



Together with our customers, Therm-O-Disc continuously works on new designs to meet the high demands of today's and future applications.

The 93JB is a very precise temperature measurement sensor with an ultra fast response time to be used in numerous different applications. Both the immersion style and the flat-tipped version are available in various rugged designs.

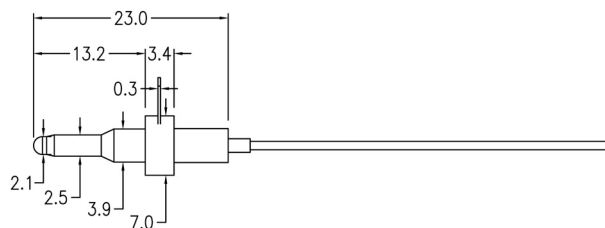
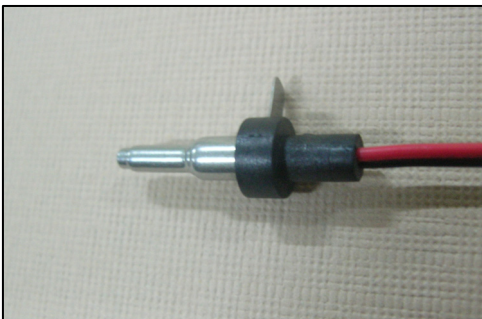
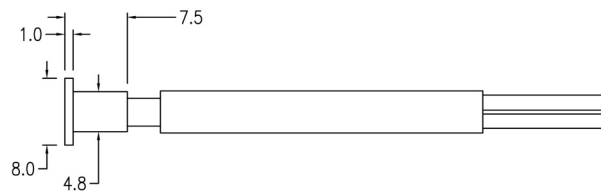
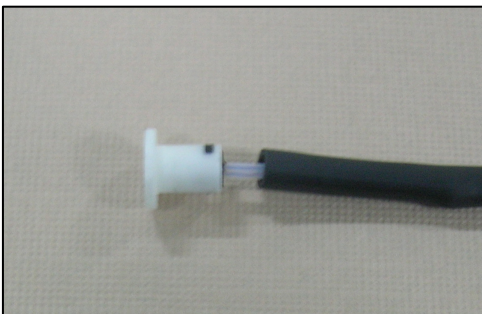
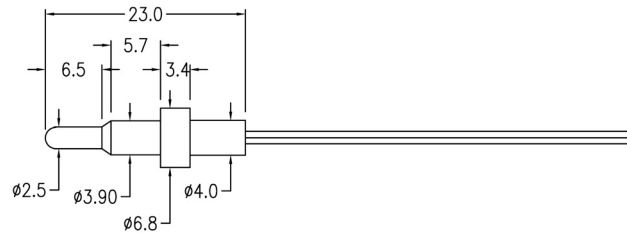
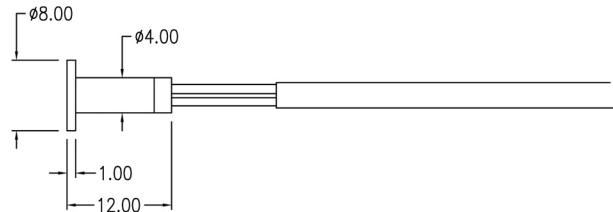
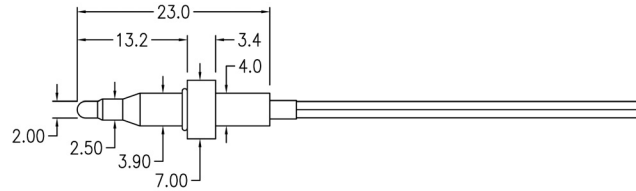
TYPICAL APPLICATIONS:

- Boiler Heating Systems
- Bath/Spa (Shower units)
- Laundry
 - Dryer
 - Steamer
- Small Appliances:
 - Coffee Makers
 - (Multi-)brewers
 - Kettles

PART NUMBER DESIGNATION:**93JXBMxxxx**

- 93J = Package Series
- X = Therm-O-Disc RT curve (e.g. 1, 9, 19)
- B = Bead thermistor inside
- M = Metal cover
- xxxx = Sequentially assigned number

PRODUCT DATA SHEET: 93JB SERIES



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Construction	Shell	Plastic	Mounting (optional)	O-ring (optional)		Thermal Time Constant
				EPDM	Silicone	
Pointed tip	Sn plated Cu	PPS	Bayonet	Available	Available	< 1 sec
Pointed tip	316L steel	PPS	Bayonet	Available	Available	< 1 sec
Pointed tip	PPS	PPS	Bayonet	Available	Available	< 2 sec
Flat tip	ALU	PPS	n.a.	n.a.	n.a.	< 2 sec
Flat tip	Ceramic	PPS	n.a.	n.a.	n.a.	< 2 sec

Wire (inquire for other)		
PVC, 105°C	PE, 150°C	PTFE 200°C
AWG 24	AWG 24	AWG 24
AWG 26	AWG 26	AWG 26

Connector (Optional, inquire for other)	
Terminal	Housing
JST SXH-001T-P0.6	JST XHP-2, white
JST SZH-002T-P0.5	JST ZHR-2-R, red
JST SXA-001T-P0.6	JST XAP-06V-1

RT curve (inquire for other)	R @ 25°C	R @ 85°C	R @ 100°C
1 (BETA 25/85 = 3977)	10,000 Ω	1,070 Ω	680 Ω
1 (BETA 25/85 = 3977)	100,000 Ω	10700 Ω	6800 Ω
9 (BETA 25/85 = 3435)	10,000 Ω	1,451 Ω	978 Ω
19 (BETA 25/85 = 3468)	8,294 Ω	1181 Ω	792 Ω

Operating Temperature Range	-40°C to 200°C
Insulation strength	1500VAC/0.5mA/2sec (inquire for alternative values)
Accuracy	± 1°C (inquire for alternative values)
Thermal Time Constant	Measured: 25°C air to 85°C stirred water, 63%
Agency Approvals	UL/CUL Recognized: File E179543

RESISTANCE VS. TEMPERATURE MULTIPLIER VALUES:

Multiply the resistance at 25°C (RT Curve table above) by the given multiplier at the desired temperature (pg4).

Example: The nominal resistance of a 93J1BMxxxxx at 75°C is:
 Resistance at 25°C (10,000) x Multiplier at 75°C (0.1480) = 1480Ω



PRODUCT DATA SHEET: 93JB SERIES

RESISTANCE VS. TEMPERATURE MULTIPLIER VALUES:

R-T Curve 1 (R25°C=10K or 100K) B(25/85)=3977K+/-1.5%	
Temp. (°C)	Multiplier
-25	13.040
-20	9.7060
-15	7.2940
-10	5.5319
-5	4.2324
0	3.2654
5	2.5396
10	1.9903
15	1.5714
20	1.2493
25	1.0000
30	0.8056
35	0.6530
40	0.5327
45	0.4370
50	0.3603
55	0.2986
60	0.2488
65	0.2083
70	0.1752
75	0.1480
80	0.1255
85	0.1070
90	0.0915
95	0.0787
100	0.0680
105	0.0592
110	0.0517
115	0.0450
120	0.0390
125	0.0340
130	0.0300
135	0.0265
140	0.0235
145	0.0209
150	0.0185
155	0.0162
160	0.0145
165	0.0130
170	0.0118
175	0.0107
180	0.0097
185	0.0087
190	0.0079
195	0.0072
200	0.0065

R-T Curve 9 (R25°C=10K) B(25/85)=3435K+/-1.5%	
Temp. (°C)	Multiplier
-25	9.162
-20	7.104
-15	5.552
-10	4.374
-5	3.473
0	2.7772
5	2.2358
10	1.8127
15	1.4778
20	1.2122
25	1.0000
30	0.8300
35	0.6925
40	0.5807
45	0.4895
50	0.4145
55	0.3525
60	0.3011
65	0.2583
70	0.2224
75	0.1922
80	0.1667
85	0.1451
90	0.1269
95	0.1112
100	0.09781
105	0.08626
110	0.07628
115	0.06763
120	0.06012
125	0.0536
130	0.04791
135	0.04291
140	0.03851
145	0.03463
150	0.03121
155	0.02818
160	0.02548
165	0.02309
170	0.02096
175	0.01906
180	0.01735
185	0.01583
190	0.01446
195	0.01323
200	0.01212

R-T Curve 19 (R25°C=8292) B(25/85)=3468K+/-1.5%	
Temp. (°C)	Multiplier
-25	9.4131
-20	7.2695
-15	5.6631
-10	4.4483
-5	3.5214
0	2.8084
5	2.2555
10	1.8236
15	1.4838
20	1.2146
25	1.0000
30	0.8282
35	0.6897
40	0.5774
45	0.4858
50	0.4106
55	0.3487
60	0.2974
65	0.2547
70	0.2191
75	0.1891
80	0.1639
85	0.14246
90	0.12434
95	0.10886
100	0.09560
105	0.08420
110	0.07438
115	0.06588
120	0.05850
125	0.05209
130	0.04649
135	0.04158
140	0.03729
145	0.03351
150	0.03018
155	0.02722
160	0.02461
165	0.02228
170	0.02022
175	0.01837
180	0.01673
185	0.01526
190	0.01394
195	0.01276
200	0.01168