Surface Sensor for High Rel & Aerospace



- **ESCC Qualified.**
- **Excellent stability.**
- **Flight heritage.**
- **Flat surface for ease of mounting.**
- **Robust construction.**
- **Data Report including test data.**
- **Non ITAR restrictive.**
- **Approved by Prime Contractors**
- **ESCC Detail Specification No. 4006014.**
- **ESCC Part No. 400601409**

DESCRIPTION

Matched Glass Coated NTC Thermistor Beads mounted on an aluminum housing and encapsulated in Stycast 2850FT epoxy. Wire connection is by 26AWG stranded / insulated leads. Lead wire is in accordance with ESCC Detail Specification no. 3901/012 varaint 03.
Note: Lead Wire not to be cut to less than 50mm from Thermistor Head

FEATURES

ESCC qualified.
ESCC Detail Specification No. 4006014
ESCC Part No. 400601409.
Flat aluminum housing.
Radiation cross linked modified fluoropolymer insulation.
Operating temperature range: -60°C to + 160°C.

APPLICATIONS

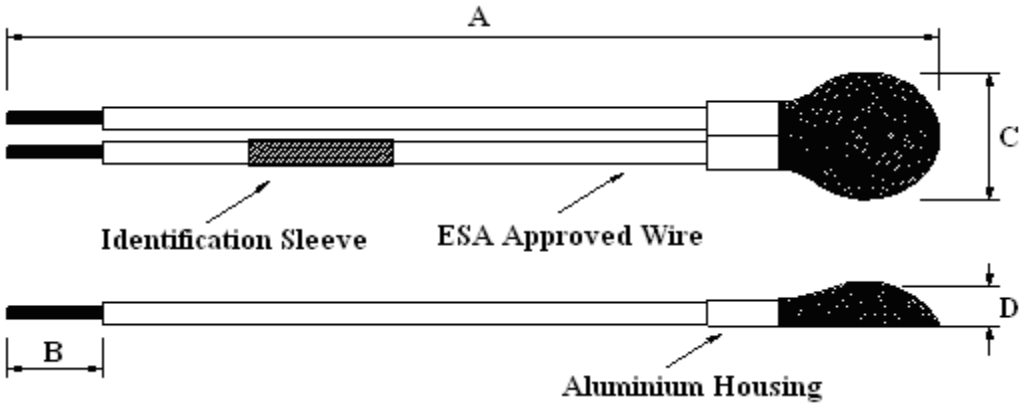
Satellite electric motors.
Monitoring of gearboxes in satellites.
Temperature compensation.
Battery power packs.
Vision systems.
Monitoring of actuators.
Panel temperature measurement

PERFORMANCE SPECS

Parameter	Unit	Value
Zero power resistance@25°C	Ω	10,000
Tolerance @ -60°C	%	± 7.0
Tolerance @ -40°C	%	± 3.0
Tolerance @ -20°C	%	± 2.6
Tolerance from 0°C and +25°C	%	± 2.0
Tolerance @ -70°C	%	± 1.6
Tolerance @ + 100°C	%	± 3.0
Tolerance @ + 125°C	%	± 3.5
Tolerance from + 140°C and 160°C	%	± 4.0
Beta value 25/85	K	3695
Resistance 0/70 slope	---	14.76
Operating range	°C	-60°C to +160°C
Storage temperature	°C	-60°C to +160°C
Power dissipation	mW	2 max
Thermal Time Constant	sec	40 max
Weight	g	4 max

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MECHANICAL DETAILS



DIMENSIONS			
A	**B**	**C**	**D**
525 ± 25mm	**6.5 ± 1mm**	**6.6 mm maximum**	**2.8mm maximum**

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms
-60	847,709
-55	608,583
-50	441,667
-45	323,860
-40	239,828
-35	179,282
-30	135,233
-25	102,889
-20	78,930
-15	61,031
-10	47,549
-5	37,316
0	29,490
2	26,891
4	24,547
6	22,431
8	20,518
10	18,787
12	17,219
14	15,797
16	14,506
18	13,334

Temp. °C	Ohms
20	12,268
22	11,297
24	10,413
25	10,000
26	9,606
28	8,869
30	8,196
32	7,581
34	7,018
36	6,501
38	6,028
40	5,594
42	5,195
44	4,828
46	4,490
48	4,180
50	3,893
52	3,629
54	3,386
56	3,160
58	2,952
60	2,760

Temp. °C	Ohms
62	2,582
64	2,417
66	2,264
68	2,122
70	1,990
72	1,868
74	1,754
76	1,648
78	1,550
80	1,458
82	1,372
84	1,293
86	1,218
88	1,149
90	1,084
92	1,023
94	966.6
96	913.5
98	863.8
100	817.2
105	713.0
106	694.1

Temp. °C	Ohms
107	675.8
108	658.0
109	640.8
110	624.1
111	607.9
112	592.2
113	577.0
114	562.2
115	547.9
116	534.0
117	520.5
118	507.8
119	495.8
120	482.5
121	470.5
122	458.9
123	447.6
124	436.6
125	426.0
140	298.12
160	191.77

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ORDERING INFORMATION

Part Number	Description	Res. at 25°C	ESCC No.
G10K4D453	Surface probe, High-rel.	10,000 Ohms	400601409

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