



TPE OVERMOULDED PROBE Ø 5 X 20MM

SPECIFICATIONS

- TPE Overmolded probe with probe head dimensions of Ø 5 x 20mm
- Ideal for refrigeration and HVAC applications
- 24 AWG double insulated cable
- IP 68 Rated
- Available in a variety of connector types
- RoHS Compliant

FEATURES

- 24AWG double insulated TPE cable
- IP 68 Rated
- Insulation Resistance 100MΩ @ 500VDC
- Available in a variety of connector types
- Customized tolerances and resistances available on request
- Temperature range -40°C to +125°C

APPLICATIONS

- Refrigeration and HVAC applications
- Industrial Process Control

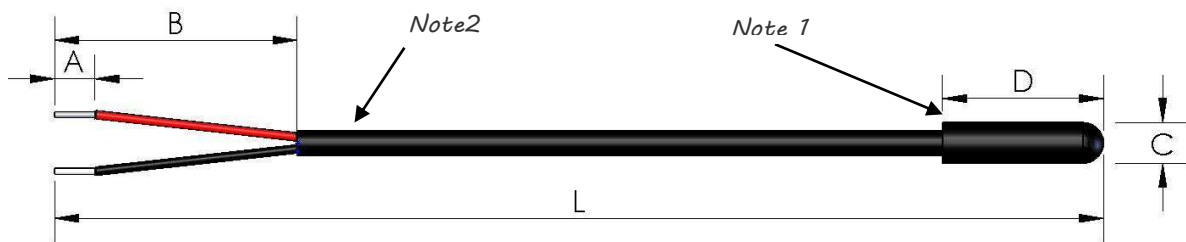
This assembly consists of a DO-35 NTC thermistor soldered to a TPE extension cable. The sensor and the extension cable are moulded together as one hot vulcanised unit to give a high degree of protection against water/moisture ingress.

TPE OVERMOULDED PROBE Ø 5 X 20MM

PERFORMANCE SPECS

Parameters	Units	Value
Nominal Resistance at +25°C	Ohms	10,000
Tolerance at +25°C	%	± 1
Beta Value 25/85	K	3435
Tolerance on Beta Value	%	± 2
Time Response (+75°C to +25°C Water Bath)	Seconds	~24
Di-electric Strength (Core wires-cap 60Sec)	Vac	>2750
Breaking strain	N	>200
Temperature range	°C	-40 to +125

MECHANICAL DETAILS



	Dimension			
	A	B	C	D
	$5 \pm 1\text{mm}$	$35 \pm 3\text{mm}$	$\text{Ø } 5\text{mm}$	$20 \pm 1\text{mm}$
Note 1	NTC encapsulated using TPE over-mold material (Temp. Rating +125°C)			
Note 2	24AWG (7/32) Tin plated copper cable with Black TPE jacket (Temp. Rating +125°C)			

Figure 1: TPE Overmoulded Probe Ø 5 x 20mm

RESISTANCE V TEMPERATURE TABLE

Temp °C	KOhms
-40	197.734
-39	186.893
-38	176.719
-37	167.167
-36	158.196
-35	149.765
-34	141.840
-33	134.386
-32	127.373
-31	120.771
-30	114.555
-29	108.698
-28	103.179
-27	97.975
-26	93.067
-25	88.435
-24	84.064
-23	79.935
-22	76.036
-21	72.351
-20	68.867
-19	65.573
-18	62.456
-17	59.506
-16	56.714
-15	54.070
-14	51.565
-13	49.191
-12	46.940
-11	44.806
-10	42.782
-9	40.861
-8	39.038
-7	37.306
-6	35.662
-5	34.099
-4	32.615
-3	31.203
-2	29.860
-1	28.583
0	27.368
1	26.212

Temp °C	KOhms
2	25.111
3	24.062
4	23.063
5	22.111
6	21.204
7	20.339
8	19.514
9	18.727
10	17.976
11	17.259
12	16.575
13	15.922
14	15.298
15	14.702
16	14.132
17	13.587
18	13.067
19	12.569
20	12.092
21	11.636
22	11.200
23	10.783
24	10.383
25	10.000
26	9.633
27	9.282
28	8.945
29	8.622
30	8.313
31	8.016
32	7.731
33	7.458
34	7.196
35	6.944
36	6.703
37	6.471
38	6.248
39	6.035
40	5.829
41	5.631
42	5.442
43	5.259

Temp °C	KOhms
44	5.084
45	4.915
46	4.753
47	4.596
48	4.446
49	4.302
50	4.162
51	4.028
52	3.899
53	3.775
54	3.655
55	3.539
56	3.428
57	3.321
58	3.218
59	3.118
60	3.022
61	2.930
62	2.840
63	2.754
64	2.671
65	2.591
66	2.513
67	2.439
68	2.366
69	2.297
70	2.229
71	2.164
72	2.102
73	2.041
74	1.982
75	1.925
76	1.871
77	1.818
78	1.766
79	1.717
80	1.669
81	1.622
82	1.578
83	1.534
84	1.492
85	1.451

Temp °C	KOhms
86	1.412
87	1.374
88	1.337
89	1.301
90	1.266
91	1.233
92	1.200
93	1.169
94	1.138
95	1.108
96	1.080
97	1.052
98	1.025
99	0.999
100	0.973
101	0.948
102	0.924
103	0.901
104	0.879
105	0.857
106	0.836
107	0.815
108	0.795
109	0.775
110	0.757
111	0.738
112	0.720
113	0.703
114	0.686
115	0.670
116	0.654
117	0.639
118	0.624
119	0.609
120	0.595
121	0.581
122	0.567
123	0.554
124	0.542
125	0.529