

## 36J Series



The 36J series is a temperature measurement sensor based on the ½" thermostat design. It's available with bead thermistor inside and comes in several well known designs as well as a fast response version. Designs can be developed with various mounting features including clips to fit various applications. UL recognized models and product customization available upon request.

### Specifications

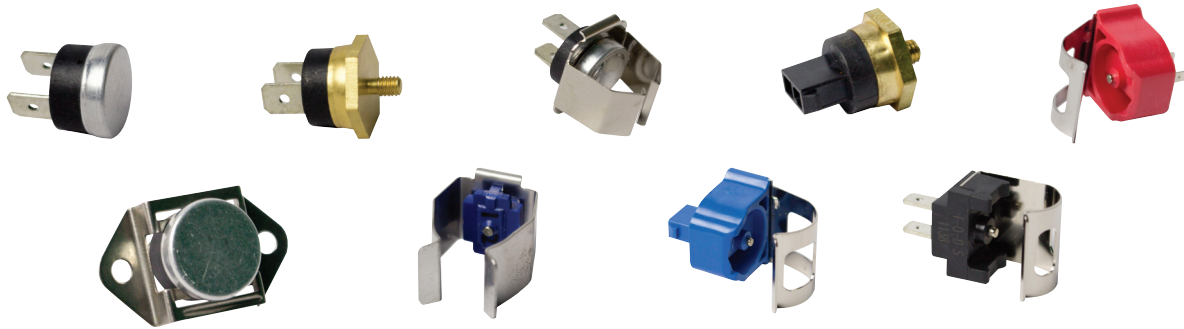
- Thermal time constant: 3-4 sec. (measured: 25°C air to 85°C application medium brass tube or hot plate, 63.2% ΔT)
- Operating temperature range -20°C to 130°C
- Insulation strength 500VAC/0.5mA/1sec. (inquire for others)
- Moisture resistance

### Applications

- Boiler Heating Systems
- Instant Hot Water Heater
- Washer
- Dishwashers



# 36J Series



## Specifications

- Thermal time constant: 2-3 sec. (measured: 25°C air to 85°C, application medium [brass pipe, fl atness, screw thread, or stirred water], 63.2% ΔT)
- Operating temperature range -40°C to 200°C (dependent on plastic material rating)
- Insulation strength 500VAC/0.5mA/2sec. (inquire for others)
- Moisture resistance

## Applications

- Boiler Heating Systems
- Storage Water Heaters
- General fast response applications
- Small Appliances



## Specifications

- Thermal time constant: 11 sec. (measured: 25°C air to 85°C application medium brass tube or hot plate, 63.2% ΔT)
- Operating temperature range -40°C to 200°C
- Insulation strength 1500VAC/0.5mA/2sec. (inquire for others)
- Moisture resistance

## Applications

- Boiler Heating Systems
- AC Units
- Dishwashers
- Laundry
  - Clothes Dryer
  - Washer

# Technical Data

Typical Resistance/Temperature

T (°C)	Grade 1	Grade 5	Grade 9	Grade 15	Grade 18	Grade 19	Grade 25
	B25/85=3977K	B25/85=4107K	B25/85=3435K	B25/85=3740K	B25/85=4269K	B25/85=3468K	B25/85=3680K
Multiplier							
-40	33.73	37.25	19.58	25.79	43.67	21.65	24.87
-35	24.32	26.63	14.83	19.12	30.73	16.23	18.34
-30	17.74	19.26	11.34	14.31	21.89	12.30	13.69
-25	13.08	14.07	8.76	10.81	15.77	9.41	10.33
-20	9.74	10.38	6.83	8.23	11.48	7.27	7.88
-15	7.321	7.74	5.37	6.33	8.45	5.66	6.07
-10	5.55	5.83	4.25	4.90	6.28	4.45	4.72
-5	4.25	4.42	3.39	3.83	4.71	3.52	3.71
0	3.27	3.38	2.72	3.01	3.56	2.81	2.93
5	2.54	2.61	2.20	2.38	2.72	2.26	2.34
10	1.99	2.03	1.79	1.90	2.09	1.82	1.87
15	1.57	1.59	1.47	1.52	1.62	1.48	1.51
20	1.25	1.26	1.21	1.23	1.27	1.21	1.23
25	1	1	1	1	1	1	1
30	0.81	0.80	0.83	0.82	0.79	0.83	0.82
35	0.65	0.84	0.69	0.67	0.63	0.69	0.68
40	0.53	0.52	0.58	0.55	0.51	0.58	0.56
45	0.44	0.43	0.49	0.46	0.41	0.49	0.47
50	0.36	0.35	0.41	0.38	0.33	0.41	0.39
55	0.30	0.29	0.35	0.32	0.27	0.35	0.33
60	0.25	0.24	0.30	0.27	0.22	0.30	0.28
65	0.21	0.20	0.26	0.23	0.19	0.25	0.23
70	0.18	0.17	0.22	0.19	0.15	0.22	0.20
75	0.15	0.14	0.13	0.17	0.13	0.19	0.17
80	0.13	0.12	0.17	0.14	0.11	0.16	0.14
85	0.11	0.10	0.15	0.12	0.09	0.14	0.12
90	0.09	0.08	0.13	0.11	0.08	0.12	0.11
95	0.08	0.07	0.11	0.09	0.07	0.11	0.09
100	0.07	0.06	0.10	0.08	0.06	0.10	0.08
105	0.06	0.05	0.09	0.07	0.05	0.08	0.07
110	0.05	0.05	0.08	0.06	0.04	0.07	0.06
115	0.04	0.04	0.07	0.05	0.04	0.07	0.05
120	0.04	0.03	0.06	0.05	0.03	0.06	0.05
125	0.03	0.03	0.05	0.04	0.03	0.05	0.04
130	0.03	0.03	0.05	0.04	0.02	0.05	0.04
135	0.03	0.02	0.04	0.03	0.02	0.04	0.03
140	0.02	0.02	0.04	0.03	0.02	0.04	0.03
145	0.02	0.02	0.03	0.03	0.02	0.03	0.02
150	0.02	0.02	0.03	0.02	0.01	0.03	0.02

**Other values are available upon request. For higher temp values, contact a Therm-O-Disc Sales Engineer.**

## APPLICATION NOTES

### Product Nomenclature Thermistors

#### Model Designation System

XXJ	1B	XXXXX
I	II	III

I – Series designator, where X is any numeral between 0-9

II – Grade and NTC type (Ex: 1B, 1E, 1G, 1H, 1M, 1R, 1S, etc.)

III – Customer specific numbers (4 or 5 digits)

### Product Nomenclature Thermistors – UL Recognized

#### Model Designation System

XXJ	1B	A	M	Z	XXXXX
I	II	III	IV	V	VI

I – Series designator, where X is any change to numeral between 0-9

II – Grade and NTC type (Ex: 1B, 1E, 1G, 1H, 1M, 1R, etc.)

III – Temperature rating – A, B, C etc. – See table below for details

III	Max Op Temp	III	Max Op Temp
A	80	F	130
B	90	G	150
C	105	H	180
D	120	K	200
E	125		

IV – Construction

E - Plastic shell with epoxy fill

M - Metal shell

R - Molded in plastic

X - Not insulated with or without shell

V – Investigation Standard Code

Z - NTC elements tested to UL60730-1

Without Z - NTC elements tested to UL1434

VI – Customer specific numbers (4 or 5 digits)

### Part # - J Probes Not UL Recognized Using RTD Sensors

#### Model Designation System

XXJ	PT	102	XXXXX
I	II	III	VI

I – Product Series Designator

II – Material of RTD: PT = Platinum RTD, NI = Nickel RTD

III – Resistance: 201 = 200 ohms, 501 = 500 ohms, 102 = 1,000 ohms

VI – Customer specific numbers (4 or 5 digits)

### Product Nomenclature RTD Sensors

#### Model Designation System

XXJ	PT	103	XX	X	XXXXX
I	II	III	IV	V	VI

I – Series designator

II – Material of RTD: PT = Platinum RTD, NI = Nickel RTD

III – Resistance: 201 = 200 ohms, 501 = 500 ohms, 102 = 1,000 ohms

IV – Max Temperature Rating Designator – A, B, C etc. - See table below for details (1 or 2 letters)

III	Max Op Temp	III	Max Op Temp
A	80	M	300
B	90	N	350
C	105	P	400
D	120	Q	450
E	125	R	500
F	130	S	520
G	150	T	540
H	180	U	560
K	200	V	580
L	250	W	600

V- Construction Designator:

E- Plastic shell with epoxy fill (shrink tube does not need to be UL recognized if plastic is the insulator)

M- Dead metal shell

R- Molded in plastic

X- Not insulated with or without shell

VI – Customer specific numbers (4 or 5 digits)