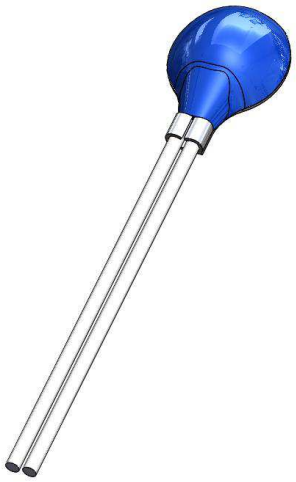


RTD 1000 PLATINUM (2 WIRE - FLIGHT MODEL) SURFACE TEMPERATURE SENSOR

P/no. 10219107-XX

SPECIFICATIONS

- **26 AWG polyimide insulated twisted pair lead wire**
- **Encapsulated in Epoxy resin**
- **Aluminum Alloy housing with flat surface for ease of mounting**
- **ESCC qualified welding/crimping interconnection**
- **Testing as per ESCC Generic Specification No. 4006**
- **Test report including data and Certificate of Conformance available on request**
- **Non-ITAR restrictive**

FEATURES

- Flat Aluminum housing for surface mounting
- 26 AWG polyimide insulated twisted pair lead wire
- Temperature range:
  - Operating: -125°C to +160°C
  - Storage: -125°C to +160°C
- Lead length available in 4x different options
- Electrical resistance calibrated at other temperatures per customer request
- Tested equivalent to ESCC Generic Specification No. 4006, Chart F2 and Chart F3

APPLICATIONS

- Satellite Solar Array Panels
- Temperature monitoring and control of satellite systems and instruments
- Low temperature satellite applications

Description

RTD Platinum Sensor connected to 26 AWG polyimide insulated twisted pair lead wires and encapsulated in epoxy resin on to a flat Aluminum Alloy housing. The sensor is connected to the lead wires using the ESCC qualified welding/crimping interconnection method. The lead wire is as per ESCC Detail Specification No. 3901/019 Variant 11.

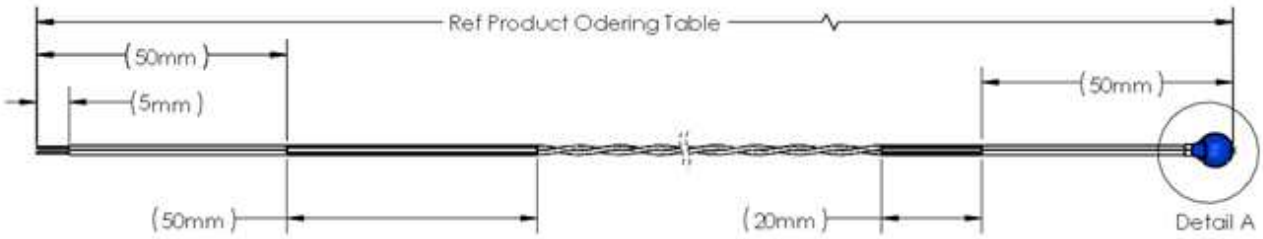
PERFORMANCE SPECS

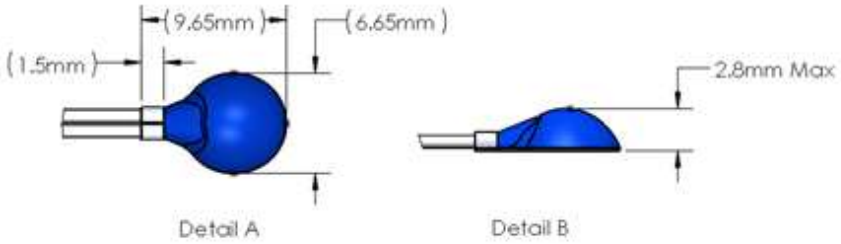
Parameters	Units	Value
Zero Power Resistance @ 0°C	Ohms	1,000
Characteristic Curve	ppm/K	3,850
Accuracy Tolerance ΔT	°C	Per DIN EN 60751 class B for Temperatures greater or equal to 0°C. *See R-T table below for nominal resistance values and associated tolerances for temperature references below 0°C.
Operating temperature range	°C	-125°C to +160°C
Storage temperature range	°C	-125°C to +160°C
Long Term Stability after 1000hrs at +125°C	%	±0.5% max
Weight (max based on 500mm extension wire)	g	2.3

*Notes:
- Probe assemblies with long extension wires (≤3 meter) may have up to 1 Ohm additional resistance at all temperatures.
- Parts are resistance verified at the following temperatures: -60°C, 0°C, +25°C, +70°C and +125°C.

Resistance Tolerance Table			
Temperature (°C)	**Nominal (Ω)**	**Min (Ω)**	**Max (Ω)**
-125	500.60	494.24	506.96
-60	763.28	759.69	766.87
-30	882.22	879.85	884.58
0	1000.00	998.83	1001.17
+25	1097.35	1095.70	1099.00
+70	1270.75	1268.26	1273.24
+125	1479.51	1476.03	1483.00
+160	1610.54	1606.45	1614.64

MECHANICAL DETAILS





Resistance vs Temperature Chart

Temp °C	Resistance Ohms
-125	500.60
-120	521.10
-115	541.54
-110	561.93
-105	582.27
-100	602.56
-95	622.80
-90	643.00
-85	663.15
-80	683.25
-75	703.32
-70	723.35
-65	743.33
-60	763.28
-55	783.19

Temp °C	Resistance Ohms
-50	803.06
-45	822.90
-40	842.71
-35	862.48
-30	882.22
-25	901.92
-20	921.60
-15	941.24
-10	960.86
-5	980.44
0	1000.00
5	1019.53
10	1039.03
15	1058.49
20	1077.94

Temp °C	Resistance Ohms
25	1097.35
30	1116.73
35	1136.08
40	1155.41
45	1174.70
50	1193.97
55	1213.21
60	1232.42
65	1251.60
70	1270.75
75	1289.87
80	1308.97
85	1328.03
90	1347.07
95	1366.08

Temp °C	Resistance Ohms
100	1385.06
105	1404.00
110	1422.93
115	1441.82
120	1460.68
125	1479.51
130	1498.32
135	1517.10
140	1535.84
145	1554.56
150	1573.25
155	1591.91
160	1610.54

ORDERING INFORMATION

Part Number	Description	Length	MOQ
10219107-00	PT1000 Platinum Surface Sensor	500 ±10mm	10*
10219107-01	PT1000 Platinum Surface Sensor	1000 ±10mm	10*
10219107-02	PT1000 Platinum Surface Sensor	2000 ±10mm	10*
10219107-03	PT1000 Platinum Surface Sensor	3000 ±10mm	10*

* For quantities less than MOQ, contact Sales

CUSTOMER APPROVAL

(The customer signature indiates acceptance of the product specifications)

Signature	Date