac{1}{T1} - \frac{1}{T2})$	3930.3	3970	4009.7	k
4-3.	dissipation factor	σ	Ta=25±0.5℃	4	/	/	mw/℃
4-4.	time constant	τ	Ta=25±0.5℃	/	/	15	sec
4-5.	insulation resistance	/	500VDC	100	/	/	MΩ
4-6.	high-voltage test	/	1500V AC	5	/	/	Sec
4-7.	temperature range	/	/	-30	/	105	℃

5、reliability test

No	item	technical requirements	Test conditions and methods
5-1.	high-temperature test	ΔR/R25≤±3% ΔB/B≤±3% No change of voltage and insulation resistance. Appearance without damage.	100±5℃, power on 500±24 hrs, DC0.2mA
5-2.	low temperature test		-30±5℃, power on 500±24 hrs, DC0.2mA
5-3.	moisture test		55±2℃,90%-95%RH 240±24 hrs
5-4.	temperature cycle test		-20℃×30min→25℃×10min→100℃water×30min→25℃×10min Cycle ten times
5-5	Electricity load test		power on DC1mA, at 25℃500hrs.
5-6	drop test		Fall on concrete floor from 1 m high,cycle ten times
5-7	vibration test		frequency range: 10~55HZ, double amplitude 1.52mm, one minute cycle, X, Y, Z axis direction every 2 hours.
5-8	bending test		the 180° bend the wire with epoxy resin back and forth 10 times.

6、Storage method

- 6.1 In the process of storage and transportation every stack height does not exceed 4 products.
- 6.2 Allows you to use any method of transportation, but avoid directly or indirectly to the shower of rain, snow and mechanical damage.
- 6.3 Product should be stored in environmental temperature for - 10 ℃ / + 40 ℃, relative humidity is not more than 80%, the surrounding environment should not have acid, alkali and corrosion gas or radioactive source.

R-T CONVERSION TABLE

R25=10KΩ±1% B25/85=3970K±1%

T/□	Rmin	Rcen	Rmax	T/□	Rmin	Rcen	Rmax
-40	253.2	264.3	275.8	-2	34.68	35.48	36.29
-39	239.8	250.2	260.9	-1	33.01	33.75	34.51
-38	227.1	236.8	246.9	0	31.43	32.12	32.82
-37	215.1	224.2	233.6	1	29.93	30.57	31.22
-36	203.8	212.3	221.0	2	28.50	29.10	29.71
-35	193.1	201.0	209.2	3	27.15	27.71	28.27
-34	182.9	190.3	198.0	4	25.88	26.39	26.92
-33	173.4	180.2	187.4	5	24.66	25.14	25.63
-32	164.3	170.7	177.4	6	23.51	23.96	24.41
-31	155.7	161.7	167.9	7	22.42	22.84	23.26
-30	147.6	153.2	159.0	8	21.39	21.77	22.16
-29	139.9	145.1	150.6	9	20.40	20.76	21.12
-28	132.6	137.5	142.6	10	19.47	19.80	20.14
-27	125.8	130.3	135.1	11	18.58	18.89	19.20
-26	119.3	123.5	127.9	12	17.74	18.02	18.31
-25	113.1	117.1	121.2	13	16.94	17.20	17.47
-24	107.3	111.0	114.9	14	16.18	16.42	16.67
-23	101.8	105.3	108.8	15	15.46	15.68	15.91
-22	96.56	99.80	103.1	16	14.77	14.98	15.19
-21	91.62	94.65	97.77	17	14.11	14.31	14.50
-20	86.95	89.78	92.69	18	13.49	13.67	13.85
-19	82.49	85.13	87.84	19	12.90	13.07	13.23
-18	78.28	80.74	83.27	20	12.34	12.49	12.64
-17	74.30	76.59	78.95	21	11.80	11.94	12.08
-16	70.53	72.67	74.87	22	11.29	11.42	11.55
-15	66.96	68.96	71.01	23	10.80	10.92	11.04
-14	63.59	65.45	67.36	24	10.34	10.45	10.56
-13	60.40	62.13	63.91	25	9.900	10.00	10.10
-12	57.38	58.99	60.65	26	9.474	9.573	9.673
-11	54.51	56.02	57.57	27	9.068	9.167	9.267
-10	51.80	53.21	54.65	28	8.681	8.780	8.879
-9	49.24	50.55	51.89	29	8.313	8.411	8.510
-8	46.81	48.03	49.28	30	7.962	8.060	8.158
-7	44.51	45.64	46.80	31	7.628	7.725	7.822
-6	42.32	43.38	44.47	32	7.309	7.405	7.502
-5	40.26	41.24	42.25	33	7.005	7.100	7.196
-4	38.30	39.22	40.15	34	6.716	6.809	6.904
-3	36.44	37.30	38.17	35	6.439	6.532	6.626

成都市顺康电子有限公司

No. :

VER :

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R—T CONVERSION TABLE (R₂₅=10KΩ±1% B_{25/85}=3970K±1%)

T/□	Rmin	Rcen	Rmax	T/□	Rmin	Rcen	Rmax
36	6.176	6.267	6.360	74	1.452	1.495	1.539
37	5.924	6.014	6.106	75	1.403	1.445	1.488
38	5.684	5.773	5.863	76	1.357	1.398	1.440
39	5.455	5.543	5.631	77	1.312	1.352	1.393
40	5.236	5.322	5.410	78	1.269	1.308	1.348
41	5.027	5.112	5.198	79	1.228	1.266	1.305
42	4.827	4.911	4.995	80	1.188	1.225	1.264
43	4.636	4.719	4.802	81	1.150	1.186	1.224
44	4.454	4.535	4.617	82	1.113	1.149	1.185
45	4.280	4.359	4.439	83	1.077	1.112	1.148
46	4.113	4.191	4.270	84	1.043	1.078	1.113
47	3.954	4.030	4.108	85	1.010	1.044	1.079
48	3.801	3.876	3.952	86	0.9805	1.013	1.047
49	3.655	3.729	3.804	87	0.9516	0.9838	1.017
50	3.516	3.588	3.661	88	0.9236	0.9551	0.9876
51	3.379	3.450	3.521	89	0.8965	0.9274	0.9592
52	3.248	3.318	3.388	90	0.8703	0.9005	0.9317
53	3.124	3.191	3.260	91	0.8450	0.8746	0.9051
54	3.004	3.071	3.138	92	0.8205	0.8494	0.8793
55	2.891	2.956	3.022	93	0.7967	0.8251	0.8544
56	2.782	2.845	2.910	94	0.7737	0.8015	0.8302
57	2.678	2.740	2.803	95	0.7515	0.7787	0.8068
58	2.578	2.639	2.701	96	0.7300	0.7566	0.7842
59	2.483	2.542	2.603	97	0.7091	0.7352	0.7622
60	2.392	2.450	2.510	98	0.6889	0.7145	0.7410
61	2.304	2.362	2.420	99	0.6694	0.6944	0.7203
62	2.221	2.277	2.334	100	0.6505	0.6750	0.7004
63	2.141	2.196	2.251	101	0.6316	0.6556	0.6804
64	2.064	2.118	2.172	102	0.6133	0.6367	0.6611
65	1.991	2.043	2.097	103	0.5954	0.6184	0.6422
66	1.921	1.972	2.024	104	0.5782	0.6006	0.6240
67	1.853	1.903	1.954	105	0.5614	0.5834	0.6062
68	1.788	1.837	1.888	106	0.5451	0.5666	0.5889
69	1.726	1.774	1.823	107	0.5292	0.5503	0.5722
70	1.667	1.714	1.762	108	0.5139	0.5345	0.5559
71	1.610	1.656	1.703	109	0.4989	0.5191	0.5401
72	1.555	1.600	1.646	110	0.4845	0.5042	0.5247
73	1.502	1.546	1.591				