

# 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

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.

## APPLICATIONS

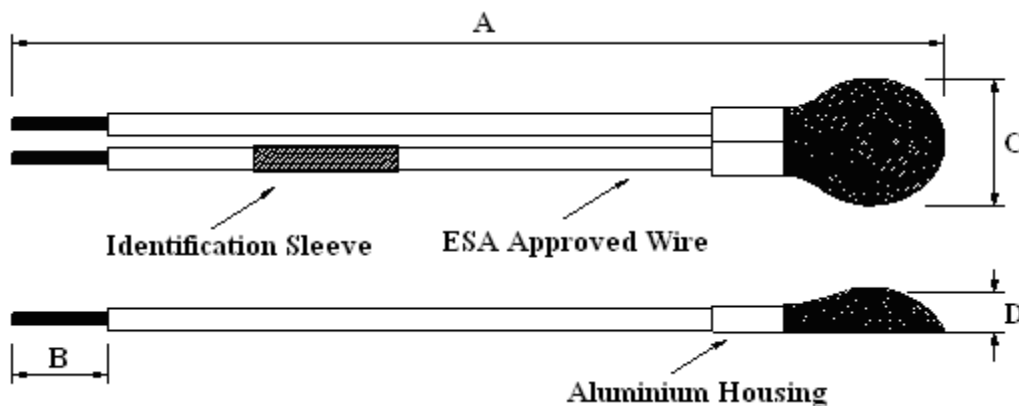
Satellite electric motors.  
Monitoring of gearboxes in satellites.  
Temperature compensation.  
Battery power packs.  
Vision systems.  
Monitoring of actuators.  
Panel temperature measurement

## PERFORMANCE SPECS

Parameter	Unit	Value
Zero power resistance@25°C	Ω	15,000
Tolerance @ -60°C	%	± 10.0
Tolerance @ -40°C	%	± 6.3
Tolerance from 0°C to +100°C	%	± 1.0
Tolerance @ + 125°C	%	± 2.0
Tolerance @ + 140°C	%	± 3.0
Tolerance @ + 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	25 max
Weight	g	2.3 max

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## MECHANICAL DETAILS



DIMENSIONS			
A	B	C	D
381 ± 25mm	6.5 ± 1mm	6.6 mm maximum	2.4mm maximum

## RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms
-60	1,342,000	20	18,410	62	3,894	106	1,065
-55	957,000	22	16,950	64	3,647	108	1,011
-50	690,000	24	15,620	66	3,419	110	959.5
-45	503,700	25	15,000	68	3,206	112	911.3
-40	371,300	26	14,410	70	3,009	114	866.0
-35	276,200	28	13,310	72	2,826	116	823.3
-30	207,500	30	12,300	74	2,657	118	783.2
-25	157,200	32	11,370	76	2,498	120	745.3
-20	120,100	34	10,530	78	2,351	122	709.7
-15	92,600	36	9,756	80	2,213	124	675.9
-10	71,940	38	9,047	82	2,085	126	644.3
-5	56,310	40	8,397	84	1,965	128	614.3
0	44,420	42	7,800	86	1,853	130	585.9
2	40,490	44	7,253	88	1,749	132	559.0
4	36,930	46	6,747	90	1,652	134	533.8
6	33,740	48	6,282	92	1,560	136	509.9
8	30,840	50	5,855	94	1,475	138	487.0
10	28,230	52	5,460	96	1,395	140	465.5
12	25,860	54	5,096	98	1,320	145	416.7
14	23,720	56	4,758	100	1,250	150	373.6
16	21,780	58	4,448	102	1,185	160	302.4
18	20,010	60	4,160	104	1,123		

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## ORDERING INFORMATION

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

### NORTH AMERICA

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