

76J Series



These series are developed for air-stream temperature measurement with a plastic or metal shell, customized as needed to interface with application requirements. UL recognized models available upon request.

Applications

- Laundry
 - Clothes Dryer
 - Washer
- HVAC Air Duct Sensing



76J Series

Complete or partial plastic designs typically developed with flange-style mounting features to fit various applications.

Specifications

- Typical thermal time constant (dependent on wire rating): (measured: 25°C air to 85°C stirred water, 63.2% ΔT)

Metal – 1 sec.

Plastic – dependent on plastic thickness

- Typical operating temperature range -40°C to 125°C
- Insulation strength 1500VAC/0.5mA/2sec. (inquire for others)
- Stable performance with high degree of accuracy
- Moisture resistant



Plastic and metal designs with flange-style mounting feature. Some plastic designs are Class II insulation compliant.

Specifications

- Thermal time constant (measured: 25°C air to 85°C stirred water, 63.2% ΔT)

Metal – 1 sec.

Plastic – dependent on plastic thickness.

- Operating temperature range -40°C to 200°C (dependent on wire rating)
- Insulation strength 3750VAC/0.5mA/2sec. (inquire for others)
- Plastic sealed shell is moisture resistant



APPLICATION NOTES

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)