



**RTD SENSOR - TRA-M1800 LXXX**



# TRA-M-1800 LXXX

**PRODUCT NAME: RTD SENSOR ASSEMBLY**

**THERMOSEN PART NO: TRA-M-1800 LXXX**

**APPLICATION: TEMPERATURE MEASUREMENT**



Class	Tolerance @ 0°C(Ω)	TCR (Ωs/Ω/°C)
1/3B	±0.04	0.003851±0.000004
A	±0.06	0.003851±0.000005
B	±0.12	0.003851±0.000012
2B	±0.25	0.003851±0.000024

## A. Material List

1. RTD Sensor: Pt 100.  
Resistance @0°C: 100Ω.  
Tolerance@60°C:±0.°2C  
Operating Temperature: -100°C to +400°C
2. Eyelet: Tin Plated Copper
3. Epoxy resin: Colour Black
4. Cable: 24AWG 2/3/4 core PTFE Insulated

## B. Electrical Specification

1. Resistance @0°C: 100Ω
2. Response Time: 8 Seconds Max
3. Power Dissipation Constant : 10mW/°K
4. Insulation Resistance: Minimum of 500 M Ohm @ 500V dc
5. Breakdown Voltage Strength: 1500 V ac between Conductor and Housing
6. Operating Temperature Range: -100 to +200°C
7. Storage Temperature Range: -30 to +105°C

## C. Reliability

1. Endurance at Upper category: +105°C for 1000 Hours.
2. Rapid change of Temperature: With stand -20°C to +105°C silicon Oil, Each temperature 5 minutes for 1000 cycles.



3. Thermal Cycle Test: With stand 0°C to +95°C (± 5) each temperature 5 minutes for 100000 cycles.
4. Pull strength: 100 N between housing and cable.

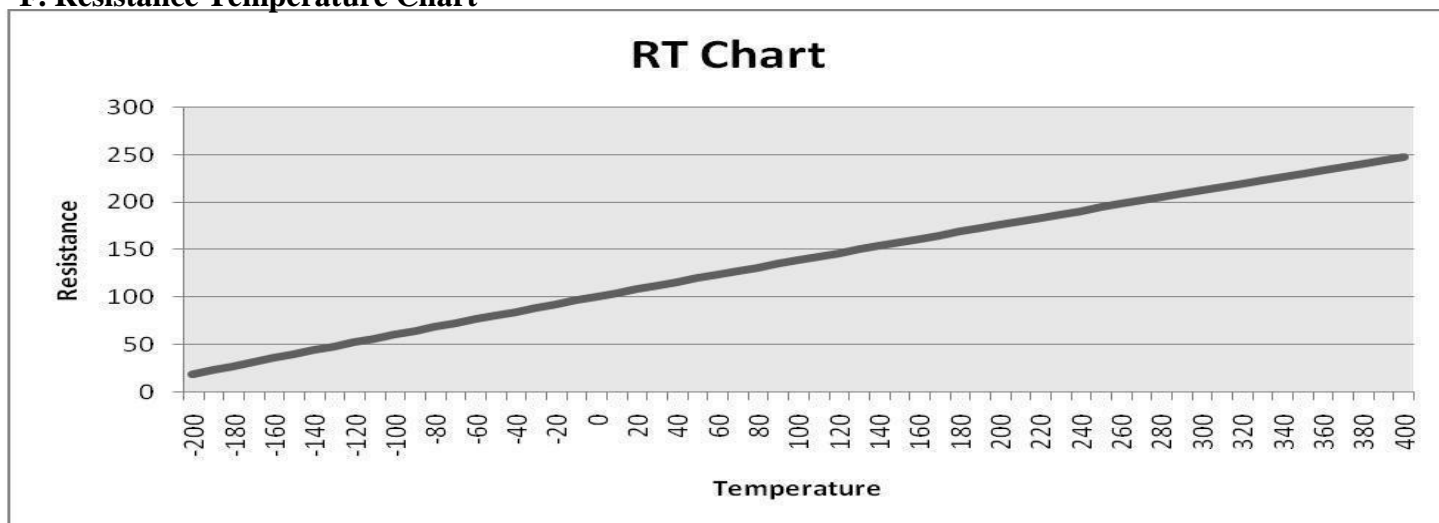
**D. Design Support (Pt100, Pt500, Pt1000)**

1. Other resistance and tolerance values are available on request.
2. Available with RTD platinum element Pt100, Pt500 or Pt1000.
3. Other fitment and housings available on request.
4. Available with connector fitment.

**E. Resistance Table (Pt 100)**

Temp	Resistance	Temp	Resistance	Temp	Resistance	Temp	Resistance
-200	18.52	-50	80.31	100	138.51	250	194.1
-190	22.85	-40	84.27	110	142.29	260	197.71
-180	27.1	-30	88.22	120	146.07	270	201.31
-170	31.34	-20	92.16	130	149.83	280	204.9
-160	35.54	-10	96.09	140	153.58	290	208.48
-150	39.72	0	100	150	157.33	300	212.05
-140	43.88	10	103.9	160	161.05	310	215.61
-130	48	20	107.79	170	164.77	320	219.15
-120	52.11	30	111.67	180	168.48	330	222.68
-110	56.19	40	115.54	190	172.17	340	226.21
-100	60.26	50	119.4	200	175.86	350	229.72
-90	64.3	60	123.24	210	179.53	360	233.21
-80	68.33	70	127.08	220	183.19	370	236.7
-70	72.33	80	130.9	230	186.84	380	240.18
-60	76.33	90	134.71	240	190.47	390	243.64
						400	247.09

**F. Resistance Temperature Chart**



**G. Soldering**

1. Soldering Temperature: 320°C Max.
2. Soldering Duration: 6.0 Second Max.
3. Pre heat Temperature: 160°C for 3.0 Sec

**H. Packing**

- 10 in a poly bag
- 100 in a Corrugated Box.

**I. Packing Label**

Each Poly bag and box will contain the same label given below.

**THERMOSEN TECHNOLOGIES PVT. LTD.**

**PART NO : TRA-M-1800 LXXX**

Qty :      Nos

Batch No :

Date :

Packed By :

**ROHS**    **✓**

MANUFACTURED IN INDIA

**Disclaimer:**

This document is subject to change without notice to improve reliability, function, design or otherwise.