产 品 规 格 书

SPECIFICATION FOR APPROVAL

合肥晶浦传感科技有限公司

HEFEI JINGPU SENSOR TECHNOLOGY CO., LTD.

客户代码 CUSTOMER	CC525
产品名称 PART NAME	NTC 温度传感器 TEMPERATURE SENSOR
产品型号 MODEL	MFT
订制号 CUSTOM CODE	CC525-250430A
版本号 VERSION	A0
编制日期 DATE	2025.4.30

制造商说明 Manufacturer Explanation：

本规格书提供了我公司产品性能、试验 条件、使用要求、结构尺寸描述，敬请贵公司确认。若对本规格书产生疑义时，请迅速与我们取得联系，如无疑义请确认回传,若无回传，我司将视为默认。当贵公司改变使用用途、作用方法时，请与我们取得联系。

This Specification indicates the properties, test condition, structure and dimension etc. of manufactured by Hefei Jingpu Sensor Technology Co., LTD. It is sincerely for your company's confirmation. Any doubts, Please contact with us by 86 551 68661901, or if there isn't any question, please return fax to confirm it. No return fax will be deemed to be accepted. Please inform us if you change your usage of the sensor.

审批 Checked and Approved	设计 Designed
钱世涛	吴亚南

客户承认 CUSTOMER APPROVAL	年 Y 月 M 日 D
	(签章 Signature)：

合肥晶浦传感科技有限公司
地址：安徽省合肥市肥西县集贤路与派河大道交口
金徽光电产业园 2 号楼
电话 Tel：+86 - 551 - 68661901
邮编 P.C.: 231299

Hefei Jingpu sensor Technology Co.,Ltd
Add：No.2 Building Jinhui Photoelectric Industrial Park,Intersection of Paihe Avenue and Jixian Rd, Feixi County, Hefei, Anhui, China
Email：marketing01@jingpusensor.com
Website：www.jingpusensor.com/

文件变更记录 Change Record

次数 NO.	版本号 Edition	日期 DATE	变更内容 Change content
1	A0	2025.4.30	--新下发 The first edition issued
	-		

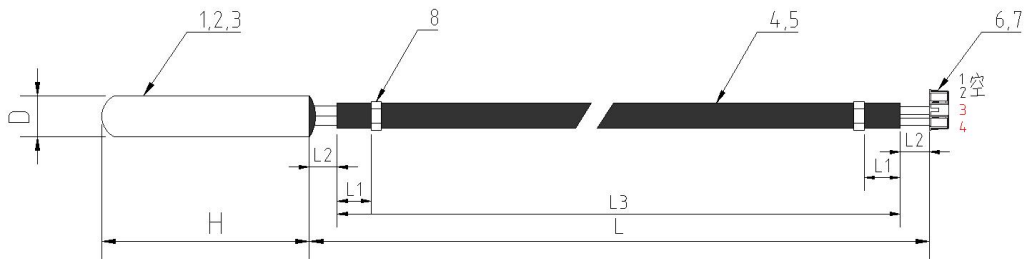
合肥晶浦传感科技有限公司
地址：安徽省合肥市肥西县集贤路与派河大道交口
金徽光电产业园 2 号楼
电话 Tel：+86 - 551 - 68661901
邮编 P.C.: 231299

Hefei Jingpu sensor Technology Co.,Ltd
Add：No.2 Building Jinhui Photoelectric Industrial Park,Intersection of Paihe Avenue and Jixian Rd, Feixi County, Hefei, Anhui, China
Email：marketing01@jingpusensor.com
Website：www.jingpusensor.com/

一、性能参数Electrical characteristic

项目 Item	代号 Code	测试条件 Test condition	性能要求 Performance requirements	单位 Unit
标称阻值（Rated resistance）	R25℃	+25℃±0.05℃	10±3%	kΩ
材料常数（Beta value）	B25/85	+25℃±0.05℃, +85℃±0.05℃	3984±0.5%	K
响应时间（Response time）	τ	静止空气中 In still air	Approx 60	S
耗散系数（ Dissipation factor）	δ	静止空气中 In still air	Approx 3	mW/℃
最大功率(Max.Power)	Pmax	静止空气中 In still air	Approx 60	mW
耐电压 (Withstand voltage)	Hi-pot	静止空气中 In still air AC1500V 1mA 1s	无击穿或飞弧 No break down	V
使用温度范围 （Operating Temp. Range）	OTR	静止空气中 In still air	-20～105	℃

二、尺寸图 Size drawing:（unit:mm）



标号 Symbol	D	H	L	L1	L2	L3
尺寸 Size(mm)	Φ6±0.1	25±0.5	940±12	12±4	8-17	905-925

序号 NO.	名 称 Name	材料规格 Material Specification	数量 QTY.	备注 Remarks
1	元件 Component	NTC 热敏元件 NTC Thermistor	1	MF57
2	管壳 Shell	Cu Φ6*25	1	-
3	封装 Encapsulation	环氧树脂 Epoxy Resin	-	黑色 Black
4	电线 Cable	PVC UL2651 24AWG（11/0.16）OD1.45*3.05 镀锡铜 105℃ 印字无条	1	黑色 Black
5	套管 Tube	PVC φ4.0	1	黑色 Black
6	端子 Terminal	SAX-01T-P0.6	2	-
7	塑壳 Housing	XAP-04-1	1	白色 White
8	扎带 cable tie	2.5*100	2	白色 White

合肥晶浦传感科技有限公司
地址：安徽省合肥市肥西县集贤路与派河大道交口
金徽光电产业园 2 号楼
电话 Tel：+86 - 551 - 68661901
邮编 P.C.: 231299

Hefei Jingpu sensor Technology Co.,Ltd
Add：No.2 Building Jinhui Photoelectric Industrial Park,Intersection of Paihe Avenue and Jixian Rd, Feixi County, Hefei, Anhui, China
Email：marketing01@jingpusensor.com
Website：www.jingpusensor.com/

三、可靠性 Reliability test

3.1 引出端强度：固定感温头，导线末端施加负荷处剥去绝缘层后逐渐施加10N拉力保持5±1sec，无可见损伤。

Intensity ：Fix the probe ,Pull the lead by striped wire end with 10N force for 5±1sec.No visible damage.

3.4 高温储存（空气中） High Temp.Store (In air)

105±3℃ 1000h ，△R25/R25≤±3%

3.5 低温储存（空气中） Low Temp.Store (In air)

-20±3℃ 1000h ，△R25/R25≤±3%

3.6 稳态湿热 Heat and Humidity Stability

40±3℃ 92%-98% RH 240h ，△R25/R25≤±3%

3.7 温度快速变化(空气中) Temperature Shift（In air）

-20±3℃×30min 室温 2±1min 105±3℃×30min 5次 five cycles ， △R25/R25≤±3%

四、使用注意事项 Operation Notice

4.1 本产品的用途：温度测量与控制；

Application：Temperature measure and control；

4.2 避免流过负温度系数热敏芯片的电流引起元件自身发热而产生测量误差；

Avoid measure error caused by self heat when over current pass through.

4.3 若在感温头处加热缩套管时，焊枪出风口应离感温头大于 10mm，避免高温对电阻本体的过度热冲击导致阻值飘移。

Avoid excessive heat shock,The hot air blow shoul d beat least 10mm to the probe in case heat shrink protection tube need to be attached .

4.4 储存温度 0℃～50℃,湿度≤75%RH；避免存放在腐蚀性气体或阳光直射的环境中；打开包装后需要重新密封保存。

Storage Temperature 0℃～50℃，≤75%RH；Avoid in a corrosive gas and sunlit environment; After opening the package, it needs to be sealed again.

4.5 针对环氧元件的结构特点，用户使用时，应避免元件包封头受到来自引线的过大拉伸、弯曲作用力如需弯折引线应将弯折点或作用力点控制在包封头以下 6mm 以外的引线上，以免拉伤芯片，导致阻漂甚至开路，尤其是在元件受热的情况下

According to the structure of epoxy encapsulated ntc thermistor, when end user install, to avoid the epoxy head subjected too much tensile force and bending force from the lead wire,The lead wire shall be controlled at a bending point or a force point on a lead wire 6mm or less below the sealing head.So as not to hurt the chip, resulting in resistance drifting and even open circuit, esepcially when the component is heated.

合肥晶浦传感科技有限公司
地址：安徽省合肥市肥西县集贤路与派河大道交口
金徽光电产业园 2 号楼
电话 Tel：+86 - 551 - 68661901
邮编 P.C.: 231299

Hefei Jingpu sensor Technology Co.,Ltd
Add：No.2 Building Jinhui Photoelectric Industrial Park,Intersection of Paihe Avenue and Jixian Rd, Feixi County, Hefei, Anhui, China
Email：marketing01@jingpusensor.com
Website：www.jingpusensor.com/

五、附件阻温数据对照表 AttachmentTemperature VS Resistance Table .

TEMPERATURE VS RESISTANCE TABLE

P/N:F005-4

R25℃=10kohm±3%				B25/85=3984K±0.5%			
Temp.	Resistance(kΩ)			resistance tol. (%)		Temp. tol. (℃)	
℃	Rmin	R(t)Normal	Rmax	MIN	MAX	MIN	MAX
-20	88.168	91.908	95.721	-4.1%	4.1%	-0.70	0.71
-19	83.487	87.005	90.589	-4.0%	4.1%	-0.70	0.71
-18	79.077	82.387	85.758	-4.0%	4.1%	-0.70	0.71
-17	74.923	78.038	81.209	-4.0%	4.1%	-0.70	0.71
-16	71.008	73.940	76.924	-4.0%	4.0%	-0.70	0.71
-15	67.317	70.078	72.886	-3.9%	4.0%	-0.70	0.71
-14	63.836	66.436	69.080	-3.9%	4.0%	-0.70	0.71
-13	60.552	63.002	65.492	-3.9%	4.0%	-0.70	0.71
-12	57.454	59.763	62.109	-3.9%	3.9%	-0.70	0.71
-11	54.530	56.706	58.916	-3.8%	3.9%	-0.70	0.71
-10	51.769	53.821	55.904	-3.8%	3.9%	-0.70	0.71
-9	49.161	51.097	53.061	-3.8%	3.8%	-0.70	0.71
-8	46.698	48.524	50.376	-3.8%	3.8%	-0.70	0.71
-7	44.370	46.094	47.840	-3.7%	3.8%	-0.70	0.71
-6	42.170	43.797	45.445	-3.7%	3.8%	-0.70	0.71
-5	40.090	41.626	43.181	-3.7%	3.7%	-0.70	0.71
-4	38.123	39.573	41.042	-3.7%	3.7%	-0.70	0.71
-3	36.262	37.632	39.019	-3.6%	3.7%	-0.70	0.71
-2	34.501	35.796	37.105	-3.6%	3.7%	-0.70	0.70
-1	32.834	34.058	35.295	-3.6%	3.6%	-0.70	0.70
0	31.256	32.413	33.582	-3.6%	3.6%	-0.70	0.70
1	29.738	30.831	31.935	-3.5%	3.6%	-0.69	0.70
2	28.301	29.333	30.376	-3.5%	3.6%	-0.69	0.70
3	26.940	27.916	28.902	-3.5%	3.5%	-0.69	0.70
4	25.651	26.574	27.506	-3.5%	3.5%	-0.69	0.70
5	24.431	25.304	26.184	-3.4%	3.5%	-0.69	0.70
6	23.274	24.100	24.932	-3.4%	3.5%	-0.69	0.70
7	22.178	22.959	23.746	-3.4%	3.4%	-0.69	0.70
8	21.139	21.878	22.623	-3.4%	3.4%	-0.69	0.70
9	20.153	20.853	21.558	-3.4%	3.4%	-0.69	0.70
10	19.218	19.881	20.548	-3.3%	3.4%	-0.69	0.70
11	18.331	18.959	19.590	-3.3%	3.3%	-0.69	0.69
12	17.490	18.084	18.682	-3.3%	3.3%	-0.69	0.69

合肥晶浦传感科技有限公司
地址：安徽省合肥市肥西县集贤路与派河大道交口
金徽光电产业园 2 号楼
电话 Tel：+86 - 551 - 68661901
邮编 P.C.: 231299

Hefei Jingpu sensor Technology Co.,Ltd
Add：No.2 Building Jinhui Photoelectric Industrial Park,Intersection of Paihe Avenue and Jixian Rd, Feixi County, Hefei, Anhui, China
Email：marketing01@jingpusensor.com
Website：www.jingpusensor.com/

TEMPERATURE VS RESISTANCE TABLE

P/N:F005-4

R25℃=10kohm±3%				B25/85=3984K±0.5%			
Temp.	Resistance(kΩ)			resistance tol. (%)		Temp. tol. (℃)	
℃	Rmin	R(t)Normal	Rmax	MIN	MAX	MIN	MAX
13	16.691	17.254	17.820	-3.3%	3.3%	-0.69	0.69
14	15.932	16.466	17.002	-3.2%	3.3%	-0.69	0.69
15	15.211	15.717	16.226	-3.2%	3.2%	-0.69	0.69
16	14.527	15.007	15.488	-3.2%	3.2%	-0.69	0.69
17	13.877	14.332	14.788	-3.2%	3.2%	-0.69	0.69
18	13.259	13.690	14.123	-3.2%	3.2%	-0.69	0.69
19	12.671	13.080	13.491	-3.1%	3.1%	-0.69	0.69
20	12.112	12.501	12.890	-3.1%	3.1%	-0.68	0.69
21	11.581	11.949	12.319	-3.1%	3.1%	-0.68	0.69
22	11.075	11.425	11.776	-3.1%	3.1%	-0.68	0.68
23	10.594	10.926	11.259	-3.0%	3.0%	-0.68	0.68
24	10.136	10.452	10.768	-3.0%	3.0%	-0.68	0.68
25	9.700	10.000	10.300	-3.0%	3.0%	-0.68	0.68
26	9.283	9.573	9.862	-3.0%	3.0%	-0.69	0.69
27	8.887	9.166	9.445	-3.0%	3.0%	-0.70	0.70
28	8.509	8.778	9.047	-3.1%	3.1%	-0.71	0.71
29	8.150	8.409	8.669	-3.1%	3.1%	-0.72	0.72
30	7.808	8.058	8.309	-3.1%	3.1%	-0.73	0.73
31	7.482	7.723	7.965	-3.1%	3.1%	-0.74	0.74
32	7.171	7.404	7.637	-3.1%	3.2%	-0.75	0.75
33	6.875	7.099	7.325	-3.2%	3.2%	-0.76	0.76
34	6.592	6.809	7.027	-3.2%	3.2%	-0.77	0.77
35	6.323	6.533	6.743	-3.2%	3.2%	-0.78	0.78
36	6.066	6.268	6.472	-3.2%	3.2%	-0.79	0.79
37	5.821	6.017	6.213	-3.2%	3.3%	-0.80	0.80
38	5.587	5.776	5.966	-3.3%	3.3%	-0.81	0.81
39	5.364	5.546	5.730	-3.3%	3.3%	-0.82	0.82
40	5.151	5.327	5.504	-3.3%	3.3%	-0.83	0.83
41	4.947	5.118	5.289	-3.3%	3.3%	-0.84	0.84
42	4.753	4.917	5.083	-3.3%	3.4%	-0.85	0.85
43	4.567	4.726	4.886	-3.4%	3.4%	-0.86	0.86
44	4.390	4.543	4.698	-3.4%	3.4%	-0.87	0.87
45	4.220	4.368	4.518	-3.4%	3.4%	-0.88	0.88
46	4.057	4.201	4.346	-3.4%	3.4%	-0.89	0.89

合肥晶浦传感科技有限公司
地址：安徽省合肥市肥西县集贤路与派河大道交口
金徽光电产业园 2 号楼
电话 Tel：+86 - 551 - 68661901
邮编 P.C.: 231299

Hefei Jingpu sensor Technology Co.,Ltd
Add：No.2 Building Jinhui Photoelectric Industrial Park,Intersection of Paihe Avenue and Jixian Rd, Feixi County, Hefei, Anhui, China
Email：marketing01@jingpusensor.com
Website：www.jingpusensor.com/

TEMPERATURE VS RESISTANCE TABLE

P/N:F005-4

R25℃=10kohm±3%				B25/85=3984K±0.5%			
Temp.	Resistance(kΩ)			resistance tol. (%)		Temp. tol. (℃)	
℃	Rmin	R(t)Normal	Rmax	MIN	MAX	MIN	MAX
47	3.902	4.041	4.181	-3.4%	3.5%	-0.90	0.90
48	3.754	3.888	4.024	-3.5%	3.5%	-0.91	0.91
49	3.612	3.742	3.873	-3.5%	3.5%	-0.92	0.93
50	3.476	3.602	3.729	-3.5%	3.5%	-0.93	0.94
51	3.346	3.467	3.590	-3.5%	3.5%	-0.94	0.95
52	3.221	3.339	3.458	-3.5%	3.6%	-0.95	0.96
53	3.102	3.216	3.331	-3.5%	3.6%	-0.96	0.97
54	2.987	3.098	3.209	-3.6%	3.6%	-0.97	0.98
55	2.878	2.985	3.093	-3.6%	3.6%	-0.98	0.99
56	2.773	2.877	2.981	-3.6%	3.6%	-0.99	1.00
57	2.673	2.773	2.874	-3.6%	3.7%	-1.00	1.01
58	2.576	2.673	2.772	-3.6%	3.7%	-1.01	1.02
59	2.484	2.578	2.674	-3.7%	3.7%	-1.02	1.03
60	2.395	2.487	2.579	-3.7%	3.7%	-1.03	1.05
61	2.310	2.399	2.489	-3.7%	3.7%	-1.04	1.06
62	2.229	2.315	2.402	-3.7%	3.8%	-1.05	1.07
63	2.151	2.234	2.318	-3.7%	3.8%	-1.06	1.08
64	2.076	2.156	2.238	-3.7%	3.8%	-1.08	1.09
65	2.004	2.082	2.161	-3.8%	3.8%	-1.09	1.10
66	1.935	2.011	2.088	-3.8%	3.8%	-1.10	1.11
67	1.868	1.942	2.017	-3.8%	3.8%	-1.11	1.12
68	1.804	1.876	1.948	-3.8%	3.9%	-1.12	1.14
69	1.743	1.813	1.883	-3.8%	3.9%	-1.13	1.15
70	1.684	1.752	1.820	-3.8%	3.9%	-1.14	1.16
71	1.628	1.693	1.759	-3.9%	3.9%	-1.15	1.17
72	1.573	1.637	1.701	-3.9%	3.9%	-1.16	1.18
73	1.521	1.583	1.645	-3.9%	4.0%	-1.18	1.20
74	1.471	1.531	1.591	-3.9%	4.0%	-1.19	1.21
75	1.422	1.480	1.539	-3.9%	4.0%	-1.20	1.22
76	1.376	1.432	1.490	-3.9%	4.0%	-1.21	1.23
77	1.331	1.386	1.442	-4.0%	4.0%	-1.22	1.24
78	1.288	1.341	1.395	-4.0%	4.0%	-1.23	1.26
79	1.246	1.298	1.351	-4.0%	4.1%	-1.24	1.27
80	1.207	1.257	1.308	-4.0%	4.1%	-1.26	1.28

合肥晶浦传感科技有限公司
地址：安徽省合肥市肥西县集贤路与派河大道交口
金徽光电产业园 2 号楼
电话 Tel：+86 - 551 - 68661901
邮编 P.C.: 231299

Hefei Jingpu sensor Technology Co.,Ltd
Add：No.2 Building Jinhui Photoelectric Industrial Park,Intersection of Paihe Avenue and Jixian Rd, Feixi County, Hefei, Anhui, China
Email：marketing01@jingpusensor.com
Website：www.jingpusensor.com/

TEMPERATURE VS RESISTANCE TABLE

P/N:F005-4

R25℃=10kohm±3%				B25/85=3984K±0.5%			
Temp.	Resistance(kΩ)			resistance tol. (%)		Temp. tol. (℃)	
℃	Rmin	R(t)Normal	Rmax	MIN	MAX	MIN	MAX
81	1.168	1.217	1.267	-4.0%	4.1%	-1.27	1.29
82	1.131	1.179	1.227	-4.0%	4.1%	-1.28	1.30
83	1.095	1.142	1.189	-4.0%	4.1%	-1.29	1.32
84	1.061	1.106	1.152	-4.1%	4.1%	-1.30	1.33
85	1.028	1.071	1.116	-4.1%	4.2%	-1.32	1.34
86	0.996	1.038	1.082	-4.1%	4.2%	-1.33	1.35
87	0.965	1.007	1.049	-4.1%	4.2%	-1.34	1.37
88	0.936	0.976	1.017	-4.1%	4.2%	-1.35	1.38
89	0.907	0.946	0.986	-4.1%	4.2%	-1.36	1.39
90	0.879	0.918	0.956	-4.2%	4.2%	-1.38	1.40
91	0.853	0.890	0.928	-4.2%	4.3%	-1.39	1.42
92	0.827	0.863	0.900	-4.2%	4.3%	-1.40	1.43
93	0.803	0.838	0.874	-4.2%	4.3%	-1.41	1.44
94	0.779	0.813	0.848	-4.2%	4.3%	-1.43	1.46
95	0.756	0.789	0.823	-4.2%	4.3%	-1.44	1.47
96	0.733	0.766	0.799	-4.2%	4.3%	-1.45	1.48
97	0.712	0.744	0.776	-4.3%	4.3%	-1.46	1.50
98	0.691	0.722	0.753	-4.3%	4.4%	-1.48	1.51
99	0.671	0.701	0.732	-4.3%	4.4%	-1.49	1.52
100	0.652	0.681	0.711	-4.3%	4.4%	-1.50	1.53
101	0.633	0.662	0.691	-4.3%	4.4%	-1.51	1.55
102	0.615	0.643	0.671	-4.3%	4.4%	-1.53	1.56
103	0.597	0.625	0.652	-4.3%	4.4%	-1.54	1.57
104	0.581	0.607	0.634	-4.3%	4.5%	-1.55	1.59
105	0.564	0.590	0.616	-4.4%	4.5%	-1.56	1.60

合肥晶浦传感科技有限公司
地址：安徽省合肥市肥西县集贤路与派河大道交口
金徽光电产业园 2 号楼
电话 Tel：+86 - 551 - 68661901
邮编 P.C.: 231299

Hefei Jingpu sensor Technology Co.,Ltd
Add：No.2 Building Jinhui Photoelectric Industrial Park,Intersection of Paihe Avenue and Jixian Rd, Feixi County, Hefei, Anhui, China
Email：marketing01@jingpusensor.com
Website：www.jingpusensor.com/