

# Surface Sensor for High Rel & Aerospace



- ESCC Qualified.
- Has become industry standard.
- 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. 400601408

## **DESCRIPTION**

Matched Glass Coated NTC Thermistor Beads mounted on 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 variant 03.

Note: Lead Wire not to be cut to less than 50mm from Thermistor head.

## FEATURES APPLICATIONS

ESCC qualified.

ESCC Detail Specification No. 4006014

ESCC Part No. 400601408.

Flat aluminum housing.

Radiation cross linked modified fluoropolymer

Insulation.

Operating temperature range: -60 °C to + 160 °C.

Satellite electric motors.

Monitoring of gearboxes in satellites.

Temperature compensation.

Battery power packs.

Vision systems.

Monitoring of actuators.

Panel temperature measurement

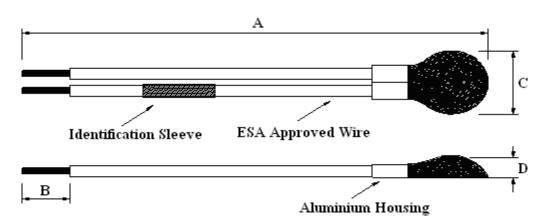
#### PERFORMANCE SPECS

Parameter	Unit	Value
Zero power resistance@25 ℃	Ω	15,000
Tolerance @ -60 ℃	%	± 10.0
Tolerance @ -40 ℃	%	± 6.3
Tolerance from 0 °C to +100 °C	%	± 1.0
Tolerance @ + 125 ℃	%	± 2.0
Tolerance @ + 140 ℃	%	± 3.0
Tolerance @ + 160 ℃	%	± 4.0
Beta value 25/85	K	3695
Resistance 0/70 slope		14.76
Operating range	∞	-60°C to +160°C
Storage temperature	∞	-60°C to +160°C
Power dissipation	mW	2 max
Thermal Time Constant	sec	25 max
Weight	g	2.3 max



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# **MECHANICAL DETAILS**



DIMENSIONS			
Α	В	С	D
381 ± 25mm	6.5 ± 1mm	6.6 mm maximum	2.4mm maximum

# RESISTANCE V TEMPERATURE TABLE

Ohms	Temp. °C
1,342,000	-60
957,000	-55
690,000	-50
503,700	-45
371,300	-40
276,200	-35
207,500	-30
157,200	-25
120,100	-20
92,600	-15
71,940	-10
56,310	-5
44,420	0
40,490	2
36,930	4
33,740	6
30,840	8
28,230	10
25,860	12
23,720	14
21,780	16
20,010	18
371,300 276,200 207,500 157,200 120,100 92,600 71,940 56,310 44,420 40,490 36,930 33,740 30,840 28,230 25,860 23,720 21,780	-40 -35 -30 -25 -20 -15 -10 -5 0 2 4 6 8 10 12 14 16

Temp. °C	Ohms
20	18,410
22	16,950
24	15,620
25	15,000
26	14,410
28	13,310
30	12,300
32	11,370
34	10,530
36	9,756
38	9,047
40	8,397
42	7,800
44	7,253
46	6,747
48	6,282
50	5,855
52	5,460
54	5,096
56	4,758
58	4,448
60	4,160

Temp. °C	Ohms
62	3,894
64	3,647
66	3,419
68	3,206
70	3,009
72	2,826
74	2,657
76	2,498
78	2,351
80	2,213
82	2,085
84	1,965
86	1,853
88	1,749
90	1,652
92	1,560
94	1,475
96	1,395
98	1,320
100	1,250
102	1,185
104	1,123

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106	1,065
108	1,011
110	959.5
112	911.3
114	866.0
116	823.3
118	783.2
120	745.3
122	709.7
124	675.9
126	644.3
128	614.3
130	585.9
132	559.0
134	533.8
136	509.9
138	487.0
140	465.5
145	416.7
150	373.6
160	302.4

Temp. °C Ohms



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#### ORDERING INFORMATION

Part Number	Description	Res. at 25 ℃	ESCC No.
G15K4D489	Surface probe, Hi-rel.	15,000 Ohms	400601408

### **NORTH AMERICA**

Measurement Specialties, Inc. 910 Turnpike Road Shrewsbury, MA 01545 Tel: 1-508-842-0516 Fax: 1-508-842-0342

Sales:

temperature.cs.amer@measspec.com

### **EUROPE**

Measurement Specialties, Inc. Ballybrit Business Park Galway Ireland Tel: +353-91-753238

Fax: +353-91-770789 Sales:

temperature.cs.emea@meas-

spec.com

### **ASIA**

Measurement Specialties (China) No. 26, Langshan Road, Shenzhen High-tech Park (North) Nanshan District, Shenzhen,

Sales:

temperature.cs.asia@measspec.com

China 518057

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